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Supersedes Catalog 457010  
Dated September, 2002



# SKF Seal Handbook

Includes stock listing for shaft sizes up to 180"

Featured products include: Speedi-Sleeve® Shaft Repair Kits,  
Large Diameter Seals, Metric Seals,  
V-Ring products, Heavy-Duty DF,<sup>®</sup>  
Hydraulic/Pneumatic, Scotseal,<sup>®</sup> and  
PTFE Shaft Seals



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How to use this catalog

This *Seal handbook* contains complete product data for the selection of SKF shaft seals, Speedi-Sleeves®, Wear Sleeves, Hydraulic/Pneumatic products, Defender Bearing Isolator, V-Rings and Heavy Duty DF® (HDDF) seals. Size listings for each style and type of seal or sleeve, material and compound selection guide, compound compatibility chart, and recommended operating conditions charts complement the product data. Installation instructions and troubleshooting guidelines are also provided.

Simply organized, the illustrative charts and detailed product data make the *Seal handbook* a valuable tool for industrial distributors, designers, engineers and anyone involved in the selection or specification of these products. SKF's team of engineers and product managers have thoroughly reviewed and updated all these listings.

Reference tables and complete size listings enable fast selection of the correct shaft seal. Concise descriptions and expanded technical data enable the

user to find the correct product for their specific application.

The *Seal handbook* contains an introduction, product sections, complete size listings (inches and millimeters), numerical index and seal design illustrations. All numbers are listed two or more times - in product size sequence and in SKF stock number sequence.

Recommendations for styles, types, materials/compounds, as well as typical operating conditions appear in each basic seal or sleeve section. These will assist you in choosing the correct sealing device for your application.

The type and style illustrations (pg. 364) include all available designs as well as optional and obsolete designs for referral purposes. Every design is not available in every size.

These features make the *Seal handbook* your most valued tool in the selection, application, trouble detection and specification of SKF fluid sealing devices.

Numerical index: page 232

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
15881	1.575	2.126	.394	HMSA7	P
				W/ENCAPSULATED SPRING	
15882	1.575	2.953	.467	HMSA29	R
				W/CCW HELIX FROM AIR SIDE	
15883	1.575	2.953	.394	HMSA96	P

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
15884	1.575	2.087	.197	HMA76	R
15886	1.575	2.953	.472	HMSA92	P
15887	1.575	2.559	.708	HMSASPL	P
15888	1.575	2.205	.315	HMSA92	P

Size index: page 1

Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>.125 SHAFT</b>				
	.100	<b>400030</b>	VR1	R
			SHAFT RANGE .110-.140	
.313	.063	451486	BUW	#
.313	.094	711800	BV	R
.313	.094	721523	BV	V
.313	.094	721578	BV	D

Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>.156 SHAFT</b>				
	.120	<b>400040</b>	VR1	R
			SHAFT RANGE .140 - .180	
	.120	<b>400044</b>	VR1	V
			SHAFT RANGE .140 - .180	

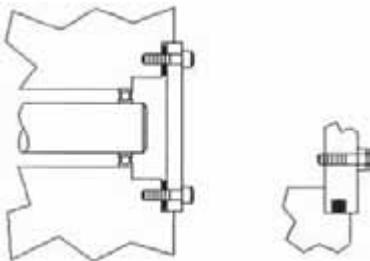
## The seal and its function

Whenever a shaft rotates, it needs a bearing arrangement for smooth, effective operation. Wherever there's a bearing, you'll find a seal helping it to reach its maximum service life and reliability. In simplest terms a shaft seal is a barrier with four functions: 1) Retaining lubricants or liquids 2) Excluding contaminants 3) Separating fluids and 4) Confining pressure.

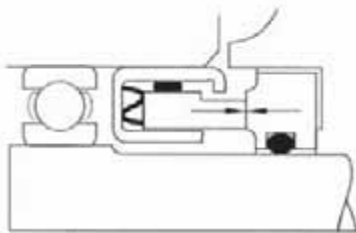
There are three basic types of seals:

**Static seals.** The function of a static seal is to create a barrier between non-moving surfaces. Typical examples would be a valve cover gasket or o-ring.

**Axial mechanical seals.** These are face type seals in which the sealing contact is between radially mounted components. One is usually stationary and seal contact pressure is applied by a spring mechanism.



Typical static seals - gasket and o-ring.



Axial mechanical - seals between arrows.



Dynamic seal on rotating shaft with bearing.

**Dynamic "radial" seals.** A dynamic radial seal creates a barrier between surfaces in relative motion. One is usually stationary while the other rotates. The cross-section shown below identifies the most common parts of a shaft seal. This is the primary type of seal described in the SKF Seal handbook.

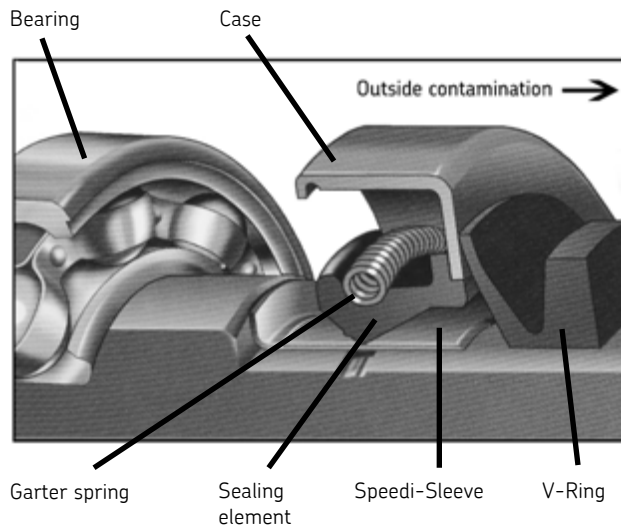
In many designs, the primary sealing lip is held in position by a garter spring. Generally, spring-loaded lips are for retaining oil and non-spring-loaded are used for low speed grease retention or excluding contaminants.

This seal has a simple L-shaped shell with the sealing material bonded to it. SKF is not only a pioneer in developing new bonding techniques, but they also have developed and used an environmentally "friendly" water-based cement wherever possible.

Some seals have an inner shell to aid in protecting the lip from damage or distortion during installation. The sealing lip should always point toward the material to be contained.

The garter spring keeps the lip in position. In large diameter seals (over 8" or 200 mm) the spring is held by a Spring-Lock. To completely enclose the spring, Spring-Kover should be used as protection against contamination or where the spring tends to pop-out during installation.

Many SKF seals have the patented Waveseal® lip design that pumps lubricant back to the oil cavity while holding out contaminants, regardless of the direction of shaft rotation. The smooth molded lip is formed in a wave-like pattern that describes a wider path on the shaft to dissipate heat and reduce wear.





Material and compound selection guide

SKF seals feature a variety of sealing materials. Each one has specific characteristics. A “lip code” designates materials in subsequent reference tables and listings.

**Nitrile (Lip code: R)**

*Most commonly used sealing material.* Nitrile is excellent with most mineral oils and greases. Variations are available for use with fuels, industrial fluids and highly compounded lubricants. Nitriles are recommended for operation at temperatures from -40° to 250°F (-40° to 121°C). Nitrile also works in dry running applications but only for intermittent periods.

Because of environmental considerations, SKF uses water carried adhesives whenever possible. Some water based fluids however, such as some cutting fluids, can destroy the nitrile/plain steel bond when operating temperatures exceed 150°F (66°C). The nitrile compound itself is not affected by the water.

**Duralip® (Lip code: D)**

*Offers superior resistance to abrasion.* Duralip is SKF’s special carboxylated nitrile compound developed for extreme abrasion resistance in applications where scale, sand, grit, dirt or other abrasive material is likely to collect at the point of shaft contact. Like nitrile, Duralip works in dry running applications but only for intermittent periods. Other characteristics of this special compound are similar to those of the standard nitrile.

**Duratemp® (Lip code: H)**

SKF’s special high temperature compound based on hydrogenated nitrile (HNBR) offers improved tensile strength and resistance to heat, abrasion, hardening in hot oil, ozone and weathering effects. In some cases aerated oils can be a problem for HNBR. It is more widely used for demanding applications. Its temperature range is -40° to 300°F (-40 to 149°C).

**Polyacrylate (Lip code: P)**

*For use with EP lubricants or higher operating temperatures.* Polyacrylate elastomers have good compatibility with higher temperatures up to 300°F (149°C), and even to 350°F (177°C) with some fluids. They are well suited for use with extreme pressure (EP)

lubricants and have higher resistance to oxidation and ozone. They should not be used with water or at temperatures below -40°F (-40°C). Polyacrylates are not recommended for dry running applications.

**Silicone (Lip code: S)**

*For high/low temperature ranges and low-friction applications.* Silicone seals can operate at temperatures ranging from -100° to 325°F (-73° to 163°C). The high lubricant absorbency of silicone minimizes friction and wear. However, it has poor compatibility with oxidized oils, some extreme pressure additives and abrasive contaminants. Silicone should not be used in dry running applications.

**LongLife™ (Fluoroelastomers) (Lip code: V)**

*Premium lip material for the widest temperature range and chemical resistance.* LongLife will handle temperatures from -40° to 400°F (-40° to 204°C). They resist most special lubricants and chemicals that can destroy nitrile, polyacrylates or silicones. This premium material, with its superior resistance to abrasion and high temperatures, provides superior performance and wear. LongLife works in dry running applications but only for intermittent periods.

It must be noted that although Fluoropolymers such as FKM and PTFE are classed as resistant to high temperatures, they will thermally degrade on exposure to extreme temperatures with the evolution of hazardous fumes containing hydrofluoric acid (HF).

The threshold temperatures in question are:

- Fluoroelastomers (FKM) - 600°F/316°C
- Polytetrafluoroethylene (PTFE) - 700°F/371°C

In the unlikely event of such a high temperature incident, allow the components in question to cool, douse with limewater (Calcium hydroxide solution), handle with PVC gloves until neutral pH confirmed, then discard.

**PTFE (Lip code: T)**

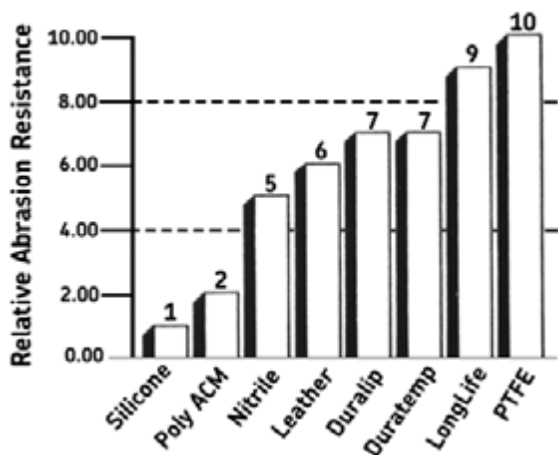
PTFE offers wider media resistance in comparison to standard elastomers with a temperature range of -100° to 500°F (-73° to 260°C). With the addition of appropriate fillers, PTFE has excellent mechanical properties, low friction and wear resistance.

**Ethylene-Propylene (Lip code: M)**

Special compound for exposure to weather, water, caustics and steam. Offers exceptionally good weather aging and ozone resistance, suitable for extended outdoor weather exposure. Recommended for operation -40°F to 300°F (-40 to 149°C). Often used with phosphate ester type (ie fire resistant) lubricants and water based hydraulic fluids. Resists polar solvents such as MEK and acetone, also silicone oils and greases, dilute acids and alkalis, alcohols and brake fluid. Good compression set, cold flex, abrasion resistance and tensile strength properties. Must never be exposed to mineral oils, petroleum based agents or aromatic fuels.

**Other sealing materials (Lip code: #)**

These are generally non-standard compounds for specific applications. If the material you require is not listed, contact SKF for availability.



Note: Temperature ranges are based on sump temp. When approaching temperature extremes contact SKF for technical assistance.

## Material and compound selection guide-(cont.)

### Multi-lip codes

When a seal has sealing elements of different compounds, the first lip code identifies the primary lip and the second lip code identifies the auxiliary lip; i.e. "RL" is "nitrile and leather", "RD" is "nitrile and Duralip".

### Case materials

Unless noted, the inner and outer case of seals listed in this catalog are formed of SAE 1006-1008 cold-rolled steel. They are oiled or specially treated for protection against corrosion during ordinary handling and storage.

Seal cases can be furnished in stainless steel (SAE 304) for corrosion resistance and extreme conditions. Contact SKF for price and availability.

### Spring materials

Most springs supplied in large diameter HDS metal clad and HS all-rubber seals, split and solid, are SAE 302 stainless steel. Unless specified, the springs supplied with

other seals in this catalog are hard-drawn steel wire. Springs in these other seals can be furnished in SAE 302 stainless steel if required. Contact SKF for price and availability.

### Bore-Tite®

Bore-Tite: A water based acrylic polymer. This pliable sealant helps fill small imperfections in the bore. Bore-Tite can withstand heat up to 400°F (204°C). It is resistant to most oils, greases, gasoline, mild acids, mild alkalis, aliphatics, salts and glycols. Bore-Tite is not recommended with aromatics, ketones and alcohols. However splash contact that is wiped off will have little or no effect. The Bore-Tite coating is .001/.003" (.025/.076 mm) thick as measured on the seal diameter (specified seal OD does not include the thickness of the Bore-Tite).

### Glossary of symbols for common industrial rubber compounds

Elastomers	Symbols in accordance with			
	Chemical description of the base polymer	ASTM D 1418	ISO 1629	SKF Tradename (Lip code)
Acrylonitrile-butadiene-rubber		NBR	NBR	
Hydrogenated-acrylonitrile-butadiene-rubber		(NEM)	(HNBR)	Duratemp (H)
Chlorobutadiene-rubber		CR	CR	
Carboxylated nitrile-rubber		XNBR	XNBR	Duralip (D)
Acrylate-rubber		ACM	ACM	
Ethylene-acrylate-rubber		AEM	AEM	
Silicone-rubber				
Methyl-polysiloxane		MQ	MQ	
Vinyl-methyl-polysiloxane		VMQ	MVQ	
Phenyl-methyl-polysiloxane		PMQ	MPQ	
Fluorosilicone-rubber				
Fluoromethyl-polysiloxane		FVMQ	FVMQ	
Fluoro-rubber		FKM	FPM	LongLife (V)
Perfluoro-rubber		FFKM		
Polyurethane-rubber				
Polyester-urethane-rubber		AU	AU	
Ethylene-oxide - epichlorhydrin-rubber		ECO	ECO	
Epichlorhydrin-polymer		CO	CO	
Chlorosulphonated-polyethylene		CSM	CSM	
Natural-rubber		NR	NR	
Isoprene-rubber		IR	IR	
Polybutadiene-rubber		BR	BR	
Styrene-butadiene-rubber		SBR	SBR	
Ethylene-propylene-diene-rubber		EPDM	EPDM	EPDM (M)
Ethylene-propylene-copolymer		EPM	EPM	
Butyl-rubber		IIR	IIR	
Chlorobutyl-rubber		CIIR	CIIR	
Bromobutyl-rubber		BIIR	BIIR	

ASTM = American society for testing and materials  
 ISO = International organization for standardization

LongLife™ story

**SKF uses the “tough” LongLife material for super performance**

SKF LongLife seals resist degradation from hundreds of different fluids over broad temperature ranges. Proven effective, SKF LongLife seals can be used where temperatures or other environmental conditions are beyond nitrile, polyacrylate, and silicone capabilities. SKF offers these seals in many of the popular shaft sizes from .125" to over 62" and 5 mm to over 1260 mm. No other supplier has LongLife as a standard stocked line.

In many cases, it is impossible for the equipment designer to reduce the operating temperature of the application. The designer may find it necessary to select *premium* materials in order to *extend life*. It is necessary to state that the effective service life of a rubber component cannot be totally predicted. The service life of the rubber components can also depend on abrasive wear resistance, compression set, resistance to fluid swelling, flex cracking resistance, and many other factors.

**Excellent fluid compatibility**

One of the most effective fluoroelastomers against these types of stresses in these sealing environments is LongLife. LongLife seals have excellent resistance to oils, fuels, lubricants, most mineral acids, and hydraulic fluids. They can resist regular, and chlorinated, aliphatic or aromatic hydrocarbons (e.g. iso-octane, carbon tetrachloride, benzene, and chlorotoluene) that are used as solvents.

No other elastomer resists as many fluids as LongLife. However, LongLife is not recommended for service in low molecular weight esters and ethers, ketones, certain amines, hot anhydrous hydrofluoric or chlorosulfonic acids and alkyl phosphate esters. (See the *compatibility chart* for more details; page 6A.)

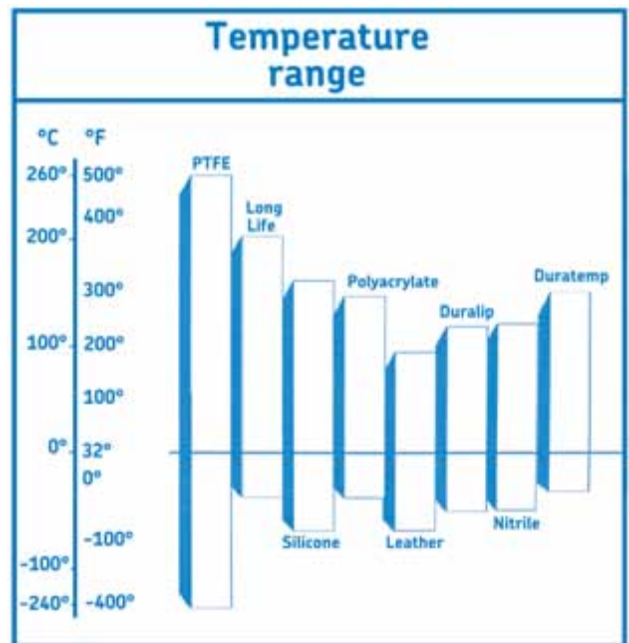
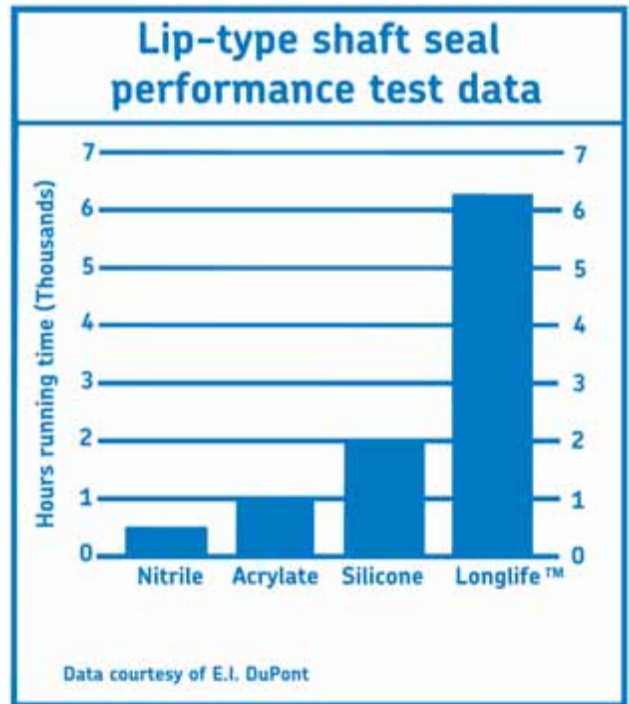
**Superior temperature ranges**

Actually, at low temperatures the seal lip will have to overcome eccentricity and shrinkage problems. At high temperatures the seal lip has to overcome pliability, hardness, and cracking or heat checking problems that cause shaft and seal damage.

The LongLife material has a temperature range of -40° to 204°C (-40° to 400°F). Under high temperature conditions, a LongLife seal may have a service life over 500% better than a nitrile seal.

**Other special materials**

The optimum solution for some applications will require other materials with special properties. These include PTFE with excellent chemical resistance, wear characteristics and temperature capabilities to 500°F (260°C). SKF's exclusive Duratemp hydrogenated nitrile compound can outperform standard nitriles in wear and heat resistance. Contact SKF for assistance to extend bearing and seal life in your demanding applications.



## Compound compatibility chart

Compatibility ratings are general with respect to different polymers and are dependent on the specific compound, specific fluid and degrees of exposure of immersion. They apply only within the range of operating temperatures specified.

Lip materials	Nitrile (Code R) Duralip (Code D) Duratemp (Code H)	Polyacrylates (Code P)	Silicones (Code S)	LongLife (Code V)	Ethylene-Propylene (Code M)
Temperature	R/D(-40° to 250°F) (-54° to 121°C) H(-40° to 300°F) (-40° to 149°C)	(-40° to 300°F)	(-100° to 325°F)	(-40° to 400°F)	(-40° to 300°F) (-40° to 149°C)
Range	-40° to 149 °C	-40° to 149°C	-73° to 163°C	-40° to 204°C	
<b>Mechanical properties</b>					
Durometer	70/80	70/80	75/85	80/90	40/90
Compression set	Good	Fair	Good	Good	Good
Dry running	See page 3A	See page 3A	See page 3A	See page 3A	See page 3A
Swell	Low	Low	Medium	Low	Good*
Abrasion resistance	Good (R) Excellent (H) (D)	Fair	Poor	Excellent	Good

\* Not for use with petroleum lubricants, fuels, diesters.

	Lip material							Lip material					
	R/D	H	P	S	V	M		R/D	H	P	S	V	M
1-BUTENE, 2 ETHYL	1	1	-	4	1	4	AMMONIA ANHYDROUS	2	2	4	3	4	1
1-CHLORO-1-NITRO ETHANE	4	4	4	4	4	4	AMMONIA GAS (COLD)	1	1	4	1	4	1
51-F-23	1	1	1	3	1	4	AMMONIA GAS (HOT)	4	2	4	1	4	1
ACETALDEHYDE	4	1	4	2	4	1	AMMONIUM CARBONATE (AQ)	4	4	4	-	-	1
ACETAMIDE	1	1	4	2	2	1	AMMONIUM CHLORIDE (AQ)	1	1	-	-	1	1
ACETIC ACID GLACIAL	3	3	4	2	3	1	AMMONIUM HYDROXIDE (CONC.)	4	4	4	1	2	1
ACETIC ACID, 30%	2	2	4	1	2	1	AMMONIUM NITRATE (AQ)	1	1	2	-	-	-
ACETIC ACID, 5%	2	2	-	1	1	1	AMMONIUM NITRITE (AQ)	1	1	-	2	-	-
ACETIC ACID, HOT HIGH PRESSURE	4	4	-	4	4	1	AMMONIUM PERSULPHATE (AQ)	4	4	4	-	-	1
ACETIC ANHYDRIDE	3	3	4	3	4	1	AMMONIUM PERSULPHATE 10 %	4	4	-	-	-	1
ACETONE	4	4	4	3	4	2	AMMONIUM PHOSPHATE	1	1	-	1	-	-
ACETOPHENONE	4	4	4	4	4	2	AMMONIUM PHOSPHATE (AQ)	1	1	-	1	-	1
ACETYL ACETONE	4	4	-	4	4	2	AMMONIUM PHOSPHATE DIBASIC	1	1	-	1	-	-
ACETYL CHLORIDE	4	4	4	3	1	4	AMMONIUM PHOSPHATE TRIBASIC	1	1	-	1	-	-
ACETYLENE	1	1	4	2	1	4	AMMONIUM SALTS	1	1	-	1	4	1
ACETYLENE TETRABROMIDE	4	4	-	-	1	1	AMMONIUM SULFATE (AQ)	1	1	4	-	4	1
ACRYLONITRILE	4	4	4	4	3	2	AMMONIUM SULFIDE	1	1	-	-	4	1
ADIPIC ACID	1	1	-	-	-	1	AMOCO RYKON PREMIUM #2	1	1	1	1	1	4
AERO LUBRIPLATE	1	1	-	2	1	4	AMOCO RYKOTEC EP	1	1	1	1	1	4
AERO SAFE 2300	4	4	-	4	4	1	AMYL ACETATE (BANANA OIL)	4	4	4	4	4	2
AERO SAFE 2300W	4	4	-	4	4	1	AMYL ALCOHOL	2	2	4	4	2	1
AERO SHELL 17 GREASE	1	1	-	2	1	4	AMYL BORATE	1	1	-	-	1	-
AERO SHELL 750	2	2	-	4	1	4	AMYL CHLORIDE	4	4	-	4	1	-
AERO SHELL 7A GREASE	1	1	-	2	1	4	AMYL CHLORONAPHTHALENE	4	4	4	4	1	-
AERO SHELL IAC	1	1	-	2	1	4	AMYL NAPHTHALENE	4	4	2	4	1	-
AEROZENE 50 (50% HYDRAZINE, 50% UDMH)	4	4	-	4	4	3	ANDEROL L-774 (MIL-L-7808D)	2	2	4	1	1	-
AIR ABOVE 300 F	4	2	-	1	1	1	ANDEROL L-826 (DIESTER)	2	2	-	4	1	1
AIR BELOW 300 F	2	1	-	1	1	1	ANDEROL L-829 (DIESTER)	2	2	-	4	1	1
ALKAZENE (DIBROMOETHYLBENZENE)	4	4	4	4	2	3	ANG (DIESTER BASE) (TG749)	2	2	-	2	1	1
ALUMINUM ACETATE (AQ)	1	1	4	4	4	1	ANG (GLYCERAL ESTER)	2	2	-	2	1	1
ALUMINUM BROMIDE	1	1	-	1	1	1	ANHYDROUS AMMONIA	2	2	-	2	4	1
ALUMINUM CHLORIDE (AQ)	1	1	1	2	1	1	ANHYDROUS HYDRAZINE	4	4	-	-	4	1
ALUMINUM FLUORIDE (AQ)	1	1	-	2	1	1	ANHYDROUS HYDROGEN FLUORIDE	4	4	-	-	4	1
ALUMINUM NITRATE (AQ)	1	1	-	2	1	1	ANILINE	4	4	4	4	3	2
ALUMINUM PHOSPHATE (AQ)	1	1	-	1	1	1	ANILINE DYES	4	4	4	3	2	1
ALUMINUM SALTS	1	1	-	1	1	1	ANILINE HYDROCHLORIDE	2	1	4	4	2	1
ALUMINUM SULFATE (AQ)	1	1	4	1	1	1	ANILINE OILS	4	4	-	4	4	1
ALUM-NH3-CR-K (AQ)	1	1	4	1	4	1	ANIMAL FATS (BUTTER)	1	1	1	2	1	4
AMBREX 33 MOBILE	1	1	-	4	1	4	AN-O-3 GRADE M	1	1	-	2	1	-
AMMONIA AND LITHIUM IN SOLUTION	2	2	-	4	4	1	AN-O-366	1	1	-	4	1	-

Ratings: 1 = Minor effect 2 = Moderate effect 3 = Static only 4 = Not recommended - = Insufficient data (AQ) = Aqueous



## Compound compatibility chart - (cont.)

	Lip material							Lip material					
	R/D	H	P	S	V	M		R/D	H	P	S	V	M
AN-0-6	1	1	-	4	1	-	BORAX	2	2	2	2	1	1
ANSUL ETHER (ANESTHETICS)	3	3	4	4	4	3	BORDEAUX MIXTURE	2	2	4	2	1	1
AN-VV-0-366B HYDR. FLUID	1	1	-	4	1	-	BORIC ACID	1	1	4	1	1	1
API GL-5	2	2	1	4	1	-	BORON FLUIDS (HEF)	2	2	-	4	1	-
AQUA REGIA	4	4	4	4	2	1	BP,ISO 220 MINERAL OIL, PM-220	1	1	1	2	1	4
ARGON	1	1	2	2	1	1	BRAKE FLUID (NON-PETROLEUM)	4	2	-	4	4	1
AROCLOR, 1248	3	3	4	2	1	2	BRAKE FLUID (WAGNER 21B)	3	2	-	3	4	1
AROCLOR, 1254	4	4	4	3	1	2	BRAY GG-130	2	2	-	4	1	1
AROCLOR, 1260	1	1	4	2	1	2	BRAYCO 719-R (VV-H-910)	4	4	-	2	4	1
AROMATIC FUEL 50%	2	2	-	4	1	4	BRAYCO 885 (MIL-L-6085A)	2	2	-	4	1	4
ARSENIC ACID	1	1	3	1	1	1	BRAYCO 910	2	2	-	4	4	1
ARSENIC TRICHLORIDE (AQ)	1	1	-	-	-	-	BRET 710	2	2	-	4	4	1
ASKREL	2	2	4	4	1	-	BRINE	1	1	4	1	1	1
ASPHALT	2	2	2	4	1	4	BROM - 113	4	4	-	4	-	-
ASTM #1 METHOD D-471	1	1	1	3	1	4	BROM - 114	2	2	-	4	2	-
ASTM #2 METHOD D-471	1	1	1	3	1	4	BROMINE	4	4	-	4	1	4
ASTM #3 METHOD D-471	1	1	1	3	1	4	BROMINE TRIFLUORIDE	4	4	4	4	4	4
ASTM #4 METHOD D-471	2	1	-	4	1	4	BROMINE WATER	4	4	4	4	1	4
ASTM REF FUEL A (MIL-S-3136B (TYPE 1))	1	1	2	4	1	4	BROMINE-ANHYDROUS	4	4	4	4	1	-
ASTM REF FUEL B (MIL-S-3136B (TYPE 3))	1	1	-	4	1	4	BROMINE-PENTAFLUORIDE	4	4	-	4	4	-
ASTM REFERENCE FUEL C	2	2	4	4	1	4	BROMOBENZENE	4	4	4	4	1	4
ATF TYPE (MERCON)	1	1	1	2	1	4	BROMOCHLORO TRIFLUOROETHANE	4	4	-	4	1	-
ATF TYPE A	1	1	1	2	1	4	BUNKER OIL	1	1	1	2	1	4
ATF TYPE F	1	1	1	2	1	4	BUTADIENE	4	4	4	4	1	4
ATF TYPE I	1	1	1	2	1	4	BUTANE	1	1	1	4	1	4
ATF TYPE II	1	1	1	2	1	4	BUTANE 2, 2-DIMETHYL	1	1	-	4	1	4
ATL-857	2	2	-	4	1	4	BUTANE 2, 3-DIMETHYL	1	1	-	4	1	4
ATLANTIC DOMINION	1	1	-	4	1	4	BUTANOL (BUTYL ALCOHOL)	1	1	-	2	1	4
AJUREX 903R MOBIL	1	1	-	4	1	4	BUTTER (ANIMAL FAT)	1	1	1	2	1	4
AUTOMOTIVE BRAKE FLUID	3	2	-	1	4	1	BUTYL ACETATE	4	4	4	4	4	1
BAKING SODA	1	1	4	1	1	1	BUTYL ACETYL RICINOLEATE	3	3	-	-	1	1
BANANA OIL (AMYL ACETATE)	4	4	4	4	4	2	BUTYL ACRYLATE	4	4	4	-	4	-
BARDOL	4	4	-	4	1	4	BUTYL ALCOHOL	1	1	4	2	1	2
BARIIUM CHLORIDE (AQ)	1	1	1	1	1	1	BUTYL AMINE	3	3	4	4	4	1
BARIIUM HYDROXIDE (AQ)	1	1	4	1	1	1	BUTYL BENZOATE	4	4	4	-	1	1
BARIIUM SULFATE (AQ)	1	1	4	1	1	1	BUTYL BUTYRATE	4	4	-	-	1	1
BARIIUM SULFIDE (AQ)	1	1	4	1	1	1	BUTYL CARBITOL	4	4	4	4	1	1
BEER	1	1	4	1	1	1	BUTYL CELLOSOLVE	3	3	4	-	4	1
BEET SUGAR LIQUORS	1	1	4	1	1	1	BUTYL CELLOSOLVE ADIPATE	4	4	-	2	2	1
BEL RAY SE 140	1	1	-	-	1	1	BUTYL ETHER	4	4	-	4	4	3
BEL RAY SE 290	2	2	-	-	4	-	BUTYL OLEATE	4	4	-	-	1	1
BENZALDEHYDE	4	4	4	2	4	1	BUTYL STEARATE	2	2	-	-	1	-
BENZENE (BENZOL)	4	4	4	4	2	4	BUTYLENE	2	2	4	4	1	4
BENZENE SULFONIC ACID	4	4	4	4	1	4	BUTYRALDEHYDE	4	4	4	4	4	1
BENZINE (LIGROIN) (NITROBENZENE)	1	1	1	4	1	-	BUTYRIC ACID	4	4	-	-	2	1
BENZINE (PET ETHER)	1	1	1	4	1	4	CALCINE LIQUORS	1	1	-	-	1	1
BENZOIC ACID	3	3	3	3	1	1	CALCIUM ACETATE (AQ)	2	2	4	4	4	1
BENZOPHENONE	-	-	-	-	1	1	CALCIUM BISULFITE (AQ)	4	4	4	1	1	3
BENZOYL CHLORIDE	4	4	4	-	1	4	CALCIUM CARBONATE	1	1	-	1	1	1
BENZYL ALCOHOL	4	4	4	2	1	1	CALCIUM CHLORIDE (AQ)	1	1	1	1	1	1
BENZYL BENZOATE	4	4	4	-	1	1	CALCIUM CYANIDE	1	1	-	1	-	1
BENZYL CHLORIDE	4	4	4	4	1	-	CALCIUM HYDROXIDE (AQ)	1	1	4	1	1	1
BIODIESEL	2	1	4	2	2	4	CALCIUM HYPOCHLORIDE	4	4	-	-	1	1
BIOFLO AW32/46	1	1	4	1	1	4	CALCIUM HYPOCHLORITE (AQ)	2	2	4	2	1	1
BIOFLO FG32	1	1	4	1	1	4	CALCIUM NITRATE (AQ)	1	1	1	2	1	1
BIPHENYL (DIPHENYL) (PHENYLBENZENE)	4	4	4	4	1	4	CALCIUM PHOSPHATE	1	1	-	1	1	1
BLACK POINT 77	1	1	-	4	1	1	CALCIUM SALTS	1	1	-	-	1	1
BLACK SULPHATE LIQUORS	2	2	-	2	1	1	CALCIUM SULFIDE (AQ)	1	1	4	2	1	1
BLAST FURNACE GAS	4	4	4	1	1	-	CALCIUM SULFITE	1	1	-	1	1	1
BLEACH SOLUTIONS	4	2	4	2	1	1	CALCIUM THIOSULPHATE	2	2	-	1	1	1

Ratings: 1 = Minor effect 2 = Moderate effect 3 = Static only 4 = Not recommended - = Insufficient data

(AQ) = Aqueous

## Compound compatibility chart - (cont.)

	Lip material							Lip material					
	R/D	H	P	S	V	M		R/D	H	P	S	V	M
CALICHE LIQUORS	1	1	-	2	1	1	COBALT CHLORIDE (AQ)	1	1	4	2	1	1
CANE SUGAR LIQUORS	1	1	4	1	1	1	COCOANUT OIL	1	1	1	1	1	4
CAPORIC ALDEHYDE	-	-	-	2	4	1	COD LIVER OIL	1	1	1	2	1	4
CARBAMATE	3	3	4	-	1	1	COFFEE (BASICALLY WATER)	1	1	-	-	1	1
CARBITOL	2	2	4	2	2	2	COKE OVEN GAS	4	4	4	2	1	4
CARBOLIC ACID (PHENOL)	4	4	4	4	1	3	COLICHE LIQUORS	2	2	-	-	-	2
CARBON BISULFIDE	3	2	3	4	1	4	CONVELEX 10	4	4	-	4	-	-
CARBON DIOXIDE (WET OR DRY)	1	1	-	2	1	1	COOLANOL (MONSANTO)	1	1	-	4	1	4
CARBON DISULFIDE	4	4	-	-	1	1	COOLANOL 45 (MONSANTO)	1	1	-	4	1	3
CARBON MONOXIDE	1	1	-	1	1	1	COPPER ACETATE (AQ)	2	2	4	4	4	1
CARBON TETRACHLORIDE	3	3	4	4	1	4	COPPER CHLORIDE (AQ)	1	1	1	1	1	1
CARBONIC ACID	2	2	-	1	1	1	COPPER CYANIDE (AQ)	1	1	1	1	1	1
CASTOR OIL	1	1	1	1	1	1	COPPER SALTS	1	1	-	1	1	1
CASTROL SYN GL 75W90	1	1	2	2	1	4	COPPER SULFATE (AQ)	1	1	4	1	1	1
CAUSTIC SODA	2	2	3	2	2	1	COPPER SULFATE 10%	1	1	-	1	1	1
CELLOSOLVE	4	4	4	4	3	1	COPPER SULFATE 50%	1	1	-	1	1	1
CELLOSOLVE ACETATE	4	4	4	4	4	1	CORN OIL	1	1	1	1	1	4
CELLOSOLVE BUTYL	4	4	-	4	4	1	COTTONSEED OIL	1	1	1	1	1	3
CELLUGUARD	1	1	-	1	1	1	CREOSOTE (COAL TAR)	1	1	1	4	1	4
CELLULUBE (FRYQUEL)	4	4	4	1	1	4	CREOSOTE (WOOD)	1	1	-	4	1	4
CELLULUBE 220 (SEE MIL-L-19457)	4	4	4	3	3	1	CRESOL	4	4	4	4	1	4
CELLULUBE 90,100,150,220,300,500	4	4	-	1	1	1	CRESYLIC ACID	4	4	4	4	1	2
CELLUTHERM 2505A	2	2	-	4	1	4	CRUDE OIL	2	2	-	4	1	4
CETANE (HEXADECANE)	1	1	-	4	1	4	CUMENE	4	4	4	4	1	3
CHEVRON 50	1	1	1	2	1	4	CUTTING OIL	1	1	-	4	1	4
CHEVRON DELO GREASE	1	1	1	2	1	4	CYCLOHEXANE	1	1	1	4	1	4
CHEVRON DELO SPECIAL	1	1	1	2	1	4	CYCLOHEXANOL	3	3	-	4	1	4
CHINA WOOD OIL (TUNG OIL)	1	1	-	4	1	4	CYCLOHEXANONE	4	4	4	4	3	2
CHLORACATIC ACID	4	4	-	-	4	1	DC44M (DOW CORNING)	3	3	3	3	1	-
CHLOREXTOL	2	2	-	4	1	4	DC44M HI TEMP SILICONE GREASE	3	3	3	3	1	1
CHLORINATED SALT BRINE	4	4	-	4	1	4	DECALIN	4	4	-	4	1	-
CHLORINATED SOLVENTS (WET OR DRY)	4	4	-	4	1	4	DECANE	1	1	1	2	1	4
CHLORINE (DRY)	4	4	4	4	1	4	DELCO BRAKE FLUID	4	2	-	4	4	1
CHLORINE (WET)	4	4	4	4	1	2	DENATURED ALCOHOL	1	1	4	1	1	1
CHLORINE DIOXIDE	4	4	4	-	1	2	DETERGENT SOLUTIONS	1	1	4	1	1	1
CHLORINE TRIFLUORIDE	4	4	4	4	4	4	DEVELOPING FLUIDS	1	1	-	1	1	1
CHLOROACETIC ACID	4	4	4	-	4	1	DEXRON	1	1	1	4	1	4
CHLOROACETONE	4	4	4	4	4	1	DIACETONE	4	4	4	4	4	1
CHLOROBENZENE	4	4	4	4	1	4	DIACETONE ALCOHOL	4	4	4	2	4	1
CHLOROBENZENE (MONO)	4	4	-	4	1	4	DIAZION	4	4	-	4	2	4
CHLOROBROMOMETHANE	4	4	4	4	1	2	DIBENZYL ETHER	4	4	-	-	4	1
CHLOROBUTADIENE	4	4	4	4	1	3	DIBENZYL SEBECATE	4	4	4	3	2	1
CHLORODANE	2	2	-	4	1	-	DIBROMOETHYLBENZENE (ALKAZENE)	4	4	4	4	2	4
CHLORODODECANE	4	4	4	4	1	3	DIBUTYL AMINE	4	4	4	3	4	1
CHLOROFORM	4	4	4	4	1	4	DIBUTYL ETHER	4	4	3	4	3	4
CHLOROSULFONIC ACID	4	4	4	4	4	1	DIBUTYL PHTHALATE	4	4	4	2	3	1
CHLOROTOLUENE	4	4	4	4	1	4	DIBUTYL SEBECATE	4	4	4	2	2	1
CHLOROX (SODIUM HYPOCHLORITE)	2	2	4	2	1	2	DICHLORO-BUTANE	2	2	-	4	1	4
CHROM ALUM	1	2	-	1	1	1	DICHLORO-ISOPROPYL ETHER	4	4	3	4	3	3
CHROME PLATING SOLUTIONS	4	4	4	2	1	4	DICYCLOHEXYLAMINE	3	3	4	-	4	4
CHROMIC ACID	4	4	4	3	1	1	DIESEL FUEL	1	1	1	4	1	4
CHROMIC OXIDE .88 WT. %	4	4	-	2	1	1	DI-ESTER LUBRICANT (MIL-L-7808)	2	2	-	4	1	4
CIRCO LIGHT PROCESSING OIL	1	1	-	4	1	4	DI-ESTER SYNETHIC LUBRICANT	2	2	-	4	1	4
CITRIC ACID	1	1	-	1	1	1	DIETHYL BENZENE	4	4	-	4	1	4
CITY SERVICE #S 65,120, &250	1	1	-	4	1	4	DIETHYL ETHER	4	4	3	4	4	4
CITY SERVICE KOOL MOTOR-AP	1	1	-	4	1	4	DIETHYL SEBECATE	2	2	4	2	2	1
CITY SERVICE PACEMAKER #2	1	1	-	4	1	4	DIETHYLAMINE	2	2	4	2	4	1
CM COOLANT #5	1	1	-	-	-	-	DIETHYLENE GLYCOL	1	1	2	2	1	1
COAL TAR (CREOSOTE)	1	1	1	4	1	4	DIFLUORODIBROMOMETHANE	4	4	-	4	-	2
COBALT CHLORIDE (2N)	1	1	-	1	1	1	DIISOBUTYLENE	2	2	4	4	1	4

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Compound compatibility chart - (cont.)

	Lip material							Lip material					
	R/D	H	P	S	V	M		R/D	H	P	S	V	M
DIISOCTYL SEBACATE	4	2	-	4	2	1	ESSO GX 80W90 (GL-5)	2	2	-	4	1	4
DIISOPROPYL BENZENE	4	4	-	-	1	4	ESSO MOTOR OIL	2	1	1	4	1	4
DIISOPROPYL KETONE	4	4	4	4	4	1	ESSO TRANSMISSION FLUID (TYPE A)	1	1	-	4	1	4
DIISOPROPYLIDENE ACETONE	4	4	4	4	4	1	ESSO WS3812 (MIL-L-7808)	1	1	-	4	1	4
DIMETHYL ANILINE (XYLIDINE)	3	3	4	4	4	1	ESSO XP90 EP LUBRICANT	1	1	-	4	1	4
DIMETHYL DISULFITE (DMS)	4	4	4	4	4	-	ESSTIC 42, 43	1	1	-	4	1	4
DIMETHYL ETHER (METHYL ETHER)	2	2	4	4	4	3	ESTERS	1	1	-	4	1	1
DIMETHYL ETHER(MONOMETHYL ETHER)	1	1	4	1	1	-	ETHANE	2	2	-	4	1	4
DIMETHYL FORMAMIDE	2	2	4	2	4		ETHANOL (ETHYL ALCOHOL)	1	1	-	4	1	1
DIMETHYL PHTHALATE	4	4	4	-	2	1	ETHANOLAMINE	2	2	4	1	3	1
DINITROTOLUENE	4	4	4	4	4	4	ETHYL ACETATE	4	4	4	2	4	1
DINITROTOLUENE40/60	4	4	4	4	2	4	ETHYL ACETATE-ORGANIC ESTER	4	4	4	2	4	1
DIOCTYL PHTHALATE	3	3	4	3	2	1	ETHYL ACETOACETATE	4	4	-	2	4	1
DIOCTYL SEBECATE	4	4	4	3	2	1	ETHYL ACRYLATE	4	4	4	2	4	1
DIOXANE	4	4	4	4	4	1	ETHYL ACRYLIC ACID	4	4	4	2	4	1
DIOXOLANE	4	4	4	4	4	1	ETHYL ALCOHOL (ETHANOL)	2	2	4	4	3	1
DIPENTENE	2	2	4	4	1	4	ETHYL BENZENE	1	1	4	1	1	4
DIPHENYL (BIPHENYL) (PHENYBENZENE)	4	4	4	4	1	4	ETHYL BENZOATE	4	4	4	4	1	1
DIPHENYL OXIDES	4	4	4	3	1	4	ETHYL BROMIDE	4	4	4	4	1	4
DMS (DIMETHYL DISULFITE)	4	4	4	4	4	-	ETHYL CELLOSOLVE	2	2	-	4	1	1
DOW CHEMICAL 50-4	3	3	-	-	4	1	ETHYL CELLULOSE	2	2	4	4	4	3
DOW CHEMICAL ET378	4	4	-	4	-	-	ETHYL CHLORIDE	2	2	4	3	2	1
DOW CHEMICAL ET588	4	4	-	-	4	1	ETHYL CHLOROCARBONATE	4	4	4	4	1	4
DOW CORNING -11	1	1	-	4	1	1	ETHYL CHLOROFORMATE	4	4	4	4	1	4
DOW CORNING -1208	1	1	-	4	1	1	ETHYL CYCLOPENTANE	1	1	4	4	1	4
DOW CORNING -200	1	1	-	4	1	1	ETHYL ETHER	2	2	-	4	1	3
DOW CORNING -220	1	1	-	4	1	1	ETHYL FORMATE	3	3	4	4	2	2
DOW CORNING -3	1	1	-	4	1	1	ETHYL HEXANOL	2	2	-	-	1	2
DOW CORNING -33	1	1	-	4	1	1	ETHYL MERCAPTAN	4	2	-	2	2	1
DOW CORNING -4	1	1	-	4	1	1	ETHYL OXALATE	4	4	-	3	2	2
DOW CORNING -4050	1	1	-	4	1	1	ETHYL PENTACHLOROBENZENE	4	4	4	4	1	4
DOW CORNING -44	1	1	-	4	1	1	ETHYL SILICATE	1	1	4	4	1	1
DOW CORNING -5	1	1	-	4	1	-	ETHYLENE	1	1	-	-	1	4
DOW CORNING -510	1	1	-	4	1	1	ETHYLENE CHLORIDE	4	4	-	-	1	3
DOW CORNING -55	1	1	-	4	1	-	ETHYLENE CHLOROHYDRIN	4	4	4	4	2	2
DOW CORNING -550	1	1	-	4	1	1	ETHYLENE DIAMINE	3	3	4	3	4	1
DOW CORNING -6620	1	1	-	4	1	1	ETHYLENE DIBROMIDE	4	4	4	1	1	2
DOW CORNING -704	2	2	-	4	1	1	ETHYLENE DICHLORIDE	4	4	-	4	1	3
DOW CORNING -705	2	2	-	-	1	1	ETHYLENE GLYCOL	2	1	4	4	1	1
DOW CORNING -710	1	1	-	4	1	1	ETHYLENE OXIDE	4	4	3	1	1	2
DOW CORNING -F60	1	1	-	4	1	1	ETHYLENE TRICHLORIDE	4	4	4	4	1	3
DOW CORNING -F61	1	1	-	2	1	1	ETHYLMORPHOLENE STANNUS	4	4	4	4	1	-
DOW CORNING -XF61	1	1	-	4	1	-	FATTY ACIDS	1	1	-	-	2	3
DOW GUARD	1	1	-	1	1	1	FC-43 HEPTACOSOFUOROTRI-	2	2	-	3	1	1
DOWTHERM 209, 50% SOLUTION	4	2	-	4	4	1	FC75 FLOURCARBON	1	1	-	1	1	1
DOWTHERM A OR E	4	4	-	4	1	4	FERRIC CHLORIDE (AQ)	1	1	-	1	2	1
DOWTHERM OIL	4	4	4	3	1	4	FERRIC NITRATE (AQ)	1	1	1	2	1	1
DRINKING WATER (SEE NOTE RE. WATER)	1	1	-	1	1	1	FERRIC SULFATE (AQ)	1	1	1	3	1	1
DRY CLEANING FLUIDS	3	3	4	4	1	4	FISH OIL	1	1	1	2	1	4
ELF TRANSGEAR 75W85	2	1	1	4	1	4	FLUORINE (LIQUID)	4	4	-	-	2	3
EMERY EMGARD 75W85	2	1	1	4	1	4	FLUOROBENZENE	4	4	4	4	2	4
ELCO 28-EP LUBRICANT	1	1	-	4	1	4	FLUOROBORIC ACID	4	4	4	4	1	1
ENGINE OIL (DIESTER MOTOR OIL)	3	2	4	4	2	4	FLUOROLUBE	1	1	4	1	2	1
ENGINE OIL (HYDROCARBON	2	2	1	1	1	4	FORMALDEHYDE (RT)	1	1	-	1	2	1
EP LUBES	1	1	1	1	1	4	FORMIC ACID	3	3	4	2	1	1
EPICHLOROHYDRIN	2	1	1	4	1	4	FREON 11	2	1	-	2	3	4
EPOXY RESINS	4	4	4	4	4	1	FREON 112	2	1	-	4	1	4
ESAM-6 FLUID	-	-	-	-	4	1	FREON 113	1	1	-	4	1	4
ESSO FUEL 208	-	-	-	-	4	1	FREON 114	1	1	-	4	2	4
ESSO GOLDEN GASOLINE	1	1	-	4	1	4	FREON 114B2	1	1	-	4	2	4

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(AQ) = Aqueous

## Compound compatibility chart - (cont.)

	Lip material							Lip material					
	R/D	H	P	S	V	M		R/D	H	P	S	V	M
FREON 115	2	1	-	4	2	1	GULF FRG FLUIDS	1	1	2	4	1	4
FREON 12	1	1	-	-	2	3	GULF FRP FLUIDS	1	1	4	1	1	4
FREON 12 AND ASTM #2 OIL (50/50)	1	1	1	4	2	4	GULF HARMONY OILS	1	1	4	1	1	4
FREON 12 AND SUNISO 4G (50/50)	1	1	-	4	1	4	GULF HIGH TEMPERATURE GREASE	1	1	1	4	1	4
FREON 13	1	1	-	4	1	1	GULF LEGION OILS	1	1	1	4	1	4
FREON 134A	1	1	-	4	1	-	GULF PARAMOUNT OILS	1	1	1	4	1	4
FREON 13B1	1	1	4	4	2	1	GULF SECURITY OILS	1	1	1	4	1	4
FREON 14	1	1	-	4	1	1	GULFCROWN GREASE	1	1	1	4	1	4
FREON 142B	1	1	-	4	1	1	HALOTHANE	1	1	1	4	1	4
FREON 152A	1	1	-	-	4	1	HALOWAX OIL	4	4	4	4	1	4
FREON 21	4	4	-	-	4	4	HANNIFIN LUBE A	4	4	4	4	1	4
FREON 218	1	1	-	4	1	1	HEAVY WATER (DUTERIUM)	1	1	1	3	1	4
FREON 22	4	4	-	-	1	2	HEF (HIGH ENERGY FUEL) 2 & 3	1	1	4	2	-	1
FREON 22 AND ASTM #2 OIL (50/50)	4	4	4	4	1	4	HELIUM	2	2	4	1	1	4
FREON 31	4	4	-	4	2	1	HEXANE	1	1	-	4	1	2
FREON 32	4	4	-	-	4	1	HEXYL ALCOHOL	1	1	1	4	1	4
FREON 502	1	1	-	-	2	1	HIGH VISCOSITY LUBRICANT, H2	2	2	4	2	1	1
FREON BF	2	1	-	-	2	4	HIGH VISCOSITY LUBRICANT, U4	1	1	4	1	1	2
FREON C316	1	1	-	4	1	2	HILO MS #1	1	1	4	1	1	2
FREON C318	1	1	-	-	1	1	HOUGHTO-SAFE 1010,	4	4	4	2	4	1
FREON MF	1	1	-	-	2	4	HOUGHTO-SAFE 1055,	4	4	4	4	2	1
FREON PCA	1	1	-	4	2	1	HOUGHTO-SAFE 1120,	4	4	4	4	2	1
FREON TA	1	1	-	1	2	1	HOUGHTO-SAFE 271 H2O AND	4	4	4	4	1	1
FREON TC	1	1	-	3	3	2	HOUGHTO-SAFE 5040.WATER/OIL	2	1	4	2	1	1
FREON TF	1	1	-	4	1	4	HOUGHTO-SAFE 620 WATER/GLYCOL	1	1	4	2	2	4
FREON TMC	2	1	-	4	2	2	HYDRAULIC OIL (PETROLEUM)	1	1	4	2	1	1
FREON T-P35	1	1	-	2	1	1	HYDRAZINE	1	1	-	2	2	4
FREON T-WD602	2	2	-	1	1	2	HYDROBROMIC ACID	2	2	-	3	1	1
FUEL OIL	2	2	-	4	1	4	HYDROCARBONS (SATURATED)	3	3	4	3	2	1
FUEL OIL, #6	1	1	1	4	1	4	HYDROCHLORIC ACID (COLD) 37%	1	1	2	4	1	4
FUEL OIL, ACIDIC	2	2	-	4	1	4	HYDROCHLORIC ACID (HOT) 37%	2	2	4	4	1	1
FUMARIC ACID	1	1	-	4	1	2	HYDROCHLORIC ACID 3 MOLAR	3	3	4	3	1	1
FUMING SULPHURIC ACID	4	4	4	4	1	4	HYDROCYANIC ACID	4	4	4	4	2	1
FURAN, FURFURAN	4	4	-	4	2	3	HYDRO-DRIV, MIH-10	1	1	1	2	1	4
FURARYL ALCOHOL	4	4	4	-	-	1	HYDRO-DRIV, MIH-50 (PETROLEUM BASE)	1	1	1	2	1	4
FURFURAL	4	4	-	4	4	1	HYDROFLUORIC ACID - ANHYDROUS	3	3	4	2	1	2
FURFURALDEHYDE	4	4	4	4	4	1	HYDROFLUORIC ACID (CONC.) COLD	3	3	4	2	1	1
FYRQUEL (CELLULUBE)	4	4	4	1	1	4	HYDROFLUORIC ACID (CONC.) HOT	4	4	4	4	3	2
FYRQUEL 90,100,150,220,300,500	4	4	4	1	1	2	HYDROFLUOSILICIC	2	2	4	4	1	1
FYRQUEL A60	4	4	-	1	1	4	HYDROGEN GAS	1	1	2	3	2	2
GALLIC ACID	3	2	-	-	1	2	HYDROGEN PEROXIDE (90%)	3	2	4	4	1	3
GASAHOL (10% ETHANOL)	2	2	4	-	1	4	HYDROGEN SULFIDE (WET) COLD	2	2	4	4	1	2
GASOLINE (LEAD AND NO-LEAD)	2	2	4	4	1	4	HYDROGEN SULFIDE (WET) HOT	4	4	4	4	2	2
GEAR OIL	2	1	2	4	1	4	HYDROLUBE-WATER/ETHYLENE	1	1	4	2	2	1
GELATIN	1	1	4	1	1	1	HYDROQUINONE	4	4	4	3	1	2
GIRLING BRAKE FLUID	2	1	4	1	1	1	HYDYNE	2	2	4	2	1	1
GLACIAL ACETIC ACID	4	3	-	4	4	1	HYJET	3	3	4	-	3	1
GLAUBER'S SALT (AQ)	2	1	-	2	2	1	HYJET III	3	3	-	4	4	1
GLUCOSE	1	1	4	2	1	1	HYJET S	4	4	4	-	4	1
GLUE	1	1	2	1	1	1	HYJET W	4	4	4	-	4	1
GLYCEROL TRIOLEATE	1	1	4	1	1	2	HYPOCHLOROUS ACID	4	4	4	4	2	1
GLYCEROL/GLYCERIN	1	1	-	1	1	1	INDUSTRON FF44	1	1	1	4	1	4
GLYCOL	1	1	-	1	1	1	INDUSTRON FF48	1	1	1	4	1	4
GLYCOL BASE	1	1	3	1	1	1	INDUSTRON FF53	1	1	1	4	1	4
GREASE, ESTER BASE	1	1	3	1	1	1	INDUSTRON FF80	1	1	1	4	1	4
GREASE, PAO BASE	2	2	4	3	1	2	IODINE	2	1	-	3	1	2
GREASE, PETROLEUM BASE	1	1	1	2	1	4	IODINE PENTAFLUORIDE	4	4	-	4	4	4
GREEN SULFATE LIQUOR	1	1	1	2	1	4	I-PROPYL ACETATE	4	4	4	4	4	1
GULF ENDURANCE OILS	1	1	2	1	1	1	IRM 903 OIL	1	1	2	3	1	4
GULF FR FLUIDS (EMULSION)	2	1	2	1	1	4	ISOBUTYL ALCOHOL	4	4	4	1	4	1

Ratings: 1 = Minor effect 2 = Moderate effect 3 = Static only 4 = Not recommended - = Insufficient data (AQ) = Aqueous

Compound compatibility chart - (cont.)

	Lip material							Lip material					
	R/D	H	P	S	V	M		R/D	H	P	S	V	M
ISO-BUTYL N-BUTYRATE	4	4	4	4	1	1	MESITYL OXIDE	4	4	-	4	4	1
ISODODECANE	2	2	4	4	1	4	METHANE	1	1	4	-	1	4
ISOOCTANE	1	1	1	4	1	4	METHANE, SULFURATED	4	2	4	4	1	4
ISOPHORONE	4	4	4	4	4	1	METHANOL (METHYL ALCOHOL)	1	1	4	1	3	1
ISOPROPANOL	2	1	4	1	1	1	METHYL ACETATE	4	4	4	4	4	1
ISOPROPYL ACETATE	4	4	4	4	4	1	METHYL ACETOACETATE	4	4	4	1	4	2
ISOPROPYL ALCOHOL	2	1	4	1	1	1	METHYL ACETONE	4	4	4	4	4	1
ISOPROPYL CHLORIDE	4	4	4	4	1	4	METHYL ACRYLATE	4	4	-	4	4	1
ISOPROPYL ETHER	2	2	3	4	4	4	METHYL BENZOATE	4	4	4	4	1	4
JP3, JP4, JP5 (SEE MIL-J-5624G)	2	2	4	4	1	4	METHYL BROMIDE	3	2	3	-	1	4
JP6 (SEE MIL-F-25656B)	2	2	3	4	1	4	METHYL BUTYL KETONE	4	4	4	4	4	1
JPX (SEE MIL-F-25604)	1	1	2	4	4	4	METHYL CARBONATE	4	4	4	-	1	4
KEL-F LIQUIDS	1	1	-	4	2	1	METHYL CELLOSOLVE	3	3	4	4	4	1
KEROSENE	1	1	2	4	1	4	METHYL CELLULOSE	2	2	4	2	4	2
KEYSTONE #87 HX-GREASE	1	1	-	1	2	-	METHYL CHLORIDE	4	4	4	4	1	4
KEYSTONE (KSL) DIESTER LUBE	1	1	-	4	1	4	METHYL CHLOROFORMATE	4	4	4	4	1	4
KRYTOX, LVP (DUPONT)	1	1	1	1	1	1	METHYL CYCLOPENTANE	3	3	4	4	1	4
LACQUER SOLVENTS	4	4	4	4	4	4	METHYL D-BROMIDE	4	4	4	4	1	4
LACQUERS	4	4	4	4	3	4	METHYL ETHER	2	2	4	2	2	2
LACTAMS-AMINO ACIDS	4	4	4	4	4	2	METHYL ETHYL KETONE (MEK)	4	4	4	4	4	1
LACTIC ACID (COLD)	2	2	4	1	2	1	METHYL ETHYL KETONE PEROXIDE	4	4	4	2	4	4
LACTIC ACID (HOT)	3	3	4	2	2	2	METHYL FORMATE	4	4	4	2	4	1
LARD	1	1	4	1	1	2	METHYL ISOBUTYL KETONE	4	4	4	3	4	2
LAVENDER OIL	2	2	3	4	1	4	METHYL METHACRYLATE	4	4	4	2	4	4
LEAD ACETATE (AQ)	1	1	-	4	1	1	METHYL OLEATE	4	4	4	-	1	2
LEAD NITRATE (AQ)	1	1	-	4	1	1	METHYL PROPYL SALICYLATE	4	4	4	4	2	2
LEAD SULFAMATE (AQ)	2	2	4	2	1	1	METHYLACRYLIC ACID	4	4	-	-	2	2
LEGROIN (BENZINE)	1	1	-	2	1	4	METHYLENE CHLORIDE	4	4	-	4	2	2
LEGROIN (NITROBENZINE)	2	2	4	3	1	4	METHYLENE DICHLORIDE	4	4	4	4	2	4
LEGROIN (PET ETHER)	1	1	3	4	1	4	MILK	1	1	-	4	1	2
LEHIGH X1169	1	1	1	4	1	4	MIL-A-6091	2	2	2	1	1	1
LEHIGH X1170	1	1	1	4	1	4	MIL-A-8243 B	1	1	3	2	2	1
LEMON OIL	2	2	4	4	1	3	MIL-C-4339 C	1	1	3	3	1	4
LIGHT GREASE, HYDROCARBON BASE	1	1	1	4	1	4	MIL-C-5545 A	2	2	2	4	1	4
LIME BLEACH	1	1	-	4	1	1	MIL-C-6529 C	2	2	2	4	1	4
LIME SULFUR	1	1	-	2	1	2	MIL-C-8188 C	2	2	3	4	2	4
LIME WATER (CALCIUM HYDROXIDE-AQ)	1	1	4	2	1	1	MIL-E-9500	1	1	4	1	1	1
LINDOL (HYDRAULIC FLUID)	4	4	4	3	2	1	MIL-F-16884	1	1	1	4	1	4
LINOLEIC ACID	2	2	4	1	2	4	MIL-F-16929 A	1	1	3	3	1	4
LINSEED OIL	1	1	4	2	1	3	MIL-F-17111	1	1	1	4	1	4
LIQUEFIED PETROLEUM GAS	1	1	3	4	1	4	MIL-F-19605	1	1	-	4	1	4
LIQUID OXYGEN	4	3	3	2	2	3	MIL-F-25172	1	1	-	4	1	4
LUBRICATING OILS (DI-ESTER)	2	2	3	-	1	4	MIL-F-25524 A	1	1	-	4	1	4
LUBRICATING OILS (PETROLEUM)	1	1	1	2	1	4	MIL-F-25558 B (RJ-1)	1	1	1	4	1	4
LYE	2	2	3	1	1	1	MIL-F-25576 C (RP-1)	1	1	1	4	1	4
MAGNESIUM CHLORIDE (AQ)	1	1	-	1	1	1	MIL-F-25656 B	1	1	2	4	1	4
MAGNESIUM HYDROXIDE (AQ)	1	1	3	2	1	1	MIL-F-5566	2	2	4	2	1	1
MAGNESIUM SALTS	1	1	2	1	1	1	MIL-F-5602	1	1	1	3	1	4
MAGNESIUM SULFATE (AQ)	1	1	4	2	1	1	MIL-F-7024 A	1	1	3	4	1	4
MAGNESIUM SULFITE	1	1	4	1	1	1	MIL-G-10924	1	1	1	3	1	4
MALATHION	2	2	-	4	1	4	MIL-G-10924 B	1	1	2	4	1	4
MALEIC ACID	3	3	4	4	1	1	MIL-G-15793	1	1	2	4	1	4
MALEIC ANHYDRIDE	4	4	4	-	2	4	MIL-G-18709 A	1	1	1	3	1	4
MALIC ACID	2	2	4	2	1	4	MIL-G-2108	1	1	1	3	1	4
MCS 312	4	4	4	2	1	4	MIL-G-23827 A	1	1	3	3	1	4
MCS 352.463	4	4	4	3	4	1	MIL-G-25013 D	1	1	2	4	1	4
MEK (METHYL ETHYL KETONE)	4	4	4	4	3	1	MIL-G-25537 A	1	1	2	4	1	4
MERCURY	1	1	-	2	1	1	MIL-G-25760 A	2	2	2	4	1	4
MERCURY CHLORIDE (AQ)	2	2	4	1	2	2	MIL-G-27343	1	1	-	4	1	1
MERCURY VAPORS	1	1	-	-	1	1	MIL-G-27617	4	4	-	4	1	1

Ratings: 1 = Minor effect 2 = Moderate effect 3 = Static only 4 = Not recommended - = Insufficient data

(AQ) = Aqueous



## Compound compatibility chart - (cont.)

	Lip material							Lip material					
	R/D	H	P	S	V	M		R/D	H	P	S	V	M
MIL-G-3278	2	1	1	4	1	4	MIL-L-46000 A	1	1	3	3	1	4
MIL-G-5572	1	1	1	4	1	4	MIL-L-46002	1	1	-	3	1	4
MIL-G-4343 B	2	1	1	3	1	2	MIL-L-5020 A	1	1	2	4	1	4
MIL-G-7118 A	2	2	3	4	1	4	MIL-L-6082 A	1	1	2	4	1	4
MIL-G-7187	1	1	1	4	1	4	MIL-L-6082 C	1	1	1	2	1	4
MIL-G-7421 A	2	2	4	4	1	1	MIL-L-6085 A	2	2	3	4	1	4
MIL-G-7711 A	1	1	2	2	1	4	MIL-L-6086 B	1	1	1	3	1	4
MIL-G-81322	1	1	-	3	1	4	MIL-L-6387 A	2	2	2	4	1	4
MIL-H-13862	1	1	1	3	1	4	MIL-L-644 B	1	1	2	3	1	3
MIL-H-13866 A	2	1	1	3	-	4	MIL-L-7645	2	2	3	3	1	4
MIL-H-13910 B	1	1	3	4	1	1	MIL-L-7808 C	2	2	2	3	1	4
MIL-H-13919 A	1	1	1	3	1	4	MIL-L-7808 F	1	1	2	2	1	4
MIL-H-19457 B	4	4	4	4	3	1	MIL-L-7808 H	1	1	2	3	1	4
MIL-H-22072	1	1	3	2	2	1	MIL-L-7870 A	1	1	1	4	1	4
MIL-H-22251	2	2	-	4	1	1	MIL-L-8383 B	1	1	1	3	1	4
MIL-H-25598	1	1	1	3	1	4	MIL-L-9000 F	1	1	2	4	1	4
MIL-H-27601 A	2	2	2	4	1	4	MIL-L-9236 B	2	2	3	4	1	4
MIL-H-46001 A	1	1	1	3	1	4	MIL-M-5559A	1	1	3	2	2	1
MIL-H-46004	1	1	1	3	1	4	MIL-O-11773	1	1	3	3	1	4
MIL-H-5606 B RED OIL	1	1	2	4	1	3	MIL-O-5606	1	1	2	3	1	-
MIL-H-6083 C	1	1	1	4	1	4	MIL-O-6081 C	1	1	1	4	1	4
MIL-H-7083 A	1	1	3	2	2	1	MIL-O-7808	2	2	2	3	1	4
MIL-H-7644	2	2	2	4	1	1	MIL-P-12098	2	2	2	2	1	1
MIL-H-81019 B	1	1	3	3	1	1	MIL-P-27402	2	2	-	4	-	1
MIL-H-83282	1	1	2	4	1	4	MIL-P-46046 A	2	2	2	4	1	1
MIL-H-8446 B (MLO-8515)	2	2	-	4	1	4	MIL-S-21568 A	1	1	1	4	1	4
MIL-I-8660B	1	1	1	4	1	1	MIL-S-3136 B TYPE I	2	1	2	4	1	4
MIL-I-27686 D	1	1	3	2	2	1	MIL-S-3136 B TYPE II	2	2	2	4	1	4
MIL-J-5161 F	1	1	2	4	1	4	MIL-S-3136 B TYPE III	2	2	2	4	1	4
MIL-J-5624 G JP-3, JP-4, JP-5	1	1	3	4	1	4	MIL-S-3136 B TYPE IV	1	1	1	2	1	4
MIL-L-10295 A	1	1	1	3	1	4	MIL-S-3136 B TYPE V	1	1	1	3	1	4
MIL-L-10324 A	1	1	1	4	1	4	MIL-S-3136 B TYPE VI	1	1	1	3	1	4
MIL-L-11734 B	1	1	3	1	1	4	MIL-S-3136 B TYPE VII	1	1	1	4	1	4
MIL-L-14107 B	3	2	-	4	1	4	MIL-S-81087	1	1	1	3	1	4
MIL-L-15016	1	1	1	4	1	4	MIL-T-9188 B	4	4	4	4	4	1
MIL-L-15017	1	1	1	4	1	4	MINERAL OIL	1	1	1	2	1	4
MIL-L-15018 B	1	1	1	3	1	4	MINERAL SPIRITS	1	1	1	4	1	4
MIL-L-15019 C	1	1	1	3	1	4	MOBILFLUID 424	1	1	2	4	1	4
MIL-L-15719 A	2	2	2	4	1	2	MOBILITH 220	1	1	1	2	1	4
MIL-L-16958 A	1	1	1	3	1	4	MOBILITH #2	1	1	1	2	1	4
MIL-L-17331 D	1	1	1	4	1	4	MOBIL GLYGOYLE	1	1	4	1	2	1
MIL-L-17353 A	1	1	-	3	1	4	MOBIL SHC 50T	2	1	1	3	1	4
MIL-L-17672 B	1	1	1	3	1	4	MOBILITH SHC 007	1	1	1	2	1	4
MIL-L-18486 A	1	1	1	3	1	4	MOBIL SHC 525	2	1	-	4	1	4
MIL-L-19457	1	1	1	3	1	4	MOBIL SHC 624	1	1	4	4	3	4
MIL-L-19701	1	1	3	4	1	4	MOBIL SHC 626	2	1	4	4	3	4
MIL-L-2104 B	1	1	1	4	1	4	MOBIL SHC 629	2	1	4	4	3	4
MIL-L-2105 B	1	1	1	3	1	4	MOBIL SHC 630	2	1	3	4	2	4
MIL-L-2105 C (API GL-5)	2	2	-	4	1	-	MOBIL SHC 632	2	1	2	4	1	4
MIL-L-21260	1	1	1	4	1	4	MOBIL SHC 634	2	1	1	4	1	4
MIL-L-22396	1	1	1	3	1	4	MOBIL SHC 75W90	1	1	1	4	1	4
MIL-L-23699 A	2	2	3	4	1	4	MONOETHANOLAMINE	2	2	3	4	4	1
MIL-L-25336 B	1	1	3	3	1	4	MONOBROMOBENZENE	4	4	4	4	1	4
MIL-L-25681 C	2	2	2	4	1	1	MONOCHLOROBENZENE	4	4	4	4	1	4
MIL-L-25968	1	1	3	3	1	4	MONOMETHYL ANILINE	4	4	4	-	2	4
MIL-L-26087 A	1	1	1	3	1	4	MONOMETHYL ETHER	2	2	4	-	2	1
MIL-L-27694 A	1	1	-	4	1	1	MONOMETHYL HYDRAZINE	2	2	4	4	-	1
MIL-L-3150 A	1	1	2	4	1	4	MONONITROTOLUENE	4	4	4	4	2	4
MIL-L-3503	1	1	2	4	1	4	MOPAR BRAKE FLUID	3	2	4	3	4	1
MIL-L-3545 B	1	1	1	4	1	4	MOTOR OIL, HYDROCARBON	1	1	1	2	1	4

Ratings: 1 = Minor effect 2 = Moderate effect 3 = Static only 4 = Not recommended - = Insufficient data (AQ) = Aqueous

Compound compatibility chart - (cont.)

	Lip material							Lip material					
	R/D	H	P	S	V	M		R/D	H	P	S	V	M
MUSTARD GAS	4	4	4	1	1	1	PARALKETONE	4	4	-	4	4	4
MYSTIC SYNGUARD SX-7000 75W90	2	1	2	4	1	4	PARKER O-LUBE	1	1	1	2	1	4
MYVACET 9-45	-	-	-	1	-	-	P-CYMENE	4	4	4	4	1	4
NAOC 1	1	1	-	-	1	-	P-D-680	1	1	3	4	1	4
NAPHTHA	1	1	2	3	1	4	P-D-680B	1	1	3	4	1	4
NAPHTHAENIC ACID	2	2	2	4	1	2	PEANUT OIL	1	1	1	1	1	3
NAPHTHALENE	3	3	4	4	1	4	PENTANE, 2 METHYL	1	1	1	4	1	4
NATURAL GAS	1	1	2	4	1	4	PENTANE, 2-4 DIMETHYL	1	1	1	4	1	4
NEATSFOOT OIL	1	1	2	2	1	2	PENTANE, 3 METHYL	1	1	1	4	1	4
NEON	1	1	1	2	1	1	PENNZOIL SYNTHETIC G.O. 80W90	2	1	2	4	2	4
NEVILLE ACID	4	4	-	4	1	2	PERCHLORIC ACID	4	4	-	4	2	2
N-HEPTANE	1	1	2	4	1	4	PERCHLOROETHYLENE	4	4	4	4	1	4
N-HEXALDEHYDE	4	4	-	4	4	1	PETROLEUM - ABOVE 250 DEG. F.	2	1	3	4	1	4
N-HEXENE-1	2	2	2	4	4	4	PETROLEUM - BELOW 250 DEG. F.	1	1	2	4	1	4
NICKEL ACETATE (AQ)	2	2	4	4	4	1	PHENOL (CARBOLIC ACID)	4	4	4	2	1	4
NICKEL CHLORIDE (AQ)	2	2	4	1	1	2	PHENOL, 70%/30% WATER)	4	4	4	4	1	4
NICKEL SALTS	1	1	3	1	1	1	PHENOL, 85%/15% WATER)	4	4	4	4	1	4
NICKEL SULFATE (AQ)	1	1	3	1	1	1	PHENYL ETHYL ETHER	4	4	-	4	3	4
NITER CAKE	1	1	4	1	1	1	PHENYL HYDRAZINE	4	4	4	4	1	3
NITRIC ACID - RED FUMING	4	4	4	4	2	4	PHENYLBENZENE	4	4	4	4	1	4
NITRIC ACID (CONC.)	4	4	4	3	1	3	PHORONE (DISOPROPYLIDENE)	4	4	4	4	4	1
NITRIC ACID (DILUTE)	4	4	4	2	1	2	PHOSPHATE ESTERS	4	4	4	4	4	1
NITROBENZENE	4	4	4	3	3	1	PHOSPHORIC ACID - 20%	2	2	4	1	1	1
NITROBENZINE	1	1	-	4	1	4	PHOSPHORIC ACID - 45%	4	4	4	2	1	1
NITROETHANE	4	4	4	4	4	2	PHOSPHORIC ACID, CONCENTRATED	4	4	4	3	1	2
NITROGEN	1	1	1	1	1	1	PHOSPHORUS TRICHLORIDE	4	4	4	-	1	1
NITROGEN TETROXIDE	4	3	4	4	4	3	PICKLING SOLUTION	4	4	4	4	1	3
NITROMETHANE	4	4	4	4	4	1	PICRIC ACID	4	4	4	4	2	2
NITROPROPANE	4	4	4	4	4	2	PINE OIL	1	1	2	4	1	4
NO. 5 CM COOLANT	4	2	-	4	4	1	PINENE	2	2	4	4	1	4
N-OCTANE	1	1	3	4	1	4	PIPERIDINE	4	4	4	4	4	4
N-PENTANE	1	1	3	4	1	4	PLATING SOLUTION - CHROME	4	4	4	4	1	1
N-PROPYL ACETATE	4	4	-	4	4	2	PLATING SOLUTION - OTHERS	2	2	4	4	1	1
O-A-548A	1	1	3	2	2	1	POLYALKYLENE GLYCOL	1	1	4	4	1	1
O-CHLORONAPHTHALENE	4	4	4	4	2	4	POTASSIUM ACETATE (AQ)	2	2	4	4	4	1
O-CHLOROPHENOL	4	4	4	4	2	4	POTASSIUM CHLORIDE (AQ)	2	2	2	4	1	1
OCTACHLOROTOLUENE	4	4	4	4	1	4	POTASSIUM CUPRO CYANIDE (AQ)	1	1	1	1	1	1
OCTADECANE	1	1	2	4	1	4	POTASSIUM CYANIDE (AQ)	1	1	1	1	1	1
OCTYL ALCOHOL	1	1	4	2	1	1	POTASSIUM DICHROMATE (AQ)	1	1	1	1	1	1
O-DICHLOROBENZENE	4	4	4	4	2	4	POTASSIUM HYDROXIDE (AQ)	2	2	3	2	1	1
OIL #15 (MIL-L-7808A)	2	1	4	4	1	4	POTASSIUM NITRATE (AQ)	1	1	1	1	1	1
OLEIC ACID	1	1	2	4	1	3	POTASSIUM SALTS	1	1	1	1	1	1
OLEUM (FUMING SULFURIC ACID)	4	4	4	4	2	4	POTASSIUM SULFATE (AQ)	1	1	1	1	1	1
OLEUM SPIRITS	2	2	-	4	1	4	POTASSIUM SULFITE	1	1	4	1	1	1
OLIVE OIL	1	1	2	4	1	3	PRESTONE ANTI FREEZE	1	1	4	1	1	1
ORANGE OIL	1	1	-	4	1	-	PRL-HIGH TEMP HYDR OIL	2	1	1	1	1	4
ORONITE 8200 (SEE MIL-H-8446B)	2	2	3	4	1	4	PRODUCER GAS	1	1	2	2	1	4
ORTHOCHLORO ETHYL BENZENE	4	4	4	4	1	4	PROPANE	1	1	4	2	1	4
OS 45 TYPE III (OS45)	2	2	4	4	1	4	PROPANE PROPIONITRILE	1	1	1	4	1	4
OS 45 TYPE IV (OS45-1)	2	2	4	4	1	4	PROPYL ACETONE	4	4	4	4	4	1
OS 70	2	2	-	4	1	4	PROPYL ALCOHOL	1	1	4	3	2	1
O-T-634B	2	2	-	4	1	4	PROPYL NITRATE	4	4	4	3	1	2
OXALIC ACID	2	2	-	2	1	1	PROPYLENE	4	4	4	4	1	4
OXYGEN - (200 - 400 DEGREES F.)	4	2	2	2	1	2	PROPYLENE OXIDE	4	4	4	4	4	2
OXYGEN - COLD	4	1	1	1	2	1	PYDRAUL 10E	4	4	4	4	1	1
OZONE	4	1	1	1	1	1	PYDRAUL 115E, 230E, 312C, 540C	4	4	4	4	1	4
PAINT THINNER, DUCO	4	4	4	1	1	4	PYDRAUL 29ELT, 30E, 50E, 65E, 90E	4	4	4	1	1	2
PALMITIC ACID	1	1	4	4	1	2	PYRANOL	1	1	4	3	1	4
PARA-DICHLOROBENZENE	4	4	4	4	1	4	PYRANOL, TRANSFORMER OIL	1	1	1	4	1	4
PARAGON EP-3 GREASE	1	1	2	2	1	4	PYRIDINE	4	4	4	4	4	2

Ratings: 1 = Minor effect 2 = Moderate effect 3 = Static only 4 = Not recommended - = Insufficient data

(AQ) = Aqueous

## Compound compatibility chart - (cont.)

	Lip material							Lip material					
	R/D	H	P	S	V	M		R/D	H	P	S	V	M
PYROGARD 42,43,53,55	4	4	4	4	1	1	SODIUM PHOSPHATES (AQ)	1	1	1	4	1	2
PYROGARD C, D	1	1	4	2	1	4	SODIUM SALT	1	1	1	1	1	1
PYROLIGNEOUS ACID	4	4	4	1	4	2	SODIUM SILICATE (AQ)	1	1	-	1	1	1
PYROLUBE	4	4	4	2	1	2	SODIUM SULFATE (AQ)	1	1	4	1	1	1
PYRROLE	4	4	4	2	4	4	SODIUM SULFITE	1	1	4	1	1	1
QUAKER 613-AS	4	4	4	2	4	1	SODIUM SULPHIDE	1	1	4	1	1	1
RADIATION	2	2	3	1	4	2	SODIUM THIOSULFATE (AQ)	1	1	4	1	1	1
RAPESEED OIL	1	1	2	4	1	1	SOLVASOL #1, 2, 3	2	2	2	4	1	4
RED LINE 100 OIL	1	1	1	4	1	4	SOLVASOL #73, 74	2	2	2	4	1	4
RED OIL (MIL-H-5606)	1	1	2	4	1	3	SOYBEAN OIL	2	1	1	4	1	3
RESCO ULTRA-KOATE XP	1	1	3	1	2	1	SPRY	1	1	1	1	1	2
RJ-1 (MIL-F-25558B)	1	1	1	4	1	4	SR-10 FUEL	1	1	2	4	1	4
PONEX MP GREASE	1	1	1	2	1	4	SR-6 FUEL	2	2	2	4	1	4
RP-1 (MIL-F-25576C)	1	1	1	4	1	4	STANNIC CHLORIDE (AQ)	1	1	-	2	1	1
SAE 30	1	1	1	3	1	4	STANNOUS CHLORIDE (AQ)	1	1	-	-	1	2
SAE 90	1	1	1	1	1	4	STAUFFER 7700	2	2	2	4	1	4
SAE 90 EP (GL-5)	1	1	1	4	1	4	STEAM OVER 300 DEG F. (WATER)	4	4	4	4	3	1
SAL AMMONIAC	1	1	1	3	1	1	STEAM UNDER 300 DEG F. (WATER)	4	4	4	3	2	1
SALICYLIC ACID	2	2	4	2	1	1	STEARIC ACID	1	1	4	2	2	2
SALT WATER	1	1	4	1	1	1	STODDARDS SOLVENT	1	1	1	4	1	4
SANTO SAFE 300	4	4	4	1	1	3	STYRENE	4	4	4	4	2	4
SEWAGE	1	1	4	1	1	1	SUCROSE SOLUTION	1	1	2	1	1	1
SHELL ALVANIA GREASE #2 & #3	1	1	1	2	1	4	SULFITE LIQUORS	2	2	4	4	1	2
SHELL CARNEA 19 AND 29	1	1	1	2	1	4	SULFUR CHLORIDE (AQ)	4	4	4	3	1	4
SHELL DIALA	1	1	-	4	1	4	SULFUR DIOXIDE (DRY)	4	4	4	2	1	2
SHELL 3XF MINE FLUID (FIRE REST)	1	1	4	-	1	4	SULFUR DIOXIDE (WET)	4	4	4	2	2	2
SHELL IRUS 902 & 905	1	1	1	4	1	4	SULFUR DIOXIDE LIQUID	4	4	4	2	2	1
SHELL TELLUS #27 & #33	1	1	1	4	1	4	SULFUR HEXAFLUORIDE	2	2	4	2	3	1
SHELL SPIRAX HD 80W90	1	1	1	4	1	4	SULFUR LIQUORS	2	2	4	4	1	2
SHELL SPIRAX HD 80W140	1	1	1	4	1	4	SULFUR TRIOXIDE	4	4	-	4	1	2
SHELL SPIRAX LONG LIFE EW 80W901	1	1	1	4	1	4	SULFURIC ACID (20% OLEUM)	4	4	4	4	1	4
SHELL UMF (5% AROMATIC)	1	1	1	4	1	4	SULFURIC ACID (CONC.)	4	4	4	4	1	2
SHELL LO HYDRAX 27 AND 29	1	1	-	4	1	4	SULFURIC ACID (DILUTE)	2	2	4	2	1	1
SHELL MACOMA 72	1	1	-	4	1	4	SULFURIC ACID 3 MOLAR	3	3	4	2	1	1
SILICATE ESTERS	1	1	4	4	1	4	SULFUR-MOLTEN	4	2	4	2	1	1
SILICONE GREASES	1	1	1	3	1	1	SULFUROUS ACID	4	4	4	4	1	1
SILICONE OILS	1	1	1	3	1	1	SUNOCO #3661	1	1	1	4	1	4
SILVER NITRATE	1	1	1	1	1	1	SUNOCO ALL PURPOSE GREASE	1	1	1	4	1	4
SINCLAIR OPALINE CX-EP LUBE	1	1	1	4	1	4	SUNOCO SAE 10	1	1	1	4	1	4
SPELLY SOLVENT B, C, E	1	1	-	-	1	4	SUNSAFE (FIRE RESISTANT HYDR FLUID)	1	1	4	-	1	4
SKYDROL 500	4	4	4	3	4	1	SUPER SHELL GAS	1	1	2	4	1	4
SKYDROL 7000	4	4	4	3	2	1	SWAN FINCH EP LUBE	1	1	1	4	1	4
SOAP SOLUTIONS	1	1	4	1	1	1	SWAN FINCH HYPOID	1	1	1	-	1	4
SOCONY MOBIL TYPE A	1	1	1	4	1	4	TANNIC ACID	1	1	4	2	1	1
SOCONY VACUUM AMV AC781 (GREASE)	1	1	1	4	1	4	TAR, BITUMINOUS	2	2	4	2	1	4
SOCONY VACUUM PD959B	1	1	1	4	1	4	TARTARIC ACID	1	1	4	1	1	2
SODA ASH	1	1	2	1	1	1	TERPINEOL	2	2	-	-	1	3
SODIUM ACETATE (AQ)	2	2	4	1	4	1	TERTIARY BUTYL ALCOHOL	2	2	4	2	1	2
SODIUM BICARBONATE (AQ)	1	1	4	1	2	1	TEXACO MULTIGEAR 85W140	1	1	2	4	1	4
SODIUM BISULFITE (AQ)	2	2	4	1	1	2	TEXACO SYN-STAR 75W90	1	1	2	4	1	4
SODIUM BORATE (AQ)	1	1	4	1	1	1	TEXACO SYN-STAR 80W140	1	1	2	4	1	4
SODIUM CARBONATE (SODA ASH)	1	1	4	1	1	1	TEXACO SYN-TORQ GL-5 75W90	1	1	2	4	1	4
SODIUM CHLORIDE (AQ)	1	1	2	1	1	1	TIN SALTS	1	1	-	2	1	2
SODIUM CYANIDE (AQ)	1	1	-	1	1	1	TOLUENE	3	3	4	4	1	4
SODIUM HYDROXIDE (AQ)	1	1	4	1	1	1	TRANSMISSION FLUID TYPE A	1	1	1	2	1	4
SODIUM HYPOCHLORITE (AQ)	2	2	4	2	2	1	TRICHLOROETHANE	4	4	4	4	1	4
SODIUM METAPHOSPHATE (AQ)	1	1	-	1	1	1	TRICHLOROETHYLENE (TRIAD)	4	4	4	4	1	4
SODIUM NITRATE (AQ)	1	1	-	3	1	1	TRICRESYL PHOSPHATE (TCP)	4	4	4	3	1	1
SODIUM PERBORATE (AQ)	2	2	-	4	1	1	TRITHANOLAMINE (TEA)	2	2	4	4	4	1
SODIUM PEROXIDE (AQ)	2	2	4	3	1	1	TRISODIUM PHOSPHATE (TSP)	1	1	4	1	1	1

Ratings: 1 = Minor effect 2 = Moderate effect 3 = Static only 4 = Not recommended - = Insufficient data (AQ) = Aqueous

## Compound compatibility chart - (cont.)

	Lip material							Lip material					
	R/D	H	P	S	V	M		R/D	H	P	S	V	M
TURBO OIL #35	1	1	1	4	1	4	W-L-800	1	1	1	3	1	4
TURPENTINE	1	1	2	4	1	4	W-L-820B	1	1	1	3	1	4
TYPE I FUEL (MIL-S-3136)	1	1	2	4	1	4	W-L-825A TYPE I	1	1	1	3	1	4
TYPE II FUEL (MIL-L-3136)	3	2	2	4	1	4	W-L-825A TYPE II	1	1	1	3	1	4
TYPE III FUEL (MIL-L-3136)	2	1	2	4	1	4	W-L-825A TYPE III	2	2	2	4	1	4
UCON HYDROLUBE J-4	1	1	4	1	1	1	W-O-526	1	1	1	3	1	4
UCON LUBRICANT 50-HB100	1	1	-	1	1	1	W-P-216A	1	1	1	3	1	4
UCON LUBRICANT 50-HB260	1	1	-	1	1	1	W-P-236	2	2	2	4	1	4
UCON LUBRICANT 50-HB5100	1	1	-	1	1	1	WAGNER 21B BRAKE FLUID	3	3	4	3	4	1
UCON LUBRICANT 50-HB55	1	1	-	1	1	1	WATER (DEIONIZED)	1	1	-	2	1	1
UCON LUBRICANT 50-HB660	1	1	-	1	1	1	WATER (DISTILLED)	1	1	-	3	1	1
UCON LUBRICANT LB-1145	1	1	-	1	1	1	WATER (FRESH)	1	1	4	3	1	1
UCON LUBRICANT LB-135	1	1	-	1	1	1	WATER (SEA)	1	1	4	2	1	1
UCON LUBRICANT LB-285	1	1	-	1	1	1	WEMCO C	1	1	1	4	1	4
UCON LUBRICANT LB-300X	1	1	-	1	1	1	WHISKEY & ALCOHOLIC BEVERAGES	1	1	4	1	1	1
UCON LUBRICANT LB-625	1	1	-	1	1	1	WHITE GAS	1	1	4	1	1	4
UCON LUBRICANT LB-65	1	1	-	1	1	1	WHITE OIL	1	1	1	4	1	4
UCON OIL LB-385 & 400X	1	1	-	1	1	1	WHITE PINE TAR/OIL	2	2	-	4	1	4
ULTRA-VIOLET LIGHT	1	1	-	1	1	1	WINES	1	1	4	1	1	1
UNIVIS 40 (HYDRAULIC FLUID)	1	1	1	4	1	4	WOLMAR SALTS	1	1	2	1	1	1
UNOCAL 85W140	1	1	1	4	1	4	WOOD ALCOHOL	1	1	4	1	3	1
UNIVOLT #35 (MINERAL OIL)	1	1	1	4	1	4	WOOD OIL	1	1	1	4	1	4
VARNISH	2	2	4	4	1	4	XENON	1	1	1	1	1	1
VEGETABLE OILS	1	1	2	1	1	2	XYLENE (XYLOL)	1	1	4	4	1	4
VERSILUBE F-44, F-50 & F55	1	1	1	3	1	3	XYLIDINE (DI-METHYL ANILINE)	4	4	4	4	1	4
VINEGAR	2	2	4	1	1	1	YEAST	1	1	-	2	1	1
VINYL CHLORIDE	4	4	4	-	1	2	ZEOLITES	1	1	-	-	1	1
W-B-680, BRAKE FLUID	2	2	2	4	1	1	ZINC ACETATE (AQ)	1	1	4	-	3	1
W-G-632	1	1	1	3	1	4	ZINC CHLORIDE (AQ)	1	1	4	2	1	1
W-G-671C	1	1	1	3	1	4	ZINC SALTS	1	1	4	1	1	1
W-H-910	3	3	4	4	1	1							
W-I-530A	1	1	1	3	1	4							
W-K-211D	1	1	-	4	1	4							
W-K-220A	1	1	2	4	1	4							
W-L-751B	2	2	2	4	1	4							

(B) Stainless steel case recommended.

Standard steel case suitable for temperatures under 150°F or 66°C. For environmental considerations, SKF uses water-based adhesives whenever possible. Some water base fluids, such as some cutting fluids, can destroy the nitrile/plain steel bond, while the nitrile compound is not affected by the water.




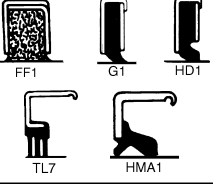
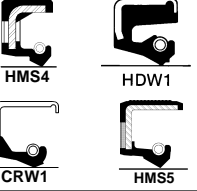


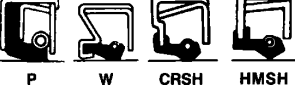



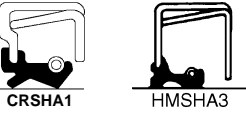

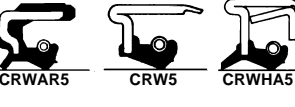
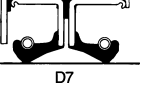



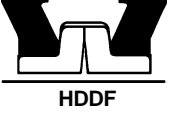
Material shelf life: When kept under common commercial warehouse and distributor store conditions, SKF seals will have a shelf life as shown below:

Nitriles	(HNBR, NBR, XNBR)	5 years +
Fluoroelastomer	(FKM)	10 years +
Silicones	(VMQ)	10 years +

Seals should be protected from dust, light, high temperatures high ozone concentrations, excessive humidity and chemical house environments. These factors are not normally present to a degree that will significantly affect the performance of our product.

Certifications and batch controls are available for specific production runs of seals upon request. Contact SKF for costs and availability.

## Small diameter seals

Group no.	Standard line (Preferred design)	Other or obsolete designs (For reference)	Group description
1	 VR1	 VR2 VR3	All rubber V-Ring seals for dirt exclusion. Hand-fitted; no housing required. Will run against case of seal or housing. For use as primary or secondary seal in motors, conveyors, appliances, tools and general machinery.
2	 HM14 HM21	 FF1 G1 HD1 TL7 HMA1	Non-spring-loaded seal for grease retention or dirt exclusion in applications with slower speeds. Not for oil retention. Install with lip facing outward for maximum dirt exclusion. Typical applications are conveyor rollers and vehicle wheels. Heavy-duty type TL handles severe conditions such as disc harrows.
3	 HMS4 HDW1 CRW1 HMS5	 CRS HMS	Single lip, spring-loaded design without inner cases. Most economical general purpose seals. Typical applications include engines, drive axles, transmissions, pumps, electric motors and speed reducers. Where operating conditions exceed standard materials, type CRW offers a wide range of special materials. **See page 21A for Heavy duty (HDW) waveseal.
4	 CRWH1	 P W CRSH HMSH	Single lip, spring-loaded design with inner cases for greater strength and protection of sealing lip. Recommended where assembly of shaft is against the lip. Type CRWH offers a wide range of special materials. Greater strength generally is not required for seals under 2" in shaft size.
5	 HMSA7 HMSA10 CRWA1	 CRWA6 CRSA HMSA	Dual lip design without inner cases. Provides light dirt exclusion enhancing the service life of the lubricant retaining spring-loaded main lip. Where operating conditions exceed standard materials, CRWA offers a wide range of special materials.
6	 CRWHA1	 CRSHA1 HMSHA3	Dual lip design with inner cases. For greater strength and protection of the sealing lip. Recommended where assembly of the shaft is against the seal lip. Where operating conditions exceed standard material, CRWHA offers a wide range of special materials. Provides medium dirt exclusion.
7	 CRWA5	 CRWAR5 CRW5 CRWHA5	Single and dual lip designs for pressure applications. Capable of operating at internal pressures up to 90 psi. Performs significantly better than conventional lip seals. Can be used to replace some mechanical seals. Ideal for smaller pump and general purpose machinery with pressurized seal cavities. (See page 199.)
8	 D7	 C F	Dual lip, dual element designs. Type D7 to separate two fluids. Type C is available for maximum dirt exclusions. A wide variety of materials are available.
9	 X15	 X X12	External lip seals. Designs press-fit on shaft or spindle with sealing element contacting bore. Spring-loaded styles to handle retention of fluid are also available. All styles may be used with lip facing outward to exclude dirt and permit flushing bearing and seal cavities from within. Commonly used in agricultural equipment.
10	 HDDF		Heavy-duty DF mechanical seals. Dual metal-face constructions, premium materials. Use where positive lubrication retention and dirt exclusion are both required. Installed by hand as a cartridge. Ideal for mixers, mining equipment, grinders, rollers or wherever abrasive contamination would cause failure of other seals.



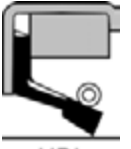


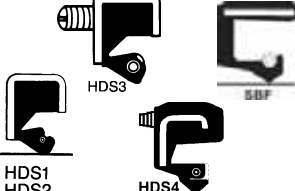

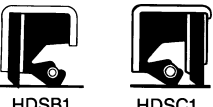




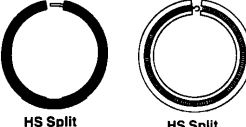









## Recommended operating conditions

Operating temperature range		Lip code ★★	Maximum shaft to bore misalignment (STBM)*		Maximum pressure PSI @ FPM	Maximum shaft surface speed FPM
°F	°C					
-40° to 212°F -50° to 392°F	-40° to 100°C -58° to 200°C	R V	0.4mm (.016") 0.5mm (.020") 0.7mm (.028") 1.2mm (.047") 2.0mm (.079")	20.00-38.00mm(.787-1.496") 40.00-65.00mm(1.574-2.559") 70.00-100.00mm(2.756-3.937") 110.00-150.00mm(4.330-5.906") 160.00-199.00mm(6.299-7.835")	10 PSI	Back-up required: None: 0-1600 FPM Axial: 1600-2000 FPM Axial and Radial: 2000-3000 FPM
-65° to 200°F -65° to 200°F -40° to 300°F -40° to 250°F -100° to 325°F	-54° to 93°C -54° to 93°C -40° to 149°C -40° to 121°C -73° to 163°C	F L P R S	.003" TIR @ 0-2000 RPM	.005" @ 0-2000 FPM except TL .010" @ 0-500 FPM	3 PSI @ 0-2000 FPM except 0 PSI for FF	500 FPM TL 1000 FPM FF 2000 FPM all others
-40° to 300°F -40° to 250°F -100° to 325°F -40° to 400°F	-40° to 149°C -40° to 121°C -73° to 163°C -40° to 204°C	P R S V	.020" TIR @ 0-1000 RPM .015" TIR @ 1000-2500 RPM .010" TIR @ 2500-4500 RPM	.015" @ 0-1000 FPM .010" @ 1000-3600 FPM (See page 21A for Type HDW)	10 PSI @ 0-1000 FPM 5 PSI @ 1000-2000 FPM 0 PSI @ 2000-3600 FPM (HDW: 50-35 PSI)	3600 FPM (Type HDW: 5000 + FPM)
-40° to 300°F -40° to 250°F -100° to 325°F -40° to 400°F	-40° to 149°C -40° to 121°C -73° to 163°C -40° to 204°C	P R S V	.020" TIR @ 0-1000 RPM .015" TIR @ 1000-2500 RPM .010" TIR @ 2500-4500 RPM	.015" @ 0-1000 FPM .010" @ 1000-3600 FPM	10 PSI @ 0-1000 FPM 5 PSI @ 1000-2000 FPM 0 PSI @ 2000-3600 FPM	3600 FPM
-40° to 300°F -40° to 250°F -100° to 325°F -40° to 400°F	-40° to 149°C -40° to 121°C -73° to 163°C -40° to 204°C	P R S V	.020" TIR @ 0-1000 RPM .015" TIR @ 1000-2500 RPM .010" TIR @ 2500-4500 RPM	.015" @ 0-1000 FPM .010" @ 1000-3600 FPM	10 PSI @ 0-1000 FPM 5 PSI @ 1000-2000 FPM 0 PSI @ 2000-3600 FPM	3600 FPM
-40° to 250°F -40° to 300°F	-40° to 121°C -40° to 149°C	R V	.005" TIR @ 0-2000 RPM	.005" @ 0-2000 FPM	90 PSI @ 0 FPM 50 PSI @ 1000 FPM	2000 FPM
-40° to 300°F -40° to 250°F	-40° to 149°C -40° to 121°C	PP RR	.010" TIR @ 0-1000 RPM .005" TIR @ 1000-2500 RPM	.010" @ 0-1000 FPM .005" @ 1000-2000 FPM	10 PSI @ 0-1000 FPM 5 PSI @ 1000-2000 FPM	2000 FPM
Type X -40° to 250°F	-40° to 121°C	R	.010" TIR @ 0-1000 RPM .005" TIR @ 1000-2500 RPM	.015" @ 0-1000 FPM .005" @ 1000-2000 FPM	10 PSI @ 0-1000 FPM 5 PSI @ 1000-2000 FPM	2000 FPM
Type XTL (X15) -40° to 250°F	-40° to 121°C	R	.003" TIR @ 0-2500 RPM	.010" TIR @ 0-500 FPM	3 PSI @ 0-500 FPM	500 FPM
-40° to 250°F	-40° to 121°C	R	.020 - .030"	.020 - .030"	Intermittent to 50 PSI Continuous to 25 PSI	Intermittent to 750 FPM Continuous to 350 FPM

★★ Lip Code: F - Felt; D - Duralip; H - Duratemp; P - Polyacrylate; R - Nitrile; L - Leather; S - Silicone; V - LongLife™; T - PTFE  
\* V-rings seal axially, DRO is normally less important than shaft to bore misalignment. Contact SKF for STBM on shafts < 20.00mm (.787")

## Large diameter seals

Group no.	Standard line (Preferred design)	Other basic line designs	Group description
1	 HDS7	 HDS6	The HDS7 is a metal cased seal with springless lip optimized for superior exclusion and bearing protection from water and particles or for grease retention. Can be combined in common case with other HDS lip elements. Spacer lugs are optional. HDS6 is a rubber O.D. springless seal with integral spacer lugs (limited number of sizes available).
2	 HDL	 HDLA	The HDL is especially designed to operate in high speed, high dynamic run-out conditions that are also subject to misalignment. Features a secure combination cantilever and garter spring. It can accept high-temperatures and demanding operating conditions including paper and steel mills, shredders and crushers. It adds to the capability of HDS1, 4 & 7 lines. The MP version adds a dust-lip while the TE has an external lip for rotating housings or outside facing contact.
3	 HDS2	 HDS1 HDS2 HDS3 HDS4 SBF	HDS metal clad seals have a single spring loaded lip sealing element. HDS1 features Spring-Lock to enclose the garter spring. HDS2 & 3 add Spring-Kover to bond the spring for extra retention. Optional spacer lugs are used to provide a gap between seals for lubrication. HDS3 has standard Duralip material. HDS4 is a rubber O.D. seal with a special lip section that features a molded in garter spring for complete protection from displacement or mechanical distortion. Available in limited size range. The rubber O.D. SBF has a single lip with open spring and no lug option.
4	 HDSA1 HDSA2	 HDSB1 HDSB2 HDSC1 HDSC2	Similar to basic HDS1-3 seals but increases protection against water and scale ingress by adding a dirt-lip (Duralip or leather). Compact, used where there is insufficient groove width for two separate seals. HDSA & B also retain oil. Dust lip selected according to installation direction (HDSA from spring side, HDSB from air side) while HDSC is designed for maximum exclusion (both elements face the contamination).
5	 HDS1 HDS2	 HDSE1 HDSE2	Dual HDS elements in a single case for easier installation. The HDSD with opposed lips is intended for separation of dual media while the HDSE with tandem seal is intended for high exclusion service. Cavity between elements should be packed with lubricant, and lubrication holes in the case can be provided. The type 2 option adds Spring-Kover.
6	 HS Solid	 HS3 HS4 HS5	All rubber, single element, spring-loaded solid seals that minimize bore damage. HS3 has an open groove, the HS4 has a Spring-Lock groove and HS5 adds Spring-Kover which bonds the spring in for retention during difficult assembly or where contamination could affect the spring. All control grease or oil. Requires cover plate for installation.
7	 HS Split HS Split	 HS7 HS8 HS9	All rubber, single element, spring loaded split seals. Especially useful to minimize lost machine time where the shaft cannot be dismantled. The HS6 has a Spring-Lock groove, the HS8 adds Spring-Kover. Both seal oil. For grease retention, the HS9 is an open groove seal with garter spring while the HS7 has a control wire for easy installation particularly where axial space is limited. All require a cover plate for assembly.
8	 HSF5	 HSF6 HSF7 HSF8 HSF9	All rubber, single element, spring-loaded solid seals with fabric reinforced O.D. that minimize bore damage. Optional Spring-Kover. HSF5 has a Spring-Lock groove. HSF6 offers radial grooves for lubrication between stacked seals. HSF7 has radial grooves and circumferential grooves, HSF8 has a dust-lip and HSF9 has a pressure profile. All require a cover plate for assembly.
9	 HSF1	 HSF2 HSF3 HSF4	All rubber, single element, spring loaded split seals with fabric reinforced O.D. that minimize bore damage. Especially useful to minimize lost machine time where the shaft cannot be dismantled. The HSF1 has a Spring-Lock groove, the HSF2 has radial grooves for lubrication between stacked seals, the HSF3 has radial and circumferential grooves while HSF4 has a dust-lip. All require a cover plate for assembly.
10	 VR4	 VR1 VR3 VR5	All rubber V-ring seal. Mounts directly on the shaft and seals axially against the counterface, housing, etc. Used as the primary or secondary back-up seal. Elasticity allows positioning without unit disassembly. Seals for shafts 16,000" (405 mm) and over can be cut and respliced on location to ease installation.

## Recommended operating conditions

Operating temperature range		Lip code ★ ★	Max pressure range	Maximum Shaft to bore misalignment (STBM)	Maximum shaft dynamic runout (DRO)	Maximum shaft surface speed FPM	Ease of installation	Ability to seal light lubes and excl. water
°F	°C							
-40° to 250°F -65° to 225°F -40° to 300°F	-40° to 121°C -54° to 107°C -40° to 149°C	R D H	Not recommended	0.062" (1.57mm)	0.093" TIR (2.36mm)	5,000+ FPM (25.4 M/S)	Excellent	Excellent (grease retention only)
-40° to 250°F -40° to 300°F -40° to 400°F	-40° to 121°C -40° to 149°C -40° to 204°C	R H V	10-15 PSI (.07-.103 MPa)	0.098" (2.5mm)	0.093" TIR (2.36mm)	5000+ FPM (25.4 M/S)	Good	Excellent incl. high speeds and misalignment
-40° to 250°F -65° to 225°F -40° to 300°F -40° to 400°F	-40° to 121°C -54° to 107°C -40° to 149°C -40° to 204°C	R D H	10-15 PSI (.07-.103 MPa)	0.062" (1.57mm)	0.093" (2.36mm)	5000+ FPM (25.4 M/S)	Excellent(HDS2, 3) Good(HDS1)	Excellent for grease and oil lubricants
-40° to 250°F -65° to 225°F -40° to 300°F -40° to 400°F	-40° to 121°C -54° to 107°C -40° to 149°C -40° to 204°C	R D H V	10-15 PSI (.07-.103 MPa)	0.062" (1.57mm)	0.093" (2.36mm)	5000+ FPM (25.4 M/S)	Excellent to good, varies with equipment design.	Excellent (HDSC exclusion only)
-40° to 250°F -65° to 225°F -40° to 300°F -40° to 400°F	-40° to 121°C -54° to 107°C -40° to 149°C -40° to 204°C	R D H V	10-15 PSI (.07-.103 MPa)	0.062" (1.57mm)	0.093" (2.36mm)	5000+ FPM (25.4 M/S)	Excellent(HDSD & E2) Good(HDSD & E1)	Excellent
-40° to 250°F -65° to 225°F -40° to 300°F -40° to 400°F	-40° to 121°C -54° to 107°C -40° to 149°C -40° to 204°C	R D H V	10-15 PSI (.07-.103 MPa) for HS4 & 5 HS3 to 5 PSI (.03 MPa)	0.062" (1.57mm)	0.093" (2.36mm)	HS3 2000/10.2 M/S HS4 3000/15.2 M/S HS5 2500/12.7 M/S	Excellent(HS4, 5) Good(HS3)	Excellent(HS4, 5) Good(HS3)
-40° to 250°F -65° to 225°F -40° to 300°F -40° to 400°F	-40° to 121°C -54° to 107°C -40° to 149°C -40° to 204°C	R D H V	Not Recommended	0.062" (1.57mm)	0.093" (2.36mm)	HS6 2000/10.2 M/S HS7 1500/7.62 M/S HS8 2000/10.2 M/S HS8 1500/7.62 M/S	Fair (HS6, HS9) Excellent (HS7) Good (HS8)	Fair (HS7, HS9) Good (HS8)
-40° to 250°F -40° to 400°F	-40° to 121°C -40° to 204°C	R V	5 PSI (.03 MPa)	0.060" (1.5mm)	0.093" (2.36mm)	5000+ FPM (25.4 M/S) depending on the operating cond.	Good to Excellent depending on mounting space	Excellent
-40° to 250°F -40° to 400°F	-40° to 121°C -40° to 204°C	R V	Not Recommended	0.060" (1.5mm)	0.093" (2.36mm)	5000+ FPM (25.4 M/S) depending on the operating conditions	Fair to Good depending on mounting space	Good
-40° to 250°F -9° to 300°F (Dynamic)	-40° to 121°C -23° to 149°C	R V	Not Recommended	Shaft Dia. To 7.835"(199mm) 7.875" Up(200mm)	Max STBM .079"(2.0mm) .157"(4.00mm)	Support @ FPM Required: None: 1-1600 FPM Axial: 1600-2000 FPM Axial and Radial: 2000-3000 FPM	Excellent	Excellent when operated as an excluder

★ ★ Lip Code: F - Felt; D - Duralip; H - Duratemp; P - Polyacrylate; R - Nitrile (Buna); L - Leather; S - Silicone; V - LongLife™; T - PTFE

## Waveseal®

The only standard stock line of molded lip, bi-rotational hydrodynamic shaft seals available anywhere. The *Seal handbook* (457010) lists 2000 + part numbers in over 200 shaft sizes (inch and metric) from .250" through 12.250". Choices allow selection of inner case, dust lip or pressure profiles as needed to solve specific application problems. Rubber materials include nitrile, LongLife™ fluoroelastomer, silicone and polyacrylate to accommodate a wide range of operating conditions.

### Zero-interference

The double-lip Waveseals, CRWA1 and CRWA1 designs, have a special zero-interference dirt lip. It acts as a dirt excluder without actually touching the shaft. There is no heat build-up under the dirt lip because there is no friction and the zero-interference dirt lip reduces the possibility of trapping contamination at the shaft. The primary Waveseal lip provides cool-running, long-lasting, hydrodynamic benefits without the adverse effects of most conventional double lip seals.

### Waveseal features:

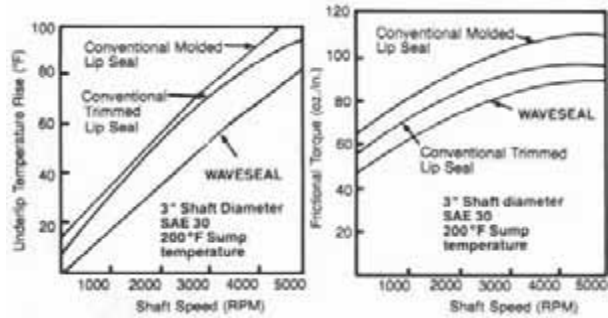
- Bi-rotational, hydrodynamic radial lip design
- Smooth molded lip
- Provides exceptional sealing performance with less lip pressure and a wider contact pattern than required by conventional trimmed lip seals (including other hydro-dynamic types)
- Generates a hydrodynamic action that provides better lip lubrication and greatly reduces shaft wear
- Pumps lubricant in while sealing out contaminants
- Boretite coating on seal O.D.

### Waveseal benefits:

- Allows seal to run cooler
- Creates less drag
- Reduces shaft wear
- Extends seal service life
- Ingests fewer contaminants
- Maintains fresh oil film
- Bore-Tite fills small bore imperfections and resists heat and chemical attack

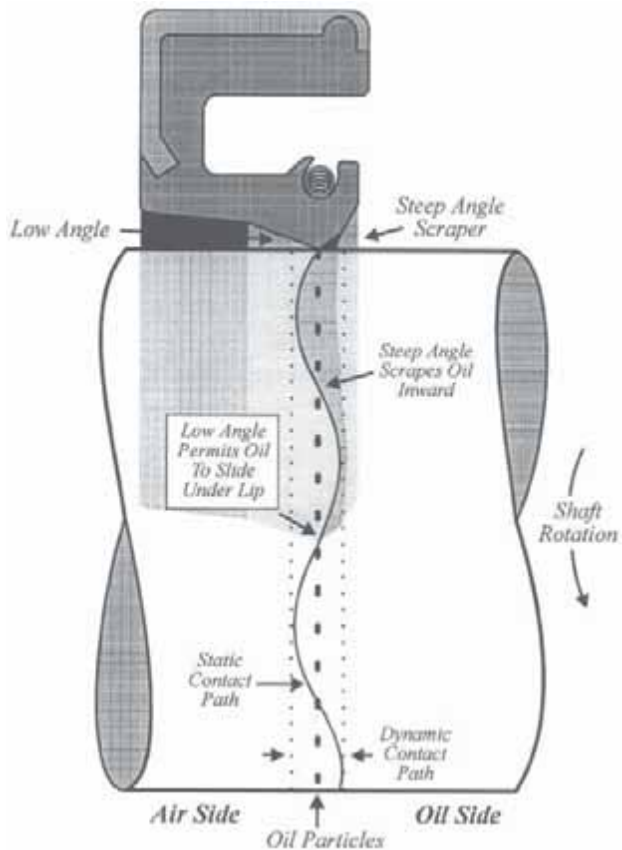


Conventional trimmed lip has sharp edge & rough surface on lube side.



**Underlip temperature rise vs. shaft speed.** At 2,000 rpm, the Waveseal offers up to 35% less heat built-up under the lip than conventional lip seals.

**Frictional torque vs. shaft speed.** At 2,100 rpm, the Waveseal offers more than 20% less frictional torque than conventional lip seals.



The SKF Waveseal touches the shaft in a wide 'sine' or wave pattern. Due to this unique design, contact pressure and grooving are minimized, heat generation and friction are reduced. Lubricant is pumped back to the bearing while dirt is pushed away from the lip/shaft interface.

## Heavy-duty waveseal

### Capabilities

Seal tests conducted on a 6.250" shaft had a mean life of more than 900 hours for the SKF HDW seal vs less than 40 hours for brand "X" seals. Proven in SKF's standard line seals, the Waveseal design features promoting extended seal life are incorporated in the HDW heavy-duty Waveseal.

### Temperature range

**Nitrile** ..... -40°/+250°F (-40°/+121°C)

### Operating pressures

..... 50 psi static  
 ..... 35 psi dynamic

**Shaft speed** ..... 3600 FPM under 8" shaft dia.

..... 5000 FPM over 8" shaft dia.

**STBM/TIR** ..... 0.020"

### Application data

For shafts 5" and larger, the SKF HDW seal is designed for general use as a grease or oil retainer on heavy duty rotating applications, such as found in gear boxes, reducers, winches, drills, grinders, transmissions, motors and rollers.

### User benefits

Proven in SKF's standard line seals, the hydrodynamic molded lip runs 25-30% cooler, and lasts up to three times longer than trimmed lip seals, with 20% less drag on the shaft. The rigid seal body withstands rough handling and the molded springs groove prevents spring pop-out and lip roll-over, while being capable of handling up to 35 psi dynamic for pressure lubrication systems.

### Design features

Standard HDW design features are, a heavy-duty body shell, a molded Spring-Lock lip, Bore-Tite O.D. sealant, a molded smooth lip hydrodynamic sealing element and a stainless steel spring. Axial and radial (I.D./O.D.) cross-sections in compliance with RMA/SAE standards to fit the broadest range of shaft/bore sizes most commonly used.



**HDW1**

### Size, range, materials, availability

All sizes are available from stock. Contact factory for availability of stainless steel case. Stock shaft diameters range from 5" to 7.938". Contact SKF for availability on larger sizes.

## Waveseal for heavy-duty applications

Stock no.	Shaft	Bore	Width	Stock no.	Shaft	Bore	Width	Stock no.	Shaft	Bore	Width
49951	5.000	6.125	0.500	61235	6.125	7.375	0.500	75046	7.500	8.750	0.500
50186	5.000	7.125	0.500	62480	6.250	7.250	0.500	75069	7.500	9.250	0.500
50620	5.063	6.125	0.500	63717	6.375	7.500	0.500	76225	7.625	8.875	0.500
51277	5.125	6.625	0.500	64330	6.438	7.500	0.500	77506	7.750	8.750	0.500
51320	5.125	7.000	0.500	66217	6.625	7.625	0.500	78710	7.875	8.875	0.500
51800	5.188	6.250	0.500	66219	6.625	7.750	0.500	79620	7.938	9.125	0.625
52651	5.250	6.750	0.500	66222	6.625	7.875	0.500				
52655	5.250	7.125	0.500	66230	6.625	8.000	0.500				
53100	5.313	6.375	0.500	67510	6.750	7.750	0.500				
54300	5.438	6.625	0.500	67600	6.750	8.750	0.500				
58709	5.875	6.875	0.500	68730	6.875	8.250	0.500				
58710	5.875	7.000	0.500	68760	6.875	8.500	0.500				
59300	5.938	7.000	0.500	70036	7.000	8.375	0.500				
60009	6.000	7.250	0.500	70041	7.000	8.375	0.500				
60650	6.063	7.500	0.500	71220	7.125	8.250	0.500				
61215	6.125	7.125	0.500	73720	7.375	8.375	0.500				
61230	6.125	7.250	0.500	73730	7.375	8.500	0.500				



## WasteWatcher

### SKF WasteWatcher

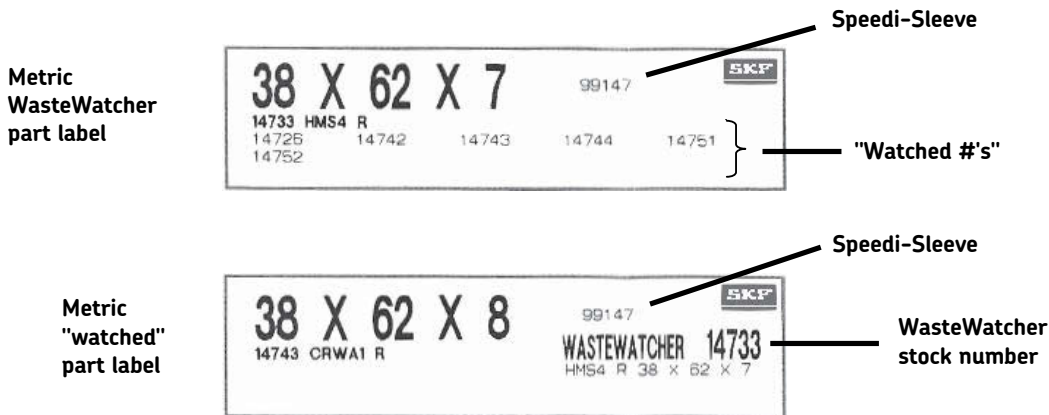
SKF WasteWatcher is a powerful tool developed for our distributors to maximize sales opportunities by streamlining inventories and reducing look-up time, all with fewer stock-keeping-units (SKUs). WasteWatcher numbers are the most popular standard stock number items that have been identified by size and construction type to provide the broadest application coverage. WasteWatcher numbers are usually equal to or narrower than the seals it can replace and are generally the most cost effective part. This allows the WasteWatcher seal to "cover for" different seal design types of the same size to help avoid lost sales.

SKF WasteWatcher inventory stocks are custom planned and built to provide the desired market coverage (service level) that the distributor chooses.

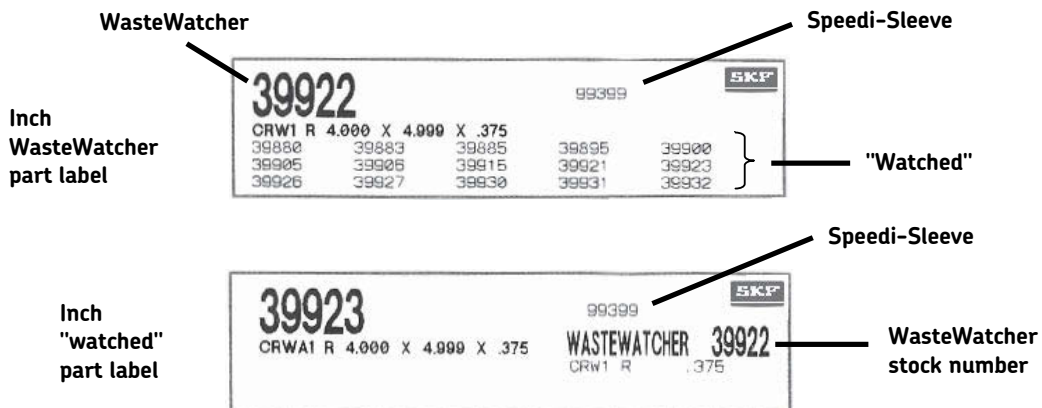
While the SKF Master seal interchange (Catalog #457012) lists over 190,000 interchanges to competitors' item numbers, and this SKF Seal handbook lists over 10,000 seals, the SKF WasteWatcher program allows the distributor to stock the fewest number of seals necessary to achieve the desired coverage level. Programs range from stocking less than 500 part numbers achieving 75% coverage of all inquiries to higher inventory levels with higher rates of coverage.

The SKF WasteWatcher system is complete. All WasteWatcher numbers in this catalog are identified with a triangle (▲) for easy use. For more details on the WasteWatcher system, please contact your SKF Representative for your free copy of WasteWatcher stocking guide #457021.

### New WasteWatcher bin box labels - metric



### New WasteWatcher bin box labels - inch



## Part numbering system and introduction

Since SKF's invention and patent of the first integrated shaft seal in 1928, there has been continuous seal research and development. From a selection limited to leather seals and a handful of sizes, SKF's product line has evolved to a standardized line of bonded, molded lip seals in more than 3,000 stock sizes. Leather, at one time the only sealing element material available, has been almost entirely replaced by modern synthetic rubber compounds.

New manufacturing processes, sealing techniques and the compounding and molding of complex elastomer-based systems are only part of this development. The most significant seal advancement has been SKF's introduction of the Waveseal - a birotational, smooth-lip, hydrodynamic design with unparalleled performance, service life and universal applications.

These advancements underlie the contents of this Seal handbook. Here you will find complete details, including:

- Seal selection, servicing, and troubleshooting.
- Seal types and styles -small and large diameter, solid and split, SKF Waveseals, V-rings, heavy-duty DF seals and axial clamp type seals.
- Shaft and bore requirements.
- Illustrated seal installation instructions.

### SKF Part numbering system

Each SKF stock number identifies the shaft size for which the seal is designed. For small diameter seals, the approximate shaft size is indicated by inserting a decimal point to the left of the last four digits in the number. For example: #54960 (5.4960) indicates a 5.500" (140 mm) shaft. **Note that metric shaft sizes are cataloged by their inch equivalents in the inch size listing section. A complete size listing of metric seals arranged by metric shaft, bore and widths can be found in the metric-complete size listing section.**

For large diameter seals - over 10" (254 mm) in shaft diameter - you can find the approximate shaft size by inserting a decimal point to the left of the last five digits. For example: #1600560 (16.00560) indicates a 16" (406.5 mm) shaft.

Most HDS metal clad seals and split seals under 10.000" (254 mm), as well as all axial clamp type seals



and special designs are listed under the assigned 500,000 series part numbers which do not relate to shaft size.

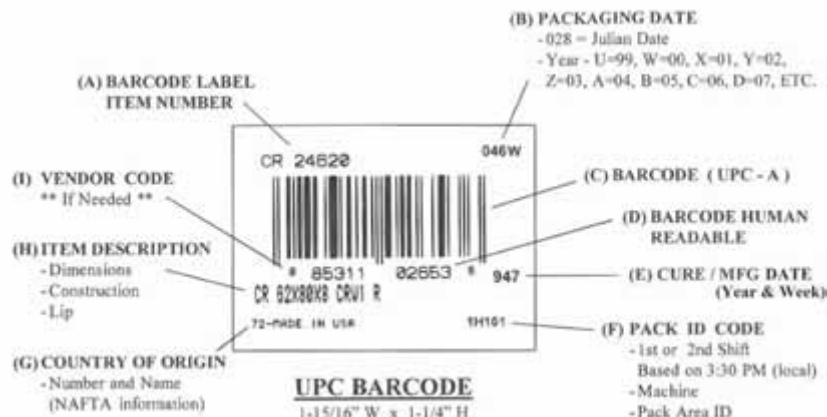
SKF Metric seals include the metric dimensions and additional information directly beneath the stock number on the end flap. This line lists the seal shaft x bore x width in millimeters, the seal construction and lip material code.

### \*\*\* Warning \*\*\*

The SKF seal part number system has been developed by SKF as a support tool for those using and specifying SKF products. Only SKF products are entitled to be designated or identified by these numbers. Use of the SKF seal part numbering or designation system by others constitutes infringement of SKF's proprietary rights, including protection afforded by U.S. and foreign copyright laws, trademark laws, and the laws of unfair competition.

Questions concerning possible misuse or improper use of these numbers, or requests for permission to use such numbers, should be placed in writing and addressed as follows:

SKF Automotive Division  
890 N. State St., Suite 200  
Elgin, Illinois 60123  
Attn: Catalog Manager



## Selecting replacement seals

### How to select replacement seals

**Part number:** A seal normally bears a part number which can be identified through the SKF Master interchange (Catalog #457012) or the numerical index (pgs. 232-363) in this handbook.

**Size:** If there is no number or if the number is illegible, replacements can be selected by matching the sizes to those listed. If an equivalent seal in the same width is not available, select one slightly narrower, or wider if the bore depth permits.

**Estimating shaft diameter:** At times, seals are not only unmarked, they also have missing sealing elements making size estimation even more difficult. The following charts can help to determine an approximate shaft size, with or without a sealing element, keeping in mind that seal designs vary among manufacturers.

Shaft diameter approximation

Lip inside diameter range	Add to lip I.D.	Metal inside diameter range	Subtract from metal I.D.
Up to 1.000"	.031"	Up to 1.390"	.109"
1.001 - 2.000"	.047"	1.391 - 2.203"	.171"
2.001 - 6.000"	.063"	2.204 - 2.952"	.203"
6.001 - 8.000"	.094"	2.953 - 4.296"	.234"
8.001 - 12.000"	.125"	4.297" Up	.250"

**Example**

1.464 + .047 = 1.511  
(use seal designed for 1.500" or 38 mm shaft)

**Example**

1.790 - .171 = 1.619  
(use seal designed for 1.625" or 41 mm shaft)

**Seal design:** With the size identified, a style or design may be selected. In many applications it is possible to substitute different seal designs. The recommended operating condition charts (pgs. 16A-19A) are helpful in selecting the most appropriate seal design and type.

**Operating conditions:** Check the operating limits for the SKF seal selected and refer to the operating conditions charts (pgs. 16A-19A). If a lip material to match the old seal cannot be found in the size listings, contact SKF for assistance.

**Pressure:** Most seals are designed for maximum service life at 0 psi. As pressure increases, service life usually decreases. Bonded seals in this catalog are normally suitable for use with pressures up to 10 psi., however, the CRW5 and CRWA5 pressure seals are designed for pressures to 50 psi dynamic / 90 psi static.

**Sealing element materials:** For sealing lip materials, refer to the material and compound selection guide (page 3A) and compound compatibility chart (pages 6A-15A).

**Special note:** The SKF Waveseal is designed to pump lubricants back into the sump. The spring side of the seal should therefore normally face the lubricant. If contaminant exclusion is more important than lubricant retention, the seal may be turned around. However, a loss of lubricant is to be expected.

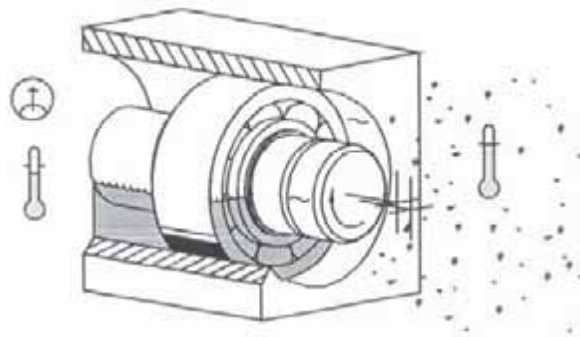
### How to select seals for new applications

If the type of seal required is known, refer directly to the size listing (pgs. 1-124) and select the size. Specify **preferred designs** (identified in size listings in bold print) whenever possible. For specific seal selection guidelines, refer to the recommended operating conditions charts for small diameter seals or large diameter seals. Each includes ample information to make a preliminary selection of seal types. The final choice can be made from the size listings.

### Selecting alternate materials

Caution should be observed when changing or substituting lip compounds. Hardening, swell or other effects can occur which can significantly reduce service life.

Technical questions can be answered by calling the SKF toll-free line: 1-800-882-0008.



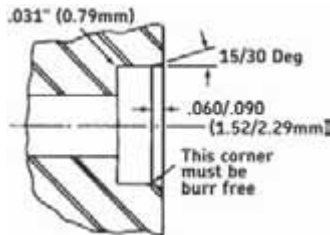
The bore requirements

In addition to the application, characteristics and makeup of the seal, conditions of the bore and shaft must be checked prior to seal mounting. These include configuration, tolerance, hardness, materials, and finish of both shaft and bore, plus shaft speed and eccentricity.

Requirements for the bore and shaft appear on these two pages. Special installation and mounting requirements, other than those listed below, appear within the appropriate seal sections.

Bore configurations

The lead corner, or entering edge, of the bore should be chamfered (as shown below) and free of burrs. The inside corner of the bore should have a maximum radius of .031" (.079 mm).



Bore tolerance

SKF seals are manufactured to RMA/ISO/DIN standards. Seal O.D.'s are manufactured larger than the bore diameter to assure the proper press-fit interference.

The bore tolerances in these charts apply only to ferrous metals. For aluminum housings, no change is needed if rubber O.D. seals are used. Metal O.D. seals and bore diameters greater than 3.000" (76.20mm) and at temperatures above 300°F (149°C), reduce the nominal bore diameter by .001" (.03mm).

**Note:** The metal case or rubber-covered O.D. is determined by averaging at least three measurements taken at equally spaced positions.

In an inch size stepped bore the depth should exceed the width of the seal by a minimum of .016" (.04mm). For metric sizes add .30mm (.012") to the seal width. For HS and HSF designs, see pages 32A-35A "HS solid and split seals".

Bore hardness

No specific Rockwell hardness is recommended; however, bore hardness should be high enough to maintain interference with the seal's outside diameter.

Bore material

Ferrous and other commonly used metallic materials, like aluminum, are acceptable. However, when non-ferrous bore materials are used, the differential rates of thermal expansion must be considered. Call SKF for an evaluation. For assistance with bore materials, contact your SKF distributor.

Bore finish

A finish of 100 microinches Ra (2.5 micrometers) or smoother should be maintained on applications where a lubricant head up to 3 P.S.I. (20 kPa) is present against the outside diameter of the seal. For aluminum, the finish should be 100 to 200 micro inches Ra (2.5 to 5.0 micro.)

Bore tolerance charts

Inches

Bore diameter	RMA 05-4	Nominal press-fit		Seal O.D. tolerance	
	Bore tolerance	Metal O.D.	Rubber O.D.	Metal O.D.	Rubber O.D.
Up to 2.000	.001	.005	.008	.002	.003
2.001 to 3.000	.001	.0055	.010	.0025	.003
3.001 to 5.000	.0015	.0065	.0105	.003	.003
5.001 to 7.000	.0015	.007	.012	.003	.004
7.001 to 12.000	.002	.0085	.0125	.0035	.004
12.001 to 20.000	.003	.012	.015	.005	.005
20.000 to 40.000	.004	.013	.018	.005	.006
40.001 to 60.000	.006	.016	.020	.006	.007

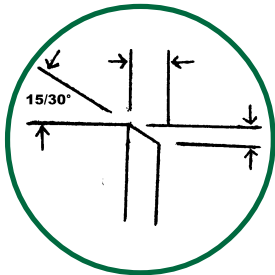
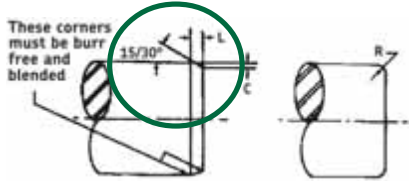
Millimeters

Diameter	(ISO/H8) Bore tolerance	Seal O.D. diametral tolerance	
		Metal case	Rubber covered
Over 6 to 10	+ 0.022 - 0.000	+ 0.20 + 0.08	+ 0.30 + 0.15
Over 10 to 18	+ 0.027 - 0.000	+ 0.20 + 0.08	+ 0.30 + 0.15
Over 18 to 30	+ 0.033 - 0.000	+ 0.20 + 0.08	+ 0.30 + 0.15
Over 30 to 50	+ 0.039 - 0.000	+ 0.20 + 0.08	+ 0.30 + 0.15
Over 50 to 80	+ 0.046 - 0.000	+ 0.23 + 0.09	+ 0.35 + 0.20
Over 80 to 120	+ 0.054 - 0.000	+ 0.25 + 0.10	+ 0.35 + 0.20
Over 120 to 180	+ 0.063 - 0.000	+ 0.28 + 0.12	+ 0.45 + 0.25
Over 180 to 250	+ 0.072 - 0.000	+ 0.35 + 0.15	+ 0.45 + 0.25
Over 250 to 300	+ 0.081 - 0.000	+ 0.35 + 0.15	+ 0.45 + 0.25
Over 300 to 315	+ 0.081 - 0.000	+ 0.45 + 0.20	+ 0.55 + 0.30
Over 315 to 400	+ 0.089 - 0.000	+ 0.45 + 0.20	+ 0.55 + 0.30
Over 400 to 500	+ 0.097 - 0.000	+ 0.45 + 0.20	+ 0.55 + 0.30
Over 500 to 630	+ 0.110 - 0.000	+ 0.51 + 0.22	+ 0.65 + 0.35
Over 630 to 800	+ 0.125 - 0.000	+ 0.51 + 0.24	+ 0.75 + 0.40
Over 800 to 1000	+ 0.140 - 0.000	+ 0.56 + 0.25	+ 0.85 + 0.45
Over 1000 to 1250	+ 0.165 - 0.000	+ 0.61 + 0.27	+ 1.00 + 0.55
Over 1250 to 1600	+ 0.195 - 0.000	+ 0.66 + 0.31	+ 1.00 + 0.55

## The shaft requirements

### Shaft configurations

A burr-free chamfer or radius is required as illustrated below (C = chamfer depth).



### Shaft diameter

Shaft diameter (inches)	C	R	Preferred L@15°	Optional L@30°
Up to 4.000	.093	.188	.347	.156
4.001 to 7.000	.125	.250	.466	.218
7.001 to 40.000	.188	.375	.702	.323
40.001 and larger	.250	.500	.933	.433

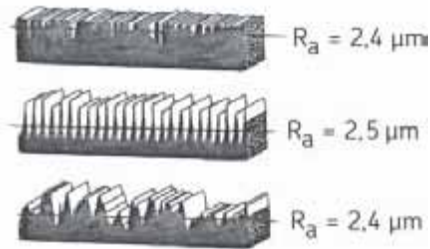
Shaft diameter (millimeters)	C	R	Preferred L@15°	Optional L@30°
Up to 100.0	2.5	4.5	8.5	4.0
100.1 to 180.0	3.0	6.0	11.5	5.0
180.1 to 1000.0	5.0	9.5	18.0	8.0
1000.1 and larger	6.5	12.7	24.0	11.0

### Shaft material/finish/hardness

Seals perform best on medium to high carbon steel (SAE 1035, 1045) or stainless steel. Soft shafts with good chrome-plated or nickel-plated surfaces, properly finished, are also acceptable. Soft materials such as brass, zinc, aluminum, magnesium or plastics are not recommended except at low surface speeds (less than 0.50 M/S 100 FPM) and clean environments. Shafts should be hardened to Rockwell C30 or higher to prevent handling damage or abrasive wear.

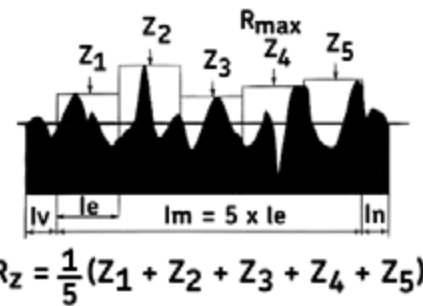
For optimum sealing performance, new industry research recommends that seal countersurfaces should be plunge ground to 9-17 micro inches  $R_a$  roughness (0.23-0.43 micro-meters) with a machine lead angle of  $0 \pm 0.05$  degrees. However, shaft finish may still be a cause of seal failure even when this standard is held within the limit. This is because  $R_a$  does not fully describe the surface profile. Within the same  $R_a$  value, a shaft surface may have very different profiles.

### Different finishes with the same $R_a$

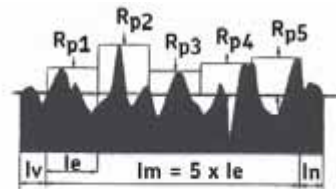


To fully characterize the shaft surface, three additional parameters should be observed:

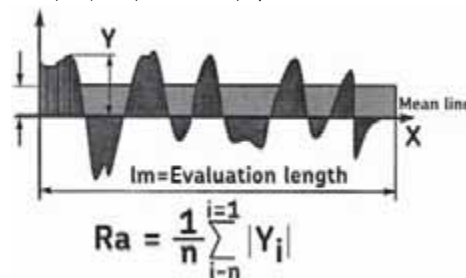
**$R_z$  (DIN)** - Average peak to valley height. The arithmetic average of the maximum peak-to-valley height of roughness values  $Z_1$  to  $Z_5$  within five consecutive sampling lengths ( $l_e$ ) over the assessment length of the filtered profile. (According to DIN 4768/1)



**$R_{pm}$**  - Average peak to mean height. The arithmetic average value of the five single highest peaks above the mean line  $R_{p1}$ - $R_{p5}$ , similar to the  $R_z$  (DIN) definition specified in DIN 4768. (According to DIN 4762/1E, ISO/DIS 4287/1)



**$R_a$**  - The arithmetic value of filtered roughness profile determined from deviations about the center line within the evaluation length  $l_m$ . (According to DIN 4768/1, DIN 4762/1E, ISO/DIS 4287/1)





The shaft requirements-(cont.)

Further, to avoid distortions of the measurement, the cut-off or assessment length has been shortened from 0.762mm (.030 inch) to .254mm (.010 inch). An M1 filter should be used. The new standard also specifies a shaft lead of  $<0\pm 0.05$  degrees as well as other criteria as shown in the chart below:

Shaft recommendations for non-hydrodynamic seals

Shaft manufacturing methods	
Plunge ground (preferred method)	
Shaft lead	$<0\pm 0.05^\circ$
Grinding chatter	No grinding chatter allowed > 45 cycles
Roundness	Out of roundness must be less than 0.00508 mm (0.0002 inch) and a minimum number of lobes.
Lobing	Maximum of 7 lobes at 0.00254 mm (0.0001 inch)
Surface finish	$R_a=0.23-0.43\text{mm}$ (9-17min) & $R_z$ (din)=1.65-2.90mm (65-115min) & $R_{pm}=0.50-1.25\text{mm}$ (20-50min) M1 filter & 0.254mm(0.010 in) cutoff

Significantly, hydrodynamic seals were found to be less sensitive to shaft lead and finish. The study group of 204 seals included 110 SKF Waveseals. There were no failures of the Waveseals while 88 of 94 plain trimmed lips experienced failure.

Shaft eccentricity

Two types of shaft eccentricity affect seal performance; both must be considered.

- Shaft-to-bore misalignment (STBM) - The amount by which the shaft is off center, with respect to the bore's center. Shaft-to-bore misalignment is caused by machining and assembly inaccuracies. To measure, attach a dial indicator to the shaft (between the shaft and bore), rotate the shaft and read the indicator. STBM is half of the Total Indicator Reading (TIR).
- Dynamic run-out (DRO) - The amount by which the shaft does not rotate around the true center. Misalignment, shaft bending, lack of shaft balance and other manufacturing inaccuracies are common causes. To measure, slowly rotate the shaft and read the total movement (TIR) of a dial indicator attached to the bore and held against the side of the shaft.

For specific limitations, see the recommended operating conditions charts for small diameter seals (page 16A) and large diameter seals (page 18A).

Shaft speed

Maximum speeds for effective seal operation depend on shaft finish, pressure, temperature, eccentricity, lubricant or fluid being retained, seal type and other conditions. For example, shaft speeds may be increased when shaft finish is improved or eccentricity (dynamic run-out) is reduced.

Surface speed at the contact point between the seal and shaft expressed in FPM (feet per minute) generally is a better measure for seal selection than RPM (revolutions per minute) See chart on pg. 368 for conversions. For maximum speeds by seal type, refer to the charts on pgs. 16A-19A.

Shaft tolerance

For satisfactory sealing performance, be sure the shaft diameter is within the following RMA or ISO recommended tolerances.

Inches

Nominal shaft diameter (RMA OS-4)	Tolerance
Up to and including 4.000 .....	.003
4.001 to 6.000 .....	.004
6.001 to 10.000 .....	.005
10.001 and larger .....	.006

Millimeters

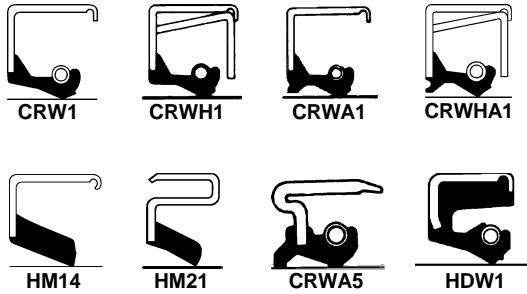
Nominal shaft diameter (ISO h11)	Tolerance
Over 6 to 10	+ 0.000 - 0.090
Over 10 to 18	+ 0.000 - 0.110
Over 18 to 30	+ 0.000 - 0.130
Over 30 to 50	+ 0.000 - 0.160
Over 50 to 80	+ 0.000 - 0.190
Over 80 to 120	+ 0.000 - 0.220
Over 120 to 180	+ 0.000 - 0.250
Over 180 to 250	+ 0.000 - 0.290
Over 250 to 315	+ 0.000 - 0.320
Over 315 to 400	+ 0.000 - 0.360
Over 400 to 500	+ 0.000 - 0.400
Over 500 to 630	+ 0.000 - 0.440
Over 630 to 800	+ 0.000 - 0.500
Over 800 to 1000	+ 0.000 - 0.560
Over 1000 to 1250	+ 0.000 - 0.660
Over 1250 to 1600	+ 0.000 - 0.780
Over 1600 to 2000	+ 0.000 - 0.920
Over 2000 to 2500	+ 0.000 - 0.110
Over 2500 to 3150	+ 0.000 - 0.135



## The seal - small and large diameter

### Small diameter seals

Generally small diameter seals fit shafts ranging from .125" to 12.500" (3.2 mm to 317.5 mm) in diameter. They are available in a variety of types, styles and lip materials. A SAE 304 stainless steel case and/or SAE 302 spring is standard on some stock numbers and optional on a production basis.



The preferred designs for inch sized small diameter seals are the Wave series: CRW1, CRWA1, CRWH1, CRWHA1, CRW5, CRWA5 and HDW1. They are also offered for selected metric sizes. These SKF Waveseals feature a smooth lip with a birotational hydrodynamic design (see page 20A). The high performance Waveseals are suitable for the widest range of operating conditions. Other preferred designs for special applications are HM14, VR1 and VR4. Rubber covered, plain lip HMS4 and HMSA7 seals are the preferred design for most metric shaft and bore combinations. Metal outer diameter CRS and other designs are also available for many metric sizes.

The single lip designs, CRW1 and CRWH1, are general purpose seals recommended for most applications. Reinforced with an inner shell, CRWH suits shaft sizes over 2" (50.8 mm). CRWA and CRWHA are auxiliary lip designs recommended for applications requiring a lip for dirt exclusion. Designed with an auxiliary lip, CRWA5 is recommended for medium pressure applications. The CRW5 seal is the single lip version of the medium pressure Waveseal.

Rubber covered seals are often specified for metric installations. The rubber covering helps compensate for rougher bores, retaining light media and split housings. The HMS4 has a single plain lip while the HMSA7 adds a dust-lip and are the preferred metric designs. Metric CRS type constructions are generally similar to the CRW series except the lip does not have a Wave feature. They are also used for some inch sizes.

Types HM14 and HM21 are non-spring loaded seals used for grease retention or dirt exclusion in applications with slower speeds.

Type VR1 is an all rubber V-Ring seal. It mounts directly on the shaft and seals axially against a counterface.

Type D7 is a dual element (lip) design used to separate two fluids.

The external, X15 design press-fits on the shaft or spindle, with its sealing (lip) element contacting the bore.

Type HDDF1 is a dual-face seal used where positive lubrication retention and dirt exclusion are both required.

### Large diameter seals

Heavy basic industries such as primary metals, construction, wind energy, forestry, mining, and pulp & paper provide a challenging environment for radial shaft seals. Operating in a wide range of speeds, temperatures, and environmental conditions, shaft seals are asked to reliably retain lubrication while keeping harsh contamination from penetrating and potentially damaging capital equipment. Generally, seals for shaft diameters larger than 8 inches (203 mm) are known as large diameter seals (LDS). HDS2 is the preferred design for most applications. The HDL is preferred for conditions including high speeds and run-out.

SKF's LDS are available in a variety of heavy duty styles, configurations and materials.

Several large diameter designs are available: HD metal clad designs (including the HDL ultra high performance series, the technologically advanced EP-2000 grease seal, and the dependable HDS series), all-rubber seals like the premium SBF seal, the HSF fabric reinforced series, solid or split, HS (solid & split), quill wipers, V-Rings and CT clamp seals.

### Metal clad seal family

The most popular seal group in the SKF LDS line is the metal clad seal family with the HD seal designs.

The HD designs include the ultrahigh performance HDL, the reliable HDS1, HDS2, HDS3 and the highly engineered EP-2000 (HDS7). SKF's HD seals are specifically designed to withstand the extreme conditions encountered in heavy duty applications.

The seals work exceptionally well in the highly contaminated environment of metal rolling mills, the high speed, high temperature environment of the paper mills, as well as more universal applications such as industrial gearboxes. The metal clad seal family has a product to perform in almost any industrial application.

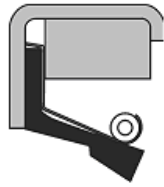
### The HDL seal

The HDL is a premium metal clad oil seal that is especially designed to operate in severe conditions including high speeds and temperatures, high run-out, and high misalignment. The excellent high-speed performance characteristics of the HDL make it the preferred design in the severe environment encountered in the rolls of the papermaking machines.

Large diameter seals - HDL & HDS metal clad

The HDL features a stainless steel garter spring that is entrapped by individual finger springs, also made of stainless steel, around the entire circumference of the seal. The spring combination allows the seal to compensate for severe conditions in order to maintain high levels of sealing performance, operational life, and equipment reliability.

The HDL is available in nitrile, Duratemp and Longlife, ensuring that the HDL will perform regardless of speed or temperature. Spacer lugs are available for all products within the HDL line. Available HDL sizes can be found in the complete size listing sections.



HDL

HDS metal clad seals

SKF's HDS metal clad seals are specifically designed to withstand the conditions encountered in heavy-duty applications. They work exceptionally well in rolling mills from the slow speed, abrasive conditions of a scale breaker to the high speed of finishing stands.



HDS1



HDS2



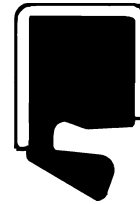
HDS3

HDS1, HDS2, and HDS3

The most commonly used metal clad seal is the HDS series for general purpose applications. HDS seals are divided into the HDS1, HDS2, and HDS3 categories. All three seal versions are encased in a heavy-duty steel shell and a 302 series stainless steel spring is standard. The basic HDS1 has its stainless steel spring mounted in a protective Spring-Lock groove. The Spring-Lock surrounds most of the springs diameter and improves retention under most installations. Where blind installations may increase the risk of spring displacement, the type HDS2 adds a Spring-Kover that bonds the spring into the groove. The HDS3 adds a spark-free inner diameter, standard Duralip material and adjustable spacer lugs. The adjustable lugs are optional on all other HDS models as are fixed width lugs. (See page 30A for the section describing spacer lugs).

The HDS seal product line is available in a wide variety of rubber materials in all sizes ranging from 8 to 62 inches (203 to 1575 mm). Nitrile is standard on all HDS seals

(with the exception of the HDS3 where Duralip is standard), however all seal types can also be ordered in Duralip, Duratemp or LongLife elastomers. See the recommended operating conditions chart for large diameter seals (page 18A).



HDS7

Bearing side →

EP-2000

The newest member of the HD seal family is the EP-2000 (extra performance construction type HDS7).

Water and solid contamination ingress is a common cause for bearing failure. SKF has developed the EP-2000 as a grease seal with enhanced exclusion capabilities.

The highly engineered EP-2000 features a computer optimized, springless lip profile designed to retain lubricants and aggressively pump contamination away from the lip. The increased ability of the EP-2000 to exclude contamination makes it an ideal equipment protector in heavily contaminated environments such as the water and scale present in rolling mill applications.

The springless lip concept of the EP-2000 also reduces radial load. Radial load can be thought of as the 'squeeze' force that the seal exerts on the shaft. High radial load can lead to increased seal wear and elevated underlip temperatures decreasing seal life.

Current customers are reporting easier installation, fewer seal replacements (translating into longer seal life) and an increase in process run time.

The EP-2000 is available in nitrile for common applications, Duratemp® for higher temperature conditions, and Duralip® for applications where extra abrasion resistance is necessary.

It is important to note that the EP-2000 is not available in LongLife™ material.

As with the HDS line, the EP-2000 is available in all shaft sizes ranging from 8 to 62 inches (203 to 1575 mm). Spacer lugs are available for any configuration. See below for specification parameters:

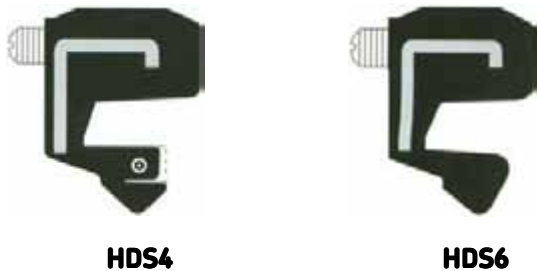
HDS7		
	Inch	Metric
Bore diameter	9.250 to 64.500	234.95 to 1638.30
Shaft size	8.000 to 62.000	203.20 to 1574.80
Difference between Shaft and bore	1.250 to 2.500	31.75 to 63.50
Width	.625 to 1.250	15.88 to 31.75

Note: SKF Large diameter seals are manufactured to order and are non-returnable and non-refundable. See inside back cover for additional information.

## Large diameter seals - metal clad and all-rubber

### HDS4 and HDS6

Also new are two rubber covered seals, the HDS4 and HDS6. The HDS4 features a patented molded-in garter spring which cannot be displaced during difficult installations and provides superior oil "sealability" while minimizing wear. The HDS6 is a springless version designed for grease retention or contamination exclusion. Nitrile rubber is standard and can be ordered in the full range of HDS rubber compounds. Both are equipped with molded .500" (12.7mm) spacer lugs which can be trimmed or removed as necessary. The HDS4 and 6 are stocked in a limited range of sizes. Contact SKF for information on availability and new sizes additions.



The HDS4 with molded-in spring and HDS6 without spring are currently available for the 6 inch sizes shown below in standard nitrile rubber. Other SKF materials are also offered. New sizes will be progressively added to the line. Contact SKF for specific availability.

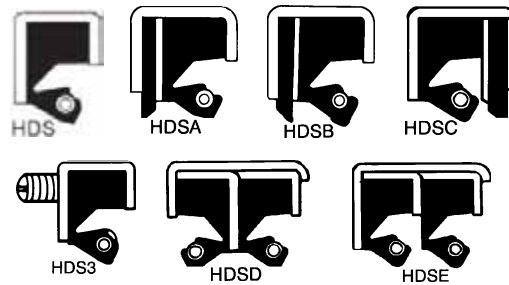
16.000 x 18.000 x .813	21.000 x 23.000 x .750
16.500 x 18.500 x .813	22.000 x 24.000 x .875
18.000 x 20.000 x .875	27.500 x 29.500 x .875

### HDS metal clad styles

HDSA, HDSB, HDSC: These are designed with a single, spring-loaded rubber sealing element and an auxiliary Duralip exclusion element. These styles are generally used where there is insufficient space for two seals.

HDSB: These are designed with dual spring-loaded elements with lips facing in opposite directions. They are used for applications requiring the separation of two fluids. A means of lubricating the sealing elements should be provided; the cavity between the elements may be packed with grease or holes may be drilled from the O.D. into the cavity between the lips.

HDSE: These seals feature dual spring-loaded elements with lips facing in the same direction. They are used where a back-up seal is desired for retention or exclusion. As with the HDSB, a means of lubricating the sealing elements should be provided.



### Spacer lugs

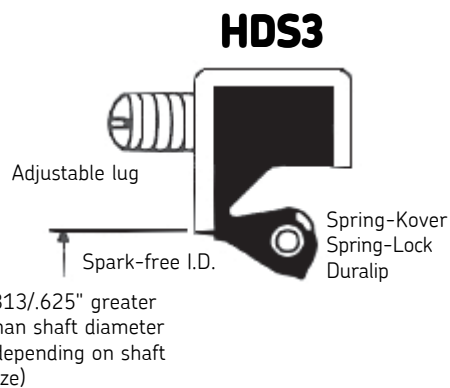
Spacer lugs may be furnished on all metal clad designs to separate seals in multiple installations and provide space for lubrication.

The traditional fixed-width lugs are .375" (9.5 mm) in diameter and are available in widths from .125" to .500" in increments of .063". The fixed-width lug is an available option on all metal clad seals except HDS3.

All standard adjustable lugs are .375" (9.50mm) in diameter and .375" (9.53mm) wide. Lugs with .500" (12.70mm) are available upon request. They may be adjusted to smaller widths in .063" (1.60mm) increments simply by removing the steel washers however the optional .500" lengths may be harder to adjust. Also, they may be removed entirely.

Certain small cross sections may require special narrow .210" (5.33 mm) lugs with a depth range of .063" to .125" (1.6 to 3.18 mm).

The lugs are placed around the heel of the seal in four, six or eight equally-spaced locations, depending on the seal O.D.



Lugs	Seal O.D.	
4 Spacer lugs	O.D. up to 30"	O.D. up to 762mm
6 Spacer lugs	O.D. over 30" to 45"	O.D. 763 to 1143mm
8 Spacer lugs	O.D. over 45"	O.D. over 1144mm

Large diameter seals - metal clad and all-rubber-(cont.)

HDS sizes not listed

HDS seal sizes not listed in this handbook are available, providing that the size falls within the ranges shown in the table below.

Preferred standard HDS metal clad seal sizes and cross-sections <sup>1</sup>			
HDS1, 2, 3 & 7			
	Inches	Millimeters	
Shaft diameter	6.000-62.000"	152.40-1574.80mm	
Bore diameter	7.160-64.210"	181.86-1580.13mm	
Shaft-to-bore difference <sup>2</sup>	1.160-2.210"	29.46-56.13mm	
Bore depth (width)	.591-1.250"	15.01-31.75mm	
HDSA, HDSB & HDSC			
	Inches	Millimeters	
Shaft diameter	8.000-40.000"	203.20-1016.00mm	
Bore diameter	9.160-42.210"	232.66-1072.13mm	
Shaft-to-bore difference <sup>2</sup>	1.160-2.210"	29.46-56.13mm	
Bore depth (width)	.841-1.500"	21.36-38.10mm	
HDSD & HDSE			
	Inches	Millimeters	
Shaft diameter	8.000-50.000"	203.20-1270.00mm	
Bore diameter	9.160-64.210"	232.66-1326.13mm	
Shaft-to-bore difference <sup>2</sup>	1.160-2.210"	29.46-56.13mm	
Bore depth (width)	1.216-1.750"	30.89-44.45mm	
	Inches	Millimeters	Radial limit (STBM)
STBM limits: Up to 8.000"		203.20mm	.060"/1.52mm
	8.001"-13.000"	203.22-330.20mm	.090"/2.29mm
	13.001-62.000"	330.22-1574.80mm	.125"/3.18mm

<sup>1</sup> Not all cross-sections and widths are possible with every shaft diameter. Contact SKF for availability on dimensions at the extreme limits or for sizes outside the standard range.

<sup>2</sup> Double cup construction over 2.500" difference.

Spring-Lock

Standard on most HDS and HS seals is Spring-Lock, a sealing lip feature that surrounds most of the garter spring's diameter. The Spring-Lock helps hold the spring in position during seal handling, installation and removal. It is standard on all HDS and HS seals (except for the HS3 and HS9 styles which have an open groove).

Spring-Kover

In applications where dirt, water or other contaminants may pose serious problems or where installation could jar the spring out of place, SKF Spring-Kover can be specified. Spring-Kover is a flexible covering which fits over the exposed portion of the stainless steel garter spring. It protects the spring without adversely affecting the spring's capability. Spring-Kover is not available in the open groove designs (HS3 and HS9).

Springs

Springs supplied for most HS series are SAE 302 stainless steel.

Generally, the spring connection for split seals is of the hook and eye type for shafts over 18.000" (457.20mm) and a threaded-type for smaller diameters. HS7 uses a special control wire connector based on SAE 302 outer spring and carbon steel inner wire.

HS solid and split seals

Type HS seals, available in solid round and split versions, are all-rubber, large diameter seals designed without an outer shell or metal case. Two types are available - solid and split. The HS style seals featured in this handbook are HS4, HS5, HS6, HS7 and HS8. Older HS3 and HS9 types are only available on a limited basis.

HS solid and split large diameter seals are cataloged by shaft size and priced by the dimensions of the bore for which they are designed. The actual seal is finished oversize to the housing to allow proper compression and stability. All HS seals require a cover plate to compress the seal within the cavity, helping seal the split joint and prevent leakage. The bore depth for HS seals should be +/- .005" (0.13mm) and +/- .004" (0.10mm) for HSF designs. A garter-type spring in the sealing element reinforces lip pressure against the shaft.

HS solid seal designs

The standard styles and types run from 8" to 62.500" (203 mm to 1588 mm) in shaft size. There are three types:

*HS3:* HS3 is a discontinued seal profile with a single spring-loaded lip element, open groove and no Spring-Kover. A cover plate is required for proper installation. HS4 or 5 should be considered for new installations. Contact SKF for additional information.

*HS4:* The HS4 seal is an all-rubber solid seal with a single spring-loaded element. It features a Spring-Lock and is recommended for vertical and horizontal shafts. For proper fit, a cover plate is required.



Spring lock feature

*HS5:* HS5 is the same as HS4 with the addition of a Spring-Kover for added protection against spring-popout and contamination.

## Large diameter seals all-rubber - solid and split

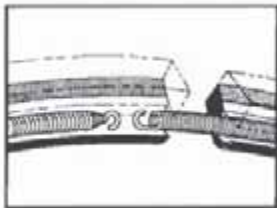
### HS split styles

Where downtime is critical and shaft removal is impractical, type HS all-rubber split seals are ideal. They are simply placed around the shaft and pushed into the seal bore, then held firmly by a cover plate which compresses the split joint together. Generally, the spring connection is a threaded type for shafts up to 18" and a hook and eye type for shafts above that (ex. HS7). All HSF types have a threaded connector. Contact SKF regarding other connector requirements.

HS split seals perform best with grease or heavy lubricants on horizontal shafts. The "split" should be located at the top (12 o'clock) position. Light lubricants can be contained if the level is kept well below the shaft centerline, particularly at higher surface speeds. Vertical shafts can only be used in grease lubricant. For secure sealing, HS split seals must never be flooded or loaded with pressure.

HS split seals are available in a wide variety of types, styles and materials. There are four types.

**HS6:** HS6 is an all-rubber split seal with a single spring-loaded element and a Spring-Lock. HS6 features a separate loose spring and a positive spring connection.



**HS7:** HS7 is an all-rubber split seal with a single spring-loaded element which has both a Spring-Lock and a Spring-Kover. A control-wire spring connector is used to join the seal together. HS7 is not as positive as other HS types, but it is the easiest to install. The spring is completely enclosed and the connection is made simply by running the control wire into the center of the spring coil across the split (butt joint). Spring tension to hold the sealing lip on shaft is built-in at the factory. For proper fit, a cover plate is required. Due to the unique design that permits easier installation, please note that a gap may occur at the joint even after the cover plate is installed. Special attention to place the gap at the 12 o'clock position during installation is necessary.

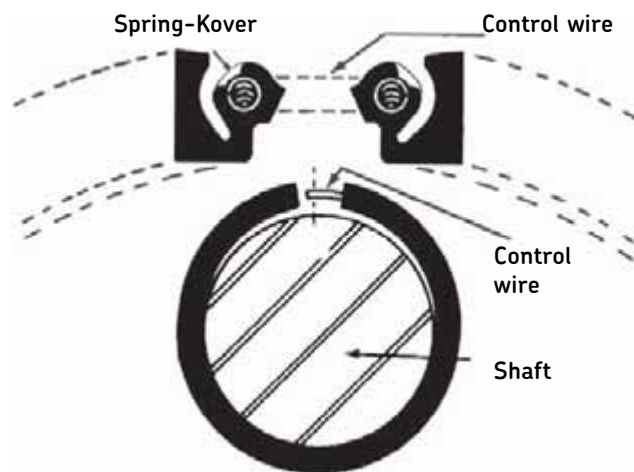
**HS8:** HS8 is an all-rubber split seal with a single spring-loaded element, Spring-Lock, Spring-Kover and a positive spring connection. The spring is entirely enclosed except for a small portion on either side of the split. HS8 provides the most positive seal of all the split types and is the preferred design for use with lighter lubricant retention and water exclusion. It is recommended for sealing light oils as well as heavy greases. HS8 performs best on horizontal shafts, but may be used on vertical shafts. For proper fit, a cover plate is required.



HS8

**HS9:** HS9 is a discontinued seal profile with limited availability. It has a single spring-loaded lip element, open groove and no Spring-Kover. It is used for grease retention on horizontal shafts. A cover plate is required for proper installation. HS6, 7 or 8 should be considered for new installations. Contact SKF for additional information.

### HS7 seal control wire feature, used on HS7



Large diameter seals all-rubber-solid and split-(cont.)

HS seals selection chart

Features	Solid types			Split types★			
	HS3	HS4	HS5	HS6	HS7	HS8★	HS9
Spring groove type	Open groove	Spring-Lock	Spring-Lock	Spring-Lock	Spring-Lock	Spring-Lock	Open Groove
Spring connection	Factory made	Factory made	Factory made	Threaded/hook & eye	Control wire	Threaded/hook & eye	Threaded/hook & eye
Spring Kover	Not available	None	100% covered	None	100% covered	Covered except ends	Not available
Ability to seal light lubes	Good	Good	Good	Good	Poor	Good	Fair
Misalignment tolerance (STBM)	.062" (1.57mm)	.062" (1.57mm)	.062" (1.57mm)	.062" (1.57mm)	.062" (1.57mm)	.062" (1.57mm)	.062" (1.57mm)
Eccentricity tolerance (TIR)	.093" (2.36mm)	.093" (2.36mm)	.093" (2.36mm)	.093" (2.36mm)	.093" (2.36mm)	.093" (2.36mm)	.093" (2.36mm)
Maximum speed, FPM (M/S)	2,000 (10.16mm)	3,000 (15.24mm)	2,500 (12.70mm)	2,000 (10.16mm)	1,500 (7.62mm)	2,000 (10.16mm)	1,500 (7.62mm)
Pressure tolerance	Fair	Good	Good	Poor	Poor	Poor	Poor
Ease of installation	Good	Good	Good	Fair	Excellent	Good	Good

★ Preferred design

Note: HS3 and 9 are discontinued designs with limited availability. They can be replaced, and upgraded, by other HS types. Contact SKF for additional information.

HS standard cross sections and width options

Shaft diameter range	Bore diameter range	Difference between shaft and bore	Bore depth	STBM (max.)
6.000 - 73.000" (152.40 - 1854.20mm)	7.000 - 74.000" (177.80 - 1879.60mm)	1.000" (25.40mm)	.500 - .525" (12.70 - 13.34mm)	.060 (1.52mm)
8.000 - 180.000" (203.20 - 4572.00mm)	8.984 - 182.050" (228.19 - 4624.07mm)	.984 - 2.050" (25.00 - 52.07mm)	.500 - .800" (12.70 - 20.32mm)	.090 (2.29mm)
13.000 - 180.000" (330.20 - 4572.00mm)	14.148 - 182.050" (359.36 - 4624.07mm)	1.148 - 2.050" (29.15 - 52.07mm)	.625 - 1.000" (15.87 - 25.40mm)	.125 (3.18mm)

Note: Contact SKF for availability outside the listed size ranges.

Applies only to HS construction. HSF are based on specific sizes.



## Large diameter seals all-rubber - solid and split-(cont.)

### Rubber covered designs-SBF & HSF

The SKF family of all-rubber seals includes metal inserted (SBF) and fabric-reinforced (HSF) products. The fabric-reinforced versions are available as solid round or with an open joint or split.

The all-rubber seal family offers designers and operators of rotating equipment a number of important operating and installation benefits. All-rubber seals do not score the bore even after repeated installations and extractions. This prevents damage to the metal that can cause bypass leakage. All-rubber seals accept rougher bore finishes, reducing machining costs. They are especially helpful for split housings. They resist corrosion and will not seize in the bore even years after assembly.

Due to lower press-in forces, rubber covered seals are often easier to install particularly in the field or confined spaces. They can be fitted by hand or with simple hand tools even when the diameters are very large. Further, in the case of split seals there is no need to dismount the shaft or other machine components.

### SBF

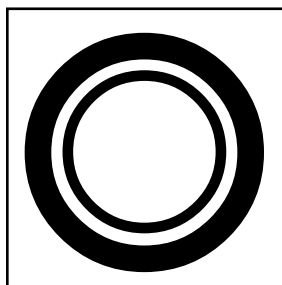
The SBF seal design is a new rubber OD seal with a flexible metal stiffening ring that allows mounting without the use of a cover plate. The SBF seal can be used as an upgrade to non-split rubber fabric seals in many applications that are either grease or oil lubricated. The SBF seals are available in both NBR and FKM materials with optional Spring-Kover.



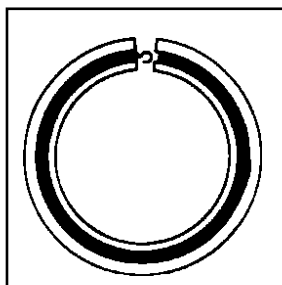
SBF

### HSF seals: rubber fabric products

The HSF seals have a rubber outer diameter reinforced with a strong, flexible textile wrap instead of a rigid metal case. The HSF1 (split) and 5 (solid) are the standard general purpose designs. HSF2 (split) and 6 (solid) add a radial lubrication groove. The HSF3 (split) and 7 (solid)



HSF solid



HSF split

have both radial and circumferential lubrication grooves. HSF4 (split) and 8 are dust-lip versions without grooves. HSF9 is a pressure profile, solid type only. The HSF series are mainly used in heavy-duty applications including gear drives, propeller shafts, cold and hot mill bearing chocks, pumps and paper making machines.



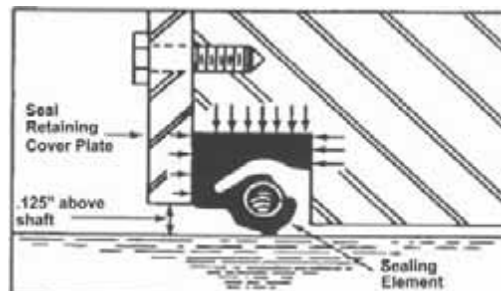
Bore depth for HSF seals should be + / - .004" (.10mm)

To attain optimum sealing performance, a retaining or cover plate is necessary to properly install and apply all HSF seals. The plate creates an axial preload that ensures reliable static sealing performance of the seal. The plate should also be designed to avoid seal distortion upon assembly. The HSF seal types are available in NBR and FKM material.

HSF seal features	Seal construction	
	Split	Solid
universal type	HSF1	HSF5
w/ radial grease ports	HSF2	HSF6
w/ radial and axial grease ports	HSF3	HSF7
dust-lip	HSF4	HSF8
pressure profile	-	HSF9

### Cover plates

All HSF type seals, split or solid, are finished oversize to the housing to allow for proper compression and stability in the groove when installed behind a cover plate. This plate is either part of the original machine or is fabricated by the assembler. It should be thick enough not to bend or distort. Generally, a thickness of .250" to .500" (6.35 to 12.70mm) is sufficient. The inner diameter should be .250" (6.35mm) greater than the shaft diameter.



*Large diameter seals all-rubber - solid and split-(cont.)*

The plate should be secured with bolts, no more than six inches apart, on a bolt circle located as close to the seal housing bore as practical. The cover plate should be flat and the housing bore depth uniform. Splitting the cover plate at 180° will make seal replacement easier, particularly in confined areas.

To block surges of lubricant toward the seal from the inside and to protect the seal from damage from the outside, it is recommended that the cover plate I.D. be as close as practical to the shaft. Generally, .250" (6.35mm) over shaft diameter is sufficient in the presence of shaft misalignment and runout.

Sometimes, supplementary sealing needs to be added. It is impractical to machine the original housing to provide the seal cavity required. In such instances, the seal cavity may be incorporated into a new plate which is bolted into place as illustrated on the bottom right of page 34A.

**Multiple seal installation**

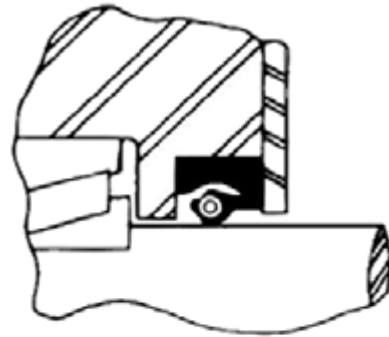
When mounting two HS split seals in one cavity, the locations of the split joints should be staggered 30° to 60°. This will minimize the chance of leakage through the joint. The splits should be located towards the top of the bore. Grease the cavity between the seals to provide lip lubrication for the outer seal.

**Seal separators**

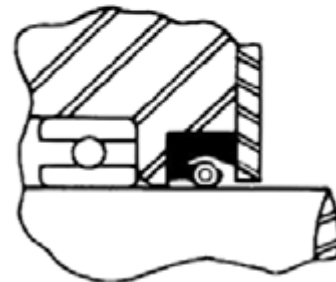
Where split seals are used in multiples, it is sometimes necessary to provide lubrication between the seals. For best results, a slotted washer can be fabricated and installed between the seals. It should be slotted as shown below (Illus. A) to bring lubricant between the seals through a central groove in the seal housing bore.

**Quill wiper seal**

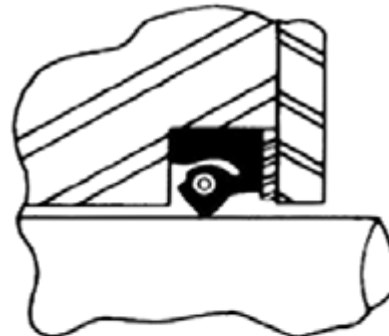
Quill wiper seal (HD1): This non-spring-loaded design features a single Duralip sealing element in a narrow width. It can be used anywhere a large diameter seal is required but width restriction is a problem. Applications include steel and aluminum mills, paper-pulp processing equipment, quarries and mines. It also is ideal as a wiper seal (linear motion) for scrap compactors, ramps and similar applications.



Type HS or HSF seal mounted to retain lubricant.



Type HS or HSF seal mounted to exclude foreign material.

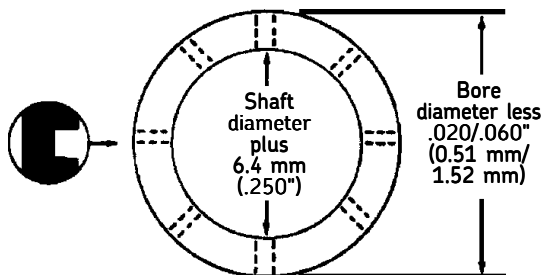


Gasket employed to fill out bore depth.



Type HS or HSF seals in tandem arrangement for maximum lubricant retention. Note use of separator between seal elements.

Illustration A



A separator between two seals can be a slotted washer to provide lubrication circulation.

Details of spacer for central lubrication.

## V-ring seals

The V-ring seal is an all-rubber seal that mounts directly on the shaft and seals axially against a counterface, housing, seal case or similar surface.

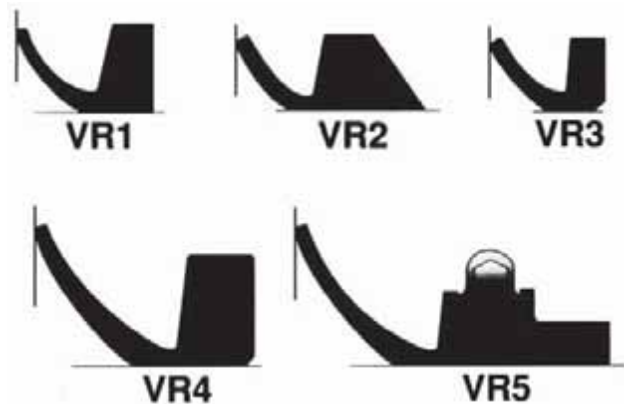
Designed with a long flexible lip, it acts like a mechanical face seal. It can retain lubricants and exclude contaminants. The V-ring can be used as the primary seal or as a secondary back-up seal.

Because it is all rubber and very elastic, it can be stretched over flanges or other assemblies for positioning without any unit disassembly. The V-ring performs well in dry applications and is capable of handling a greater amount of eccentricity and misalignment than most radial lip type seals. Axial movement should however not exceed the axial sealing range of the lip. Each V-ring can be used for a range of different shaft sizes.

In certain applications, V-rings can handle up to 10 psi on the body side only. V-rings should not be used on shafts mounted below sump level.

For greater fluid and heat resistance, LongLife V-rings are available. They can be readily identified by a purple dot marked on the seal or by use of brown seal material. Check SKF for specific availability.

### The V-ring comes in five styles:



**VR1** - The most common style. Available in the widest range of sizes, from .110" to 79.530" (2.79 mm to 2020 mm) shafts. Nitrile and fluoroelastomer materials. Ideal for conveyor rollers and appliances.

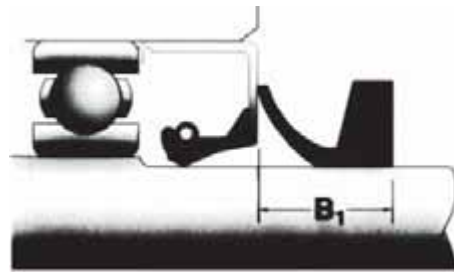
**VR2** - The original V-ring, designed with a wide body and tapered heel to firmly hold the ring on the shaft. Available in all sizes from .180" to 8.270" (4.57 mm to 210 mm) shafts. Commonly used in automotive and agricultural applications.

**VR3** - Very narrow axial cross-section used in pillow-blocks to replace labyrinth seals. Available for shaft sizes from 4.134" to 24.800" (105 mm to 630 mm).

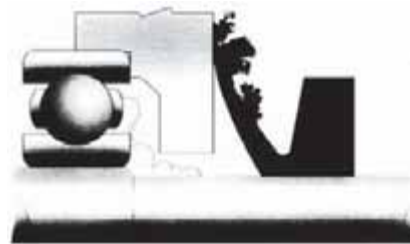
**VR4** - The heavy-duty large diameter style commonly used in rolling mills as a dirt/water excluder seal. Available for shaft sizes from 11.811" to 79.134" (300 mm to 2010 mm). Can be stretched up to 2 1/2 times its diameter.

**VR5** - This heavy-duty large diameter style can easily be fitted with a standard clamping band for axial fixation in high speed applications. Ideal for steel mills, ball mills and paper mills. Available for shaft sizes from 11.811" to 79.134". (Approx. 300 mm to 2010 mm).

Note: V-ring types VR1, VR3, VR4 and VR5 for shaft sizes larger than 78.740 (2000 mm) are made to special order. The seal profile remains unchanged.



A V-ring can operate directly on metal cased shaft seals. The highly effective "flinger" action extends the life of the main oil seal. Accurate axial positioning (B<sub>1</sub>) is important for optimum performance.



V-rings can also run against machine components. Stampings or simple turned surfaces (without sharp peaks or scratches) are sufficient. The roughness can range from 16 to 120  $\mu\text{in}$  (0.4 to 3.0  $\mu\text{m}$ ) depending on the application. Steel, cast iron, cold rolled steel stampings and aluminum can be used. Higher hardness is recommended in abrasive condition. SKF brochure 457941 contains additional details.



V-rings can be combined with other components to form a highly effective "sealing system." Here, a VR4 is mounted on a bolted-on shoulder to run against a roll face. The V-ring provides improved protection for both the exclusion and oil retaining shaft seals which are running on an LDSLV4 wear sleeve.

MVR axial shaft seals

For added protection in extremely contaminated applications, in addition to our standard V-ring; SKF also offers the type MVR. The MVR seal also seals axially and functions by combining positive lip contact with centrifugal "slinging" action. However, the MVR seal is different in that the rubber element is stretch fitted into a metal shell. The metal shell is then press-fitted onto the shaft. This shell provides excellent protection from heavy debris and it automatically accommodates high rotating speeds without auxiliary clamping devices.

Advantages/user benefits:

- The metal shell serves as a support and deflector. The rubber body and lip are protected from damage and displacement by external debris (i.e. rocks, viscous media).
- In most cases, the shell also functions as a holder that keeps the rubber lip in position during high surface speeds. No additional axial retention is required. Contact SKF regarding radial retention limits.
- Due to its compact design, narrow installation widths are possible.
- Frictional heat build-up and torque drag are very low compared to contacting radial shaft seals. As rotary

speed increases, the MVR seal lip lifts off the counter-surface starting at about 2362 FPM (12 M/S) and drops to zero contact by 3937 FPM (20 M/S). Like the V-ring, the high rotary speed prevents contamination ingress while minimizing power loss.

- Service life is considerably higher than radial seals in contaminated environments and can extend to thousands of hours.

Construction:

The MVR seal lip is made from an 80 durometer nitrile rubber with very good wear resistance. Other elastomers are possible in production lot orders. There are two versions of the metal shell, the MVR1 and the MVR2 with shell extension. Please refer to the illustrations below for details. The stock metal element is zinc plated cold-rolled carbon steel. Acid resistant steel similar to SAE 316 is available by special order.

Temp range:

Generally the same as NBR V-rings or -40°C to 100°C (-40°F to 212°F).

Contact SKF for information on availability.

**MVR1**

Stock No	Ø d	Ø D	B	B <sub>1</sub>	Ød <sub>1</sub>	Stock No	Ø d	Ø D	B	B <sub>1</sub>	Ød <sub>1</sub>
MVR1-10	10	24	3.5	1.0	15	MVR1-53	53	73	5.5	1.0	61
MVR1-12	12	26	3.5	1.0	17	MVR1-55	55	75	5.5	1.0	63
MVR1-15	15	30	4.0	1.0	21	MVR1-58	58	78	5.5	1.0	66
MVR1-16	16	32	4.0	1.0	23	MVR1-60	60	80	5.5	1.0	68
MVR1-17	17	32	4.0	1.0	23	MVR1-62	62	82	5.5	1.0	70
MVR1-18	18	33	4.0	1.0	24	MVR1-65	65	85	5.5	1.0	73
MVR1-20	20	35	4.0	1.0	26	MVR1-68	68	88	5.5	1.0	76
MVR1-22	22	40	4.0	1.0	28	MVR1-70	70	90	5.5	1.0	78
MVR1-24	24	40	4.0	1.0	30	MVR1-72	72	92	5.5	1.0	80
MVR1-25	25	40	4.0	1.0	31	MVR1-75	75	95	5.5	1.0	83
MVR1-26	26	40	4.0	1.0	32	MVR1-78	78	98	5.5	1.0	86
MVR1-28	28	43	4.0	1.0	34	MVR1-80	80	100	5.5	1.0	88
MVR1-30	30	47	4.5	1.0	37	MVR1-85	85	105	5.5	1.0	93
MVR1-32	32	49	4.5	1.0	39	MVR1-90	90	110	5.5	1.0	98
MVR1-35	35	52	4.5	1.0	42	MVR1-95	95	115	5.5	1.0	103
MVR1-40	40	57	4.5	1.0	47	MVR1-100	100	120	5.5	1.0	108
MVR1-45	45	62	4.5	1.0	52	MVR1-105	105	125	5.5	1.0	113
MVR1-48	48	65	4.5	1.0	55	MVR1-125	125	148	6.5	1.0	133
MVR1-50	50	70	5.5	1.0	58	MVR1-135	135	159	6.5	1.0	145
MVR1-52	52	72	5.5	1.0	60						

Special designs are available and new sizes are added gradually. At present sizes with outer diameters to 250mm are manufactured.

\* Check for availability on all stock numbers listed above.

**MVR2**

Stock No	Ø d	Ø D	B	B <sub>1</sub>	B <sub>2</sub>	b	Ød <sub>1</sub>	ØD <sub>1</sub>	ØD <sub>2</sub>	t
MVR2-15	15	32	4.0	1.0	6.0	3	21	29	34	0.5
MVR2-17	17	34	4.0	1.0	6.0	3	23	31	36	0.5
MVR2-20	20	37	4.0	1.0	6.0	3	26	34	39	0.5
MVR2-25	25	42	4.0	1.0	6.0	3	31	39	44	0.5
MVR2-30	30	48	4.5	1.0	6.5	3	37	45	50	0.5
MVR2-35	35	53	4.5	1.0	6.5	3	42	50	55	0.5
MVR2-40	40	58	4.5	1.0	6.5	3	47	55	60	0.5
MVR2-45	45	63	4.5	1.0	6.5	3	52	60	65	0.5
MVR2-50	50	72	5.5	1.0	7.5	3	58	68.5	74	0.75
MVR2-55	55	77	5.5	1.0	7.5	3	63	73.5	79	0.75
MVR2-60	60	82	5.5	1.0	7.5	3	68	78.5	84	0.75
MVR2-65	65	87	5.5	1.0	7.5	3	73	83.5	89	0.75
MVR2-70	70	92	5.5	1.0	7.5	3	78	88.5	94	0.75
MVR2-75	75	97	5.5	1.0	7.5	3	83	93.5	99	0.75
MVR2-80	80	102	5.5	1.0	7.5	3	88	98.5	104	0.75
MVR2-85	85	107	5.5	1.0	7.5	3	93	103.5	109	0.75
MVR2-90	90	112	5.5	1.0	7.5	3	98	108.5	114	0.75
MVR2-95	95	117	5.5	1.0	7.5	3	103	113.5	119	0.75
MVR2-100	100	122	5.5	1.0	7.5	3	108	118.5	124	0.75

Special designs are available and new sizes are added gradually. At present sizes with outer diameters to 250mm are manufactured.

\* Check for availability on all stock numbers listed above.

## PTFE seals®

**SKF PTFE seals are assembled, made-to-order radial shaft seals based on PTFE** (polytetrafluoroethylene). This thermoplastic material offers a solution for designers and engineers faced with operating conditions that exceed the capabilities of rubber compounds. PTFE has enhanced capabilities in several key seal performance areas:

**Extreme temperature:** PTFE can accept a wide thermal range from -200 to over 500 °F (-128 to 260 °C). However, temperature must be considered in the context of the total operating conditions.

**Chemical resistance:** PTFE is chemically inert, which means resistance to degradation by lubricants or agents that can destroy other materials. This includes synthetic oils, acids and oxidizing agents.

**High speed:** SKF PTFE seals offer reliable sealing performance even where surface speeds exceed 6,000 fpm (30 m/s). Highly specialized versions have operated successfully in excess of 15,000 fpm (76 m/s).

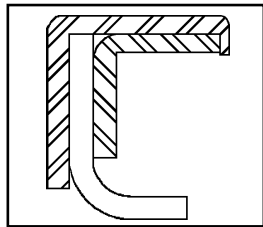
**Pressure:** Appropriate PTFE seal designs can operate over 500 psi (35 bar). Where lubricating oil is present, a PV factor (fpm x psi) in excess of 250,000 can be accommodated.

Other customer benefits of special PTFE seal designs include dry running capability, acceptance of dynamic run-out of .150" (3.8mm) TIR and the possibility of extremely low torque drag.

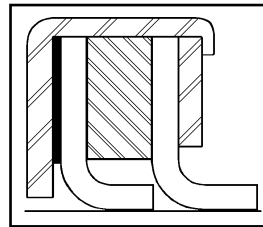
SKF PTFE seals consist of a metal outer diameter case that press-fits into a bore. Various inner metal components locate and retain one or more PTFE elements depending on the application conditions. Internal gaskets prevent by-pass leakage. Different PTFE blends and fillers are matched to the specifications, and can include glass, carbon, graphite, moly and plastic reinforcers and friction modifiers. The metal components are formed by various methods. They are available in cold rolled steel, stainless, titanium and high strength alloys such as Hastelloy and Inconel plus non-ferrous metals including aluminum.

The assembled design permits a wide range of inch and metric sizes from .500 to 50.00 inches ( 12.7-1270mm). Seal width and cross-section ranges are determined by the seal design. Small or large production runs are possible with minimal or no tooling charge. Larger quantities can be more economically handled by using stampings, many of which are already available.

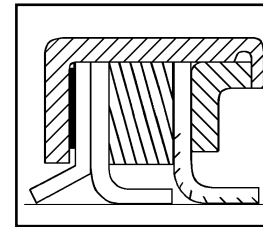
PTFE seals require a high shaft hardness (up to 65HRc depending on conditions) for successful operation. Heat treatable steels and cast iron are preferred. Hard nickel or chrome plating or ceramic coating may be needed in corrosive environments. Plunge grinding with no lead is recommended. Standard finish is 12-20 min Ra (.30-.50 mm) in lubricated service, 6-10 Ra min (.13-.25 mm) in vacuum or dry running conditions. Due to their design, PTFE seals need special handling and installation techniques to avoid damage. In some cases assembly cones are helpful. SKF can assist with assembly tool design and information.



**General purpose design for lubricated media and moderate pressure and surface speeds.**



**Pressure design for service to 500 psi (35 bar). Variations for vacuum and high shaft speeds.**



**Seal for oil retention with high surface speeds, pressure and protection from outside contamination.**



PTFE seals® -(cont.)

**Installation**

Typically PTFE seal lip elements are fabricated with interference to the shaft and are not as flexible as rubber. Special care should be taken during installation to avoid damaging the lip. If the seal lip will be oriented facing away from the bearings (i.e. for exclusion or vacuum applications) and the shaft has been prepared with a correct chamfer or radius, then the seal can usually be pressed into the bore and the lip will ride up over the nose of the shaft without difficulty. However, when installing the seal with the lip facing in (i.e. to retain lubricant) then an installation cone or bullet tool is recommended. The tool is fabricated so that it slides over the nose of the shaft and provides a smooth "ramp" to expand the seal lip to the shaft diameter. See figure 1 below. Normal press-in practices for the seal outer diameter into the bore should be observed (See page 48A).

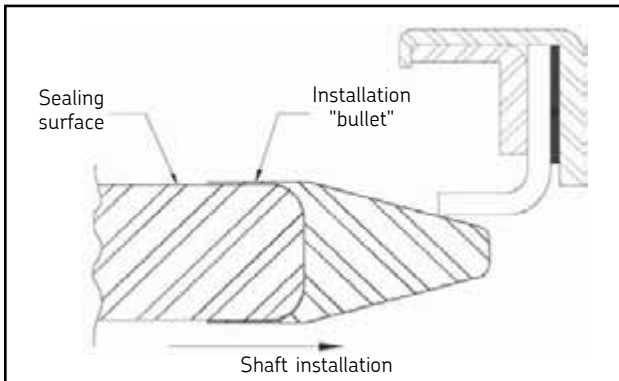


Figure 1

**Size range**

Most PTFE seals are made to order and assembled from formed metal components and machined lip elements. Due to the flexibility of this process, a wide range of seal sizes and designs to solve many application conditions are possible. The table below can be used as a general reference for hardware dimensions. Normally no tooling charges are necessary.

	Shaft	Cross-section by shaft range	Width
Seal size	0.250 to 60.000" (6.35 to 1524.00mm)	0.250-2.000" (6.35-50.80mm) = min. 0.156" (3.96mm) 2.001-4.000" (50.82-101.60mm) = min. 0.188" (4.78mm) 4.001 - 10.000" (101.63-254mm) = min. 0.250" (6.35mm) 10.001-20.000" (254.02-508mm) = min. 0.375" (9.53mm) >20.001 (508.03mm) = 0.438" (11.13mm)	Depends on the style  Single lip standard is min. 0.090 to 2.000" (2.29 -50.80mm) or wider for some designs.  Double lip min. 0.250" (6.35mm)

**Plastic seals solve extreme service problems**

**Problem:**

Intense demand for higher productivity has created extreme service conditions for motors, pumps, gearboxes, clutches and drives in metal and ore crushing operations; food processing and printing plants; pump and paper facilities and other heavy industrial applications. Premature shaft seal and equipment failures result from higher running speeds, elevated operating temperatures, harsh solvents, and lubricants that are chemically aggressive to common seal materials.

**Solution:**

Switching to assembled seals with lip elements based on polytetrafluoroethylene (PTFE) or other plastics can greatly extend service life and extend maintenance intervals in the most severe service environments including:

- Surface speeds in excess of 12,000 FPM (60.90 m/s)
- Very wide temperature range of -200 to 575°F (-129 to 301.7°C)
- Pressure capability in excess of 250,000 PV (shaft speed in SFM x pressure in psi)
- Acids, bases, solvents, dry running conditions

These seals are usually custom manufactured based on specific operating data, with cases formed of carbon, aluminum, stainless grades, Inconels, Hastelloy and other metals depending on requirements. In some cases, a solid seal eliminates the need for a metal case at all. However, optimum functioning PTFE or plastic seals require a high quality, lead free surface with higher than usual hardness, often 50 HRC or more.





## Defender™ bearing isolators

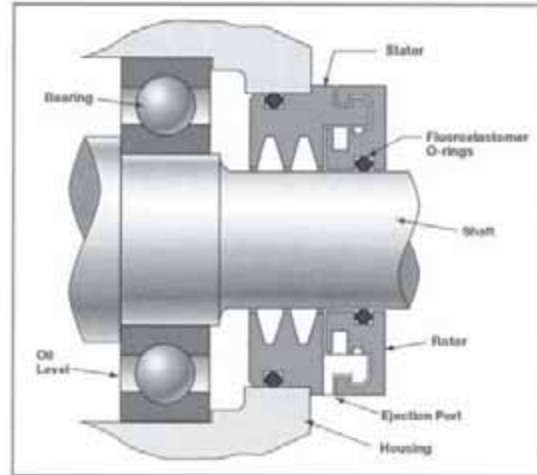
The best solution for some demanding applications is a Defender™ bearing isolator. Bearing isolators have provided outstanding protection for bearings and mechanical components for over 15 years. These labyrinth type seals have distinct advantages over most contacting lip seals. The Defender's proprietary design results in very effective exclusion ability. Instead of a contacting radial lip element, they utilize a labyrinth, or maze like, internal structure to collect and eject contamination before it can enter a mechanism. Therefore they can protect bearings and internal machine components from extreme levels of fluid spray and particle contamination.



Typically these seals have a stator pressed into housing and a rotor fixed to and turning with the shaft. The two components are locked together for easier assembly and to prevent handling damage. However, they are non-contacting which minimizes seal wear. Additional benefits are high reliability and extended service life along with very low torque drag and heat build-up. SKF's Defender™ bearing isolator uses PTFE as the structural body material along with fluoroelastomer o-rings for chemical and temperature resistance (up to 400° F / 204° C in special version). High surface speeds to 5000 feet per second (25 M/S) can be accepted. The standard Defender™ is available for inch and metric shaft diameters from .500 to 6.00" (12.70 - 152.40mm) and can be produced to larger sizes.

A special edition was developed for split pillow block bearing housings. It features a bronze metal carrier which replaces the typical triple ring stock seal and fits into the seal groove machined into the top cap and bottom of the bearing. The bronze carrier is centered in the groove with a PTFE pad which prevents bypass leakage or contamination ingress and is compatible with either square or tapered seal ring grooves. A Defender™ isolator is pressed into the outside of the carrier to seal the shaft. The carrier and seal assembly is then free to pivot and align to the shaft, not the housing. This permits the seal to accept the full range of misalignment offered by the bearing without causing

contact and destructive wear within the seal itself. Bearing oil or grease lubricant is retained by collection grooves on the inside of the carrier. These Defender™ seals are available for many standard SAF, SNL and other popular inch and metric split bearing housings.



### General specifications

<b>Shaft range:</b>	0.500" to 6.00" (12.70 to 152.40mm) basic sizes (Larger sizes possible on quote basis)
<b>Shaft speed:</b>	up to 5,000 fpm (25 m/s)
<b>Shaft &amp; Bore Tolerance:</b>	±0.002" (0.05mm)
<b>Temp range:</b>	-40°F to 250°F (400°F specials) -40°C to 121°C (204°C specials)
<b>DRO:</b>	0.020" TIR (0.51 mm)
<b>Axial limit:</b>	±0.015" (0.38 mm)
<b>Pressure allowance:</b>	0 psi

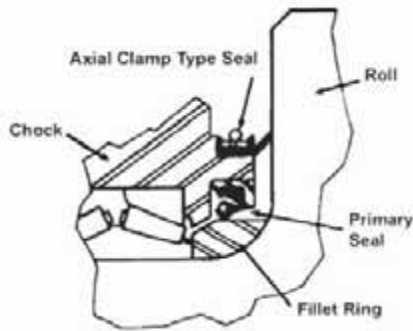
### Standard design

- Carbon/graphite filled PTFE std. under 4.00" shaft, stainless steel filled to 6.000" and beyond.
- .690" OAL with .316" insertion into bore.
- Shaft sizes under 1.750" have diametric cross-sections between .700" - 1.00".
- Over 1.750" have diametric cross sections between .700" - 1.250".

Defender™ bearing isolators can add productive life to pumps, meters, fans, blowers, pillow-blocks, conveyors, rollers, turbines, centrifuges, gearboxes, or virtually any rotating equipment in your plant.

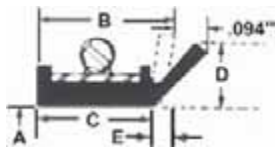
For custom specifications contact SKF for application assistance and specification details.

Axial clamp seals selection and installation

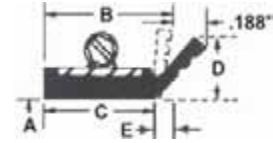


The SKF axial clamp seal (split) is designed especially for large diameter applications where a stationary shroud device is required to exclude water or other foreign material from the primary seal/bearing area. For contaminant drainage and installation ease, a 1" (25.40 mm) installed gap is provided. Best results are obtained when the gap is placed in the 6 o'clock position. Butt-joint seals (no gap) are available upon request. This compact nitrile seal operates against a rotating step or roll face. A stainless steel screw type clamp holds the seal securely in place. Axial clamp seals may be used in vertical or horizontal installation.

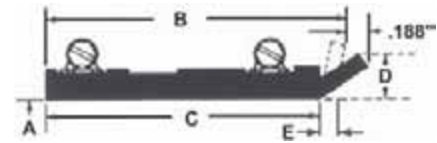
Axial clamp seals come in three styles - style 1, 3 and 4, to cover various operating ranges.



Style 1: The most commonly used configuration, with a flat face sealing lip. Maximum operating interference is .094" (2.38 mm).



Style 3: - Same as style 1 except the lip face is grooved to trap contaminants that may start to pass through the face area. Maximum operating interference is .188" (4.8 mm).



Style 4: - Extra wide, double clamp design. Maximum operating interference is .188" (4.8 mm).

Unlimited sizes

Axial clamp seals can be furnished in sizes from 6" to 180" (152 mm to 4572 mm) shoulder diameter.

Installation

Shipped in a rolled up coil, the assembly is placed around the shaft onto the shoulder or step and the clamp is connected. The shoulder must provide a fixed and stationary stop for the axial clamp seal. The clamp is tightened to no more than 60 inch-lbs. (6.779 newton-meters) of torque. Where no shoulder exists but a clamp type seal is desired, SKF can propose a variety of installation alternatives for fabricating a supplementary seal housing.

Operating ranges

Style no.	1		3		4	
	Tolerances	Range	Tolerances	Range	Tolerances	Range
A Shoulder diameter	±0.063"	6" to 180"	±0.063"	6" to 180"	±0.063"	12" to 45"
B Operating width	±0.031"	1.125" to 1.500"	±0.063"	0.875" to 1.000"	±0.031"	1.501" to 3.750"
C Shoulder width	±0.125"	.688" to 1.063"	±0.125"	0.688" to 0.812"	±0.125"	1.063" to 3.312"
D Lip height	±0.031"	0.500"	±0.063"	0.594"	±0.031"	0.500"
E Operating/shoulder width difference	0.437"		0.188"		0.437"	

## Heavy-duty DF® seals

SKF's HDDF seals are mechanical seals used for positive sealing. They are recommended for low speed, severe service applications requiring positive lubricant retention, contaminant exclusion and long life. Initially designed for off-the-road vehicles, they are also recommended for use in mixing or grinding units, mills or other mechanisms where abrasives would cause premature failure of general purpose seals.

Extensive laboratory testing has proven the heavy-duty seal's capabilities. These tests indicate that the heavy-duty DF seal performs dependably at least ten times better than previous soft-face designs, and three times longer than other metal face designs. Used on tractors in the tropics and the arctic, heavy-duty DF seals have performed continuously for thousands of hours with no failures or leaks.

### Applications

The heavy-duty DF seal operates on the principle that two lapped mating surfaces, a sealing ring and a mating ring, rotating one against the other at right angles to the shaft (but not in contact with the shaft), form an ideal leakproof seal. With the high cost of maintenance downtime, improved bearing protection is critical. Using a seal with tested, improved performance, such as the heavy-duty DF seal, is a justifiable alternative to costly downtime.

### Seal construction

Comprised of four components, the heavy-duty DF seal has two identical, high alloy, corrosion resistant steel sealing rings carefully lapped and mated, and two similar, opposed Belleville washers of specially compounded nitrile elastomer, one with a patented

retainer lip. The washers provide uniform face loading throughout life of the seal, and provide positive sealing at the inner and outer diameters. The seal fits easily into conventional straight-wall or square-bore housings, with neither special machining nor polishing of the bore required.

Prior to installation, the seal is unitized as a one-piece cartridge unit for convenient handling, shipping, storing and mounting.

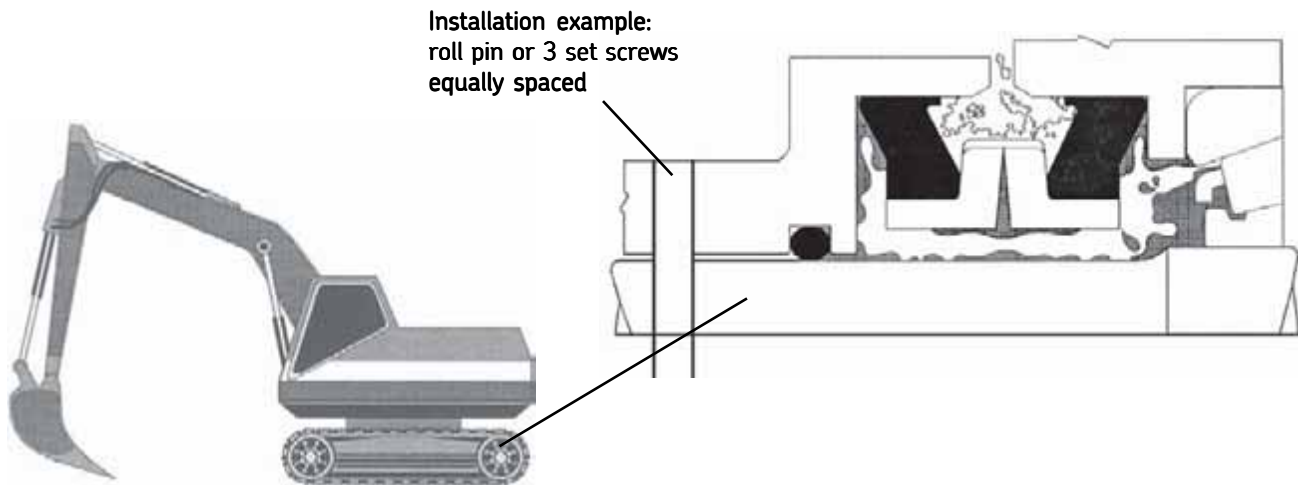
### Installation

The one-piece DF seal installs by hand. No special tools or jigs are required. A small interference lip on the O.D. edge of one of the washers holds and centers the entire seal in the bore while the assembler installs the companion bore or flange.

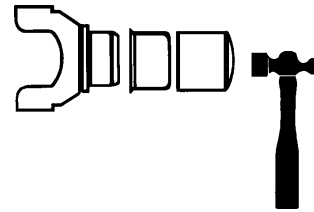
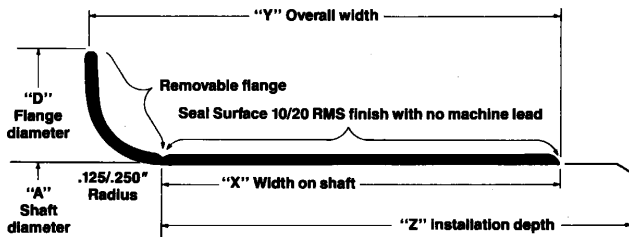
### Recommended operating conditions

<b>Speed</b> .....	Up to 750 FPM★
<b>Lubricant</b> .....	10W40 oil recommended; oil level should be to center line of shaft
<b>Pressure (internal)</b> .....	Up to 50 psi★
<b>Temperature</b> .....	-65° to 225°F (-54° to 107°C)

★Limiting conditions for continuous operation are 350 FPM (107 MPM), and 25 psi. If grease is used speed should be limited to 150 FPM maximum.



Speedi-Sleeve® selection and installation



SKF Speedi-Sleeves

When a new seal cannot compensate for excessive damage in small diameter shafts, select an SKF Speedi-Sleeve. This ultra-thin wear sleeve provides a snug, leak-proof fit on shafts up to 8" (203 mm) in diameter.



Excessive water, dirt, heat, lack of lubrication or high shaft speed can all cause a sealing lip to groove the shaft and ultimately create a leak. Speedi-Sleeve is the cost-effective alternative to resizing, metalizing or replacing the severely damaged surface. It installs easily, without excessive machine downtime.

Unlike conventional wear sleeves which add bulk to the shaft and require a change in seal size, Speedi-Sleeves fit snugly with only .022" (.6 mm) added to shaft diameter. The result is a leak-proof, corrosion-free sealing surface that will not require a change in seal size.

Speedi-Sleeve® Gold

Speedi-Sleeve Gold is an enhanced version of the popular Speedi-Sleeve, which offers improved resistance to abrasive wear. Designed to be used in applications where extended seal system life is needed, Speedi-Sleeve Gold bridges the performance gap between the regular Speedi-Sleeve and expensive custom shaft treatments. A thin metallic film applied to the base stainless steel imparts a gold color and significantly increases durability and surface hardness (to 2300 Vickers). The Gold version is particularly effective in high dust and grit environments. Yet installation is as easy as the original Speedi-Sleeve and the same seal size can still be used. Speedi-Gold is available from stock for dozens of shaft sizes or run from production in small quantities. The Gold sleeves are noted by a ★ in the size listing sections of this catalog. Also see publication #457027 for additional information.

Construction

Speedi-Sleeve is a highly engineered, precision part of SAE 304 stainless steel. Its surface is factory finished to 10-20 micro-inches (.25 - .50 Micrometers) Ra (arithmetic average) with a machine lead angle of zero ±0.05°. Speedi-Sleeve requires no expensive shaft preparation or machining before installation. Once in place, it provides a sealing surface that is superior to most original shaft finishes and materials.

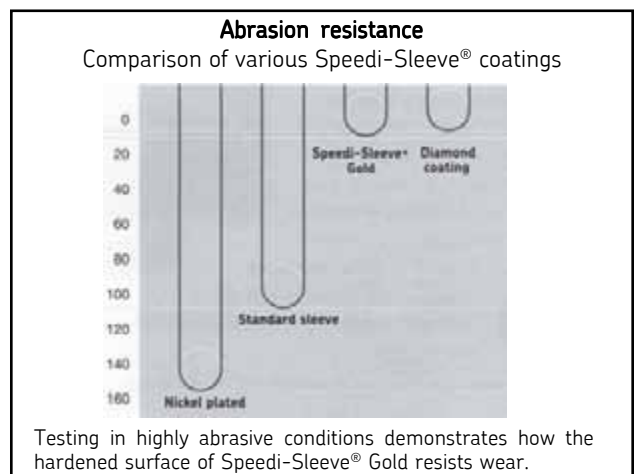
Selection

Correct size selection requires that three measurements be taken and averaged. Measure the shaft diameter just ahead of the wear path (not in the track worn by the seal) at three positions: 12-6 o'clock, 2-8 o'clock and 4-10 o'clock. The average of these readings will compensate for an out-of-round shaft.

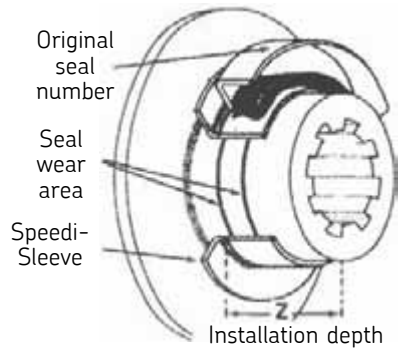
Compare your average diameter with the size ranges in the Speedi-Sleeve selection charts. When this diameter falls within a range, there is sufficient press-fit built into the sleeve to keep it properly positioned. Cement, such as a powdered metal epoxy filler is necessary only to fill deep grooves or scratches.

If shaft grooves do not require filling, apply a light layer of non-hardening sealant to the inner surface of the sleeve.

Shaft diameters a few thousandths under the minimum may be sleeved if the Speedi-Sleeve is cemented into place. Diameters larger than the maximum can be sleeved if the shaft is first machined to a size within the cataloged range, with a finish of 125 micro-inches Ra, or smoother.



## Speedi-Sleeve® installation



### Installation

Each Speedi-Sleeve is built with a removable installation flange. Also included is a tool for easy “pull-on” installation. Pull-on installation avoids the possibility of distortion from heating or other installation methods. The Speedi-Sleeve is designed to install without removing the shaft, for reduced equipment downtime.

Only a minimum of surface preparation is required. First, clean the old seal surface and file down any burrs or rough spots.

Note how far back the sleeve must be positioned to cover the old seal’s wear tracks. Measure to a convenient point or mark directly on the shaft.

Speedi-Sleeves may be installed to any depth required. Installation depth (see illustration) indicates the minimum distance from the end of the shaft that will be resurfaced when installed with the standard tool. If the sleeve must be positioned further down the shaft than the kit installation tool permits (the “Z” installation depth dimension) then a custom driver tool can be fabricated based on the desired depth. This can be a length of plastic or metal tubing or similar material. Reference the inner diameter to match the driver tool supplied with the kit. This will insure proper contact with the base of the sleeve flange. Square and deburr the ends.

If the shaft is deeply scored, fill the groove with powdered metal epoxy filler and install the Speedi-Sleeve before the filler hardens, otherwise apply a non-hardening sealant to shaft.

Drop Speedi-Sleeve into the installation tool end so that only the flange projects. Note that the flanged end of the sleeve goes on the shaft first. Then, gently pound the center of the tool until the sleeve reaches the point which was measured. Use a wood block or large face mallet on larger sizes to avoid the possibility of caving in the back of the installation tool.

If clearance is required after installation, the Speedi-Sleeve flange can be removed easily. Prior to installation, use side cutters to cut through the flange to the tear groove (pre-cut line). Pry the flange away from the seal surface horizontally along the shaft axis after the sleeve is in position. The flange will separate along the tear groove.

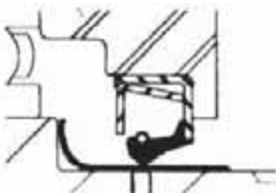
### Removal

Speedi-Sleeve can be removed in a number of ways depending upon personal preference and/or shaft configuration.

Suggested methods are:

1. The application of heat will often cause the sleeve to expand sufficiently to permit removal.
2. A pair of wire cutters may be effective to “rip” or tear the sleeve from the shaft, by starting at or near the flange using a twisting motion.
3. With the flange removed, the sleeve may be stretched by employing a small ball-peen hammer to “peen” one or more lines across the full width of the sleeve.

**Note:** Speedi-Sleeves are not designed to pass over ports, keyways or splines. If these can not be avoided, their diameters should be reduced. Taping, filling or other temporary covers are not reliable solutions.



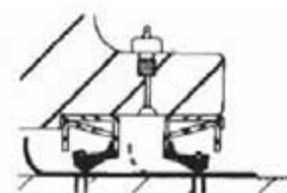
Speedi-Sleeve with standard single-lip seal.



Speedi-Sleeve with combination lip seal.



Two sleeves for double seal installation.



Flange removed for double seal installation.



Wear sleeves selection and installation

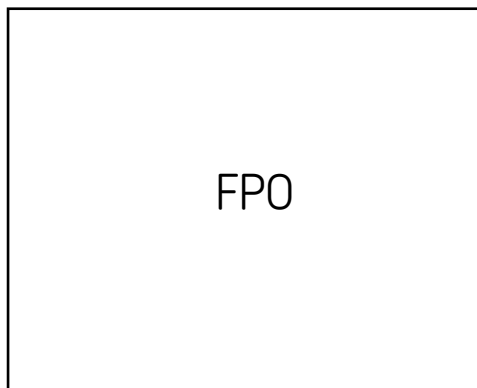
Continuous contact between a rotating shaft and a seal always causes shaft polishing friction. As demands increase in the sealing environment, wear can accelerate. Dust, heat, dirt, shaft speed and lack of lubrication can all cause a seal lip to groove the shaft. The ultimate result is a leak.

The shaft surface can groove and wear so much that installing a new seal will no longer eliminate the leak, nor compensate for the damage.

That's where SKF wear sleeves can help. Applied over the damaged shaft, a wear sleeve makes the shaft usable again. It eliminates shaft leaks and smooths out damaged surfaces at a cost much less than the expense of remetalizing or replacing the shaft.

SKF offers two types of wear sleeves

- For shafts 8.313" (211.50 mm) and larger, SKF's large diameter wear sleeves repair shafts and coordinate in size with large diameter seals.
- For shafts 8" (203 mm) and smaller, SKF's Speedi-Sleeve - so thin it requires no change in seal size - is the fast, permanent solution. See page 43A for detailed information.
- Both large diameter wear sleeves and Speedi-Sleeves are easily installed, cost-effective alternatives to rebuilding damaged shafts. They are explained in depth on the following pages. For convenience, SKF also offers seal and wear sleeve kits. All styles, sizes and kits for SKF wear sleeve are listed in the complete numerical index (pgs. 232-363).



SKF large diameter wear sleeves-Installation

Polishing friction and shaft scoring from abrasive contamination during operation between a rotating shaft and a seal lip makes severe shaft damage a common occurrence. Without checking the problem, premature leakage can occur, reducing service life and production efficiency.

SKF's large diameter wear sleeve provides a high quality sealing surface without shaft replacement. These heavy-duty sleeves are used extensively on large 8.313" to 45.000" (211.15-1143.00mm) diameter shafts in primary metals mills, rolling mills, chemical and mineral processing plants, crushers and power generation applications.

Construction

Standard LD sleeves are custom made from high quality SAE 1008 steel of approximately Rockwell B96 hardness. The sleeve is specially finished to provide a high quality sealing surface for radial shaft seals. A hard chrome plating with a relative surface hardness of HRC 40-65 is applied to provide wear and corrosion resistance. Other sleeve materials and properties can be specified according to the application conditions and quoted upon request.

Selection tables

Dimensions: Standard wear sleeve thickness is .094" (2.4 mm). Two styles are available:

LDSL3 is designed with a flange to provide assistance in final positioning of the sleeve. It has a sealing surface width .250" (6.35mm) narrower than the overall sleeve width. The flange adds a nominal 1.000" over the shaft diameter.

SKF style	Shaft range <sup>1</sup>	* Wd min.	* Wd max
LD3LV3 w/flg	8.313" -29" 211.50mm-736.6mm	.688" 17.5mm	2.500" 63.5mm
	30" -45" 762mm-1143mm	1.000" 25.4mm	2.500" 63.5mm

\*Overall (1.5" to 2" max. at 45" shaft diameter; 38.1mm to 50.8mm at 1143mm shaft diameter)

LD3LV4 is the same except without the flange. This version can be made slightly narrower.

SKF style	Shaft range <sup>1</sup>	* Wd min.	* Wd max
LD3LV4 w/o flg	8.313" -29" 211.50mm-736.6mm	.500" 12.7mm	2.500" 63.5mm
	30" -45" 762mm-1143mm	.750" 19.1mm	2.500" 63.5mm

\*Overall (1.5" to 2" max. at 45" shaft diameter; 38.1mm to 50.8mm at 1143mm shaft diameter)

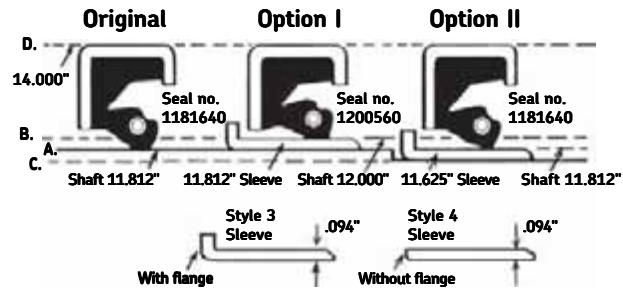
<sup>1</sup> Contact SKF for large diameter sleeves outside the primary shaft range.



## Wear sleeves selection and installation-(cont.)

All SKF large diameter wear sleeves are designed for heated slip-fit installation. For most applications, install sleeves by using a bearing heater (either hot air, hot oil or electric induction). For proper expansion, heat the sleeve to approximately 350°F (177°C). Caution should be used not to exceed 400°F (204°C).

Note: since the mass of the cold shaft is considerable greater than the mass of the hot sleeve, caution should be exercised as the sleeve temperature will drop very rapidly as it comes in contact with the shaft.



- A. Original shaft diameter
- B. Original shaft with sleeve installed
- C. Original shaft machined for sleeve installation
- D. Bore diameter

**LDSL3** is designed with a flange to provide assistance in final positioning of the sleeve. An initial heated slip-fit is still required. If the sleeve should cool too quickly when slipping onto the shaft, the flange may assist in final positioning or to square it on the shaft. Use a hydraulic press and tool which clears the sleeve O.D. Bring pressure to bear at the base of the flange in at least three equally spaced locations. Such axial sleeve movement should be held to a minimum to avoid flange deformation.

**LDSL4** wear sleeves, designed without a flange, also must have a heated slip fit. Positioning on the shaft should be done carefully since attempts to move the sleeve from the initial location is not recommended as damage to the O.D. chamfer, and consequently to seals passing over it, can occur.

### Installation tables

Option I - No shaft machining is required. However, a seal designed for a nominal shaft size .188" (4.8 mm) larger than the original must be used. SKF's broad size coverage and wide range of shaft/bore combinations for large diameter seals makes this the more popular installation method.

Option II - Before installation, the shaft must be machined to .188" (4.8 mm) under its original size and finished to 10-125 micro-inches Ra (arithmetic average), to allow use of the same size original seal. This method will eliminate the problems of creating new seal numbers and additional seal inventories.

Shaft		Sleeve (metal I.D.)	
Diameter	Tolerance	Nominal press fit	I.D. tolerance
Up to 2.000" Up to 50.8mm	±.001" .025mm	.005" .127mm	.002" .051mm
2.001" to 3.000" 50.8mm to 76.2mm	±.001" ±.025mm	.005" .127mm	+.002" -.003" +.051mm -.076mm
3.001" to 5.000" 76.2mm to 127mm	±.0015" ±.038mm	.005" .127mm	+.002" -.004" +.051mm -.102mm
5.001" to 7.000" 127mm to 177.8mm	±.0015" ±.038mm	.006" .152mm	+.002" -.004" +.051mm -.102mm
7.001" to 12.000" 177.8mm to 304.8mm	±.002" ±.051mm	.007" .178mm	+.002" -.005" +.051mm -.127mm
12.001" to 20.000" 304.8mm to 508mm	+.004" -.002" +.102mm -.051mm	.008" .203mm	+.002" -.008" +.051mm -.203mm
20.001" to 40.000" 508mm to 1016mm	+.008" -.002" +.203mm -.051mm	.008" .203mm	+.002" -.008" +.051mm -.203mm
40.001" to 60.000" 1016mm to 1524mm	+.010" -.002" +.254mm -.051mm	.008" .203mm	+.002" -.010" +.081mm -.254mm

Note: Please contact us for recommendations concerning large diameter wear sleeves that will operate in systems with sustained oil sump temperatures greater than 170°F (76.7°C) and surface speed in excess of 3950 FPM (20.07 M/S).

## Troubleshooting

### Performance improvement through proper installation

Large diameter solid or split seal performance is optimized with proper installation and operating practices. Listed here are a number of recommendations and comments which will aid in both installation and troubleshooting. See pages 49A-50A for additional installation instructions.

Complaint	Explanation
1. Seal looks too big.	1. In a free state (uninstalled) and with the spring removed, SKF HS solid and HS Split seal outside diameters are .5%-2% larger than the seal housing bore.
2. The all-rubber seal is wider than the one it's replacing.	2. To assure cover plate compression, the thickness of an all-rubber seal should exceed bore depth by .016" (.41 mm-1.02 mm).
3. Split seal ends overlap when installed.	3. Seal ends should be butted at the start of installation. Do not press the seal into the bore proceeding from one end to the other.
4. Split seal ends do not come together when installed.	4. Lubricate the shaft and bore, or seal inner and outer diameters, before pressing the seal into the bore. If a gap exists, compare bore and seal diameters for size discrepancies. Larger cross-sections have their ends cut square and may have a small angled gap which is closed by the cover plates compression. Smaller cross-sections are cut with angled ends and tend to butt square in the bore. Compression may eliminate the gap, so check after the cover plate has been tightened.  Note: Due to a unique control wire design that permits easier installation, HS7 seals may have a gap at the joint even after the cover plate is installed. Special attention to place the gap at the 12 o'clock position during installation is necessary.
5. Seal wears out too fast.	5. Check the shaft diameter; it may be larger than originally thought. Lubricate the seal at installation. Adjust the bearings to reduce shaft run-out. Reduce pressure by venting and oil draining to carry lubricant from seal cavity to the reservoir. Consider a seal with improved materials, like Duralip, to resist abrasion.
6. Wear is all on one side of seal.	6. Try to correct shaft-to-bore housing alignment.
7. Seal lip is hardened.	7. Be sure the seal is adequately lubricated during operation. Eliminate excess pressure. Either reduce temperature or upgrade the seal material.

## Seal optimization check list

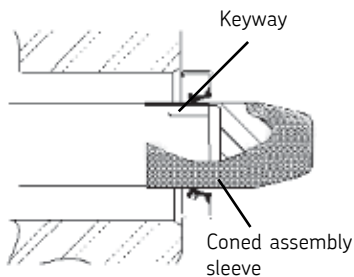
You can help extend the life of all types of seals by checking these conditions:

<ul style="list-style-type: none"> <li><input type="checkbox"/> Never re-use a worn seal.</li> <li><input type="checkbox"/> Seal stored properly in cool area (not work area) at 40-70% humidity.</li> <li><input type="checkbox"/> Packaging intact, seal lip not distorted by handling or hanging on a peg or nail.</li> <li><input type="checkbox"/> Installation tools correct.</li> <li><input type="checkbox"/> Area clean and free of grit or contamination.</li> <li><input type="checkbox"/> Correct seal for speed.</li> <li><input type="checkbox"/> Correct seal for media.</li> <li><input type="checkbox"/> Check operating temperature against lip material specifications.</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Lubricant, including additives, must be compatible with seal lip material (Check compatibility table or contact your SKF rep.)</li> <li><input type="checkbox"/> The leading edge of the shaft should be chamfered. Shaft finish should be 9-17 micro inches Ra (.23 - .43 micro meters) with a machine lead angle of <math>0 \pm 0.05</math> degrees.</li> <li><input type="checkbox"/> Shaft hardened to Rockwell C 30 or harder.</li> <li><input type="checkbox"/> Tolerances for shaft diameter must be within range.</li> <li><input type="checkbox"/> Shaft-to-bore misalignment within .010" (0.25 mm)</li> <li><input type="checkbox"/> Dynamic run-out within .010" (.025 mm) TIR.</li> <li><input type="checkbox"/> Whenever possible equipment should be vented to the atmosphere to help prevent pressure build-up.</li> </ul>
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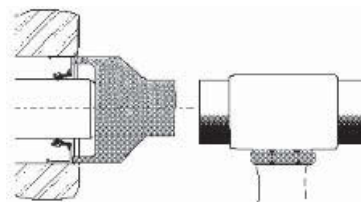
## Installation tips

### Installation checklist

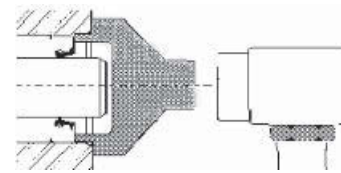
- 1. Check the bore.** Remove any burrs from the leading edge. The inside corner of the bore should have a maximum radius of .031" (.78mm).
- 2. Check the shaft.** Remove burrs, nicks, grooves and spiral machine marks (machine lead).
- 3. Check the shaft end.** Remove burrs or sharp edges. If the shaft enters the seal against the sealing lip, the end must have a radius or chamfer or a special installation tool can be used.
- 4. Check splines and keyways.** Sharp edges should be covered with a lubricated assembly sleeve, shim stock or tape to protect the seal lip.
- 5. Check the dimensions.** Make sure that shaft and bore diameters match those specified for the seal being used.
- 6. Check for part interference.** Watch out for other machine parts that might rub against the seal and cause friction and damaging heat.
- 7. Check the seal.** Damage may have occurred before installation. A sealing lip that is turned back, cut or otherwise damaged should be replaced.
- 8. Check seal direction.** Make sure the new seal faces in the same direction as the original one. Generally, the lip faces the lubricant or fluid being retained.
- 9. Pre-lubricate the sealing element.** Before installation, wipe the sealing element and shaft with the lubricant being retained. While the O.D. of a metal clad seal can be lightly lubricated to ease installation, the O.D. of a rubber covered seal should always be lubricated. (Fig. A)
- 10. Select the correct installation tool.** Press-fitting tools should have an outside diameter approximately .010" (.25mm) smaller than the bore size. For best results, the center of the tool should be open so pressure is applied only at the seal outer edge.
- 11. Never hammer directly on the surface of the seal.** Use proper driving force such as a soft-face tool arbor press or soft workpiece (wood). To avoid cocking the seal, apply force evenly around the outer edge.
- 12. To avoid cocking the seal,** bottom out the tool on the shaft (Fig. B), the housing (Fig. C, E) or bottom out the seal in the housing cavity (Fig. D).



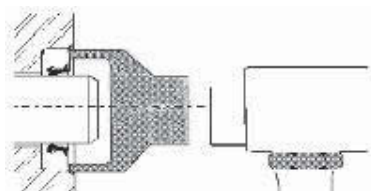
**Fig. A** A lubricated assembly sleeve prevents damage to seal lip from keyways, splines & unchamfered shafts.



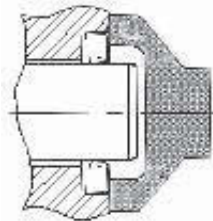
**Fig. B** Through bore - installation tool bottoms on shaft.



**Fig. C** Through bore - machined face of installation tool bottoms on machined housing face.



**Fig. D** Stepped bore - seal bottoms in housing.



**Fig. E** Stepped bore - seal flush with bore face.

### Post-installation tips

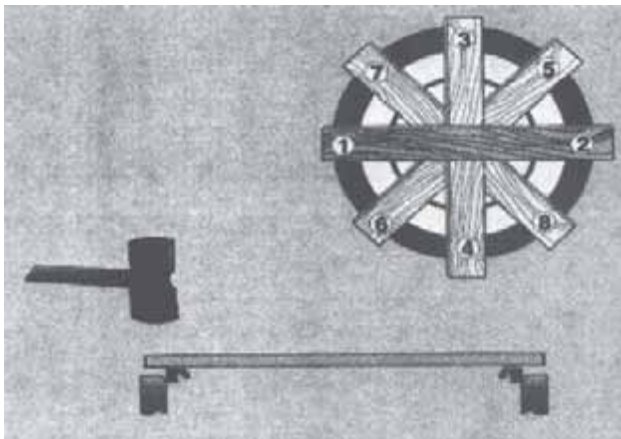
When painting, be sure to mask the seal. Avoid getting paint on the lip, or the shaft where the lip rides. Also, mask the vents so they will not become clogged. If the paint is to be baked or the mechanism otherwise subjected to heat, the seals should not be heated to temperatures higher than their materials can tolerate.

In cleaning or testing, do not subject seals to any fluids or pressures that could damage them. Check the compound selection chart in the *Seal handbook* when in doubt. Improper installation or test procedures will result in early seal failure.

*Installation tips - large diameter seals*

**Installation tips - large diameter metal clad seals**

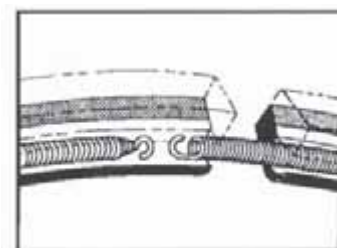
1. The general instructions for confirming dimensions, preparing the housing bore and pre-lubrication of the lip element(s) as outlined under "The bore requirements" and "Installation of split seal" sections must be observed.
2. Generally, arbor press methods are not practical for large metal clad seals. Therefore, once squarely positioning the seal O.D. in the bore chamfer, a wood board or similar device long enough to span the seal can be used to buffer manual hammer strikes. Impacts should be delivered sequentially (see illustration below) while insuring that the seal does not tilt or cock in the bore.
3. Drive the seal in gradually, working around the circumference in sequence; do not drive one point in fully and then move on.
4. Multiple, small hammer strikes are better than a few heavy blows.



**Installation of split and solid HS seals**



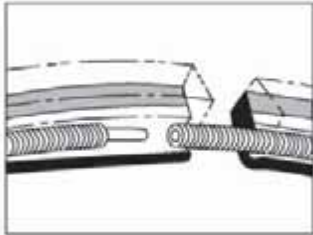
1. Before installing any seal the leading edge of the bore should be deburred and a rounded corner or chamfer provided for ease in installing. Check the shaft for nicks, burrs, grooves or spiral machine marks (machine lead) that could cause leakage. A burr-free chamfer or radius is required for best results.
2. Be sure the shaft and bore diameters match those specified for the seal selected, and make sure the new seal faces in the proper direction. Generally the lip faces the lubricant or fluid to be retained.
3. Pre-lubricate the sealing element and shaft with the lubricant being retained.
4. When installing a split seal with the threaded spring connector, rotate each end of the spring approximately two revolutions "backwards". Pull the ends together, then allow the ends to rotate "forward", so that the small end screws into the other end. Tighten by rotating the ends towards each other. The connection will be secure even if one coil of the small diameter remains exposed. When installing the Type HS8 split seal, roll the spring (which is now connected) into the seal spring cavity making sure the seal lip and butt ends of the seal line up correctly. In the case of the HS9 split seal, the entire spring must be rolled into the seal spring cavity before installation.
5. When installing the split seal with hook and eye, pull the ends toward each other and simply insert the open end of one hook into the eye of the other end. In making either spring connection, the spring should not be stretched further than necessary. Over stretching may cause permanent separation of the spring coils.



## Installation tips - large diameter seals-(cont.)

### Installation of split and solid HS seals (cont.)

6. When installing the type HS7 split seal with the control wire connector, simply insert the wire into the core of the garter spring. All other installation procedures are the same.



7. In the free state, HS seals measure oversize to the bore diameter, with the spring removed. To install any of the SKF HS design split seals it is important that the butt ends of the seal be installed first (together) and that the butt be installed as high as possible (12 o'clock position - see Illustration A) from the lubrication level on horizontal shaft applications. Press the butt ends "home" before installing the remainder of the seal. Next, start the remainder of the seal into the housing at the 3 and 9 o'clock positions. Finally, start the seal into the housing at the 6 o'clock position. On shafts over 48 inches, it may be desirable, after installing the butt ends of the seal at the 12 o'clock position, to start portions of the seal at the 3 - 6 - 9 o'clock positions. Once the seal is fully started into the housing, it may be "pushed home" so that the cover plate can be installed. (see Illustration B)

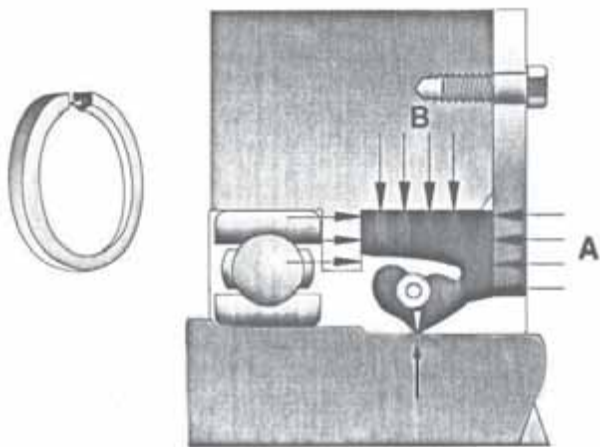


Illustration A

8. After the seal is completely seated in the housing, apply the coverplate and tighten the bolts. This will compress the seal which seals the housing both axially and radially giving positive sealing action. The cover plate can be split 180° apart if needed for installation without dismounting the shafts. (see Illustration C) With care, the butt ends of the seal can be bonded together, if desired, using any of the rubber bonding agents on the market today. However, it is imperative that the sealing lip contacts the shaft in a straight, unbroken line and the cover plate has the recommended clearance to the shaft as shown below.

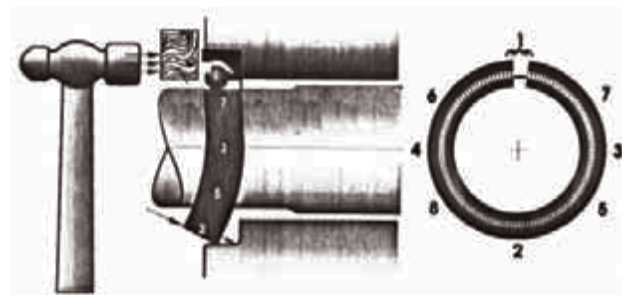
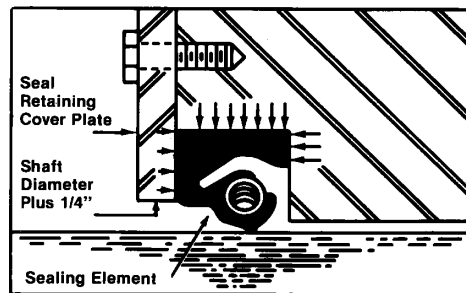


Illustration B

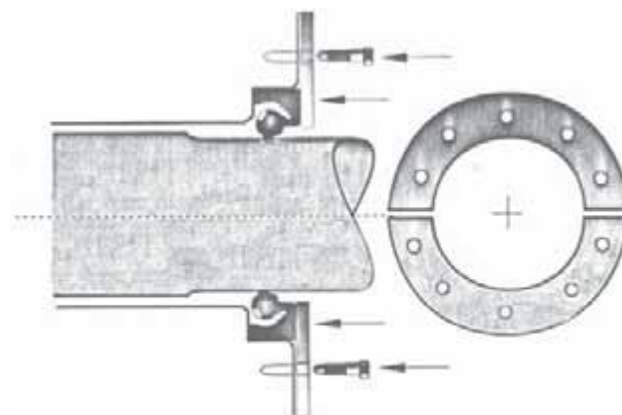


Illustration C



Hydraulic/pneumatic products

SKF offers three types of seals designed to seal out dirt or retain lubricants in applications involving reciprocating motion. Used primarily in hydraulic and pneumatic cylinders and similar applications, these types are Block Vee packings, Wiper-Scraper seals and double lip rod Wiper-seals. Following is complete information on each type, including specific application data, styles and sizes available, and installation guidelines.

**Block Vee packings**

SKF's Block Vee packing makes an excellent static seal where there is slight movement or vibration between the sealed parts, such as the joint between a cylinder tube and an end cap. It features a unique cross section. Compared to "U" packings, the block vee is more compact and performs efficiently under higher pressures, up to 4000 psi and more.

**Applications**

Select the block vee for a combination of reciprocating and rotating motion applications, or rotation only in low speed applications such as hand-actuated valves. Valves and control mechanisms, brakes, clutches, accumulators, jacks, pumps and vacuum devices are ideal environments for Block Vee usage.

**Temperature**

Operating temperature ranges for Block Vee packing are per the compound compatibility chart, page 6A. Duralip packings used in hydraulic or pneumatic applications at operating temperatures of 32°F (0°C) or below may experience "Blow-By" when air is introduced into the cylinder.

**Selection**

Illustrations of a Block Vee cross-section and typical piston and rod applications appear below. Also shown is a groove design easing installation in small bores.

**Surface recommendations**

Metal surfaces contacting Block Vees should be smooth and free from tool marks. Rubbing surfaces, should have a finish of 10-20 micro-inches Ra (arithmetic average).

**Pressure**

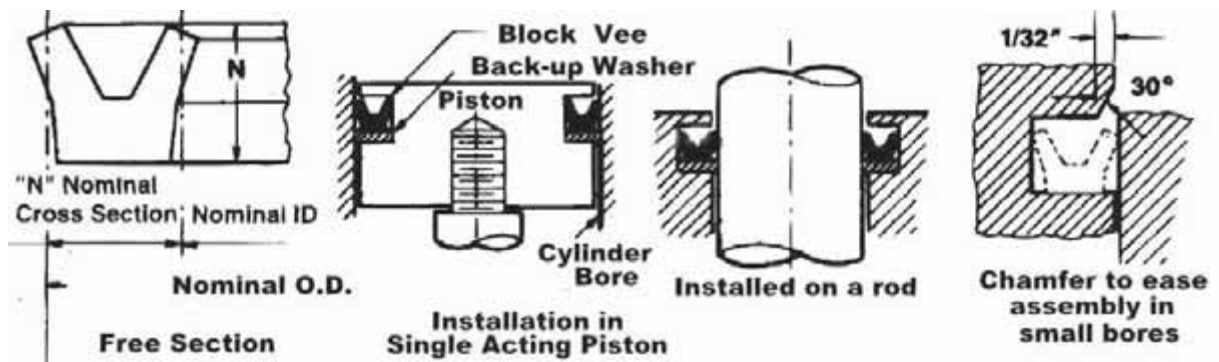
When pressures exceed 500 psi, use of a backup washer is recommended with the necessary groove width allowance. Operating pressures in excess of 4000 psi requires special attention. Minimum recommended operating pressure in hydraulic (oil) cylinder is 50 psi, and 100 psi in pneumatic (air) cylinders.

**Back-up washer**

Back-up washers are made from a special cellulose fiber base impregnated with a protein and glycerine binder. These washers offer excellent chemical resistance to gasoline, hydraulic fluid, petroleum oils, fuel oils and many organic solvents. Back-up washers are not intended for sealing water where intermittent wet and dry conditions exist. Temperature at the back-up washer should not exceed 200°F (93°C). See size listings for availability.

**Installation**

Correct dimensions and pre-lubing of the parts enclosing the block vee are critical for correct installation and operation. The radial depth of the groove in which the block vee is placed should not be less than the block vee's nominal cross-section. Keep the maximum diametral clearance (minimum diametral clearance plus tolerance on the two parts) as small as practical. Refer to the table of maximum clearance values (see page 52A), which is based on prior experience with standard applications. Examples clarify the chart's details.





## Hydraulic/pneumatic products (cont.)

### Piston packing example

Assume a nominal 3" cylinder. Service is normal; operating pressure is above 1000 psi. The designer has chosen actual cylinder I.D. (dimension A) as 3.000" +.005/-.000. N is 7/32" or .218 (part #711831).

1. First determine the minimum piston O.D. (B min):  
 $B \text{ min} = A \text{ max} - Y$   
 $= 3.005" - .010" = 2.995"$
2. Groove diameter (C), then will be:  
 $C = B \text{ min} - 2N = 2.995" - .438"$   
 $= 2.557" + .000/-.005$
3. Groove width (D) = N + 1/32" + back-up thickness (if used).  
 $D = 7/32" + 1/32" + 1/16" = 5/16" + .010/-.005$   
 $.218 + .031 + .063 = .312 + .010/-.005$

### Rod packing example

For this cylinder, assume a nominal 1 5/8" piston rod. Service and pressure are as above. The actual rod diameter (dimension E) is chosen by the designer as: 1.625" +.000/-.005. N is 3/16" or .188 (part #711823)

1. Now determine the max housing diameter (F):  
 $F \text{ max} = E \text{ min} + Y$   
 $= 1.620" + .010" = 1.630"$
2. Groove diameter (G), then will be  
 $G = F \text{ max} + 2N = 1.630" + .375"$   
 $= 2.005" + .005/-.000$
3. Groove width (D) = N + 1/32" + back-up thickness (if used).  
 $D = 3/16" + 1/32" + 1/16" = 9/32" + .010/-.000$   
 $.188 + .031 + .063 = .282 + .010/-.000$

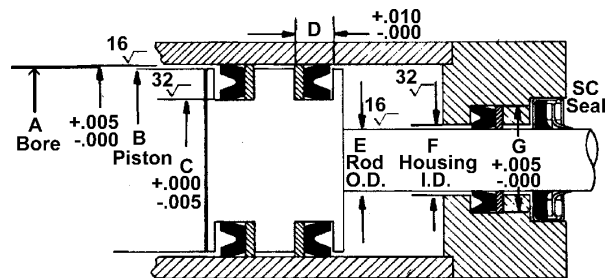
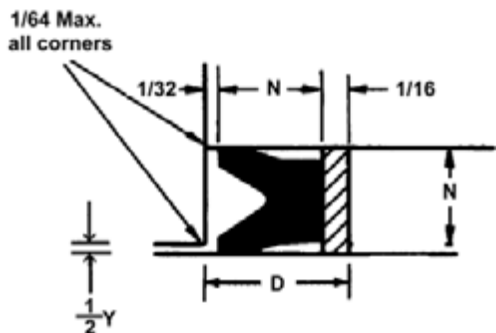
### Availability

The standard sizes listed in this handbook are carried in stock.

Table Y Maximum diametral clearance		
Pressure	Under 1000 PSI	Above 1000 PSI
Light service	Y = .020"	Y = .015"
Normal service	Y = .015"	Y = .010"
Hard service	Y = .010"	Y = .005"

Table of dimensions	
N =	Block vee nominal cross-section (axial and radial)
Y =	Maximum diametral clearance
A =	Cylinder bore (size and tolerance +.005 -.000 set by designer)
B min =	A max - Y
C =	B min - 2N
D =	Groove width = N + 1/32" + back-up thickness (if used).
E =	Rod diameter (size and tolerance +.000-.005 set by designer)
F max =	E min + Y
G =	F max + 2N



## Hydraulic/pneumatic products installation

### Wiper-scraper seals

Sealing dirt out of hydraulic cylinders and removing solid contaminants from the rod can be done effectively by one sealing device: SKF's wiper-scraper seal. This unique all-in-one seal works consistently, at a cost comparable to that of standard spring-loaded shaft seals.

Simple and compact in design, SKF's wiper-scraper seal consists of a thin spring brass scraper and a pliable nitrile wiping member assembled in tandem position, securely clamped and enclosed in a steel shell. The seal's inner diameter is slightly under shaft size. When assembled over the shaft or rod, it fits snugly. Designed for reciprocating shafts only, wiper-scrappers will not withstand pressure. In applications involving pressure, select a block vee packing.

Due to its highly effective scraper action, these seals generate considerable drag. Designers should conduct functional tests to evaluate their performance in non-hydraulic cylinder applications.

### Selection

Correct selection of SKF wiper-scraper seals depends on shaft diameter, cross-section and width dimensions. Refer to table below.

Shaft diameter	Radial cross-section	Width
.500" (12.7 mm)	.250" (6.35 mm)	.250" (6.35 mm)
.625 - 3.000" (15.9 mm - 76.2 mm)	.250" (6.35 mm)	.281" (7.14 mm)
3.125 - 5.250" (79.3 mm - 133 mm)	.313" (7.9 mm)	.328" (8.3 mm)
5.313 - 6.000" (135 mm - 152 mm)	.313" (7.9 mm)	.359" (9.12 mm)

### Operation

The scraper's self-aligning feature not only accommodates rod eccentricity during assembly; it also permits the scraper to follow the rod's side movement up to .020" (.5 mm) misalignment. The brass scraper lip fits snugly, removing dried or frozen mud, tar and other materials stuck to the rod on the inward stroke. The nitrile wiping member then removes any water, dust or abrasive particles which might pass by the scraper.

### Recommended operating condition

The wiper-scraper seal should function adequately under the following conditions.

**Shaft diameter**-Tolerance of plus or minus .001" (.03mm) required to assure efficient scraping action.

**Shaft eccentricity**- Accommodates up to .020" (.5 mm) misalignment.

**Shaft finish**-10-20 micro-inches Ra. Shaft hardness-Rockwell C30 minimum.

**Shaft material**-Steel or stainless steel. If chrome-plated, the entire surface should be plated.

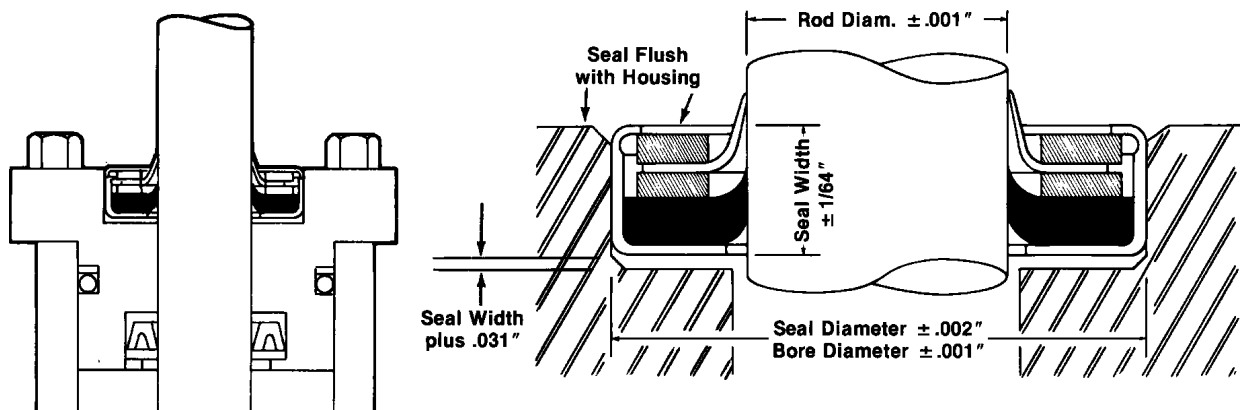
**Shaft speed** -Designed for reciprocating applications; not suitable for rotating shafts. No practical limit to speed of reciprocation.

**Pressure**-Not designed to withstand pressure.

**Temperature**- From -20° to 250°F (short peaks only) (-29° to 121°C).

### Wiper-Scraper seal installation

The Wiper-Scraper seal is retained in steel housings by simple press-fit. It does not require special machining for snap rings. To avoid restriction of the scraper's floating feature, SKF engineers recommend that the seal housing bore depth be machined .031" greater than the seal width and the seal installed flush with the face of the housing. Do not "bottom out" the seal.



## Hydraulic/pneumatic products installation-(cont.)

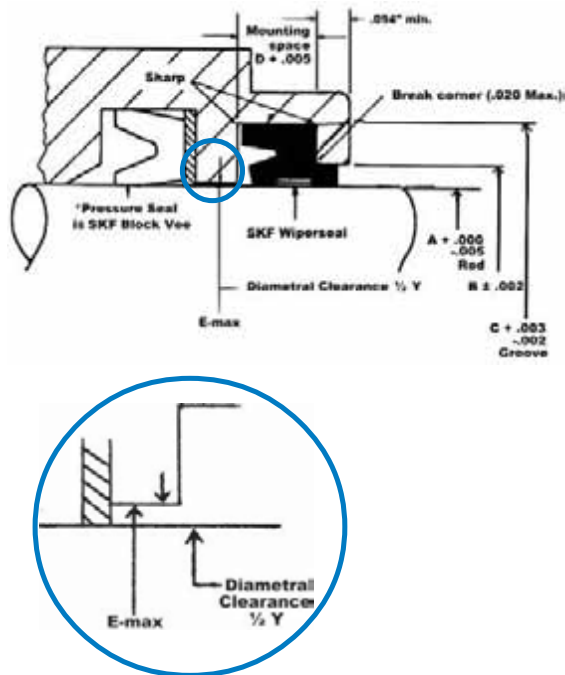
### Wiperseal

SKF's double lip Wiperseal is designed for reciprocating rods. As a wiper, it excludes dirt and contaminants protecting the rod seal and internal components.

### Applications

A molded elastomer part, SKF's Wiperseal features dual opposed lips for dirt exclusion in an internal groove. Valuable in rod applications, it increases the packing life and protects the rod finish. This improved wiping performance extends internal component life and reduces maintenance.

Double lip rod Wiperseals are not recommended for pressure applications. In those situations, use a block vee packing (page 52A). Wiperseals are available in nitrile and fluoroelastomer (LongLife) compounds.



### Example

For this cylinder, assume a nominal 1.625" piston rod, normal service, no pressure. The actual rod diameter (dimension A) is chosen by the designer as: 1.625" +.000/-.005 From the size list, D is .218" (part #709011)

1. Now determine the maximum housing diameter (E):  
 $E_{max} = A_{min} + Y = 1.620" + .015" = 1.635"$
2. The balance of the dimensions can be determined from the table below.

All metal surfaces contacting double lip rod wiperseals should be smooth and free from tool marks. A finish of 10-20 micro-inches Ra (arithmetic average) is recommended for the rod surface.

Quick reference standard stock size list for WS Nitrile rod wipers					
Nominal rod size	Part no.	A	B	C	D
.500	709001	.500	.618	.802	.203
.625	709002	.625	.743	.927	.203
.688	709003	.688	.806	.990	.203
.750	709004	.750	.868	1.052	.203
.875	709005	.875	1.009	1.240	.218
1.000	709006	1.000	1.134	1.365	.218
1.125	709007	1.125	1.259	1.490	.218
1.250	709008	1.250	1.384	1.615	.218
1.375	709009	1.375	1.509	1.740	.218
1.500	709010	1.500	1.634	1.865	.218
1.625	709011	1.625	1.759	1.990	.218
1.750	709012	1.750	1.884	2.115	.218
2.000	709014	2.000	2.134	2.365	.218
2.125	709015	2.125	2.259	2.490	.218
2.250	709016	2.250	2.384	2.745	.281
2.500	709018	2.500	2.634	2.995	.281
2.750	709019	2.750	2.884	3.245	.281
3.000	709020	3.000	3.134	3.495	.281
3.250	709021	3.250	3.384	3.745	.281
3.500	709022	3.500	3.634	3.995	.281
3.750	709023	3.750	3.884	4.245	.281
4.000	709024	4.000	4.134	4.495	.281
4.250	709025	4.250	4.384	4.745	.281
4.500	709026	4.500	4.634	4.995	.281
5.000	709029	5.000	5.134	5.495	.281
5.250	709030	5.250	5.384	5.745	.281
5.500	709031	5.500	5.634	5.995	.281
6.000	709034	6.000	6.134	6.495	.281

### Installation

Correct dimensioning of the parts enclosing the double lip wiperseal are critical to installation and operation. Radial depth of the groove in which the seal is placed should not be less than its nominal cross-section. Keep the maximum diametral clearance (minimum diametral clearance plus tolerances on the two parts) as small as practical.

Hydraulic/pneumatic products selection

Sirvon rings

SKF Sirvon (TFE base) (lip code T) piston rings are designed for hydraulic and pneumatic applications. They may replace conventional metal or segmented carbon rings in pneumatic applications, or rubber and leather packings.

Advantages

1. Sirvon rings require no lubrication. They operate dependably in dry running applications, such as in compressors, food pumps and in any applications where oil might contaminate the air, gas or liquid in the system.
2. Friction is greatly reduced, permitting smaller h.p. motors.
3. Sirvon rings greatly increase service life, eliminate scoring, galling and stick-slip.
4. Piston design may be simplified, reducing production costs. While many pistons with metal rings require multiple parts, Sirvon rings do not.
5. Easy stretch installation reduces assembly costs. A 7% maximum stretch is recommended.
6. A cylinder bore finish of 10-20 micro-inches Ra (arithmetic average) is recommended. More expensive machining is not required.

Design factors

**Pressure-** While the practical limits for Sirvon rings have not been conclusively determined, pressures up to 8,000 psi have been applied successfully.

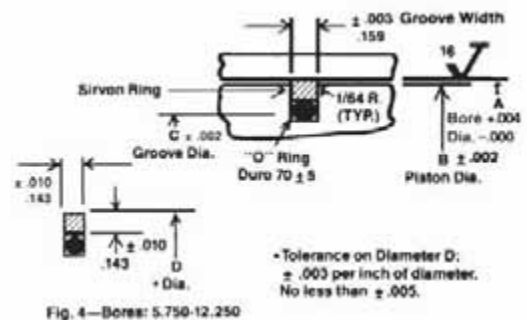
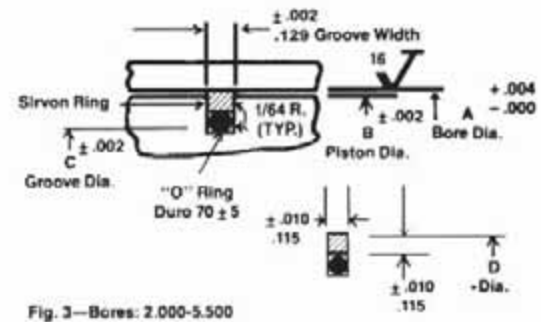
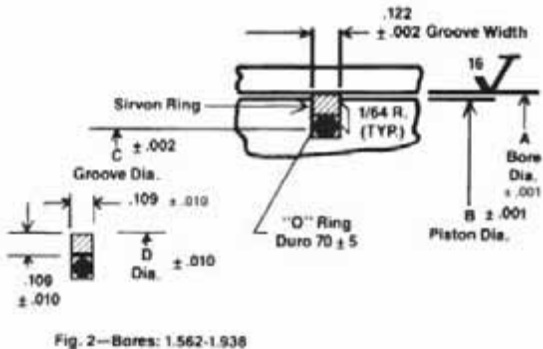
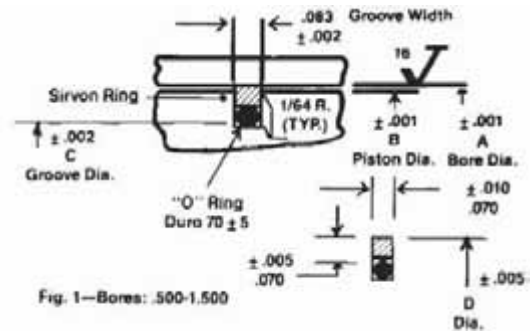
**Stretch limit-** Varies with diameter and cross-section of the Sirvon ring. For example, a 2.000" diameter ring is stretched 13% during installation; a 4.000" diameter ring is stretched 6.1% with satisfactory snap-back, to correct tolerances in the respective ring grooves.

Cross-sections increase with bore diameter:

- .500" to 1.500" at .070" sq.
- 1.562" to 1.938" at .109" sq.
- 2.000" to 5.500" at .115" sq.
- 5.750" to 12.250" at .143" sq.

**O-ring back-up-** If a slight leakage can be tolerated in hydraulic pistons, no o-ring is required. If no leakage can be tolerated and o-rings are compatible with the temperature and medium, they are recommended. The groove dimensions shown allow for the installation of an appropriate o-ring.

**Standard sirvon rings-** A guide for recommended groove dimensions and tolerances is given for each of the four size ranges listed (.500"-1.500", 1.563"-1.938", 2.000"-5.500", and 5.750"-12.250").



## Hydraulic/pneumatic sirvon rings

Design guide for solid stock sirvon rings					
★(Temperature range: -400°F to +500°F) (-200°C to 260°C)					
SKF part no.	A bore dia.	B pist. dia.	C groove dia.	D ring dia.	O-ring dash no.
•714583	0.500	0.497	0.240	0.511	-009
•714584	0.625	0.622	0.366	0.636	-011
•714585	0.750	0.747	0.490	0.761	-013
•714586	0.875	0.875	0.615	0.886	-016
714587	1.000	0.997	0.741	1.011	-017
•715040	1.125	1.122	0.866	1.136	-019
715041	1.250	1.247	0.991	1.261	-021
•715042	1.375	1.372	1.116	1.386	-023
715043	1.500	1.497	1.241	1.511	-025
•715044	1.562	1.559	1.172	1.583	-122
•715045	1.625	1.622	1.233	1.636	-123
•715046	1.687	1.684	1.297	1.708	-124
715047	1.750	1.747	1.360	1.771	-125
•715049	1.875	1.872	1.485	1.896	-127
713397	2.000	1.996	1.606	2.024	-129
•713312	2.125	2.121	1.729	2.149	-131
713313	2.250	2.246	1.858	2.274	-133
•713314	2.375	2.371	1.983	2.390	-135
713315	2.500	2.496	2.106	2.524	-137
713316	2.750	2.746	2.356	2.774	-141
713317	3.000	2.996	2.606	3.026	-145
713318	3.250	3.246	2.856	3.276	-149
713319	3.500	3.496	3.108	3.526	-151
713320	3.750	3.746	3.358	3.776	-152
713321	4.000	3.996	3.608	4.026	-153
714493	4.250	4.246	3.858	4.278	-154
714494	4.500	4.496	4.108	4.528	-155
714495	4.750	4.746	4.358	4.778	-156
714427	5.000	4.996	4.608	5.028	-157
714496	5.250	5.246	4.858	5.280	-158
714497	5.500	5.496	5.108	5.530	-159
714498	5.750	5.746	5.232	5.780	-251
•715101	5.875	5.871	5.357	5.905	-252
714499	6.000	5.996	5.482	6.030	-253
714500	6.250	6.246	5.732	6.282	-255
714501	6.500	6.496	5.982	6.532	-257
714502	6.750	6.746	6.232	6.782	-258
714503	7.000	6.996	6.482	7.032	-259
717479	7.250	7.245	6.732	7.286	-260
715182	7.500	7.495	6.982	7.537	-261
•715209	7.750	7.745	7.232	7.789	-262
715284	8.000	7.995	7.482	8.040	-263
715146	8.250	8.245	7.732	8.291	-264
717404	8.500	8.494	7.982	8.543	-265
715181	9.000	8.994	8.482	9.045	-267
717613	10.000	9.994	9.482	10.050	-271

• Check SKF for availability

★ Fluorocarbon base materials sublime at 620°F (327°C)

Contact SKF for availability of Sirvon rings for select cylinder bore dia. up to 16.000"

## Scotseal® family

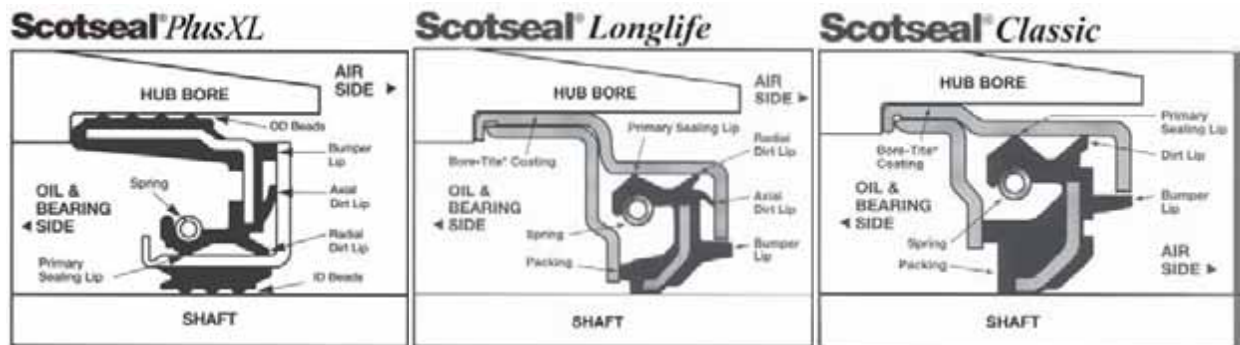


Figure 1

Figure 2

Figure 3

**SKF Scotseal® PlusXL** is a rubber unitized, one piece design. The Scotseal PlusXL consists of four sealing lips: a spring loaded primary sealing lip with patented Waveseal® design that is factory pre-lubed, a radial and axial dirt lip, plus an outer bumper lip that acts as a preliminary dirt excluder. Scotseal PlusXL requires no special installation tools and maintains a rubber-to-metal contact between the seal O.D. and the hub bore surface as well as a rubber-to-metal contact between the packing I.D. and spindle. (see Figure 1)

**SKF Scotseal® Longlife** is also a unitized, one piece design consisting of a sealing element (packing) that is assembled between a metal outer and inner case. The Scotseal Longlife's packing, however, consists of four sealing lips: a spring-loaded primary sealing lip that is factory pre-lubed, a radial and axial dirt lip, plus an outer bumper lip that acts as a preliminary dirt excluder. The Scotseal Longlife is pressfit into the hub

bore using Scotseal installation tools. The Scotseal Longlife maintains a metal-to-metal contact between the seal O.D. and the hub bore surface as well as a metal-to-metal contact between the packing I.D. and the spindle. (see Figure 2)

**SKF Scotseal® Classic** is a unitized, one piece design consisting of a sealing element (packing) that is assembled between a metal outer and inner case. The packing consists of three sealing lips: a spring-loaded primary sealing lip that is factory pre-lubed, a dirt exclusion lip, and an outer bumper lip that acts as a preliminary dirt excluder. The seal is pressfit into the hub bore using Scotseal installation tools. The Scotseal Classic maintains a metal-to-metal contact between the seal O.D. and the hub bore surface as well as a metal-to-metal contact between the packing I.D. and the spindle. (see Figure 3)

### Scotseal family truck wheel seal operating conditions

	Scotseal Classic	Scotseal Longlife & Scotseal PlusXL
Surface speed .....	2000 F.P.M. max .....	5000 F.P.M. max
Temperature range .....	-40° to 250°F (-40° to 121°C) .....	-40° to 300°F (-40° to 149°C)
Pressure .....	2 p.s.i. ....	2 p.s.i.
Spindle finish .....	100 microinches MAX. ....	100 microinches max.
Spindle hardness .....	Rockwell C28 .....	Rockwell C28
Spindle dia. tolerances .....	±0.003" Up to 4.000" .....	±0.003" Up to 4.000"
	±0.004" 4.001 to 6.000" .....	±0.004" 4.001 to 6.000"
	±0.005" 6.001 to 10.000" .....	±0.005" 6.001 to 10.000"
Bore runout .....	0.015" (TIR) max .....	0.015" (TIR) max
Spindle to bore misalignment .....	0.020" (TIR) max .....	0.020" (TIR) max
Seal O.D. tolerances .....	±0.004" .....	±0.004"
Bore tolerances .....	±0.0015" from 3.001 to 7.000" .....	±0.0015" from 3.001 to 7.000"
	±0.002" 7.001 to 12.000" .....	±0.002" 7.001 to 12.000"



## Abbreviation list

ADJ .....	Adjustable
ASTM .....	American society of testing materials
AUTO .....	Automotive
AUX .....	Auxilliary
B.C. ....	Bolt circle
BI-DIR .....	Bi-directional
BMP .....	Bumper
CAD .....	Cadmium
CCW .....	Counter-clockwise
CONST. ....	Construction (type and style)
CW .....	Clockwise
DIA .....	Diameter
DIAM .....	Diameter
DIN .....	German industrial standard
DRO .....	Dynamic runout
EA .....	Each
FL .....	Flange
FPM .....	Feet per minute
FR HSG .....	From housing
GRD .....	Ground
I.D. ....	Inside diameter
ISO .....	International standardization organization
LT .....	Light
MAX .....	Maximum
MIN .....	Minimum
MM .....	Millimeters
MPM .....	Meters per minute
M/S .....	Meters per second
NO .....	Number
OAL .....	Over all length
O.D. ....	Outside diameter
P.F. ....	Press fit
PSI .....	Pounds per square inch
PV .....	Pressure x velocity
RA .....	Arithmetic average
RC .....	Rubber covered
RMA .....	Rubber manufacturers assoc., inc.
RMS .....	Root mean square
RPM .....	Revolutions per minute
S-K .....	Spring-Kover
SAE .....	Society of automotive engineers, inc.
SH .....	Shaft
SLV .....	Sleeve
SPEC .....	Special
SPL .....	Special
SS .....	Stainless steel
STBM .....	Shaft-to-bore misalignment
SZ .....	Size
THK .....	Thick
TIR .....	Total indicator reading
TYP .....	Typical
W/ .....	With
W/O .....	Without
WD .....	Width
WS .....	Wiperseal

**NOTES**

## NOTES

## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>.118 SHAFT</b>					<b>.313 SHAFT</b>				
	.100	<b>400034</b>	VR1	V		.120	<b>400080</b>	VR1	R
		SHAFT RANGE .110 - .140					SHAFT RANGE .310 - .370		
<b>.125 SHAFT</b>						.120	<b>400084</b>	VR1	V
	.100	<b>400030</b>	VR1	R			SHAFT RANGE .310 - .370		
		SHAFT RANGE .110 - .140				.180	400081	VR2	R
	.313	451486	BUW	#			SHAFT RANGE .310 - .370		
	.313	711800	BV	R		.180	400085	VR2	V
	.313	721523	BV	V			SHAFT RANGE .310 - .370		
	.313	721578	BV	D		.500	700054	BV	R
<b>.156 SHAFT</b>						.500	3044	HM4	R
	.120	<b>400040</b>	VR1	R		.563	711804	BV	R
		SHAFT RANGE .140 - .180				.563	721512	BV	V
	.120	<b>400044</b>	VR1	V		.626	.156	<b>▲3060</b>	†HM14
		SHAFT RANGE .140 - .180						3061	HM14
<b>.188 SHAFT</b>						.626	.203	3050	†HM1
	.120	<b>400050</b>	VR1	R		.633	.141	<b>3080</b>	HM14
		SHAFT RANGE .180 - .210				.686	.313	<b>▲3094</b>	CRWA5
	.120	<b>400054</b>	VR1	V		.749	.250	<b>▲3101</b>	CRWA5
		SHAFT RANGE .180 - .210				.749	.250	<b>3103</b>	CRWA5
	.180	400051	VR2	R		.749	.250	<b>▲3140</b>	HM14
		SHAFT RANGE .180 - .210				.750	.250	3141	HM3
	.180	400055	VR2	V		.862	.250	<b>3086</b>	HM14
		SHAFT RANGE .180 - .210				.999	.313	<b>▲3171</b>	CRWA5
	.375	711801	BV	R		1.250	.375	3230	P1
	.375	721519	BV	V	<b>.370 SHAFT</b>				
	.375	★721522	BV	D		.606	.310	3626	HMSA76
	.438	711802	BV	R	<b>.375 SHAFT</b>				
	.500	<b>▲1850</b>	HM1	R		.180	<b>400100</b>	VR1	R
<b>.250 SHAFT</b>							SHAFT RANGE .370 - .450		
	.120	<b>400060</b>	VR1	R		.180	<b>400104</b>	VR1	V
		SHAFT RANGE .210 - .260					SHAFT RANGE .370 - .450		
	.120	<b>400064</b>	VR1	V		.260	400101	VR2	R
		SHAFT RANGE .210 - .260					SHAFT RANGE .370 - .450		
	.180	400061	VR2	R		.260	400105	VR2	V
		SHAFT RANGE .210 - .260					SHAFT RANGE .370 - .450		
	.180	400065	VR2	V		.563	.094	<b>▲3621</b>	HM3
		SHAFT RANGE .210 - .260				.625	.063	451056	BUW
	.499	<b>▲2450</b>	HM14	R		.625	.125	711805	BV
	.499	2452	HMA14	V		.625	.125	721502	BV
	.500	711803	BV	R		.625	.125	721521	BV
	.500	721526	BV	V		.625	.125	<b>▲527935</b>	BB
	.562	<b>▲2470</b>	†HM14	R		.625	.125	528759	BB
	.626	<b>▲2490</b>	HM14	R			W/STAINLESS STEEL CASE		
	.749	<b>▲2560</b>	HM14	R		.628	.197	3632	HMA10
	.749	<b>2513</b>	CRW1	V		.687	.156	<b>▲3645</b>	†HM14
		W/SS CASE & SPRING				.749	.250	<b>▲3683</b>	HM14
	.749	<b>2514</b>	†CRW1	R		.749	.250	<b>▲3687</b>	CRW1
		W/SS CASE & SPRING				.749	.250	<b>3688</b>	†CRW1
<b>.258 SHAFT</b>						.749	.250	<b>3689</b>	CRW5
	.449	700036	BV	R			W/SS CASE & SPRING		
<b>.281 SHAFT</b>						.750	.250	<b>3680</b>	†CRWA1
	.120	<b>400070</b>	VR1	R		.836	.188	<b>▲3719</b>	†CRW1
		SHAFT RANGE .260 - .310				.875	.250	<b>▲3725</b>	†CRW1
	.120	<b>400074</b>	VR1	V		.875	.250	<b>▲3727</b>	HM14
		SHAFT RANGE .260 - .310				.999	.250	<b>▲3751</b>	CRW1
	.180	400071	VR2	R		.999	.250	<b>3752</b>	†CRW1
		SHAFT RANGE .260 - .310				1.124	.250	<b>▲3806</b>	CRW1
	.180	400075	VR2	V		1.124	.375	<b>3807</b>	†CRW5
		SHAFT RANGE .260 - .310			<b>.404 SHAFT</b>				
						.620	.188	<b>▲4010</b>	HM14
						.862	.250	<b>4012</b>	HM14

★ Contact manufacturer for availability  
**Bold numbers** are preferred designs

† Includes Bore-Tite on O.D.  
**▲** WasteWatcher numbers

## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code	
<b>.425 SHAFT</b>					<b>.500 SHAFT (Cont.)</b>					
.875	.313	<b>4100</b>	CRWH3	R	.987	.250	4944	HMS1	R	
<b>.438 SHAFT</b>					W/STAINLESS STEEL SPRING					
.688	.063	★ 451232	BUW	#	.999	.188	▲ <b>4950</b>	† HM14	R	
.688	.125	700101	BV	R	.999	.250	<b>4980</b>	† CRW1	V	
.688	.125	721510	BV	D	W/STAINLESS STEEL SPRING					
.688	.125	721527	BV	V	.999	.250	<b>4982</b>	† CRWA1	P	
.836	.188	▲ <b>4231</b>	HM14	R	.999	.250	▲ <b>4984</b>	† CRW1	R	
.875	.313	4247	† HMS1	D	.999	.250	<b>4985</b>	† CRWA1	R	
W/SS CASE & SPRING					.999	.250	<b>4990</b>	† HM14	R	
.875	.375	<b>4261</b>	CRWA1	R	.999	.250	<b>4991</b>	† CRWA5	V	
.875	.375	<b>4262</b>	† CRWA1	V	W/STAINLESS STEEL SPRING					
.875	.250	<b>4249</b>	† CRW1	P	.999	.313	<b>4996</b>	† CRWA5	R	
.875	.250	▲ <b>4251</b>	CRW1	R	1.000	.281	504260	† SC	R	
.875	.250	<b>4260</b>	CRWA6	R	1.010	.204	<b>5008</b>	HMSA7	V	
.879	.180	4256	HM8	R	1.124	.250	<b>5045</b>	† CRW1	P	
.999	.250	▲ <b>4340</b>	HM14	R	1.124	.250	<b>5062</b>	† CRWA1	R	
.999	.250	<b>4356</b>	† CRW1	V	1.124	.250	<b>5066</b>	† CRW1	V	
.999	.375	▲ <b>4355</b>	† CRW1	R	1.124	.250	<b>5067</b>	† CRWA1	V	
1.124	.250	▲ <b>4390</b>	† CRW1	R	1.124	.250	▲ <b>5068</b>	† CRW1	R	
<b>.469 SHAFT</b>					1.124	.250	<b>5069</b>	† CRWA5	R	
.836	.188	<b>4623</b>	HM14	P	1.124	.250	<b>5072</b>	† CRWA5	V	
.875	.219	▲ <b>4628</b>	HM14	R	1.124	.250	▲ <b>5085</b>	† HM14	R	
.999	.313	▲ <b>4641</b>	† P2	R	1.124	.313	<b>5046</b>	† CRW1	P	
<b>.500 SHAFT</b>					1.249	.188	<b>5131</b>	CRWH3	R	
		480050	KIT	R	W/SS CASE & SPRING					
		SPEEDI-SLEEVE & SEAL KIT			1.250	.250	▲ <b>5133</b>	† CRW1	R	
	.250	<b>99050</b>	SSLEEVE		1.250	.250	<b>546966</b>	† CRW1	V	
	.180	SHAFT RANGE .498 - .502			1.375	.250	▲ <b>5150</b>	† CRW1	R	
	.180	<b>400120</b>	VR1	R	1.375	.250	<b>5151</b>	† CRW1	V	
	.180	SHAFT RANGE .450 - .530			<b>.531 SHAFT</b>					
	.260	<b>400124</b>	VR1	V		.180	<b>400130</b>	VR1	R	
	.260	400121	VR2	R		.180	SHAFT RANGE .490 - .570			
	.260	SHAFT RANGE .450 - .530				.180	<b>400134</b>	VR1	V	
	.688	▲ 4911	HM3	R		.999	.250	<b>5321</b>	† CRWA1	S
	.688	4909	HMS1	R	1.124	.313	5334	CRSA1	R	
		P.F. WIDTH .100			<b>.546 SHAFT</b>					
	.749	▲ 4913	HMS1	R	.875	.250	<b>5385</b>	CRW1	P	
		O.A. WIDTH .156			<b>.551 SHAFT</b>					
	.750	451225	BUW	#	.945	.394	5553	D8-SPL	P	
	.750	711806	BV	R	1.024	.787	5507	HMSASPL	P	
	.750	721513	BV	V	1.124	.203	▲ 5399	† HM21	R	
	.750	721518	BV	D	<b>.554 SHAFT</b>					
	.750	▲ <b>4912</b>	† HM14	R	.999	.250	<b>5605</b>	† CRW1	R	
	.802	709001	WS	R	W/SS CASE & SPRING					
	.820	▲ <b>4914</b>	† HM14	R	<b>.561 SHAFT</b>					
	.843	▲ <b>4923</b>	† HM14	R	1.000	.254	<b>5425</b>	HMSA7	P	
	.875	<b>4925</b>	HM14	R	<b>.563 SHAFT</b>					
	.875	▲ <b>4931</b>	† CRW1	R	.250		<b>99056</b>	SSLEEVE		
	.875	<b>4932</b>	† CRW1	V		.250	SHAFT RANGE .560 - .566			
	.875	<b>4933</b>	† CRWA1	V		.180	<b>400144</b>	VR1	V	
	.875	<b>4935</b>	† CRWA1	V		.260	SHAFT RANGE .530 - .610			
		W/SS CASE & SPRING				.260	400141	VR2	R	
	.875	<b>4936</b>	† CRW1	D		.260	SHAFT RANGE .530 - .610			
	.875	▲ <b>4938</b>	HM14	R		.750	.094	5500	HM3	R
	.875	<b>4939</b>	† CRWA1	R		.813	.063	★ 451240	BUW	#
	.875	<b>4940</b>	† CRWA5	R		.813	.125	710696	BV	R
	.875	<b>4941</b>	† CRWA5	V						
	.987	▲ <b>4943</b>	† CRW1	R						

Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>.563 SHAFT (Cont.)</b>					<b>.625 SHAFT (Cont.)</b>				
.813	.125	721557	BV	D	.987	.250	<b>6134</b>	† CRW1	R
.813	.125	721569	BV	V			W/STAINLESS STEEL SPRING		
.813	.126	▲ 5510	HMS1	R	.999	.250	<b>6139</b>	† CRWA1	V
.875	.188	▲ 5522	† HM14	R			W/STAINLESS STEEL SPRING		
.875	.188	<b>5523</b>	† CRW1	D	.999	.250	<b>6141</b>	† CRWA1	R
.999	.219	▲ 5569	† HM14	R	.999	.250	▲ 6143	† CRW1	R
.999	.250	<b>5542</b>	† CRW1	V	.999	.250	▲ 6147	HMSA11	R
.999	.250	<b>5543</b>	† CRW1	R			W/SS CASE & SPRING		
		W/SS CASE & SPRING			.999	.250	<b>6151</b>	† CRWA5	R
.999	.250	<b>5606</b>	† CRWA1	R	1.000	.125	▲ 6152	† HM14	P
.999	.256	▲ 5541	† CRW1	R	1.063	.250	<b>6157</b>	† CRW1	R
1.124	.250	<b>5650</b>	† CRW1	V	1.063	.250	▲ 6158	† HM14	R
1.124	.250	▲ 5652	† CRW1	R	1.124	.281	504261	SC	R
1.124	.250	<b>5662</b>	† CRWA1	R	1.124	.250	<b>6191</b>	† CRW5	R
1.124	.250	▲ 5685	HM14	R	1.124	.250	▲ 6203	† CRW1	R
1.250	.250	▲ 5707	† CRW1	R	1.124	.250	<b>6204</b>	† CRWA1	R
1.375	.250	▲ 5756	† CRW1	R	1.124	.250	<b>6213</b>	† CRW1	V
<b>.570 SHAFT</b>					1.124	.250	<b>6215</b>	† CRWA1	V
	.180	<b>400140</b>	VR1	R	1.124	.250	▲ 6225	† HM14	R
		SHAFT RANGE .530 - .610			1.124	.374	<b>6231</b>	† CRWA5	V
<b>.591 SHAFT</b>					1.124	.375	<b>6184</b>	† CRWHA5	R
.827	.197	5904	HMSA7	P			W/SS CASE & SPRING		
1.102	.591	6103	HMS15	V	1.124	.375	▲ 6229	† CRWA5	R
		P.F. WIDTH .236 (6MM)			1.125	.125	▲ 527937	BB	R
<b>.594 SHAFT</b>					1.126	.250	▲ 6232	† CRW5	R
1.124	.250	▲ 5946	† HM14	R			W/SS CASE & SPRING		
1.124	.313	▲ 5926	† CRW1	R	1.181	.250	▲ 6247	† CRWA1	R
1.250	.313	5950	CRSA1	R	1.181	.256	<b>6248</b>	† CRWA1	V
1.375	.313	▲ 5966	† CRSA1	R	1.250	.250	<b>6309</b>	† CRW1	V
<b>.624 SHAFT</b>					1.250	.250	▲ 6315	† CRW1	R
1.131	.188	<b>6243</b>	† HM14	R	1.250	.250	<b>6316</b>	† CRWA1	R
<b>.625 SHAFT</b>					1.250	.250	▲ 6323	† HM14	R
	.313	<b>99062</b>	SSLEEVE		1.250	.313	▲ 6280	CRWA5	R
		SHAFT RANGE .623 - .627					W/SS CASE & SPRING		
	.313	99810	GSLEEVE		1.250	.313	<b>6285</b>	CRWA5	V
		SHAFT RANGE 0.623 - 0.627					W/SS CASE & SPRING		
	.180	<b>400160</b>	VR1	R	1.259	.250	▲ 6330	† HM14	R
		SHAFT RANGE .610 - .690			1.375	.250	<b>6367</b>	CRWH3	R
	.180	<b>400164</b>	VR1	V			W/SS CASE & SPRING		
		SHAFT RANGE .610 - .690			1.375	.250	▲ 6370	† HM14	R
	.260	400161	VR2	R	1.375	.250	<b>6371</b>	† CRW5	P
		SHAFT RANGE .610 - .690			1.375	.250	▲ 6372	† CRW1	R
	.260	400165	VR2	V	1.375	.250	<b>6373</b>	† CRWA1	R
		SHAFT RANGE .610 - .690			1.375	.250	<b>6379</b>	† CRW1	V
.812	.094	▲ 6105	HM3	R	1.375	.250	<b>6383</b>	† CRWA1	V
.813	.094	6106	HM3	V	1.375	.375	<b>6388</b>	† CRWA5	R
.875	.063	451081	BUW	#			W/SS CASE & SPRING		
.875	.125	710212	BV	R	1.377	.250	▲ 6391	† CRWHA1	R
.875	.125	712130	BV	V	1.499	.250	▲ 6386	† CRW1	R
.875	.125	721503	BV	V	1.500	.313	<b>6393</b>	† CRW5	V
.875	.125	721520	BV	D			W/STAINLESS STEEL SPRING		
.875	.188	▲ 6120	HMS1	R	1.850	.276	<b>534948</b>	CRWA1	V
		P.F. WIDTH .125			<b>.630 SHAFT</b>				
.875	.188	6119	HMSA1	R	.827	.157	6113	HMA1	R
		P.F. WIDTH .125			1.024	.250	<b>6293</b>	HMSA7	P
.927	.203	709002	WS	R	1.102	.595	6413	HMS-SPL	P
.927	.203	712120	WS	V	1.220	.787	6539	HMSA12	R
.933	.188	▲ 6125	† HM14	R	1.757	.554	6295	HM-SPL	R
.933	.188	<b>6126</b>	† HM14	V	2.205	.256	6455	J-TYPE	V
.937	.188	▲ 6130	† HM14	R			W/CW HELIX FROM AIR SIDE		
<b>.656 SHAFT</b>					1.124	.313	▲ 6521	† CRW1	R
					1.250	.250	▲ 6541	† CRW1	R

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## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>.656 SHAFT (Cont.)</b>					<b>.709 SHAFT</b>				
1.375	.313	▲ 6556	† CRW1	R	1.339	.315	7089	CRSA1	P
1.575	.250	▲ 6580	† CRW1	R	<b>.736 SHAFT</b>				
<b>.669 SHAFT</b>					1.378	.276	7400	HMSA7	R
.999	.188	6595	† CRW1	R	<b>.747 SHAFT</b>				
1.064	.250	6728	† CRW1	R	1.500	.375	7566	KIT	R
W/SS CASE & SPRING					<b>.748 SHAFT</b>				
1.064	.250	▲ 6729	† CRW1	R	1.496	.300	7251	HMSA7	R
1.250	.250	▲ 6806	† HM14	R	P.F. WIDTH .276 SPECIAL CONST				
1.339	.311	6992	CRSA1	P	2.047	.276	534956	† CRWA1	V
1.378	.276	6641	HMSA124	P	<b>.750 SHAFT</b>				
W/1.703 FLANGE					480074 KIT R				
1.573	.281	▲ 6597	CRW1	V	SPEEDI-SLEEVE & SEAL KIT				
W/SS CASE & SPRING					.236		400200	VR1	R
<b>.684 SHAFT</b>					SHAFT RANGE .750 - .830				
	.313	99060	SSLEEVE		.240		400204	VR1	V
SHAFT RANGE .682 - .686					SHAFT RANGE .750 - .830				
<b>.685 SHAFT</b>					.999	.125	▲ 7410	HM14	R
1.181	.276	6757	HMSA7	R	1.000	.063	451245	BUW	#
<b>.688 SHAFT</b>					1.000	.125	711825	BV	R
	.180	400180	VR1	R	1.000	.125	721516	BV	V
SHAFT RANGE .690 - .750					1.000	.125	★ 721551	BV	D
	.180	400184	VR1	V	1.000	.125	7408	† HM14	D
SHAFT RANGE .690 - .750					1.004	.156	7409	HM8	R
	.260	400181	VR2	R	1.006	.125	▲ 7411	† HM14	R
SHAFT RANGE .690 - .770					1.012	.226	7535	CRW1	R
	.260	400185	VR2	V	1.031	.313	7412	HMA6	R
SHAFT RANGE .690 - .770					1.052	.203	709004	WS	R
.938	.063	451284	BUW	#	1.062	.188	▲ 7413	HM14	R
.938	.125	711807	BV	R	1.124	.156	▲ 7415	† HM14	R
.938	.125	★ 721555	BV	D	1.124	.188	▲ 7414	† CRW1	R
.938	.125	721570	BV	V	1.124	.188	7417	† CRW1	V
.990	.203	709003	WS	R	1.187	.156	▲ 7421	HM14	R
.999	.188	6720	† HM14	R	1.249	.188	7467	CRW1	V
1.124	.190	6738	† CRW1	R	W/STAINLESS STEEL SPRING				
1.124	.250	▲ 6741	† CRW1	R	1.250	.281	504262	SC	R
1.124	.250	6743	† CRW1	R	1.250	.125	▲ 527938	BB	R
W/SS CASE & SPRING					1.250	.125	528762	BB	R
1.124	.250	6745	† CRW1	V	W/STAINLESS STEEL CASE				
W/STAINLESS STEEL SPRING					1.250	.188	▲ 7439	† CRW1	R
1.124	.250	▲ 6759	† HM14	R	1.250	.188	7478	CRW1	R
1.187	.125	6762	† HM14	R	1.250	.250	7434	† CRWA5	R
1.187	.188	6770	† CRW1	V	1.250	.250	7438	† CRW1	R
1.188	.188	▲ 6763	† CRW1	R	W/BRASS CASE & SS SPRING				
1.250	.256	6751	† CRWHA1	V	1.250	.250	7440	† CRW1	R
1.250	.256	6765	† CRWA1	R	1.250	.250	7443	† CRWA1	R
1.250	.256	6888	† CRWA1	S	1.250	.250	7450	† CRW1	V
1.250	.313	▲ 6767	† CRW1	R	1.250	.250	7453	† CRWA1	V
1.250	.313	6768	† CRW1	V	1.250	.250	7455	† CRWA1	V
1.252	.220	6769	† CRWH1	V	W/SS CASE & SPRING				
1.375	.125	6915	HM14	R	1.250	.250	▲ 7464	† HM14	R
1.375	.250	6814	† CRWA1	R	1.250	.313	7465	CRWA7	R
1.375	.250	▲ 6920	† HM14	R	1.250	.375	▲ 7449	† CRWA5	R
1.375	.313	▲ 6816	† CRW1	R	1.252	.188	▲ 7469	† CRW1	R
1.375	.313	6817	† CRW1	V	1.259	.250	7477	† HM14	R
1.499	.250	▲ 6935	† CRW1	R	1.260	.250	▲ 7473	† CRW1	R
1.624	.250	6990	† CRWA1	R	1.301	.250	7481	† HM14	R
<b>.703 SHAFT</b>					1.312	.250	▲ 7474	† CRW1	R
1.160	.250	7010	HMS2	R	1.312	.250	7475	† CRWA1	R
					1.375	.250	7509	† CRWA5	V
					1.375	.250	▲ 7512	† CRW1	R
					1.375	.250	7513	† CRWA1	R

Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>.750 SHAFT (Cont.)</b>					<b>.813 SHAFT (Cont.)</b>				
1.375	.250	<b>7515</b>	† CRW1	V	1.063	.125	721507	BV	V
1.375	.250	<b>7517</b>	† CRWA1	V	1.063	.125	8009	HM3	R
1.375	.250	<b>7533</b>	† CRWA1	P	1.187	.313	<b>8013</b>	† CRWA1	V
1.375	.250	▲ <b>7536</b>	HM14	R			W/SS CASE & SPRING		
1.375	.250	<b>7537</b>	HM14	P	1.250	.188	▲ <b>8017</b>	CRW1	R
1.416	.266	7541	HMS2	S	1.250	.375	<b>8019</b>	HMS4	R
1.437	.250	<b>7550</b>	† HM14	R	1.375	.234	▲ <b>8080</b>	CRW	R
1.499	.250	<b>7567</b>	† CRW1	V			NO SPRING		
1.499	.250	▲ <b>7571</b>	† HM14	R	1.375	.375	<b>8053</b>	† CRW1	V
1.499	.250	▲ <b>7572</b>	CRW1	R	1.375	.375	▲ <b>8060</b>	† CRW1	R
1.499	.250	<b>7573</b>	† CRWA1	R	1.499	.250	▲ <b>8088</b>	CRW1	R
1.575	.250	▲ <b>7591</b>	† CRW1	R	1.624	.250	▲ <b>8178</b>	† CRW1	V
1.624	.250	<b>7623</b>	† CRW1	V	1.752	.375	▲ <b>8215</b>	† CRW1	R
		W/STAINLESS STEEL SPRING			<b>.815 SHAFT</b>				
1.624	.250	<b>7624</b>	† CRWA1	V	1.623	.248	536599	HMS-SPL	R
		W/STAINLESS STEEL SPRING			<b>.827 SHAFT</b>				
1.624	.250	▲ <b>7627</b>	† CRW1	R	1.260	.315	<b>8278</b>	HMSA7	R
1.624	.250	<b>7628</b>	† CRWA1	R			W/CW HELIX FROM AIR SIDE		
1.752	.250	▲ <b>7636</b>	† CRW1	R	<b>.844 SHAFT</b>				
1.752	.250	<b>7638</b>	† CRWA1	V	1.828	.313	▲ 8485	CRSA1	R
1.828	.250	<b>7661</b>	† CRW1	R	<b>.859 SHAFT</b>				
1.874	.250	▲ <b>7690</b>	† CRW1	R		.250	901	KIT	R
2.047	.313	▲ <b>7693</b>	† CRW1	R		.250	SPEEDI-SLEEVE & SEAL KIT		
<b>.760 SHAFT</b>						.250	<b>99086</b>	SSLEEVE	
	.313	<b>99081</b>	SSLEEVE		1.574	.630	550189	HMSA127	R
		SHAFT RANGE .759 - .761			<b>.875 SHAFT</b>				
<b>.762 SHAFT</b>						.313	<b>99087</b>	SSLEEVE	
1.160	.250	7750	HMS2	R		.313	99812	GSLEEVE	
<b>.763 SHAFT</b>							SHAFT RANGE 0.873 - 0.877		
1.177	.390	★ 7620	SPLINSL	V		.240	<b>400220</b>	VR1	R
<b>.781 SHAFT</b>						.240	<b>400224</b>	VR1	V
	.313	<b>99080</b>	SSLEEVE			.350	400221	VR2	R
		SHAFT RANGE .780 - .784				.350	400225	VR2	V
1.375	.197	▲ <b>7831</b>	† HM14	R			SHAFT RANGE .830 - .950		
1.375	.313	<b>7824</b>	† CRW1	V	1.125	.063	451242	BUW	#
1.375	.313	▲ <b>7829</b>	CRW1	R	1.125	.125	711810	BV	R
1.499	.313	▲ <b>7849</b>	† CRW1	R	1.125	.125	721514	BV	V
1.624	.313	▲ <b>7872</b>	† CRW1	R	1.125	.125	721524	BV	D
1.752	.313	8213	CRSHA1	R	1.125	.125	<b>8619</b>	† HM14	V
1.828	.250	▲ <b>7889</b>	† CRW1	P	1.125	.125	▲ <b>8620</b>	HM14	R
<b>.787 SHAFT</b>					1.240	.219	709005	WS	R
1.124	.188	▲ <b>7740</b>	† CRW1	R	1.246	.188	▲ <b>8625</b>	† HM14	R
1.181	.276	<b>7861</b>	HMSA7	R	1.250	.188	▲ <b>8624</b>	† CRW1	R
		W/CW HELIX FROM AIR SIDE			1.250	.250	<b>8621</b>	† CRW1	V
1.375	.250	<b>7539</b>	CRWH3	R	1.250	.250	<b>8634</b>	† CRWA5	V
		W/SS CASE & SPRING			1.251	.188	▲ <b>8627</b>	HM14	R
1.457	.276	<b>8046</b>	† CRW1	V	1.251	.188	8631	HM3	R
<b>.788 SHAFT</b>							W/STAINLESS STEEL CASE		
1.262	.250	<b>536589</b>	CRWA6	R	1.255	.188	▲ <b>8632</b>	† HM14	R
<b>.813 SHAFT</b>					1.308	.250	▲ <b>8637</b>	† HM14	R
	.375	<b>99083</b>	SSLEEVE		1.308	.250	<b>8649</b>	† CRW1	V
		SHAFT RANGE .811 - .815			1.312	.250	▲ <b>8645</b>	† HM14	R
	.350	400201	VR2	R	1.375	.281	504263	SC	R
	.350	400205	VR2	V	1.375	.188	▲ <b>8677</b>	† HM14	R
		SHAFT RANGE .770 - .830			1.375	.246	<b>8786</b>	† CRWA1	R
1.063	.063	451246	BUW	#					
1.063	.125	711809	BV	R					
1.063	.125	721506	BV	D					

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Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>.875 SHAFT (Cont.)</b>					<b>.938 SHAFT (Cont.)</b>				
1.375	.250	<b>8646</b>	†CRW1	V	1.250	.156	★721580	BV	D
1.375	.250	▲ <b>8660</b>	†CRWA5	R	1.375	.250	▲ <b>9243</b>	†HM14	R
1.375	.250	<b>8665</b>	†CRWA5	V	1.375	.250	▲ <b>9244</b>	†CRWA1	R
1.375	.256	▲ <b>8648</b>	†CRW1	R	1.499	.250	▲ <b>9298</b>	†HM14	R
1.437	.250	▲ <b>8690</b>	†HM14	R	1.500	.250	▲ <b>9303</b>	†CRW1	R
1.437	.250	<b>8691</b>	†CRW1	R	1.500	.250	<b>9304</b>	†CRW1	V
1.497	.313	▲ <b>8694</b>	†CRWA5	V	1.500	.375	671	FELT	F
		W/STAINLESS STEEL SPRING			1.624	.250	▲ <b>9307</b>	†CRW1	R
1.499	.250	▲ <b>8700</b>	†CRW1	R	1.624	.250	<b>9308</b>	†CRW1	V
1.499	.250	<b>8702</b>	†CRWA1	R	1.734	.250	<b>9354</b>	†HM14	R
1.499	.250	<b>8704</b>	†CRW1	V	1.752	.250	▲ <b>9347</b>	†CRW1	R
1.499	.250	<b>8707</b>	†CRWA1	V	1.828	.250	▲ <b>9409</b>	†CRW1	R
		W/STAINLESS STEEL SPRING			<b>.942 SHAFT</b>				
1.499	.250	▲ <b>8741</b>	†HM21	R	2.110	.990	9420	END CAP	P
1.499	.313	8698	HMSW87	R	<b>.945 SHAFT</b>				
		W/SS CASE & SPRING			1.575	.315	9515	CRS1	R
1.499	.313	<b>8703</b>	CRW1	R			W/CW HELIX FROM AIR SIDE		
1.499	.453	8749	†DH2	RR	2.441	.315	<b>534949</b>	CRWA1	V
1.502	.313	▲ <b>8748</b>	†CRWA1	R	<b>.950 SHAFT</b>				
1.562	.250	▲ <b>8761</b>	HM14	R	1.358	.275	▲ <b>9520</b>	†CRW1	P
1.575	.250	▲ <b>8763</b>	†CRW1	R	2.060	.359	9510	HMS11	P
1.575	.250	▲ <b>8772</b>	HM14	R	<b>.969 SHAFT</b>				
1.624	.188	8802	HM8	R		.313	<b>99094</b>	SSLEEVE	
1.624	.250	<b>8782</b>	†CRWA1	R			SHAFT RANGE .966 - .970		
1.624	.250	<b>8795</b>	†CRW1	V		.625	<b>99096</b>	SSLEEVE	
1.624	.250	▲ <b>8796</b>	†CRW1	R			SHAFT RANGE .966 - .970		
1.624	.256	<b>534953</b>	†CRWA1	V	1.406	.250	▲ <b>9604</b>	†CRWA1	P
1.688	.375	9963	†KIT	R	1.499	.313	<b>9611</b>	†CRW1	V
		SEE KIT SECTION			1.499	.313	▲ <b>9613</b>	CRW1	R
1.752	.250	▲ <b>8821</b>	†CRW1	R	1.624	.250	▲ <b>9646</b>	†CRW1	R
1.828	.250	▲ <b>8842</b>	†CRW1	R	1.624	.250	<b>9647</b>	†CRW1	V
1.874	.250	▲ <b>8860</b>	†CRW1	R	1.686	.313	<b>9663</b>	†CRWA1	R
2.000	.250	▲ <b>8870</b>	†CRW1	R	1.686	.313	▲ <b>9664</b>	†CRW1	R
2.050	.375	<b>8871</b>	†CRWH1	V	1.752	.250	▲ <b>9667</b>	†CRW1	R
2.060	.359	▲ <b>8885</b>	W28	P	1.828	.313	▲ <b>9681</b>	†CRW1	R
<b>.878 SHAFT</b>					1.828	.578	★9684	†E3	RR
1.249	.188	★ <b>8891</b>	CRWH3	R	2.048	.375	9688	†CRS1	R
		W/SS CASE & SPRING			<b>.981 SHAFT</b>				
<b>.882 SHAFT</b>					1.376	.313	<b>9888</b>	CRW1	V
2.088	.313	<b>9000</b>	†CRWHA1	R			W/SS CASE & SPRING		
<b>.906 SHAFT</b>					<b>.984 SHAFT</b>				
1.338	.315	<b>9065</b>	HMSA7	R	1.383	.151	9808	HMS4N	R
		W/CCW HELIX FROM AIR SIDE			1.496	.236	<b>9701</b>	HMSA7	V
1.339	.256	<b>9006</b>	HMS4	R			W/CW HELIX FROM AIR SIDE		
1.575	.276	<b>9068</b>	HMSA7	P	1.499	.250	▲ <b>9686</b>	†CRW1	V
		W/CCW HELIX FROM AIR SIDE					W/SS CASE & SPRING		
<b>.910 SHAFT</b>					1.596	.250	▲ <b>9700</b>	†CRWA5	R
	.313	<b>99091</b>	SSLEEVE		1.732	.394	9752	HMSHA7	P
		SHAFT RANGE .908 - .912					W/CW HELIX FROM AIR SIDE		
	.313	99860	GSLEEVE		1.749	.375	<b>9803</b>	CRWA1	V
		SHAFT RANGE 0.908 - 0.912					W/SS CASE & SPRING		
<b>.917 SHAFT</b>					1.752	.313	▲ <b>9805</b>	†CRWA5	V
1.476	.236	9176	HMSH4	R			W/SS CASE & SPRING		
<b>.938 SHAFT</b>					1.850	.250	<b>9786</b>	CRWA1	V
1.188	.063	451032	BUW	T			W/SS SPRING		
1.188	.125	711811	BV	R	<b>1.000 SHAFT</b>				
1.188	.125	★721511	BV	D		.313	480097	KIT	R
1.250	.156	711812	BV	R			SPEEDI-SLEEVE & SEAL KIT		
1.250	.156	721528	BV	V					

Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>1.000 SHAFT (Cont.)</b>					<b>1.000 SHAFT (Cont.)</b>				
.313		480098	KIT	R	1.624	.250	▲ 9934	† CRW1	R
		SPEEDI-SLEEVE & SEAL KIT			1.624	.250	9935	† CRWA1	R
.313		480099	KIT	R	1.624	.250	9937	† CRW1	V
		SPEEDI-SLEEVE & SEAL KIT			1.624	.250	9939	† CRWA1	V
.313		99100	SSLEEVE		1.686	.256	544257	† CRW1	V
		SHAFT RANGE .998 - 1.002			1.686	.256	▲ 9960	† CRW1	R
.313		99814	GSLEEVE		1.752	.250	9982	† CRW1	V
		SHAFT RANGE 0.998 - 1.002			1.752	.250	9983	† CRWA1	V
.240		400250	VR1	R	W/STAINLESS STEEL SPRING				
		SHAFT RANGE .950 - 1.070			1.752	.250	▲ 9995	† HM21	R
.240		400254	VR1	V	1.752	.250	▲ 9997	† CRW1	R
		SHAFT RANGE .950 - 1.070			1.752	.250	9998	† CRWA1	R
.350		400251	VR2	R	1.752	.313	9967	† CRWA5	R
		SHAFT RANGE .950 - 1.070			1.781	.250	530484	HM21	R
.350		400255	VR2	V	1.781	.469	▲ 10034	† HM14	R
		SHAFT RANGE .950 - 1.070			1.781	.469	▲ 10035	† HM18	R
1.250	.125	711080	BV	R	CLEARANCE D .265				
1.250	.125	721558	BV	V	1.828	.250	10046	† CRW1	V
1.250	.125	★ 721581	BV	D	1.828	.250	10047	† CRW1	P
1.250	.125	712131	BV	V	1.828	.250	▲ 10049	† CRW1	R
1.250	.125	▲ 9815	† HM14	R	1.828	.250	10050	† CRWA1	R
1.312	.125	▲ 9818	† HM14	R	W/STAINLESS STEEL SPRING				
1.313	.063	451047	BUW	#	1.851	.250	▲ 10071	† CRW1	R
1.313	.156	701084	BV	D	1.851	.250	▲ 10074	† HM14	R
1.313	.156	721529	BV	V	1.874	.250	▲ 10075	† CRW1	R
1.365	.219	709006	WS	R	1.938	.250	▲ 10104	† CRW1	R
1.365	.219	712121	WS	V	1.938	.250	▲ 10112	† HM14	R
1.367	.313	9822	† CRW1	R	1.983	.250	10111	† CRWA1	V
1.375	.188	▲ 9820	† HM14	R	1.983	.313	▲ 10114	† CRWA1	R
1.375	.250	▲ 9814	† CRWA5	R	2.000	.250	▲ 10123	† CRW1	R
1.375	.250	▲ 9826	CRW1	P	2.000	.250	10124	† CRWA1	R
1.375	.250	9831	† CRW1	V	2.000	.250	10127	† CRWA1	R
1.437	.250	9833	† CRW1	V	W/SS CASE & SPRING				
1.437	.250	▲ 9835	† HM14	R	2.000	.250	10128	† CRW1	V
1.437	.250	▲ 9837	† CRW1	R	2.000	.250	10129	† CRWA1	V
1.437	.250	9838	† CRWA1	R	2.000	.250	▲ 10153	† HM21	R
1.437	.250	9847	† CRWA1	V	2.000	.313	10131	† CRWA5	R
1.442	.250	550074	HMS1	P	2.047	.250	▲ 10157	† CRWA1	R
1.496	.390	9850	† CRW1	R	2.062	.250	▲ 10158	† CRW1	R
1.499	.188	▲ 9859	† HM14	R	2.250	.250	▲ 10169	† CRW1	R
1.499	.250	▲ 9843	† CRWA5	R	2.250	.250	10172	† HM14	R
1.499	.250	9852	† CRW1	R	2.356	.270	538266	X15	R
		W/SS CASE & SPRING			2.441	.375	▲ 10178	HMSA7	R
1.499	.250	9854	† CRW1	V	<b>1.024 SHAFT</b>				
1.499	.250	9855	CRW5	R	1.811	.276	10205	† HMS1	P
		W/SS CASE & SPRING			W/CW HELIX FROM AIR SIDE				
1.499	.250	9858	† CRWA5	V	<b>1.062 SHAFT</b>				
1.499	.250	▲ 9876	† CRW1	R	1.507	.374	10523	J-TYPE	R
1.499	.250	9878	† CRWA1	R	2.125	.313	10781	† KIT	R
1.499	.250	9879	† CRWA1	V	<b>1.063 SHAFT</b>				
1.499	.315	9862	† CRWA1	V	1.375	.156	711814	BV	R
1.499	.374	544167	† CRWA5	P	1.375	.156	★ 721582	BV	D
1.500	.250	712589	BV	R	1.499	.250	▲ 10515	† CRW1	R
1.500	.281	504264	SC	R	1.499	.250	10518	† CRW1	V
1.500	.250	9863	† CRWA5	R	1.512	.256	532866	† CRW1	P
1.500	.374	9811	HMS4	R	1.561	.250	▲ 10581	† CRW1	R
1.510	.219	▲ 9853	† HM21	R	1.575	.315	10584	HMSA7	V
1.513	.536	9889	HMSHA31	R	W/CCW HELIX FROM AIR SIDE				
		SEAL OD 1.513, MINOR OD 2.250			1.577	.250	▲ 10583	† CRW1	R
1.561	.250	▲ 9894	† CRW1	R	1.624	.250	▲ 10598	† CRW1	R
1.561	.250	▲ 9900	† HM14	R	1.686	.250	▲ 10632	† CRW1	R
1.563	.188	▲ 527939	BB	R					
1.575	.250	▲ 9903	† HM14	R					
1.575	.313	▲ 9907	† CRWA1	R					
1.624	.250	▲ 9932	† HM14	R					

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**Bold numbers** are preferred designs

† Includes Bore-Tite on O.D.  
 ▲ WasteWatcher numbers

## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>1.063 SHAFT (Cont.)</b>					<b>1.125 SHAFT (Cont.)</b>				
1.693	.355	<b>10634</b>	HMSA7	P	1.499	.188	▲ <b>11061</b>	CRW1	R
			W/CCW HELIX FROM AIR SIDE		1.561	.250	† <b>11066</b>	† CRW1	P
1.693	.355	<b>10661</b>	HMSA7	R	1.561	.250	▲ <b>11067</b>	† CRW1	R
			W/CW HELIX FROM AIR SIDE		1.561	.250	<b>11071</b>	† CRW1	V
1.693	.276	<b>10494</b>	HMSA7	P	1.562	.188	11065	HM8	R
			W/CW HELIX FROM AIR SIDE		1.562	.250	▲ <b>11081</b>	HM14	R
1.752	.250	▲ <b>10653</b>	† CRW1	R	1.565	.250	† <b>11082</b>	† CRW1	R
1.752	.250	<b>10655</b>	† CRW1	V	1.624	.250	<b>11111</b>	† CRW1	P
1.828	.250	▲ <b>10681</b>	† CRW1	R	1.624	.250	▲ <b>11123</b>	† CRW1	R
1.874	.250	▲ <b>10700</b>	† CRW1	R	1.624	.250	▲ <b>11130</b>	† HM21	R
1.979	.250	<b>10728</b>	† CRW1	R	1.624	.250	<b>11133</b>	† CRW1	V
1.983	.250	▲ <b>10733</b>	† CRW1	R	1.624	.256	<b>11124</b>	† CRWA1	R
2.000	.250	▲ <b>10740</b>	† CRW1	R	1.624	.256	<b>11134</b>	† CRWA1	V
2.062	.250	<b>10766</b>	† CRW1	R	1.626	.250	<b>11139</b>	† CRWA5	V
2.125	.625	★ 11904	KIT	P	1.628	.281	504265	SC	R
			SEE KIT SECTION		1.630	.313	11143	HMS4N	R
<b>1.089 SHAFT</b>					1.693	.256	11136	HMSA1	R
	.313	<b>99108</b>	SSLEEVE		1.750	.250	▲ <b>11150</b>	† HM14	R
			SHAFT RANGE 1.087 - 1.091		1.752	.250	▲ <b>11138</b>	† CRW1	R
<b>1.100 SHAFT</b>					1.752	.250	<b>11144</b>	† CRW1	V
2.205	.394	<b>11000</b>	HMSA7	P	1.781	.250	▲ <b>11161</b>	† HM21	R
<b>1.102 SHAFT</b>					1.781	.469	▲ <b>11164</b>	HM18	R
1.614	.276	<b>10944</b>	HMSA7	P			CLEARANCE D .265		
			W/CCW HELIX FROM AIR SIDE		1.781	.469	11194	HM18	R
1.693	.315	<b>10927</b>	HMSA7	R			CLEARANCE D .265		
			W/CW HELIX FROM AIR SIDE		1.781	.406	<b>11180</b>	† HMSA7	R
1.732	.354	10938	HMSH78	P	1.828	.250	▲ <b>11170</b>	† CRW1	R
			W/CW HELIX FROM AIR SIDE		1.828	.250	<b>11171</b>	† CRWA1	R
1.890	.550	10966	D3	P	1.828	.250	<b>11172</b>	† CRW1	V
1.913	.315	10956	HMS	P	1.828	.250	<b>11175</b>	† CRWA1	V
			W/CW HELIX FROM AIR SIDE		1.828	.250	▲ <b>11191</b>	HM21	R
1.969	.315	<b>11076</b>	HMSA7	P	1.852	.313	▲ <b>11197</b>	† CRWH1	R
2.087	.378	10983	HMSA965	P	1.852	.313	<b>11200</b>	† CRWHA1	R
<b>1.122 SHAFT</b>					1.874	.250	<b>11207</b>	† CRW1	V
1.624	.236	<b>11122</b>	HMSA7	P	1.874	.250	<b>11208</b>	† CRWA1	V
			W/CW HELIX FROM AIR SIDE		1.874	.250	▲ <b>11209</b>	† CRW1	R
<b>1.125 SHAFT</b>					1.874	.250	<b>11223</b>	† CRWA1	R
	.313	<b>99112</b>	SSLEEVE		1.938	.343	▲ <b>11269</b>	HM14	R
			SHAFT RANGE 1.123 - 1.127				CLEARANCE D .352		
	.313	99816	GSLEEVE		1.938	.625	▲ <b>11284</b>	HD2	R
			SHAFT RANGE 1.123 - 1.127				CLEARANCE D .415		
	.375	<b>99116</b>	SSLEEVE		1.983	.250	▲ <b>11299</b>	† CRW1	R
			SHAFT RANGE 1.123 - 1.127		2.000	.250	▲ <b>11334</b>	† HM21	R
	.240	<b>400280</b>	VR1	R	2.000	.250	<b>11344</b>	† CRW1	V
			SHAFT RANGE 1.070 - 1.140		2.000	.256	▲ <b>11340</b>	† CRW1	R
	.240	<b>400284</b>	VR1	V	2.000	.375	<b>11343</b>	† CRWA1	R
			SHAFT RANGE 1.070 - 1.140		2.047	.250	▲ <b>11352</b>	† HM21	R
	.350	400281	VR2	R	2.047	.313	▲ <b>11353</b>	† CRWA1	R
			SHAFT RANGE 1.070 - 1.140		2.062	.250	<b>11368</b>	† CRWA1	V
	.350	400285	VR2	V	2.062	.313	▲ <b>11366</b>	† CRW1	R
			SHAFT RANGE 1.070 - 1.140		2.125	.375	11377	† KIT	R
1.375	.125	▲ <b>11050</b>	HM14	R	2.125	.313	▲ <b>11372</b>	† CRW1	R
1.375	.125	<b>11052</b>	† HM14	V	2.250	.250	▲ <b>11378</b>	† CRW1	R
1.438	.063	451286	BUW	#	2.441	.250	▲ <b>11392</b>	† CRW1	R
1.438	.156	711816	BV	R	2.835	.375	11405	† CRSA1	R
1.438	.156	721508	BV	D	2.875	.469	11410	† CRSH1	R
1.438	.156	721530	BV	V	<b>1.126 SHAFT</b>				
1.438	.203	▲ <b>11055</b>	† HM14	R	1.575	.236	▲ <b>11086</b>	† CRWA1	R
1.490	.219	709007	WS	R	<b>1.142 SHAFT</b>				
1.499	.188	▲ <b>11060</b>	† HM14	R	1.614	.236	<b>11417</b>	HMSA7	P
							W/CW HELIX FROM AIR SIDE		
					1.693	.315	<b>11422</b>	HMSA7	P
							W/CCW HELIX FROM AIR SIDE		



Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>1.142 SHAFT (Cont.)</b>					<b>1.188 SHAFT (Cont.)</b>				
1.772	.315	<b>11429</b>	HMSA7	R	.240		<b>400300</b>	VR1	R
			W/CCW HELIX FROM AIR SIDE					SHAFT RANGE 1.140 - 1.220	
2.047	.433	<b>14116</b>	HMSA7	R	.240		<b>400304</b>	VR1	V
			W/BI-DIR HELIX FROM AIR SIDE					SHAFT RANGE 1.140 - 1.220	
<b>1.156 SHAFT</b>					.350		400301	VR2	R
	.375	<b>99120</b>	SSLEEVE					SHAFT RANGE 1.140 - 1.220	
			SHAFT RANGE 1.154 - 1.158		.350		400305	VR2	V
1.686	.250	▲ <b>11518</b>	† CRWA1	R	1.500	.063	451063	BUW	T
1.686	.312	<b>11513</b>	CRWA6	R	1.500	.156	711817	BV	D
1.686	.313	<b>11512</b>	CRWA6	V	1.500	.156	721531	BV	V
			W/STAINLESS STEEL SPRING		1.561	.313	▲ <b>11710</b>	CRW1	V
1.752	.250	▲ <b>11514</b>	† CRWA1	R				W/SS CASE & SPRING	
1.874	.250	▲ <b>11524</b>	† CRW1	R	1.686	.250	<b>11728</b>	† CRW1	P
1.875	.375	<b>11536</b>	CRWA1	R	1.687	.250	<b>11711</b>	CRWH3	R
			W/SS CASE & SPRING					W/SS CASE & SPRING	
2.000	.250	<b>11544</b>	† CRW1	R	1.687	.250	▲ <b>11730</b>	† CRW1	R
2.000	.250	▲ <b>11545</b>	† CRWA1	R	1.716	.270	11733	HMS2	R
2.000	.250	<b>11550</b>	† CRW1	V	1.752	.250	▲ <b>11734</b>	† CRW1	R
2.062	.313	▲ <b>11557</b>	† CRW1	R	1.752	.250	<b>11736</b>	† CRW1	V
2.125	.438	▲ <b>11566</b>	† CRSH1	R	1.828	.375	▲ <b>11740</b>	† CRW1	R
<b>1.175 SHAFT</b>					1.875	.250	<b>11763</b>	† CRW1	P
	.313	<b>99122</b>	SSLEEVE		1.875	.250	<b>11764</b>	CRW7	R
			SHAFT RANGE 1.173 - 1.178		1.875	.375	▲ <b>11585</b>	† CRW1	R
1.771	.275	11700	† HMS1	R	1.983	.250	▲ <b>11776</b>	† CRW1	R
			W/CW HELIX FROM AIR SIDE		1.983	.250	<b>11777</b>	† CRWA1	R
1.828	.375	★ 1202	† KIT	P	1.996	.250	11771	HD1	R
			SEE KIT SECTION					QUILL WIPER	
2.031	.500	▲ <b>11553</b>	† CRW1	R	2.000	.250	▲ <b>11800</b>	† CRW1	R
<b>1.177 SHAFT</b>					2.000	.250	<b>11801</b>	† CRWA1	R
2.448	.500	11778	CRSA4	V	2.000	.250	<b>11806</b>	† CRW1	V
			W/CW HELIX FROM AIR SIDE		2.000	.250	▲ <b>11836</b>	HM1	R
2.559	.433	18108	HMSA57	P	2.062	.250	▲ <b>11878</b>	† CRW1	R
			W/BI-DIR HELIX FROM AIR SIDE		2.062	.250	<b>11879</b>	† CRW1	P
<b>1.178 SHAFT</b>					2.125	.313	▲ <b>11907</b>	† CRW1	R
2.073	.335	<b>11650</b>	† CRW1	S	2.165	.250	<b>11911</b>	† CRW1	R
<b>1.181 SHAFT</b>					2.250	.256	▲ <b>11914</b>	† CRW1	R
1.693	.315	<b>11672</b>	HMSA7	V	2.437	.250	▲ <b>11923</b>	† CRW1	R
			W/CW HELIX FROM AIR SIDE		2.441	.250	▲ <b>11930</b>	† CRW1	R
1.732	.276	<b>11612</b>	HMSA7	P	<b>1.189 SHAFT</b>				
			W/CW HELIX FROM AIR SIDE		1.654	.236	535107	HM3	H
1.772	.313	11619	HMSA93	P	<b>1.190 SHAFT</b>				
			W/CCW HELIX FROM AIR SIDE		1.996	.250	▲ <b>11846</b>	† HM1	R
1.772	1.181	11618	HMSA90	P	2.125	.313	<b>11908</b>	† CRWHA1	R
			W/CCW HELIX FROM AIR SIDE		<b>1.192 SHAFT</b>				
1.772	.276	<b>11589</b>	HMSA7	P	2.122	.350	11899	HMSH87	R
1.772	.276	<b>11804</b>	HMSA7	P				W/AXIAL SLINGER	
			W/CW HELIX FROM AIR SIDE		<b>1.219 SHAFT</b>				
2.126	.354	<b>11673</b>	HMSA7	P	1.979	.406	<b>12124</b>	† HM14	R
			W/CW HELIX FROM AIR SIDE		1.979	.475	▲ <b>12165</b>	† HMA85	D
2.126	.354	★ <b>11674</b>	HMSA7	R				P.F. WIDTH .375	
			W/CW HELIX FROM AIR SIDE		2.000	.438	12131	† CRSH1	R
2.283	.315	11690	† HMSHA4	P	<b>1.220 SHAFT</b>				
2.440	.315	11703	J2	#	1.969	.315	<b>12220</b>	HMSA7	V
			SEE TYPE J SECTION (HMSA LIP)		2.402	.354	12187	HMSA92S	R
2.563	1.331	▲ <b>11702</b>	† HMSW108	R				W/AXIAL DIRT LIP	
			P.F. WIDTH .386 SPECIAL CONST.		<b>1.221 SHAFT</b>				
<b>1.188 SHAFT</b>					1.811	.315	<b>12301</b>	HMSA7	R
	.313	<b>99118</b>	SSLEEVE					W/CCW HELIX FROM AIR SIDE	
			SHAFT RANGE 1.185 - 1.190						

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## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>1.234 SHAFT</b>					<b>1.250 SHAFT (Cont.)</b>				
2.250	.250	<b>12590</b>	†CRW1	R	1.979	.406	<b>12404</b>	†HM14	R
<b>1.245 SHAFT</b>					1.979	.406	▲12411	HM18	R
1.750	.312	536587	HMS-SPL	R	CLEARANCE D .200				
1.750	.390	536588	HMS-SPL	R	1.980	.406	12506	†HMA22	R
<b>1.248 SHAFT</b>					1.983	.250	▲12427	†CRW1	R
2.044	.378	12494	HMSA16	R	1.983	.250	†12428	†CRWA1	R
W/3M BEAD ON O.D.					1.983	.250	†12432	†CRW1	V
<b>1.250 SHAFT</b>					1.983	.250	▲12437	HM21	R
	.313	480125	KIT	R	1.997	.438	▲12438	†CRWA5	V
	.313	<b>99125</b>	SSLEEVE		W/STAINLESS STEEL SPRING				
			SPEEDI-SLEEVE & SEAL KIT		2.000	.250	†12445	†CRW1	V
	.313	99817	GSLEEVE		2.000	.250	†12446	†CRWA1	V
	.313		SHAFT RANGE 1.247 - 1.253		W/STAINLESS STEEL SPRING				
	.240	<b>400320</b>	VR1	R	2.000	.250	▲12456	†CRW1	R
			SHAFT RANGE 1.220 - 1.300		2.000	.250	†12458	†CRWA1	R
	.240	<b>400324</b>	VR1	V	2.000	.250	▲12481	†HM21	R
			SHAFT RANGE 1.220 - 1.300		2.000	.438	<b>12483</b>	†CRW1	P
	.350	400321	VR2	R	2.000	.625	12459	†D7	RR
			SHAFT RANGE 1.220 - 1.300		2.062	.250	▲12508	†HM21	R
	.350	400325	VR2	V	2.062	.250	<b>12531</b>	†CRWA1	V
			SHAFT RANGE 1.220 - 1.300		2.062	.433	<b>12533</b>	†CRWHA1	V
1.500	.125	▲12330	†HM14	R	2.062	.438	▲12530	†CRWH1	R
1.563	.063	451080	BUW	#	2.100	.460	12536	CRSH	R
1.563	.156	710989	BV	R	2.125	.250	<b>12544</b>	†CRW1	V
1.563	.156	721532	BV	V	2.125	.250	▲12545	†CRW1	R
1.615	.219	709008	WS	R	2.125	.250	<b>12551</b>	†CRWA1	R
1.624	.250	▲12325	†HM14	R	2.125	.250	▲12565	†HM21	R
1.625	.188	<b>11096</b>	HM14	R	2.125	.256	<b>534955</b>	†CRWA1	V
1.625	.188	▲12329	†CRW1	R	2.250	.250	▲12577	†CRW1	R
1.686	.188	▲12334	†HM14	R	2.250	.250	▲12582	†HM14	R
1.687	.250	▲12335	†CRW1	V	2.250	.313	12578	†KIT	R
1.687	.250	▲12336	†CRW1	R	2.327	.500	▲12610	†CRW1	R
1.687	.250	<b>12337</b>	†CRWA1	V	2.328	.500	†12609	†CRWA5	R
1.687	.313	<b>12333</b>	†CRWA5	R	W/STAINLESS STEEL SPRING				
1.687	.313	<b>12350</b>	†CRWA1	R	2.328	.500	12611	†HM18	R
1.750	.250	<b>12339</b>	†CRWA5	V	CLEARANCE D .286				
1.750	.250	▲12360	†CRWA5	R	2.374	.313	▲12613	†CRW1	R
1.751	.290	12327	DL	D	2.374	.313	<b>12614</b>	†CRWA1	R
1.752	.281	504266	SC	R	2.374	.315	<b>12612</b>	†CRW1	V
1.752	.188	▲12361	†HM21	R	2.402	.382	12320	HMSA12	R
1.752	.250	<b>12340</b>	†CRW1	V	2.437	.250	▲12621	†CRW1	R
1.752	.250	<b>12343</b>	†CRWA1	V	2.441	.250	▲12631	†CRW1	R
1.752	.250	▲12363	†CRW1	R	2.500	.310	<b>12638</b>	†CRW1	V
1.752	.250	<b>12364</b>	†CRWA1	R	2.502	.313	▲12637	†CRW1	R
1.752	.250	12369	HM21	R	2.502	.500	<b>12640</b>	†CRWA5	R
1.752	.313	▲12371	HMS4	R	W/STAINLESS STEEL SPRING				
1.752	.391	<b>12355</b>	HMSA7	R	2.561	.500	12655	CRSH1	R
1.752	.968	12392	KIT	RR	2.713	.469	12660	†CRSH1	R
SEE KIT SECTION					2.835	.375	▲12668	HMSA7	R
1.828	.188	▲12375	HM8	R	3.156	.500	▲12678	CRSH1	R
1.874	.250	▲12379	†HM21	R	4.305	.484	12685	J6	R
1.874	.250	<b>12382</b>	†CRW1	P	SEE TYPE J SECTION (HMA LIP)				
1.874	.250	<b>12383</b>	†CRWA1	V	<b>1.260 SHAFT</b>				
1.874	.250	▲12384	†CRW1	R	1.654	.394	12698	HMSA6	V
1.874	.250	<b>12386</b>	†CRWA1	R	1.732	.236	<b>12706</b>	HMSA7	P
1.938	.250	▲12391	†CRW1	R	W/CW HELIX FROM AIR SIDE				
1.955	.250	▲12396	†CRWA1	R	1.811	.236	▲12718	HMSA7	P
1.968	.438	<b>12398</b>	†HM14	R	W/CW HELIX FROM AIR SIDE				
1.968	.469	▲12399	†HM18	R	1.842	.276	<b>12595</b>	HMS4	V
CLEARANCE D .254					W/CW HELIX FROM AIR SIDE				
1.979	.250	▲12407	†HM21	R	1.850	.236	▲12724	HMSA7	R
					W/CW HELIX FROM AIR SIDE				
					1.890	.354	12754	HMSA92	R

Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>1.260 SHAFT (Cont.)</b>					<b>1.313 SHAFT (Cont.)</b>				
1.969	.315	<b>12756</b>	HMSA7	V	2.281	.906	▲ 13165	† HMS15	R
			W/CW HELIX FROM AIR SIDE					P.F. WIDTH .350	
2.047	.394	<b>12679</b>	HMSA7	R	2.281	1.150	13168	HMS15	R
			W/CW HELIX FROM AIR SIDE					P.F. WIDTH .350	
2.087	.276	<b>12747</b>	HMSA7	P	2.282	.250	<b>13157</b>	† CRWA1	R
			W/CW HELIX FROM AIR SIDE		2.620	1.281	▲ 13246	HMS15	R
2.126	.394	12751	HMSA12	P				P.F. WIDTH .350 W/SLINGER	
			W/2.677 FLANGE		2.996	.500	13275	† CRS1	R
2.402	.551	12587	UNITIZED	P	<b>1.328 SHAFT</b>				
<b>1.266 SHAFT</b>					2.031	.313	<b>13415</b>	CRW1	R
1.632	.500	<b>12693</b>	CRWASPL	P	2.061	.313	▲ <b>13350</b>	† CRW1	R
			BORE LISTED IS PRESSFIT I.D.		2.227	.313	▲ <b>13418</b>	† CRW1	R
<b>1.272 SHAFT</b>					2.312	.433	13419	† CRS1	R
1.890	.270	12817	HMSASPL	R	<b>1.339 SHAFT</b>				
			W/CW HELIX FROM AIR SIDE		1.889	.315	<b>13429</b>	HMSA7	R
<b>1.281 SHAFT</b>								W/CW HELIX FROM AIR SIDE	
2.000	.375	▲ <b>12830</b>	HMSA7	R	1.929	.315	<b>13427</b>	HMSA7	P
2.047	.625	550224	HMSA92	R				W/CW HELIX FROM AIR SIDE	
			P.F. WIDTH .451		2.087	.315	<b>13435</b>	HMSA7	R
<b>1.298 SHAFT</b>					2.126	.354	13439	HMSA92	P
2.093	.286	<b>12975</b>	HMS4	V				W/AXIAL DIRT LIP	
<b>1.299 SHAFT</b>					2.126	.354	13441	HMSA92	V
1.810	.276	<b>12812</b>	HMSA7	R	2.480	.361	▲ 13478	HMSA92	P
			W/CW HELIX FROM AIR SIDE					HELIX-CCW, P.F. WIDTH .354	
1.850	.313	<b>12886</b>	HMSA7	P	2.559	.460	13484	HMSA24	P
			W/CW HELIX FROM AIR SIDE		<b>1.344 SHAFT</b>				
1.969	.472	<b>12900</b>	HMSA7	R	2.106	.313	▲ <b>13421</b>	† CRW1	R
2.205	.315	12912	HMSA35	P	2.125	.313	▲ <b>13437</b>	† CRW1	R
2.323	.669	▲ 13005	HMSA92	P	2.250	.500	13451	† P1	L
			P.F. WIDTH .315 & 3.125 FLANGE		<b>1.350 SHAFT</b>				
<b>1.301 SHAFT</b>					2.571	.540	▲ <b>13492</b>	CRW90	R
2.000	.438	12905	CRSA1	P	<b>1.358 SHAFT</b>				
2.046	.492	▲ <b>12907</b>	† CRWA1	R	2.756	1.602	13495	CRS-SPL	P
2.621	1.331	▲ 12925	† HMSW108	R	<b>1.359 SHAFT</b>				
			P.F. WIDTH .315 & 3.125 FLANGE		2.188	.375	13499	† HMSA30	R
<b>1.312 SHAFT</b>								P.F. WIDTH .250 & SS CASE	
1.627	.331	13144	CRS-SPL	R	<b>1.362 SHAFT</b>				
			HUB SEAL		2.191	.250	▲ 13500	CRS1	P
1.813	.280	536585	HMS-SPL	R	<b>1.365 SHAFT</b>				
2.062	.315	<b>534950</b>	CRWA1	V	1.956	.438	▲ <b>13985</b>	† CRW1	R
<b>1.313 SHAFT</b>					2.081	.313	▲ <b>13598</b>	† CRW1	R
	.500	<b>99131</b>	SSLEEVE		2.261	.313	▲ <b>13700</b>	† CRW1	R
			SHAFT RANGE 1.310 - 1.316		<b>1.367 SHAFT</b>				
	.250	<b>99129</b>	SSLEEVE		3.319	.496	13627	HMSA97	P
			SHAFT RANGE 1.308 - 1.314					W/BI-DIR HELIX FROM AIR SIDE	
1.625	.063	★ 451258	BUW	#	<b>1.375 SHAFT</b>				
1.625	.156	711818	BV	R	.313	<b>99133</b>	SSLEEVE		
1.625	.156	721559	BV	V				SHAFT RANGE 1.371 - 1.377	
1.828	.375	▲ <b>13021</b>	† CRW1	P	.500	<b>99138</b>	SSLEEVE		
1.874	.375	▲ 13027	† CRSA1	R				SHAFT RANGE 1.371 - 1.377	
2.000	.313	13037	CRSA1	R	.500	99819	GSLEEVE		
2.062	.313	▲ <b>13050</b>	† CRW1	R				SHAFT RANGE 1.371 - 1.377	
2.062	.313	<b>13052</b>	† CRWA1	R	.512	99820	GSLEEVE		
2.062	.313	<b>13054</b>	† CRW1	V				SHAFT RANGE 1.375 - 1.381	
2.063	.250	▲ 13060	HM3	R	.240	<b>400350</b>	VR1		R
2.106	.375	13084	† CRSA1	R				SHAFT RANGE 1.300 - 1.420	
2.125	.313	▲ <b>13092</b>	† CRW1	R	<b>1.375 SHAFT</b>				
2.250	.313	▲ <b>13112</b>	† CRW1	R					

★ Contact manufacturer for availability  
**Bold numbers** are preferred designs

† Includes Bore-Tite on O.D.  
 ▲ WasteWatcher numbers

## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>1.375 SHAFT (Cont.)</b>					<b>1.375 SHAFT (Cont.)</b>				
	.240	<b>400354</b>	VR1	V	2.250	.313	<b>13869</b>	† CRW1	P
			SHAFT RANGE 1.300 - 1.420		2.250	.386	▲ 13685	CRSA3	R
	.350	400351	VR2	R				P.F. WIDTH .433" W/BOOT 1.188"	
			SHAFT RANGE 1.300 - 1.420		2.282	.250	▲ <b>13710</b>	† HM14	R
	.350	400355	VR2	V	2.328	.406	▲ 13711	HM18	R
			SHAFT RANGE 1.300 - 1.420					CLEARANCE D .188	
1.688	.063	451094	BUW	#	2.374	.250	▲ 13758	† HM21	R
1.688	.156	711826	BV	D	2.374	.313	<b>13734</b>	† CRW1	V
1.688	.156	721533	BV	V	2.374	.313	▲ <b>13738</b>	† CRW1	R
1.688	.156	712132	BV	V	2.374	.313	<b>13739</b>	† CRWA1	R
1.740	.219	709009	WS	R	2.437	.250	▲ 13796	† HM21	R
1.740	.219	712122	WS	V	2.437	.250	▲ <b>13797</b>	† CRW1	R
1.750	.197	<b>13509</b>	† HM14	V	2.438	.250	13807	X15	R
1.750	.197	▲ <b>13529</b>	HM14	R				O.D. LISTED IS PRESSFIT I.D.	
1.750	.250	▲ <b>13514</b>	† CRW1	R	2.441	.313	▲ <b>13810</b>	† CRW1	R
			W/STAINLESS STEEL SPRING		2.441	.313	<b>13812</b>	† CRWA1	R
1.828	.250	<b>13510</b>	† CRWA1	V	2.500	.328	▲ 13839	HMSA36	R
1.828	.313	▲ <b>13537</b>	† CRW1	R	2.502	.250	▲ 13862	† HM21	R
1.834	.188	▲ 13533	† HM8	R	2.502	.313	▲ <b>13865</b>	† CRW1	R
1.835	.250	▲ <b>13536</b>	† CRW1	R	2.502	.313	<b>13867</b>	† CRW1	V
1.873	.313	<b>13511</b>	† CRWA1	V	2.562	.375	▲ <b>13875</b>	† CRW1	R
1.874	.281	504267	SC	R	2.562	.375	<b>13876</b>	† CRWA1	R
1.874	.188	▲ <b>13543</b>	HM14	R	2.562	.375	<b>13878</b>	† CRWA1	V
1.874	.250	<b>13512</b>	† CRW1	P	2.623	.313	▲ <b>13882</b>	† CRWA1	V
1.874	.250	<b>13545</b>	† HM14	P	2.686	.500	▲ <b>13892</b>	† CRW1	R
1.874	.250	<b>13548</b>	† HM14	R	2.716	.313	▲ <b>13900</b>	† CRW1	R
1.874	.256	▲ <b>13534</b>	† CRW1	R	2.750	.500	13906	† CRSH1	R
1.874	.256	<b>13538</b>	† CRW1	V	2.812	.375	<b>13912</b>	† CRWHA1	R
1.874	.313	<b>13535</b>	† CRWA1	R	2.835	.313	<b>13918</b>	† CRWA1	R
1.938	.250	▲ <b>13552</b>	† CRWA1	R	2.835	.313	▲ <b>13920</b>	† CRW1	R
1.938	.250	▲ <b>13556</b>	† HM14	R	2.835	.313	<b>13925</b>	† CRWA1	P
1.947	.563	550095	F2	RF	2.835	.594	13916	† TL8	R
1.955	.433	▲ <b>13527</b>	† CRWA1	P				SPECIAL CONST.	
1.983	.313	▲ <b>13557</b>	† CRW1	P	2.875	.313	<b>13929</b>	† CRWA1	P
2.000	.250	▲ 13573	† HM21	R	3.000	.500	13937	CRSHA1	R
2.000	.313	<b>13562</b>	† CRWA1	P	3.125	.500	13936	CRSH1	R
2.000	.313	▲ <b>13568</b>	† CRW1	R	3.350	.469	13934	† CRSH1	R
2.000	.313	<b>13569</b>	† CRWA1	R	4.555	.547	▲ 13508	J8	R
2.000	.313	<b>13571</b>	† CRWH1	R				SEE TYPE J SECTION (HMSA LIP)	
2.000	.313	<b>13579</b>	† CRW1	V	4.577	.259	13955	J5	R
2.000	.313	<b>13581</b>	† CRWA1	V				SEE TYPE J SECTION (HMS LIP)	
2.047	.276	<b>534952</b>	† CRWA1	V	4.577	.259	13956	J5	R
2.062	.313	<b>13582</b>	† CRW1	V				SEE TYPE J SECTION (HMS LIP)	
2.062	.313	▲ <b>13585</b>	CRW1	R					
2.062	.313	<b>13588</b>	† CRWA1	P	<b>1.377 SHAFT</b>				
2.063	.375	<b>13596</b>	HMS4	R	1.949	.276	<b>14560</b>	HMSA7	P
2.106	.250	13612	† HM21	R				W/CW HELIX FROM AIR SIDE	
2.106	.313	<b>13602</b>	CRWA1	R	2.126	.276	14020	HMSA92	P
2.106	.313	▲ <b>13614</b>	† CRW1	P				W/BI-DIR HELIX FROM AIR SIDE	
2.125	.250	▲ 13662	† HM21	R	2.874	.693	★ 13731	HMSA97	R
2.125	.313	▲ <b>13649</b>	† CRW1	R				W/BI-DIR HELIX FROM AIR SIDE	
2.125	.313	<b>13650</b>	† CRWA1	R	<b>1.378 SHAFT</b>				
2.125	.313	<b>13661</b>	† CRWA1	V	1.614	.359	13911	HMS41	R
2.125	.313	<b>13663</b>	† CRW1	V				P.F. WIDTH .217	
2.162	.578	★ 13668	† HMSHA4	S	1.811	.276	<b>13745</b>	HMSA7	P
			P.F. WIDTH .350 W/SLINGER		1.850	.276	<b>534951</b>	CRWA1	V
2.162	.578	13750	† HMSHA4	E	1.851	.276	<b>555364</b>	HMSA7	R
2.244	.374	13759	HMSA123	P	1.890	.315	<b>13709</b>	HMSA7	V
			W/BOOT					W/CW HELIX FROM AIR SIDE	
2.250	.250	▲ <b>13689</b>	† HM14	R	1.890	.591	▲ 13931	HMSA12	P
2.250	.250	<b>13698</b>	† CRWA1	R				W/2.165 FLANGE	
2.250	.313	▲ <b>13671</b>	† CRW1	R	1.929	.295	13845	HMSA92	R
2.250	.313	<b>13676</b>	† CRWA1	R				W/EXCLUDER LIP	
2.250	.313	<b>13688</b>	† CRW1	V					
2.250	.313	<b>13691</b>	† CRWA1	V					

Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>1.378 SHAFT (Cont.)</b>					<b>1.387 SHAFT</b>				
1.929	.236	<b>13857</b>	HMSA7	R	2.295	.559	13704	HMSA16	P
			W/CW HELIX FROM AIR SIDE					W/BI-DIR HELIX & PARTIAL OD RUBBER COVERED	
1.969	.472	13850	HMSASPL	P	<b>1.398 SHAFT</b>				
			W/CCW HELIX FROM AIR SIDE		1.950	.276	<b>11152</b>	HMSA7	R
1.969	.275	▲ <b>13943</b>	HMS4	S				W/CW HELIX FROM AIR SIDE	
			W/CW HELIX FROM AIR SIDE		<b>1.399 SHAFT</b>				
1.983	1.549	13958	HMSA122	P	1.964	.235	538565	SPL	R
			W/HELIX-CCW & P.F. WIDTH .368		2.252	.313	<b>13988</b>	CRWA6	P
2.008	.472	13794	HMSA123	P	2.283	.500	14002	† HMSA16	R
			W/CCW HELIX FROM AIR SIDE					P.F. WIDTH .310	
2.097	.315	▲ <b>13953</b>	HMSA7	P	2.292	.469	13992	† CRSA1	R
			W/CW HELIX FROM AIR SIDE					W/BI-DIR HELIX FROM AIR SIDE	
2.126	.315	13703	HMSA92	V	2.292	.500	▲ <b>13990</b>	† CRSA1	R
			W/BI-DIR HELIX FROM AIR SIDE					W/BI-DIR HELIX FROM AIR SIDE	
2.126	.315	<b>13744</b>	HMSA7	V	2.292	.500	13995	D8	R
			W/CW HELIX FROM AIR SIDE					W/BI-DIR & 2.750 FLG & SS SPG	
2.126	.315	13897	HMSA56	R	2.482	.536	14387	† HMSA16	V
			W/2.667 FLANGE O.D.					P.F. WIDTH .500 & 2.672 FLANGE	
2.126	.315	<b>14125</b>	HMSA7	R	2.484	.515	▲ <b>14393</b>	HMSA16	V
			W/CCW HELIX FROM AIR SIDE					P.F. WIDTH .280 & 2.672 FLANGE	
2.159	.354	13720	HMSA92	R	<b>1.400 SHAFT</b>				
2.165	.209	13780	X-SPL	R	2.282	.547	14119	HMSA25	V
			O.D. LISTED IS PRESSFIT I.D.					W/BI-DIR HELIX FROM AIR SIDE	
2.165	.354	14021	HMSA92	P	2.484	.550	▲ <b>14381</b>	† HMSA16	R
			W/BI-DIR HELIX FROM AIR SIDE					P.F. WIDTH .500 & 2.672 FLANGE	
2.204	.354	14006	HMSA92	P	<b>1.414 SHAFT</b>				
2.204	.354	14129	HMSA92S	P	2.250	.250	14035	† CRSA1	R
2.205	.315	13741	HMSA92	R	<b>1.417 SHAFT</b>				
2.205	.630	14007	HMSA92S	V	1.732	.197	<b>14058</b>	HMSA7	R
			P.F. WIDTH .394 W/2.507 FLANGE O.D., W/ROCK GUARD		1.811	.394	<b>14033</b>	HMSA7	P
2.240	.875	▲ <b>13959</b>	† CRWA21	S				W/CCW HELIX FROM AIR SIDE	
			P.F. WIDTH .420 W/2.540 FLANGE		1.892	.906	14014	HMSASPL	P
2.244	.601	13735	HMSA16	R				P.F. WIDTH .472	
2.283	.315	13726	HMSA92	R	1.929	.276	<b>14008</b>	HMSA7	P
			W/CW HELIX FROM AIR SIDE					W/CW HELIX FROM AIR SIDE	
2.283	.394	13792	ALH1	R	1.950	.395	14032	HMSA33	P
2.441	.394	14018	HMSA92	P				W/CW HELIX FROM AIR SIDE	
2.441	.472	14921	HMSA35	P	2.126	.354	14028	HMSASPL	R
			W/BI-DIR HELIX FROM AIR SIDE					W/EXCLUDER BOOT, W/BI-DIR HELIX	
2.480	.354	13858	HMSA92	R	2.165	.433	14782	ALA1	R
2.480	.394	13725	HMSA35	P	2.520	.748	14054	HMSA56	R
			W/BI-DIR HELIX FROM AIR SIDE					P.F. WIDTH .433 W/SLINGER	
2.638	.472	13742	HMSA57	R	2.559	.472	14057	HMSA96	P
			W/CCW HELIX FROM AIR SIDE					W/CW HELIX FROM AIR SIDE	
2.638	.472	13971	HMSA96	P	2.616	.313	<b>14092</b>	† CRW1	R
			W/CW HELIX FROM AIR SIDE		3.543	.394	14087	HMSA7SP	R
2.638	.709	13978	HMSA35	P				W/CW HELIX FROM AIR SIDE	
			W/HELIX-CW P.F. WIDTH .472		<b>1.437 SHAFT</b>				
2.677	.354	13748	HMSA35	P	1.987	.276	<b>14477</b>	HMSA7	S
2.835	.313	<b>13926</b>	† CRWA1	V				W/CW HELIX FROM AIR SIDE	
			W/STAINLESS STEEL SPRING		2.012	.312	14215	HMSA7SP	V
2.874	.655	13853	† HMSHA4	R	<b>1.438 SHAFT</b>				
2.992	.492	▲ <b>13981</b>	HMSA92	P	.375		<b>99144</b>	SSLEEVE	
			W/CCW HELIX FROM AIR SIDE					SHAFT RANGE 1.435 - 1.441	
2.992	.315	13849	HMSA92	P	.563		<b>99143</b>	SSLEEVE	
			W/CW HELIX FROM AIR SIDE					SHAFT RANGE 1.432 - 1.438	
3.268	.320	13729	† HMSHA4	R	.563		99821	GSLEEVE	
								SHAFT RANGE 1.432 - 1.438	

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 ▲ WasteWatcher numbers

## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>1.438 SHAFT (Cont.)</b>					<b>1.470 SHAFT</b>				
	.240	<b>400380</b>	VR1	R	2.913	1.688	14694	†HMS-SPL	#
			SHAFT RANGE 1.420 - 1.500		<b>1.473 SHAFT</b>				
	.240	<b>400384</b>	VR1	V	1.971	.563	14631	HMA10	R
			SHAFT RANGE 1.420 - 1.500		<b>1.475 SHAFT</b>				
	.350	400381	VR2	R	2.509	.350	14634	CRS-SPL	R
			SHAFT RANGE 1.420 - 1.500					HUB SEAL	
	.350	400385	VR2	V	<b>1.479 SHAFT</b>				
			SHAFT RANGE 1.420 - 1.500		2.563	.470	14700	†HM79	R
1.750	.063	451079	BUW	#	<b>1.484 SHAFT</b>				
1.750	.156	711820	BV	R	2.254	.313	<b>14907</b>	†CRW1	R
1.750	.156	721571	BV	V	<b>1.491 SHAFT</b>				
1.875	.250	▲ <b>14208</b>	†CRWAR5	V	2.191	.250	▲14780	CRSA1	R
			W/STAINLESS STEEL SPRING		<b>1.494 SHAFT</b>				
2.000	.125	14209	HM4	R	2.060	.270	▲ <b>14789</b>	†CRW1	R
2.003	.313	▲ <b>14211</b>	CRWAR5	V	<b>1.496 SHAFT</b>				
			W/STAINLESS STEEL SPRING		1.937	.354	14773	HMSA1	P
2.003	.313	<b>14384</b>	CRWAR5	R	1.969	.315	<b>14713</b>	HMSA7	S
2.003	.313	<b>14391</b>	CRWAR5	H				W/CW HELIX FROM AIR SIDE	
			W/STAINLESS STEEL SPRING		1.969	.394	<b>14936</b>	HMSA7	V
2.062	.313	<b>14212</b>	CRW1	V				HELIX-CW FROM AIR SIDE	
2.062	.313	▲ <b>14214</b>	†CRWA1	R	1.969	.315	<b>14956</b>	HMSA7	V
2.125	.313	▲ <b>14223</b>	†CRW1	R	2.008	.512	14790	HMSA25	P
2.125	.313	<b>14225</b>	†CRWA1	V	2.047	.236	★14775	†WP2	R
2.250	.250	<b>14257</b>	†HM14	R	2.047	.335	▲550270	HMSA33	R
2.250	.313	<b>14247</b>	†CRWA1	R				W/2.266 FLANGE	
2.250	.313	<b>14259</b>	†CRWA1	V	2.051	.335	▲550217	HMSA33	R
2.250	.313	<b>14260</b>	†CRW1	V				W/2.275 FLANGE	
2.250	.313	▲ <b>14262</b>	†CRW1	R	2.087	.304	14759	HMSHA7	V
2.374	.313	▲ <b>14282</b>	†CRW1	R				HELIX-CCW & INNER CASE	
2.374	.313	<b>14283</b>	†CRWA1	R	2.165	.315	★ <b>550250</b>	†CRWA1	R
2.437	.250	▲14359	†HM21	R	2.166	.512	14722	HMSA122	P
2.437	.313	▲ <b>14363</b>	†CRW1	R				W/CCW HELIX FROM AIR SIDE	
2.502	.313	▲ <b>14383</b>	†CRW1	R	2.275	.427	<b>14958</b>	HMSA7	P
2.623	.313	▲ <b>14404</b>	†CRW1	R	2.283	.315	14731	KIT	R
2.686	.313	▲ <b>14423</b>	†CRW1	R				SEE KIT SECTION	
2.750	.313	▲ <b>14458</b>	†CRW1	R	2.283	.394	14747	HMSA92	R
<b>1.457 SHAFT</b>					2.323	.354	14738	HMSA6	P
1.650	.315	14496	ENDCAP	P				W/CW HELIX FROM AIR SIDE	
2.047	.328	14600	HMA11	R	2.362	.315	14739	HMSA92	V
			P.F. WD .228 W/AXIAL DIRT LIP					HELIX-CW/OVERALL WIDTH 14.58	
2.165	.315	14514	HMSA96	P	2.362	.433	14756	HMSA-SP	S
2.205	.354	<b>14566</b>	HMS4	R				W/BI-DIR HELIX FROM AIR SIDE	
2.205	.354	14787	HMSASPL	V	2.362	.433	14900	HMSA123	P
			W/BI-DIR HELIX FROM AIR SIDE					W/CCW HELIX FROM AIR SIDE	
2.378	.433	14569	CRSA3	P	2.480	.394	14749	HMSA29	P
			W/BOOT					W/AXIAL DIRT LIP	
2.378	.433	15714	CRSA3	P	2.559	.354	14934	HMSA35	P
			W/CCW HELIX & BOOT					W/BI-DIR HELIX FROM AIR SIDE	
2.402	.315	14520	HMSA35	P	2.559	.394	14758	HMSA29	P
2.441	.492	14510	ALH1	P				W/AXIAL DIRT LIP	
2.441	.276	14502	HMA12	P	2.564	.315	<b>14922</b>	HMS4	R
2.441	.483	14500	HMSA92	R				W/BI-DIR HELIX FROM AIR SIDE	
3.071	.472	14484	HMS4SPL	R	2.913	.433	14891	HMSA96	P
			W/BI-DIR HELIX FROM AIR SIDE					W/BI-DIR HELIX FROM AIR SIDE	
<b>1.465 SHAFT</b>					2.913	.433	14766	HMSA29	P
2.372	.433	14652	HMS-SPL	R				W/AXIAL DIRT LIP	
2.372	1.508	14635	CRSA3	P	<b>1.469 SHAFT</b>				
			W/AUX DIRT BOOT & P.F. .433		2.374	.375	▲14641	†CRSA1	R



Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>1.500 SHAFT</b>					<b>1.500 SHAFT (Cont.)</b>				
.563		480148	† KIT	R	2.125	.313	<b>14887</b>	† CRWA1	V
		SPEEDI-SLEEVE & SEAL KIT			2.187	.500	14896	X1	L
.563		480150	KIT	R	O.D. LISTED IS PRESSFIT I.D.				
		SPEEDI-SLEEVE & SEAL KIT			2.222	.313	<b>14903</b>	† CRW1	R
.563		480151	KIT	R	2.250	.250	▲14960	HM21	R
		SPEEDI-SLEEVE & SEAL KIT			2.250	.313	<b>14935</b>	† CRW1	S
.563		480152	KIT	R	2.250	.313	▲ <b>14938</b>	† CRW1	R
		SPEEDI-SLEEVE & SEAL KIT			2.250	.313	<b>14939</b>	† CRWA1	R
.375		<b>99150</b>	SSLEEVE		2.250	.313	<b>14940</b>	† CRW1	V
		SHAFT RANGE 1.497 - 1.503			2.250	.313	<b>14942</b>	† CRWA1	V
.375		99823	GSLEEVE		2.250	.500	<b>15012</b>	† CRWH1	R
		SHAFT RANGE: 1.497 - 1.503			2.254	.250	▲14966	† HM21	R
.563		<b>99149</b>	SSLEEVE		2.260	.406	<b>14968</b>	† CRW1	R
		SHAFT RANGE 1.497 - 1.503			2.286	.270	▲14970	X15	R
.563		99822	GSLEEVE		O.D. LISTED IS PRESSFIT I.D.				
		SHAFT RANGE: 1.497 - 1.503			2.286	.420	14971	XH15	R
.280		<b>400400</b>	VR1	R	O.D. LISTED IS PRESSFIT I.D.				
		SHAFT RANGE 1.500 - 1.700			2.311	.500	<b>14979</b>	† CRWA5	V
.280		<b>400404</b>	VR1	V	W/STAINLESS STEEL SPRING				
		SHAFT RANGE 1.500 - 1.700			2.328	.390	▲14975	HM18	R
.430		400401	VR2	R	CLEARANCE D .188				
		SHAFT RANGE 1.500 - 1.700			2.328	.500	<b>14972</b>	† HM14	R
.430		400405	VR2	V	2.328	.500	▲14974	HM18	R
		SHAFT RANGE 1.500 - 1.700			CLEARANCE D .286				
.563		15243	J6-KIT	R	2.328	.500	<b>14977</b>	† CRWA5	R
		SEE TYPE J SECTION (CRW LIP)			W/STAINLESS STEEL SPRING				
1.813	.156	711878	BV	R	2.372	.375	▲ <b>14978</b>	† CRWA41	R
1.865	.219	709010	WS	R	W/EXTENDED RADIAL DIRT LIP				
1.874	.188	<b>14804</b>	HM14	R	2.372	1.500	14982	† KIT	R
1.874	.188	<b>14808</b>	† HM14	V	2.374	.250	▲15032	† HM21	R
1.874	.250	▲ <b>14807</b>	CRW1	R	2.374	.313	<b>14992</b>	† CRW1	V
		W/STAINLESS STEEL SPRING			2.374	.313	<b>14994</b>	† CRWA1	V
1.874	.250	▲ <b>14810</b>	† HM14	R	2.374	.313	▲ <b>15004</b>	† CRW1	R
1.875	.063	451487	BUW	#	2.374	.313	<b>15005</b>	† CRWA1	R
1.875	.188	711822	BV	R	2.374	.500	<b>15039</b>	† CRWH1	R
1.875	.188	721556	BV	V	2.374	.563	15330	KIT	R
1.918	.250	<b>14809</b>	CRW1	V	2.376	.815	15047	† HMSA25	P
		W/STAINLESS STEEL SPRING			HELIX-CCW & P.F. WIDTH .402"				
1.938	.250	▲ <b>14816</b>	† HM14	R	2.377	.450	15054	KIT	R
1.983	.188	▲ <b>14840</b>	HM14	R	2.377	.453	▲ <b>15041</b>	† CRWA1	R
1.983	.250	<b>14821</b>	† CRW1	V	2.437	.250	▲ <b>15080</b>	† HM14	R
1.983	.250	<b>14824</b>	† CRWA1	R	2.437	.313	▲ <b>15076</b>	† CRW1	R
1.983	.250	<b>14834</b>	† CRWA1	V	2.441	.313	<b>15092</b>	CRW1	R
1.983	.313	▲ <b>14832</b>	† CRW1	R	2.441	.313	<b>15093</b>	† CRWA1	R
1.989	.250	▲14848	† HMA25	R	2.441	.313	<b>15097</b>	† CRW1	V
1.997	.250	▲ <b>14844</b>	† CRWA5	V	2.462	.290	▲15174	X13	R
		W/STAINLESS STEEL SPRING			O.D. LISTED IS PRESSFIT I.D.				
2.000	.281	504268	SC	R	2.500	.375	15145	KIT	R
2.000	.250	▲ <b>14857</b>	† HM14	R	2.502	.250	▲15160	† HM21	R
2.000	.313	<b>14846</b>	† CRWA1	R	2.502	.313	<b>15138</b>	† CRW1	V
2.000	.313	▲ <b>14855</b>	† CRW1	R	2.502	.313	<b>15141</b>	† CRW1	R
2.000	.313	<b>14861</b>	† CRW1	V	2.502	.313	<b>15142</b>	† CRWA1	R
2.000	.313	<b>546953</b>	CRW1	V	2.502	.625	15120	† C8	RR
2.000	.188	14869	HM8	R	2.561	.313	▲ <b>15176</b>	† CRW1	R
2.048	.313	▲ <b>14858</b>	† CRWA1	R	2.623	.250	▲15190	HM21	R
2.062	.210	▲ <b>14863</b>	† HM14	R	2.623	.313	▲ <b>15194</b>	† CRW1	R
2.062	.313	▲ <b>14864</b>	† CRW1	R	2.686	.500	▲ <b>15207</b>	† CRW1	R
2.062	.313	<b>14867</b>	† CRW1	V	2.716	.250	▲15209	† HM21	R
2.064	.375	<b>14868</b>	† CRWA5	V	2.716	.438	▲ <b>15204</b>	† CRW1	R
		W/STAINLESS STEEL SPRING			2.750	.313	▲ <b>15214</b>	† CRW1	R
2.125	.250	<b>14872</b>	CRWH3	V	2.758	.313	▲ <b>15230</b>	† CRW1	R
		W/SS CASE & SPRING			2.835	.313	▲ <b>15234</b>	† CRW1	R
2.125	.313	▲ <b>14875</b>	† CRW1	R	2.875	.313	▲ <b>15235</b>	† CRW1	R
2.125	.313	<b>14876</b>	† CRWA1	R	2.996	.500	▲15240	CRSH1	R
2.125	.313	<b>14886</b>	† CRW1	V	3.000	.375	15241	CRSA1	R

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## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>1.500 SHAFT (Cont.)</b>					<b>1.535 SHAFT (Cont.)</b>				
3.125	.625	15250	C8	RR	2.953	.647	15382	HMSA56	P
<b>1.502 SHAFT</b>					<b>1.550 SHAFT</b>				
2.132	1.080	14234	CRSA3	R	.563	480149	† KIT	R	
<b>1.503 SHAFT</b>					SPEEDI-SLEEVE & SEAL KIT				
2.374	.374	15133	† CRSA3	P	<b>1.552 SHAFT</b>				
			W/CCW HELIX FROM AIR SIDE		.438	<b>99155</b>	SSLEEVE		
2.375	.720	15023	HMSA26	V	SHAFT RANGE 1.549 - 1.555				
			W/CCW HELIX		2.446	.500	15560	† D8	RT
2.375	.720	15025	CRSA3	P	2.447	.500	15440	HMSA78	RT
			W/CCW HELIX & PF.314"		W/EXTENDED RADIAL DIRT LIP				
<b>1.504 SHAFT</b>					2.447	.500	15529	HMSA57	V
1.937	.475	15270	HMSA76	P	W/CW HELIX				
			W/HELIX-CCW & P.F. WIDTH .315		2.502	.500	<b>▲ 15450</b>	† CRWA1	R
<b>1.512 SHAFT</b>					2.686	.500	<b>▲ 15460</b>	† CRW1	R
2.207	.354	15128	† HMSHA4	#	2.750	.500	<b>15462</b>	† CRWHA1	P
<b>1.515 SHAFT</b>					2.750	.590	15502	CRSA8	R
2.087	.315	<b>15500</b>	HMSA7	P	W/BI-DIR HELIX FROM AIR SIDE				
			W/CCW HELIX FROM AIR SIDE		3.160	.530	15791	CRSHA8	V
<b>1.520 SHAFT</b>					3.160	.546	15503	KIT	V
2.656	.425	<b>▲ 15306</b>	HMSA16	R	W/BI HELIX & 3M BEAD ON OD				
			HELIX-CCW & PF WIDTH .388		3.160	.546	15545	HMSHA26	V
<b>1.523 SHAFT</b>					3.160	.546	15566	HMSHA25	P
.438	<b>99152</b>	SSLEEVE			3.160	.630	15525	HMSHA25	V
			SHAFT RANGE 1.520 - 1.526		3.160	.665	<b>▲ 15788</b>	CRWA31	P
<b>1.524 SHAFT</b>					P.F. WIDTH .250				
2.374	.375	15343	† CRSH1	R	<b>1.562 SHAFT</b>				
2.656	.424	<b>★ 15305</b>	† HMSA12	R	2.442	.500	15629	HMSA97	R
			W/CW HELIX FROM AIR SIDE		2.460	.374	<b>15662</b>	† CRWA1	V
2.656	.424	15315	HMSA16	E	2.460	.374	<b>★ 538338</b>	CRWA1	V
			W/CW HELIX FROM AIR SIDE		2.625	.562	15696	† KIT	R
2.714	.500	15376	HMS9	R	SEE KIT SECTION				
<b>1.535 SHAFT</b>					<b>1.563 SHAFT</b>				
1.968	.335	<b>▲ 15445</b>	HMSA3	R	.563	<b>99156</b>	SSLEEVE		
1.969	.315	<b>15394</b>	HMSA7	P	SHAFT RANGE 1.559 - 1.565				
			W/CW HELIX FROM AIR SIDE		.563	99824	GSLEEVE		
1.969	.276	15451	HMSHA7	V	SHAFT RANGE: 1.559 - 1.565				
			W/CCW HELIX FROM AIR SIDE		2.047	.276	<b>534958</b>	† CRWA1	V
1.969	.453	15359	HMS4SPL	P	2.062	.203	<b>▲ 15509</b>	† HM14	R
2.047	.248	15298	HMSA96	P	2.062	.250	<b>15506</b>	† CRW1	V
2.047	.276	<b>15300</b>	HMSA7	P	2.062	.250	<b>▲ 15508</b>	† CRW1	R
			W/CW HELIX FROM AIR SIDE		2.125	.313	<b>▲ 15517</b>	CRW1	R
2.126	.236	15363	HMA1	R	2.125	.313	<b>15518</b>	† CRWA1	P
2.165	.315	<b>15302</b>	HMSA7	V	2.237	.290	15530	X4	R
			W/CW HELIX FROM AIR SIDE		O.D. LISTED IS PRESSFIT I.D.				
2.244	.844	15312	HMSA92	P	2.250	.250	<b>15532</b>	† HM14	R
			W/AXIAL DIRT LIP		2.250	.313	<b>▲ 15522</b>	† CRW1	R
2.244	.669	15310	HMSA92	P	2.250	1.520	15535	CRSA3	R
			W/AXIAL DIRT LIP		P.F. WIDTH .327 & 2.515 FLANGE				
2.244	.512	15463	F2	PF	2.250	1.520	15536	KIT	R
2.244	.380	<b>15345</b>	HMSA7	V	2.372	1.070	<b>▲ 15546</b>	HMSA31	P
			W/CW HELIX		W/HELIX-CCW & 2.255 FLANGE				
2.323	.472	15353	D7-SPL	PP	2.374	.250	15544	† HM21	R
2.323	.669	<b>▲ 15372</b>	HMSA92	R	2.374	.313	<b>15540</b>	CRW1	P
			W/AXIAL DIRT LIP		2.374	.313	<b>▲ 15542</b>	† CRW1	R
2.559	.472	<b>★ 550235</b>	HMSA35	R	2.374	.313	<b>15543</b>	† CRWA1	R
			W/AXIAL DIRT LIP		2.374	.313	<b>15549</b>	† CRWA1	V
2.913	.433	550234	† HMSA2	R	2.437	.313	<b>▲ 15592</b>	CRW1	R

Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>1.563 SHAFT (Cont.)</b>					<b>1.575 SHAFT (Cont.)</b>				
2.441	.500	▲ <b>15620</b>	† CRWA1	R	2.205	.276	★ <b>550259</b>	HMS4	R
2.441	.500	<b>15729</b>	HMSA7	R	2.205	.354	15669	HMSA35	P
2.465	.374	<b>15624</b>	† CRWA1	P	W/CW HELIX FROM AIR SIDE				
2.502	.250	▲ 15649	† HM21	R	2.205	.354	<b>15709</b>	HMSA7	P
2.502	.313	<b>15635</b>	† CRWA1	R	W/BI-DIR HELIX FROM AIR SIDE				
2.502	.313	▲ <b>15655</b>	† CRW1	R	2.244	.512	15706	HMSA7S	P
2.502	.313	<b>15656</b>	† CRW1	V	2.281	.472	15721	HMSHA4	P
2.531	.500	15660	X15	R	W/BI-DIR HELIX FROM AIR SIDE				
O.D. LISTED IS PRESSFIT I.D.					2.283	.394	<b>15370</b>	HMSA7	P
2.561	.313	▲ <b>15677</b>	† CRW1	R	2.283	.354	▲ <b>15750</b>	† CRWA3	R
2.623	.313	▲ <b>15699</b>	† CRW1	R	W/2.519 FLANGE				
2.684	.438	15702	X	R	2.283	.236	<b>15736</b>	HMSA7	P
O.D. LISTED IS PRESSFIT I.D.					2.283	.354	15742	HMSA92	P
2.686	.313	▲ <b>15707</b>	† CRW1	R	W/CCW HELIX FROM AIR SIDE				
2.686	.375	▲ <b>15730</b>	† HM14	R	2.283	.415	15727	HMSA25	V
2.687	.250	15719	† HM21	R	2.284	.315	15796	HMSA92	P
2.716	.469	15748	† CRSH1	R	2.362	.315	15842	HMSA35	R
2.750	.500	▲ <b>15761</b>	† CRWH1	R	W/AXIAL DIRT LIP				
2.758	.500	15766	W4	R	2.362	.198	<b>15718</b>	HMS4	V
2.875	.313	▲ <b>15773</b>	† CRW1	R	W/CW HELIX FROM AIR SIDE				
2.875	.313	<b>15779</b>	† CRWA1	P	2.441	.354	15902	HMSA55	P
2.920	.409	15790	HMSA96S	R	P.F. WIDTH .455 W/2.600 FLANGE				
W/CW HELIX FROM AIR SIDE					2.441	.365	15978	HM4SPL	R
<b>1.568 SHAFT</b>					2.461	.433	<b>15558</b>	HMSA7	R
2.620	1.000	15692	HMS15	R	2.480	.354	15737	HMSHA83	V
P.F. WIDTH .350					W/CCW HELIX FROM AIR SIDE				
<b>1.569 SHAFT</b>					2.480	.315	15733	HMSA92	P
.625		<b>99159</b>	SSLEEVE		2.520	.394	15704	HMSA96	P
SHAFT RANGE 1.566 - 1.572					2.520	.688	15849	HMSA92S	P
<b>1.574 SHAFT</b>					2.520	.472	15753	HMSA12	P
2.598	.315	15891	HMSA96	P	W/3.085 FLANGE				
W/CW HELIX FROM AIR SIDE					2.559	.472	15892	HMSA92	R
<b>1.575 SHAFT</b>					2.559	.708	15887	HMSASPL	P
2.040	.290	15731	HMSA32	R	2.677	.500	15900	D8-SPL	P
2.047	.276	15703	CRSA1	R	P.F. WIDTH .455 W/2.988 FLANGE				
W/BI-DIR HELIX FROM AIR SIDE					2.835	.433	14762	HMSA92	P
2.047	.276	16022	HMSHA7	V	2.953	.394	15883	HMSA96	P
W/CCW HELIX FROM AIR SIDE					2.953	.467	15882	HMSA29	R
2.047	.276	<b>15800</b>	HMSA7	P	W/CCW HELIX FROM AIR SIDE				
W/CW HELIX FROM AIR SIDE					2.953	.669	15799	HMSA35	R
2.047	.260	15802	HMSA92	R	W/3.327 FLANGE P.F. WIDTH .551				
W/AXIAL DIRT LIP					2.953	.472	15886	HMSA92	P
2.048	.354	15724	HMSA33	R	2.992	.492	15866	HMSA92	P
2.049	.354	▲ 550247	HMSA32	R	HELIX-CW & P.F. WIDTH 9MM				
W/2.204 FLANGE					2.992	.492	15867	HMSA92	P
2.087	.906	15809	HMSA8	R	HELIX-CCW,P.F. WIDTH .354(9MM)				
P.F.WD .472, W/2.835 FLG O.D.					<b>1.578 SHAFT</b>				
2.087	.315	<b>15701</b>	HMSA7	P	2.082	.250	<b>15510</b>	† CRW1	R
W/CW HELIX FROM AIR SIDE					2.165	.295	15512	HMSA96	P
2.087	.197	15884	HMA76	R	2.408	.313	▲ <b>15557</b>	† CRWHA1	R
2.126	.517	15843	HMS15	R	<b>1.592 SHAFT</b>				
P.F. WIDTH .315					2.406	.354	15974	HMSA96	P
2.126	.315	15967	HMSA1	R	W/BI-DIR HELIX FROM AIR SIDE				
2.126	.394	<b>15881</b>	HMSA7	P	<b>1.594 SHAFT</b>				
W/ENCAPSULATED SPRING					2.067	.236	<b>15910</b>	HMSA7	P
2.161	.511	15716	† HMSA16	P	W/CW HELIX FROM AIR SIDE				
2.165	.328	▲ 15746	† HMA9	R	2.125	.313	▲ <b>15915</b>	† CRW1	P
P.F. WIDTH .220 & 2.550 FLANGE					2.283	.315	<b>15920</b>	HMSA7	P
2.165	.236	<b>15818</b>	HMSA7	V	2.437	.313	<b>15940</b>	† CRW1	P
W/CW HELIX FROM AIR SIDE					2.437	.313	▲ <b>15955</b>	† CRW1	R
2.205	.315	15888	HMSA92	P	2.502	.313	▲ <b>15960</b>	† CRW1	R

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## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>1.594 SHAFT (Cont.)</b>					<b>1.625 SHAFT (Cont.)</b>				
2.623	.313	<b>15968</b>	†CRW1	R	2.000	.188	711823	BV	D
2.758	.313	<b>15975</b>	†CRW1	R	2.000	.188	721515	BV	V
3.150	.390	15984	D7	P	2.000	.250	<b>16039</b>	†CRW1	V
<b>1.598 SHAFT</b>					2.116 .313 <b>16047</b> †CRWA1 R				
2.476	.394	15966	†CRSA3	P	2.125	.281	504269	SC	R
			W/CCW HELIX FROM AIR SIDE		2.125	.250	<b>16048</b>	†CRW1	V
2.476	.394	15977	†CRSA3	P	W/STAINLESS STEEL SPRING				
			W/CCW HELIX, LONG BOOT		2.125	.250	▲ <b>16054</b>	†CRW1	R
<b>1.605 SHAFT</b>					2.125 .250 ▲ <b>16055</b> †HM14 R				
	.500	<b>99160</b>	SSLEEVE		2.125	.250	<b>16045</b>	CRWA5	V
			SHAFT RANGE 1.602 - 1.608		W/STAINLESS STEEL SPRING				
<b>1.609 SHAFT</b>					2.248 .313 ▲ <b>16062</b> †CRWA1 R				
1.906	.250	▲16020	HM3	R	2.250	.250	▲16065	†HM21	R
			W/STAINLESS STEEL CASE		2.250	.313	▲ <b>16061</b>	†CRW1	R
<b>1.614 SHAFT</b>					2.250 .313 <b>16078</b> CRW1 V				
2.126	.236	<b>16003</b>	HMSA7	P	W/STAINLESS STEEL SPRING				
			W/CCW HELIX FROM AIR SIDE		2.250	.375	<b>16049</b>	†CRW1	P
2.165	.275	16036	HMSA29	R	2.282	.313	<b>16083</b>	†CRW1	R
			W/AXIAL DIRT LIP		2.328	.438	16064	TL7	R
2.165	.276	<b>16147</b>	HMSA7	P	2.328	.438	▲16069	†HM18	R
			W/CW HELIX FROM AIR SIDE		CLEARANCE D .235				
2.244	.315	16013	HMSA96	P	2.374	.250	▲16092	†HM21	R
			W/CCW HELIX FROM AIR SIDE		2.374	.250	<b>16094</b>	CRW1	R
2.284	.512	16015	HMS15	P	2.374	.313	<b>16072</b>	†CRWH1	R
			P.F. WIDTH .354 (9MM)		2.374	.313	<b>16077</b>	†CRW1	V
2.323	.394	16037	HMSA92	P	2.374	.313	▲ <b>16084</b>	†CRW1	R
			W/AXIAL DIRT LIP, CW HELIX		2.374	.313	<b>16085</b>	†CRWA1	R
2.323	.315	<b>16023</b>	HMS4	R	2.374	.313	<b>16091</b>	CRWA1	P
			W/CW HELIX FROM AIR SIDE		2.374	.500	<b>16079</b>	†CRWH1	R
2.402	.394	16038	HMSA92	P	2.375	.250	<b>16095</b>	HM14	R
			W/CCW HELIX & AXIAL DIRT LIP		2.375	.395	<b>16110</b>	CRWA6	R
2.569	.433	16139	HMSA25	P	2.375	.395	▲ <b>16115</b>	CRWA6	V
			W/BI-DIR HELIX FROM AIR SIDE		W/STAINLESS STEEL SPRING				
2.677	.456	16017	DB-SPL	P	2.403	.360	16116	CRSA4	R
2.677	.354	16019	HMSA92	R	W/2.675 FLANGE O.D.				
			W/CW HELIX FROM AIR SIDE		2.409	.545	16262	HMSA24	R
2.913	.354	16021	HMSA29	R	2.437	.250	▲16168	†HM21	R
2.950	.430	16114	HMSA96	P	2.437	.313	▲ <b>16117</b>	†CRW1	R
			W/BI-DIR HELIX FROM AIR SIDE		2.437	.313	<b>16118</b>	†CRWA1	R
2.950	.430	16144	HMSA57	P	2.437	.313	<b>16119</b>	†CRW1	V
			W/CCW HELIX FROM AIR SIDE		2.437	.313	<b>16120</b>	†CRWA1	V
<b>1.618 SHAFT</b>					2.437 .313 16225 †HMS14 S				
2.254	.235	<b>533803</b>	CRW1	R	W/CW HELIX FROM AIR SIDE				
2.531	.438	<b>16040</b>	†CRWA1	R	2.437	.374	16121	CRSHA1	R
2.575	.500	▲16044	†CRSA1	R	2.441	.313	▲ <b>16180</b>	†CRW1	R
			W/BI-DIR HELIX FROM AIR SIDE		2.441	.313	<b>16201</b>	†CRWA1	R
2.841	.500	▲16146	†CRSA4	R	2.441	.625	<b>16189</b>	CRWHA3	RR
			W/3.179 FLANGE O.D.		2.443	.640	16204	†C8	RR
<b>1.619 SHAFT</b>					2.462 .250 ▲16286 X15 R				
2.000	.250	▲ <b>16046</b>	†CRW1	R	O.D. LISTED IS PRESSFIT I.D.				
<b>1.625 SHAFT</b>					2.502 .250 <b>16242</b> CRWH3 V				
	.313	<b>99161</b>	SSLEEVE		W/SS CASE & SPRING				
			SHAFT RANGE 1.622 - 1.628		2.502	.250	▲16270	†HM21	R
	.563	<b>99162</b>	SSLEEVE		2.502	.313	<b>16243</b>	†CRWA1	V
			SHAFT RANGE 1.622 - 1.628		2.502	.313	▲ <b>16245</b>	†CRW1	R
	.563	99826	GSLEEVE		2.502	.313	<b>16246</b>	†CRWA1	R
			SHAFT RANGE 1.622 - 1.628		2.502	.313	<b>16247</b>	CRWA1	P
1.990	.219	709011	WS	R	2.502	.374	<b>16257</b>	†CRWHA1	V
2.000	.063	451046	BUW	#	2.502	.375	<b>16254</b>	†CRWHA1	R
					2.562	.250	▲16284	†HM21	R
					2.562	.313	<b>16290</b>	†CRWA1	V
					2.562	.438	▲16289	†HM18	R
					CLEARANCE D .210				
					2.565	.750	16295	†HMASHASP	R
					W/BI-DIR HELIX FROM AIR SIDE				

Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>1.625 SHAFT (Cont.)</b>					<b>1.654 SHAFT (Cont.)</b>				
2.623	.250	▲ 16322	† HM21	R	2.551	.531	16542	HMSA95	R
2.623	.313	▲ <b>16314</b>	† CRW1	R	W/HELIX-CW P.F. WIDTH .375				
2.623	.313	<b>16315</b>	† CRWA1	R	2.559	.433	16551	D7	P
2.623	.313	<b>16316</b>	† CRW1	V	2.992	.472	16564	HMSA92	P
2.686	.313	▲ <b>16337</b>	† CRW1	R	3.543	.472	16596	D8-SPL	P
2.686	.313	<b>16338</b>	† CRW1	V	W/AXIAL DIRT LIP				
2.722	.406	16342	FF2	F	3.543	.394	16594	D8SPL	P
2.750	.250	▲ 16362	† HM21	R	W/AXIAL DIRT LIP				
2.750	.250	▲ <b>16364</b>	† CRW1	R	<b>1.656 SHAFT</b>				
2.750	.313	<b>16368</b>	† CRWH1	R	.550		<b>99165</b>	SSLEEVE	
2.781	.313	<b>16384</b>	† HM14	R	SHAFT RANGE 1.653 - 1.659				
2.808	.500	16392	† HMSHA4	P	2.502	.500	16532	† CRSH1	R
W/3.065 FLANGE O.D.					2.623	.375	▲ <b>16545</b>	† CRWA1	P
2.835	.469	16386	† CRSH1	R	<b>1.660 SHAFT</b>				
2.875	.313	▲ <b>16406</b>	† CRW1	R	2.440	.594	16520	HM11	R
3.000	.313	▲ <b>16422</b>	† CRWH1	R	<b>1.673 SHAFT</b>				
3.062	.500	16431	† CRSH1	R	2.146	.236	<b>16889</b>	HMSA7	V
3.251	.500	16440	CRSH1	R	W/CW HELIX FROM AIR SIDE				
<b>1.627 SHAFT</b>					2.162	.290	▲ 16599	† HMA9	R
2.365	.389	16271	HMSA25	R	W/2.608 FLANGE				
W/CCW HELIX FROM AIR SIDE					<b>1.675 SHAFT</b>				
<b>1.645 SHAFT</b>					2.000	.200	16787	WIPER	R
2.656	.400	16500	† CRSA1	P	WIPER SEAL				
<b>1.648 SHAFT</b>					<b>1.685 SHAFT</b>				
2.332	.591	16122	† HMSA1	V	2.165	.433	<b>16620</b>	HMSA7	R
<b>1.652 SHAFT</b>					<b>1.688 SHAFT</b>				
2.520	.390	16626	HMSHA4	R	.835		480168	† KIT	R
<b>1.654 SHAFT</b>					SPEEDI-SLEEVE & SEAL KIT				
2.094	.275	<b>16487</b>	HMSA7	V	.313		<b>99167</b>	SSLEEVE	
2.165	.315	<b>16893</b>	HMSA7	V	SHAFT RANGE 1.685 - 1.691				
W/CW HELIX FROM AIR SIDE					.563		<b>99168</b>	SSLEEVE	
2.165	.276	<b>16471</b>	HMSA7	V	SHAFT RANGE 1.684 - 1.690				
W/CW HELIX FROM AIR SIDE					16906 HddfBv1				
2.205	.315	<b>16473</b>	HMSA7	P	BELLEVILLE WASHERS (2 EA/KIT)				
W/CW HELIX FROM AIR SIDE					2.183	.313	509543	SC	R
2.213	.236	▲ 16506	HMA1	R	2.279	.500	▲ <b>16650</b>	† CRWH1	R
2.213	.374	▲ 16508	HMA101	R	2.328	.313	▲ <b>16657</b>	† CRWA1	R
P.F. WIDTH .236					2.328	.500	▲ 16667	HM18	R
2.217	.315	16546	HMSA12	R	CLEARANCE D .286				
2.283	.270	16497	CRSA1	R	2.328	.531	▲ 16659	HMA5	R
2.283	.472	16456	CRS1SPL	P	2.374	.313	16669	CRSA1	R
W/CW HELIX FROM AIR SIDE					2.437	.250	<b>16692</b>	† CRW1	S
2.283	.472	16549	HMSA123	P	2.437	.313	▲ <b>16679</b>	† CRW1	R
W/CW HELIX FROM AIR SIDE					2.437	.313	<b>16680</b>	† CRWA1	R
2.323	.303	<b>16536</b>	HMS4	R	2.437	.469	<b>16696</b>	† CRW1	S
W/CW HELIX FROM AIR SIDE					2.502	.281	▲ 16743	† HM21	R
2.362	.276	<b>16489</b>	HMSA7	P	2.502	.313	▲ <b>16719</b>	† CRW1	R
W/CW HELIX FROM AIR SIDE					2.502	.500	▲ <b>16871</b>	† CRWA3	R
2.362	.335	<b>16533</b>	HMSA7	V	W/2.750 FLANGE				
W/CW HELIX FROM AIR SIDE					2.502	.835	▲ <b>16725</b>	† CRWA41	R
2.441	.315	16622	HMS-SPL	R	P.F. WIDTH .360 & 2.750 FLANGE				
2.441	.472	16485	D6	P	2.502	1.535	16727	† KIT	R
2.480	.276	★ <b>550253</b>	HMS4	R	2.502	2.120	★ 16729	† KIT	R
2.480	.433	16474	CRSA3	P	2.551	.375	16747	HMSA95	R
W/BI-DIR HELIX & BOOT					2.551	.470	▲ <b>16735</b>	HMSA7	R
2.520	.390	▲ 16901	HMSHA4	R	2.551	.595	16578	D8	RRT
2.520	.472	16524	D	PP	W/CW HELIX FROM AIR SIDE				
2.550	.530	16491	HMSA95	R	2.562	.250	▲ 16754	† HM21	R
2.550	.550	16499	HMSA56	P	2.605	.250	▲ <b>16757</b>	† HM14	R

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Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>1.688 SHAFT (Cont.)</b>					<b>1.730 SHAFT (Cont.)</b>				
2.623	.313	<b>16814</b>	†CRWA1	R	2.336	.470	17110	HMA95	R
2.623	.375	▲16811	†HM21	R	P.F. WIDTH .250 & SLINGER				
2.623	.500	▲16816	†CRW1	R	<b>1.732 SHAFT</b>				
2.623	.500	<b>16817</b>	†CRWA1	V	2.165	.236	<b>17122</b>	HMSA7	P
2.623	.500	<b>16945</b>	CRW2	P	W/CW HELIX FROM AIR SIDE				
2.623	.531	▲16805	HMSA16	R	2.283	.315	<b>17300</b>	HMSA7	V
W/CW HELIX FROM AIR SIDE					W/CW HELIX FROM AIR SIDE				
2.650	.290	▲16818	X4	R	2.283	.276	<b>17298</b>	HMSA7	P
O.D. LISTED IS PRESSFIT I.D.					W/CW HELIX FROM AIR SIDE				
2.686	.313	▲16842	†CRW1	R	2.320	.260	<b>17134</b>	HMS4	R
2.688	.250	▲16820	X9	R	W/CW HELIX FROM AIR SIDE				
O.D. LISTED IS PRESSFIT I.D.					2.362	.315	<b>17154</b>	HMSA7	V
2.716	.313	▲16854	†CRW1	R	W/CW HELIX FROM AIR SIDE				
2.750	.313	▲16900	CRW1	R	2.362	.394	★17330	HMSA7	V
2.750	.375	<b>16903</b>	†CRWA1	R	2.441	.315	17147	HMSA45	R
2.760	.974	16904	HDDF1	R	W/AXIAL DIRT LIP				
2.835	.469	▲16960	CRSA1	R	2.614	.394	17296	HMSA97	V
2.875	.313	▲16999	†CRW1	R	W/3.012 FLG O.D. & .394 PRESS				
3.061	.375	<b>17035</b>	†CRW1	R	2.653	.375	17407	HMSASPL	P
3.091	.500	▲17037	†CRSA4	R	W/BI-DIR HELIX FROM AIR SIDE				
W/3.453 FLANGE & BI-DIR HELIX					3.150	.354	17191	HMSA92	P
3.125	.375	<b>17038</b>	†CRWA1	R	3.543	.787	17194	HMSASPL	P
<b>1.692 SHAFT</b>					3.622	.748	17193	†HMSA7SP	R
2.303	.295	16924	HMSA96	P	P.F. WIDTH .492				
<b>1.693 SHAFT</b>					<b>1.734 SHAFT</b>				
2.126	.295	16891	CRSHA1	R	2.328	.270	▲17815	†HM19	R
2.283	.276	<b>16896</b>	HMSA7	P	W/2.625 FLANGE				
W/CW HELIX FROM AIR SIDE					2.401	.210	▲17187	†G2	R
2.480	.394	16926	CRSA3	R	2.449	.250	17131	†HM21	R
2.480	.354	16894	HMSA92	R	2.726	.512	▲17145	†HM18	R
W/CCW HELIX FROM AIR SIDE					CLEARANCE D .218				
2.756	.354	16917	HMSA29	R	<b>1.739 SHAFT</b>				
<b>1.704 SHAFT</b>					.375	<b>99170</b>	SSLEEVE		
3.034	.500	▲17100	†CRWA1	R	SHAFT RANGE 1.736 - 1.742				
<b>1.705 SHAFT</b>					2.812	.594	▲17190	†HMSA16	R
3.034	.562	17327	HMSA25	V	W/HELIX-CW, W/3.270 FLANGE				
3.080	.550	17005	†HMSA25	R	3.000	.500	▲17727	CRWA4	P
3.084	.500	▲17053	CRS1	R	<b>1.747 SHAFT</b>				
<b>1.709 SHAFT</b>					2.623	.365	▲17458	†HMS14	E
2.209	.355	▲17106	†HMSA23	P	W/HELIX-CW & 2.870 FLANGE				
HELIX-CW,W/2.505 FLG,PF WD.295					2.623	.365	17459	†KIT	E
2.209	.355	17107	†HMSA23	V	<b>1.750 SHAFT</b>				
HELIX-CW,W/2.505 FLG,PF WD.295					.563	480173	†KIT		R
<b>1.719 SHAFT</b>					SPEEDI-SLEEVE & SEAL KIT				
.563		<b>99171</b>	SSLEEVE		.563	480176	KIT		R
SHAFT RANGE 1.715 - 1.721					SPEEDI-SLEEVE & SEAL KIT				
2.437	.469	17124	P1	L	.375	<b>99172</b>	SSLEEVE		
2.561	.315	<b>17144</b>	†CRWA1	R	SHAFT RANGE 1.747 - 1.753				
2.562	.500	▲17146	†HM18	R	.531	<b>99180</b>	SSLEEVE		
CLEARANCE D .286					SHAFT RANGE 1.747 - 1.753				
2.623	.500	17136	†CRSH1	R	.563	<b>99174</b>	SSLEEVE		
2.875	.469	17162	P1	L	SHAFT RANGE 1.747 - 1.753				
<b>1.720 SHAFT</b>					.563	99827	GSLEEVE		
2.921	.468	17259	†HMSA57	P	SHAFT RANGE 1.747 - 1.753				
W/BI-DIR HELIX FROM AIR SIDE					.750	<b>99175</b>	SSLEEVE		
<b>1.730 SHAFT</b>					SHAFT RANGE 1.747 - 1.753				
2.336	.250	▲17115	HMA85	R	.750	99828	GSLEEVE		
					SHAFT RANGE 1.747 - 1.753				
					.280	<b>400450</b>	VR1		R
					SHAFT RANGE 1.700 - 1.890				



Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>1.750 SHAFT (Cont.)</b>					<b>1.750 SHAFT (Cont.)</b>				
	.280	<b>400454</b>	VR1	V	2.686	.313	<b>▲17484</b>	CRW1	R
			SHAFT RANGE 1.700 - 1.890		2.716	.250	<b>▲17488</b>	†HM21	R
	.430	400451	VR2	R	2.717	.438	<b>▲17607</b>	†CRWA1	R
			SHAFT RANGE 1.700 - 1.890		2.718	.294	17485	X4	R
	.430	400455	VR2	V				O.D. LISTED IS PRESSFIT I.D.	
			SHAFT RANGE 1.700 - 1.890		2.718	.359	<b>▲17617</b>	†HM18	R
2.115	.219	709012	WS	R				CLEARANCE D .160	
2.115	.219	712123	WS	V	2.718	.359	17618	TL2	R
2.125	.063	451264	BUW	#	2.750	.250	<b>▲17544</b>	†HM21	R
2.125	.188	702011	BV	D	2.750	.313	<b>17523</b>	†CRWA1	R
2.125	.188	721552	BV	V	2.750	.313	<b>▲17557</b>	†CRW1	R
2.125	.188	712564	BV	V	2.750	.313	<b>17558</b>	†CRW1	V
2.125	.188	<b>▲17227</b>	†HMS1	R	2.750	.484	17599	†HM21	R
2.250	.281	504270	SC	R	2.758	.313	<b>▲17605</b>	†CRW1	R
2.250	.188	<b>▲17240</b>	†HM14	R	2.786	.294	<b>▲17620</b>	X15	R
2.250	.313	<b>▲17231</b>	†CRW1	R				O.D. LISTED IS PRESSFIT I.D.	
2.250	.313	<b>17234</b>	†CRW1	V	2.810	.313	<b>▲17624</b>	CRWA1	R
2.326	.275	17490	KIT	R	2.810	.313	<b>17627</b>	†CRWA1	V
2.328	.438	17257	CRS1	R	2.830	.375	<b>▲17633</b>	†HM21	R
2.374	.250	<b>▲17277</b>	HM21	R	2.875	.250	<b>▲17671</b>	†HM21	R
2.374	.313	<b>17261</b>	†CRWA1	V	2.875	.313	<b>▲17653</b>	†CRW1	R
2.374	.313	<b>▲17270</b>	†CRW1	R	2.875	.313	<b>17657</b>	†CRW1	V
2.374	.313	<b>17271</b>	†CRWA1	R	2.875	.375	<b>17645</b>	†CRWHA1	R
2.374	.438	★17265	HMS6	R	2.875	.500	17674	TL7	R
2.411	.375	<b>▲17280</b>	†CRW1	P	2.981	.438	<b>▲17675</b>	CRWHA1	R
2.437	.250	<b>▲17310</b>	HM21	R	2.997	.313	<b>17678</b>	†CRWHA1	R
2.437	.313	<b>17283</b>	†CRW1	R	2.997	.313	<b>▲17695</b>	†CRW1	R
			W/SS CASE & SPRING		3.000	.250	<b>▲17702</b>	†HM21	R
2.437	.313	<b>▲17284</b>	†CRW1	R	3.000	.313	<b>17699</b>	†CRWA1	R
2.437	.313	<b>17292</b>	†CRW1	V	3.000	.313	<b>▲17707</b>	†CRW1	R
2.437	.315	<b>17285</b>	†CRWA1	R	3.000	.313	<b>17709</b>	†CRW1	V
2.437	.315	<b>17293</b>	†CRWA1	V	3.061	.313	<b>▲17716</b>	†CRW1	R
2.441	.250	<b>▲17340</b>	†HM21	R	3.061	.375	<b>17718</b>	†CRWA1	R
2.441	.250	17341	†HM21	R	3.061	.484	17722	D	R
			W/STAINLESS STEEL CASE					SPECIAL CONST.	
2.441	.313	<b>▲17315</b>	†CRW1	R	3.062	.485	<b>▲17720</b>	D7	RT
2.441	.313	<b>550154</b>	†CRWA1	R	3.149	.290	17724	TL6	R
2.441	.375	<b>17320</b>	†CRWA1	V	3.154	.313	<b>▲17726</b>	CRS1	R
2.441	.469	<b>▲17359</b>	†HM18	R	3.189	.313	<b>▲17746</b>	†CRW1	R
			CLEARANCE D .254		3.371	.625	<b>▲17751</b>	C8	RR
2.500	.484	17353	D7	P	3.543	.438	<b>▲17756</b>	†CRW1	R
2.502	.250	<b>17385</b>	CRWH3	V	3.625	.438	<b>▲17761</b>	†CRW1	R
			W/SS CASE & SPRING		3.937	.313	17771	†CRSA1	R
2.502	.250	<b>▲17392</b>	†HM21	R					
2.502	.313	<b>17379</b>	†CRW1	V					
			W/STAINLESS STEEL SPRING						
2.502	.313	<b>17381</b>	†CRWA1	V					
2.502	.313	<b>▲17386</b>	†CRW1	R					
2.502	.313	<b>17387</b>	†CRWA1	R					
2.502	.375	<b>17395</b>	†CRWHA1	V					
2.502	.375	<b>17399</b>	†CRW1	S					
2.502	.500	<b>17374</b>	†CRWA5	R					
			W/STAINLESS STEEL SPRING						
2.561	.250	<b>▲17415</b>	†HM21	R					
2.561	.313	<b>▲17404</b>	†CRW1	R					
2.562	.500	<b>▲17406</b>	†HM18	R					
			CLEARANCE D .286						
2.565	.313	<b>▲17413</b>	†CRWA1	R					
2.620	.354	17520	HMSA97	V					
2.623	.250	<b>▲17461</b>	HM21	R					
2.623	.313	<b>▲17442</b>	†CRW1	R					
2.623	.313	<b>17443</b>	†CRWA1	R					
2.623	.313	<b>17444</b>	†CRW1	S					
2.623	.313	<b>17448</b>	†CRWA1	V					
2.623	.375	<b>17456</b>	†CRWH1	R					
<hr/>					<hr/>				
<b>1.766 SHAFT</b>					<b>1.766 SHAFT</b>				
					.563		480177	†KIT	R
								SPEEDI-SLEEVE & SEAL KIT	
					.563		<b>99176</b>	SSLEEVE	
								SHAFT RANGE 1.761 - 1.767	
					.563		99829	GSLEEVE	
								SHAFT RANGE 1.761 -1.767	
2.412	.370						17775	HMSA1	P
								W/CW HELIX FROM AIR SIDE	
2.412	.375						<b>▲17286</b>	†HMSA1	R
								W/CW HELIX FROM AIR SIDE	
<hr/>					<hr/>				
<b>1.768 SHAFT</b>					<b>1.768 SHAFT</b>				
					2.363	.313	<b>▲17780</b>	†CRWHA1	V
<hr/>					<hr/>				
<b>1.770 SHAFT</b>					<b>1.770 SHAFT</b>				
					2.364	.427	<b>▲17781</b>	†HMSA21	P
<hr/>					<hr/>				
<b>1.771 SHAFT</b>					<b>1.771 SHAFT</b>				
					2.362	.495	17502	D7	PP
					2.835	.450	17673	HMSA21	E

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**▲** WasteWatcher numbers



## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>1.772 SHAFT</b>					<b>1.792 SHAFT</b>				
1.969	.512	17943	END CAP	P	2.500	.600	▲ 17846	XHA79N	R
2.323	.315	17113	HMA83	P	O.D. LISTED IS PRESSFIT I.D.				
W/FELT 'A' LIP WASHER					<b>1.797 SHAFT</b>				
2.362	.276	<b>17629</b>	HMSA7	P	2.726	.516	▲ <b>17836</b>	† HM14	R
W/CW HELIX FROM AIR SIDE					<b>1.809 SHAFT</b>				
2.401	.315	17919	HMSA92	R	2.361	.370	▲ 18009	† HMA9	R
W/CCW HELIX FROM AIR SIDE					P.F. WIDTH .340 & 2.865 FLANGE				
2.402	.315	17701	HMSA35	R	<b>1.811 SHAFT</b>				
W/CCW HELIX FROM AIR SIDE					2.283	.276	<b>17897</b>	HMSA7	R
2.441	.394	17662	HMSA32	R	W/CW HELIX FROM AIR SIDE				
2.441	.394	17666	CRSA1	R	2.323	.457	17905	HMSA56	P
2.441	.472	17824	HMSASPL	R	2.362	.276	<b>17914</b>	HMSA7	R
W/EXCLUDER LIP					W/CW HELIX FROM AIR SIDE				
2.480	.294	17788	HMA16	R	2.480	.291	<b>18101</b>	HMSA7	P
W/2.835 FLANGE					2.480	.300	<b>18014</b>	HMS4	P
2.500	.432	▲ 17787	† HMSA16	S	W/CW HELIX FROM AIR SIDE				
HELIX-CW & 3.046 FLG, PF WD.359					2.520	.354	▲ 17789	HMA101	R
2.520	.472	17658	CRSHA1	R	W/BI-DIR HELIX FROM AIR SIDE				
W/BI-DIR HELIX FROM AIR SIDE					2.520	.354	▲ 17789	HMA101	R
2.520	.354	▲ 17789	HMA101	R	W/AXIAL DIRT LIP				
W/AXIAL DIRT LIP					2.520	.354	17801	HMA101	P
2.520	.807	17922	HMSA97	P	W/AXIAL DIRT LIP				
W/DIRT LIP					2.520	.807	17922	HMSA97	P
2.559	.315	17696	HMSA85	P	W/DIRT LIP				
W/CCW HELIX FROM AIR SIDE					2.559	.315	17696	HMSA85	P
2.561	.197	17435	† CRSA1	R	W/CCW HELIX FROM AIR SIDE				
2.598	.394	17670	HMSA92	V	2.561	.197	17435	† CRSA1	R
W/BI-DIR HELIX FROM AIR SIDE					2.598	.394	17670	HMSA92	V
2.638	.315	<b>17907</b>	HMSA7	P	W/BI-DIR HELIX FROM AIR SIDE				
2.638	.394	<b>17921</b>	HMSA7	V	2.638	.315	<b>17907</b>	HMSA7	P
2.756	.433	17677	HMSA16	V	2.638	.394	<b>17921</b>	HMSA7	V
W/BI-DIR HELIX FROM AIR SIDE					2.756	.433	17677	HMSA16	V
2.835	.228	▲ 17792	J2	R	W/BI-DIR HELIX FROM AIR SIDE				
SEE TYPE J SECTION (HMA LIP)					2.835	.228	▲ 17792	J2	R
2.835	.472	17667	HMSA-DL	P	SEE TYPE J SECTION (HMA LIP)				
W/CW HELIX, 19MM OVERALL WIDTH					2.835	.472	17667	HMSA-DL	P
2.913	.433	17803	HMSA96	P	W/CW HELIX, 19MM OVERALL WIDTH				
W/CW HELIX FROM AIR SIDE					2.913	.433	17803	HMSA96	P
2.953	.472	17686	HMSA92S	P	W/CW HELIX FROM AIR SIDE				
W/CW HELIX					2.953	.472	17686	HMSA92S	P
3.071	.433	17808	HMSA96	P	W/CW HELIX				
W/CW HELIX FROM AIR SIDE					3.071	.433	17808	HMSA96	P
3.130	.571	17683	HMSA7S	V	W/CW HELIX FROM AIR SIDE				
3.346	.740	17799	D8	R	3.130	.571	17683	HMSA7S	V
W/STAINLESS STEEL CASE					3.346	.740	17799	D8	R
3.858	.413	17813	HMSA96	P	W/STAINLESS STEEL CASE				
W/BI-DIR HELIX FROM AIR SIDE					3.858	.413	17813	HMSA96	P
<b>1.781 SHAFT</b>					<b>1.813 SHAFT</b>				
	.667	<b>99179</b>	SSLEEVE			.563	<b>99181</b>	SSLEEVE	
SHAFT RANGE 1.778 - 1.784					SHAFT RANGE 1.809 - 1.815				
2.126	.250	<b>17802</b>	HM14	R			18257	HDDFBV1	R
W/STAINLESS STEEL CASE					BELLEVILLE WASHERS (2 EA/KIT)				
2.252	.313	▲ <b>17806</b>	† CRWA1	R	2.279	.313	▲ <b>18025</b>	† CRW1	R
2.502	.313	▲ <b>17810</b>	† CRWH1	R	2.408	.300	18030	X15	R
2.502	.313	<b>17811</b>	† CRWH1	V	O.D. LISTED IS PRESSFIT I.D.				
2.623	.313	▲ <b>17821</b>	† CRW1	R	2.437	.313	▲ <b>18039</b>	† CRW1	R
2.686	.313	▲ <b>17832</b>	CRW1	R	2.562	.313	▲ <b>18049</b>	† CRWA1	V
2.750	.500	17847	CRSH1	R	2.562	.313	18098	SL1	T
2.758	.500	17851	† CRSH1	R	2.562	.438	▲ 18050	† HM18	R
<b>1.787 SHAFT</b>					CLEARANCE D .224				
3.234	.335	▲ 17849	† HMSH22	S	2.623	.313	▲ <b>18104</b>	† CRW1	R
					2.623	.500	▲ <b>18100</b>	CRW79	R
					P.F. WIDTH .375				
					2.686	.313	<b>18114</b>	† CRWA1	P
					2.719	.270	▲ 18127	TL7	R
					2.750	.313	▲ <b>18159</b>	† CRW1	R
					2.776	.432	18136	181367	R
					W/CW HELIX FROM AIR SIDE				
					2.777	.432	▲ 18190	† HMSA25	R
					W/CW HELIX FROM AIR SIDE				
					2.875	.313	▲ <b>18242</b>	† CRW1	R
					2.965	.250	18258	FF1	F
					3.000	.375	▲ <b>18264</b>	† CRWA1	P

Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>1.813 SHAFT (Cont.)</b>					<b>1.873 SHAFT</b>				
3.001	.563	▲ 18833	† HMSA25	P	2.716	.281	18630	X13	R
			P.F. WIDTH .375 W/3.313 FLANGE					O.D. LISTED IS PRESSFIT I.D.	
3.003	.892	18259	HDDF1	R	<hr/>				
			O.D. LISTED IS SEAL I.D.		<b>1.874 SHAFT</b>				
3.092	.469	▲ 18024	HMSA25	R	2.496	.351	18724	HMSA92	V
<hr/>					<hr/>				
<b>1.825 SHAFT</b>					<b>1.875 SHAFT</b>				
2.570	.250	▲ 18415	† HM21	R	.563		480185	† KIT	P
2.623	.250	▲ 18055	† HM21	R				SPEEDI-SLEEVE & SEAL KIT	
2.750	.484	▲ 18149	† HM18	R	.563		480186	KIT	P
			CLEARANCE D .275					SPEEDI-SLEEVE & SEAL KIT	
<hr/>					.563		480187	† KIT	S
<b>1.842 SHAFT</b>								SPEEDI-SLEEVE & SEAL KIT	
2.748	.426	18472	† HMSA16	V	.175		99190	SSLEEVE	
			W/BI-DIR HELIX FROM AIR SIDE					SHAFT RANGE 1.872 - 1.878	
<hr/>					.295		99188	SSLEEVE	
<b>1.844 SHAFT</b>								SHAFT RANGE 1.872 - 1.878	
2.502	.375	18412	† CRSA1	R	.375		99184	SSLEEVE	
2.623	.313	▲ 18425	† CRW1	R				SHAFT RANGE 1.872 - 1.878	
2.750	.313	▲ 18444	† CRW1	P	.563		99187	SSLEEVE	
2.750	.375	18446	† CRSA1	R				SHAFT RANGE 1.872 - 1.878	
<hr/>					.563		99832	GSLEEVE	
<b>1.849 SHAFT</b>								SHAFT RANGE 1.872 - 1.878	
2.717	.398	▲ 18436	D7	P	2.250	.063	451249	BUW	#
<hr/>					2.250	.188	711824	BV	R
<b>1.850 SHAFT</b>					2.250	.188	721509	BV	D
2.283	.276	18496	HMSA7	P	2.250	.188	721560	BV	V
			W/CW HELIX FROM AIR SIDE		2.318	.203	▲ 18536	HMSA11	V
2.402	.276	18512	HMSA7	V				W/2.333 NOSE GASKET	
			W/CW HELIX FROM AIR SIDE		2.375	.281	504271	SC	R
2.441	.354	18452	HMS9	P	2.398	.250	18550	† KIT	R
2.520	.550	▲ 18454	HMA5	R				SEE KIT SECTION	
			P.F. WIDTH .236		2.398	.250	18551	KIT	R
2.520	.276	18458	D8	R				SEE KIT SECTION	
2.598	.433	▲ 18465	HMSA29	R	2.398	.256	▲ 18549	† CRW1	R
			P.F. WD .236 W/AXIAL DIRT LIP		2.401	.275	▲ 18543	† HM14	R
2.698	.354	18499	CRSA3	P	2.441	.315	534957	CRWA1	V
			WBI-DIR HELIX		2.471	.313	▲ 18545	† CRWA1	R
2.756	.472	18507	HMSA123	P	2.500	.313	▲ 18555	† CRW1	P
2.835	.394	18513	HMSA92	P	2.502	.250	▲ 18558	† HM21	R
3.150	.511	18488	HMSASPL	P	2.502	.313	▲ 18565	† CRW1	R
			W/.276 P.F. WIDTH		2.561	.600	18544	† HMSA16	V
3.307	.374	18489	HMA101	P				W/HELIX-CW P.F. WIDTH .582	
3.976	.472	18505	HMSA92	P	2.561	.600	▲ 18548	† HMSA16	P
<hr/>								W/HELIX-CW, P.F. WIDTH .528	
<b>1.851 SHAFT</b>					2.562	.313	18546	† CRWA1	V
2.441	.354	18862	† HMS1	R	2.562	.313	18562	† CRW1	P
<hr/>					2.623	.250	▲ 18591	† HM21	R
<b>1.859 SHAFT</b>					2.623	.313	▲ 18580	† CRW1	R
	.563	99185	SSLEEVE		2.623	.313	18581	† CRWA1	R
			SHAFT RANGE 1.857 - 1.863		2.623	.313	18582	† CRW1	V
<hr/>					2.623	.313	18584	† CRWA1	V
<b>1.868 SHAFT</b>					2.623	.313	18592	† CRW1	S
	.889	480184	† KIT	P	2.625	.375	18508	HMS4	S
			SPEEDI-SLEEVE & SEAL KIT					W/CW HELIX FROM AIR SIDE	
	.889	99186	SSLEEVE		2.628	.328	▲ 18603	† HM14	R
			SHAFT RANGE 1.866 - 1.872		2.628	.415	18761	HMSA16	R
2.518	.315	▲ 18492	† CRWA1	P	2.686	.313	▲ 18626	† CRW1	R
<hr/>					2.716	.394	18623	HMSA7	P
<b>1.872 SHAFT</b>								W/CCW HELIX FROM AIR SIDE	
2.684	.544	18510	X13	R	2.721	.266	▲ 18640	HM14	R
			O.D. LISTED IS PRESSFIT I.D.		2.750	.250	▲ 18659	† HM21	R
2.750	.677	18758	† HMSA96	V	2.750	.313	18652	† CRW1	V
<hr/>					2.750	.313	▲ 18657	† CRW1	R
<hr/>					2.750	.313	18658	† CRWA1	R

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## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>1.875 SHAFT (Cont.)</b>					<b>1.886 SHAFT</b>				
2.750	.313	<b>18666</b>	†CRW1	P	2.561	.250	▲18990	HM22	R
2.750	.500	▲18662	†HMSA26	R	2.690	.350	18860	CRSA3	P
2.750	.500	▲18771	†D8	ET	W/CCW HELIX FROM AIR SIDE				
	P.F. WD .500, W/2.950		FLG O.D.		2.700	.550	▲18992	†HMSA16	P
2.750	1.370	18687	CRSA3	P	W/HELIX-CCW & 3.000 FLANGE				
2.758	.313	▲18671	†CRW1	P	2.700	1.000	18998	†KIT	P
2.758	.313	<b>18679</b>	†CRW1	S	2.750	.469	18994	HMSA92S	P
2.758	.531	18676	D5	RR	W/BI-DIR HELIX FROM AIR SIDE				
2.760	.400	▲18692	†HMS14	S	<b>1.889 SHAFT</b>				
W/CW HELIX FROM AIR SIDE					2.440	.276	17588	CRSA1	R
2.780	.250	▲18704	†HM21	R	2.685	.512	18878	†D8-SPL	P
2.782	.438	▲18693	†CRWH1	R	2.750	.520	18892	HMSA92	P
2.782	.438	<b>18695</b>	†CRWHA1	R	W/BI-DIR HELIX FROM AIR SIDE				
2.804	.300	▲18697	HMA22	R	3.110	.688	18983	CRSA1	P
2.813	.500	▲18708	†HMSA16	R	<b>1.890 SHAFT</b>				
W/CW HELIX FROM AIR SIDE					2.362	.276	<b>18857</b>	HMSA7	P
2.830	.391	<b>550185</b>	HMS4	R	W/CW HELIX FROM AIR SIDE				
2.868	.544	▲18710	HMSA95	R	2.362	.276	<b>18897</b>	HMSA7	P
P.F. WD .450 W/2.898 RIBBED OD					W/CW HELIX FROM AIR SIDE				
2.868	.375	▲18731	HMSA95	R	2.440	.405	18443	†HMSA23	E
2.875	.250	▲18750	†HM21	R	P.F. WIDTH .354				
2.875	.313	<b>18732</b>	†CRW1	V	2.441	.945	18964	HMA31	R
2.875	.313	▲18733	†CRW1	R	2.441	.236	18864	HMA1	R
2.875	.313	<b>18734</b>	†CRWA1	R	2.441	.296	18865	†CRSHA1	R
2.875	.313	<b>18737</b>	†CRWA1	V	2.441	.354	550242	HMA31	R
2.875	.315	<b>542726</b>	CRWH1	R	P.F. WIDTH .354				
2.903	.424	▲18765	HMA84	R	2.520	.472	18984	HMSA96	R
W/3.150 FLANGE					2.520	.540	▲18959	HMSA65	R
2.965	.234	▲18772	†HM14	R	W/2.815 FLANGE				
2.997	.250	▲18808	†HM14	R	2.520	.472	18866	CRSA1	R
2.997	.313	▲18785	†CRW1	R	2.559	.315	18877	HMSA1	R
3.000	.250	▲18823	†HM21	R	2.624	.315	<b>18895</b>	HMS4	S
3.000	.313	▲18817	†CRW1	R	2.677	.433	<b>18854</b>	HMSA7	R
3.000	.313	<b>18818</b>	†CRW1	V	W/CW HELIX FROM AIR SIDE				
3.000	.625	18829	†UNITIZE	S	2.677	.433	19317	CRSA3	P
P.F. WIDTH .562					W/BI-DIR HELIX FROM AIR SIDE				
3.061	.313	▲18872	†CRWA1	R	2.756	.354	<b>18873</b>	HMSA7	R
3.061	.485	18752	D7	RT	2.756	.669	18876	D8-SPL	R
3.105	.500	▲18880	†CRWA1	R	2.810	.700	18844	X-SPL	P
3.105	.500	▲18912	CRW2	R	HUB SEAL				
W/3.266 FLANGE					2.835	.394	18531	D7	R
3.125	.313	18879	†CRSA1	R	2.874	.276	18979	CRSA1	P
3.150	.930	▲18881	HMSA41	R	2.910	.390	18987	HMSA92	P
3.150	.250	▲18889	†HM21	R	3.071	.551	18782	HMSA35	R
3.160	.531	▲18888	CRWA32	P	3.160	.620	18871	KIT	R
P.F. WIDTH .254 W/O BUMPER					3.160	.620	18875	CRSHA32	R
3.160	.695	18896	CRSA8	V	<b>1.893 SHAFT</b>				
P.F. WIDTH .250 & BUMPER					2.434	.250	▲19000	CRW1	R
3.160	.770	▲18891	CRWA31	P	2.533	.250	19011	KIT	R
P.F. WIDTH .254 & BUMPER					SEE KIT SECTION				
3.189	.469	▲18899	†CRWH1	R	2.533	.250	19012	†KIT	R
3.249	.484	▲18922	†CRWA1	R	SEE KIT SECTION				
3.371	.438	▲18916	†CRWH1	R	2.811	.468	18852	HMSA97	P
3.375	.313	18961	J2	R	W/BI-DIR HELIX & 3M BEAD & FLG				
SEE TYPE J SECTION (HMS LIP)					<b>1.906 SHAFT</b>				
3.496	.438	▲18924	†CRWA1	R	2.752	.375	<b>19017</b>	†CRWA1	P
3.500	.438	<b>18926</b>	†CRW1	R	3.189	.313	19062	CRSA1	P
3.744	.430	▲18948	HMSH1	R	<b>1.912 SHAFT</b>				
<b>1.877 SHAFT</b>					3.375		<b>99192</b>	SSLEEVE	
2.503	.341	<b>18757</b>	HMSA7	V	SHAFT RANGE 1.909 - 1.915				
<b>1.885 SHAFT</b>					<b>1.912 SHAFT</b>				
2.700	.552	18999	HMSA25	#	SHAFT RANGE 1.909 - 1.915				
W/HELIX-CW W/3.000 FLANGE O.D.									

Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>1.915 SHAFT</b>					<b>1.938 SHAFT (Cont.)</b>				
2.533	.250	<b>19010</b>	† CRW1	R	2.750	.360	19387	† HMSA16	V
<b>1.927 SHAFT</b>					2.762	.500	▲ 19273	† CRSA1	R
2.910	1.210	19208	† HMS-SPL	#	W/CW HELIX FROM AIR SIDE				
<b>1.929 SHAFT</b>					2.813	.500	▲ 19277	HMSA23	R
2.441	.315	▲ 19090	HMSA45	R	W/CCW HELIX FROM AIR SIDE				
W/AXIAL DIRT LIP & SS SPRING					2.825	.500	19274	CRSH1	P
2.441	.441	19097	HMSA45	P	2.835	.250	<b>19278</b>	† CRWA5	R
2.520	.492	19200	HMA16	R	2.875	.250	▲ 19306	† HM21	R
P.F. WIDTH .236 & 2.805 FLANGE					2.875	.313	▲ <b>19300</b>	† CRW1	R
2.677	.394	<b>19293</b>	HMSA7	R	2.875	.313	<b>19301</b>	† CRWA1	R
W/BI-DIR HELIX FROM AIR SIDE					2.875	.313	<b>19304</b>	† CRWH1	V
2.756	.394	19192	HM-SPL	R	2.875	.563	19286	KIT	RR
W/BI-DIR HELIX FROM AIR SIDE					SEE KIT SECTION				
2.756	.472	19095	HMSA-SP	R	2.875	.718	19305	KIT	P
W/3.031 FLANGE O.D.					SEE KIT SECTION				
2.843	.315	▲ 19100	HMA22	R	2.884	.313	<b>19310</b>	† CRWA1	P
P.F. WIDTH .236 - RC					2.997	.313	▲ <b>19350</b>	† CRW1	R
<b>1.930 SHAFT</b>					3.000	.313	▲ <b>19359</b>	† CRW1	R
3.940	.315	19333	HM83	R	3.000	.313	<b>19360</b>	CRWA1	R
<b>1.937 SHAFT</b>					3.000	.313	<b>19368</b>	† CRWA1	V
2.650	.350	19377	† AHL1FLG	S	3.000	.375	573	FELT	F
2.650	.360	144	KIT	#	3.061	.313	▲ <b>19380</b>	† CRW1	R
HALF SEAL					3.062	.500	<b>19438</b>	† CRW1	S
2.687	.375	19252	KIT	R	3.125	.500	▲ <b>19400</b>	† CRW1	R
<b>1.938 SHAFT</b>					3.189	.313	▲ <b>19407</b>	† CRW1	R
.563		<b>99193</b>	SSLEEVE		3.251	.313	<b>19433</b>	† CRWA1	V
SHAFT RANGE 1.934 - 1.940					3.251	.313	▲ <b>19434</b>	† CRW1	R
.563		99833	GSLEEVE		3.350	.469	<b>19445</b>	† CRWHA1	R
SHAFT RANGE 1.934 - 1.940					3.543	.313	▲ <b>19449</b>	† CRW1	R
2.412	.313	▲ <b>19215</b>	† CRW1	R	3.622	.375	19455	FF1	F
2.437	.250	▲ <b>19210</b>	† CRW1	R	3.751	.500	19466	† CRSH1	R
2.437	.250	<b>19212</b>	† CRW1	R	<b>1.940 SHAFT</b>				
W/SS CASE & SPRING					2.900	.400	19428	HMSA16	R
2.471	.313	▲ 19206	† HMSA1	V	2.909	.516	▲ 19314	CRSA6	R
2.500	.300	19013	† HMA9	R	HELIX-CW & 3.583 FLG,PF WD.370				
2.500	.380	▲ 19214	† HMA9	R	<b>1.945 SHAFT</b>				
P.F. WIDTH .306					2.892	.294	▲ 19510	† TL6	R
2.502	.281	▲ <b>19219</b>	† HM14	R	<b>1.968 SHAFT</b>				
2.502	.281	▲ 19221	HMA4	R	2.362	.236	19599	HMA10	R
2.502	.375	▲ <b>19220</b>	† CRWA1	R	<b>1.969 SHAFT</b>				
2.563	.313	▲ <b>19211</b>	† CRW1	R	2.368	.276	<b>19651</b>	HMSA7	V
2.578	.294	▲ 19223	HMA4	R	2.559	.384	19647	HMA8	P
W/2.840 FLANGE					2.571	.315	19623	HMSA24	P
2.621	.570	▲ 19500	† HMA8	R	W/BI-DIR HELIX FROM AIR SIDE				
P.F. WIDTH .255					2.618	.591	▲ 19612	HMSA92	R
2.623	.313	▲ <b>19226</b>	† CRW1	R	P.F. WD .750 W/AXIAL DIRT LIP				
2.623	.313	<b>19227</b>	† CRWA1	V	2.623	.313	▲ <b>19607</b>	† CRWA1	R
2.623	.313	▲ <b>19229</b>	† CRWA1	R	2.638	.216	19624	HMA90	R
2.675	.250	<b>19213</b>	† CRWA5	R	2.638	.354	▲ 19628	CRSA1	R
2.680	.500	19255	† D3	R	2.638	.433	▲ 19626	HMA76	R
2.686	.304	<b>19234</b>	† CRWA1	P	2.638	.354	19627	HMA8	R
2.686	.304	▲ <b>19236</b>	† CRW1	R	2.657	.531	19579	CRSHA1	R
2.686	.304	<b>19237</b>	† CRWA1	R	2.677	.270	19613	HMSA45	R
2.686	.304	<b>19243</b>	† CRWA1	V	W/AXIAL DIRT LIP				
2.686	.304	<b>19244</b>	† CRW1	P	2.677	.354	19596	CRSHA1	R
2.686	.375	<b>19240</b>	† CRW1	S	2.686	.375	▲ 19610	HMS2	S
2.686	.594	19251	† TL8	R	2.686	.500	19615	CRSH1	R
2.693	.507	19372	D8	R	2.742	.500	19620	CRSH1	P
2.750	.313	▲ <b>19264</b>	† CRW1	R	2.750	.530	19569	CRSHA1	R
2.750	.313	▲ <b>19267</b>	† CRW1	V	2.756	.315	19635	HMSA92	P
					W/CW HELIX FROM AIR SIDE				

★ Contact manufacturer for availability  
**Bold numbers** are preferred designs

† Includes Bore-Tite on O.D.  
 ▲ WasteWatcher numbers

## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>1.969 SHAFT (Cont.)</b>					<b>2.000 SHAFT (Cont.)</b>				
2.835	.570	19689	D8SPL	R	2.375	.063	451037	BUW	#
			AXIAL DIRT LIP-SEAL		2.375	.188	702028	BV	D
2.835	.640	▲19639	D5-SPL	R	2.375	.188	721534	BV	V
			SPECIAL CONST.		2.375	.188	19731	HMS1	R
2.874	.468	▲19644	KIT	R	2.375	.188	<b>19733</b>	HM14	R
			DISCONTINUE BUILDING KIT		2.500	.250	▲19748	HM1	R
2.875	.469	▲19643	CRSH1	R	2.500	.438	<b>19739</b>	† CRW1	S
2.913	.354	19656	HMSA92	P	2.502	.281	504272	SC	R
2.953	.354	20012	CRSA1	P	2.502	.250	▲ <b>19754</b>	† HM14	R
2.960	.250	▲19660	HD1	R	2.502	.313	▲ <b>19745</b>	† CRW1	P
			QUILL WIPER		2.560	.224	19984	† HMA84	R
3.150	.433	19578	HMSA96	P	2.560	.234	19784	† HMA85	R
			W/CCW HELIX FROM AIR SIDE		2.562	.234	<b>19753</b>	† HM14	R
3.150	.630	★19672	HMSA92	P	2.562	.335	▲ <b>19852</b>	CRW2	R
			W/BI-DIR HELIX FROM AIR SIDE				W/2.860 FLANGE		
3.228	.315	19677	HMSA96	P	2.565	.500	▲ <b>19757</b>	† HM14	R
3.386	.748	19682	HMSA96	R	2.620	.355	20018	HMSA96	VT
			W/CCW HELIX FROM AIR SIDE		2.622	.280	▲19743	† HMA9	R
<b>1.980 SHAFT</b>					2.623	.281	504273	SC	R
	.563	20146	† KIT	V	2.623	.250	19746	† HM21	V
			SEE KIT SECTION		2.623	.250	▲19763	† HM21	R
	.563	<b>99198</b>	SSLEEVE		2.623	.313	▲ <b>19760</b>	† CRW1	R
			SHAFT RANGE 1.977 - 1.983		2.623	.313	<b>19762</b>	† CRWA1	R
<b>1.988 SHAFT</b>					2.623	.313	<b>19777</b>	† CRWA1	V
3.051	.354	19709	HMSA96	P	2.623	.313	<b>19782</b>	† CRWA1	V
<b>1.991 SHAFT</b>					2.623	.311	19905	HMSA1	V
2.900	.290	19720	X4	R			W/STAINLESS STEEL SPRING		
			O.D. LISTED IS PRESSFIT I.D.		2.627	.234	▲ <b>19768</b>	† HM14	R
<b>1.995 SHAFT</b>					2.631	.272	20016	HMA94	R
2.620	.492	19955	KIT				P.F. WD IS .257", MINOR OD=2.628		
<b>1.996 SHAFT</b>					2.635	.234	<b>19770</b>	† HM14	R
3.111	.344	19730	† HMSA16	V	2.652	.365	19773	HMA2	R
			W/HELIX-CW W/3.425 FLANGE		2.686	.250	▲19783	† HM21	R
<b>2.000 SHAFT</b>					2.686	.375	▲ <b>19778</b>	† CRW1	R
	.563	480198	KIT	S	2.716	.375	▲ <b>19785</b>	† CRW1	R
			SPEEDI-SLEEVE & SEAL KIT		2.716	.375	<b>19786</b>	† CRWA1	R
	.563	<b>99199</b>	SSLEEVE		2.720	.210	19793	X	R
			SHAFT RANGE 1.997 - 2.003				O.D. LISTED IS PRESSFIT I.D.		
	.563	99834	GSLEEVE		2.742	.375	▲19799	† HMS13	P
			SHAFT RANGE 1.997 - 2.003				W/CW HELIX FROM AIR SIDE		
	.875	<b>99200</b>	SSLEEVE		2.745	.234	▲ <b>19803</b>	HM14	R
			SHAFT RANGE 1.997 - 2.003		2.746	.375	▲ <b>19807</b>	† CRW1	S
	.875	99835	GSLEEVE		2.750	.250	▲19834	† HM21	R
			SHAFT RANGE 1.997 - 2.003		2.750	.313	<b>19823</b>	† CRW1	V
	.193	400509	VRINGSP	R	2.750	.313	▲ <b>19831</b>	† CRW1	R
			SHAFT RANGE 1.890 - 2.090		2.750	.313	<b>19832</b>	† CRWA1	R
	.280	<b>400500</b>	VR1	R	2.750	.313	<b>19839</b>	† CRWA1	V
			SHAFT RANGE 1.890 - 2.090		2.750	.313	<b>19840</b>	† CRW1	V
	.280	<b>400504</b>	VR1	V			W/SS CASE & SPRING		
			SHAFT RANGE 1.890 - 2.090		2.752	.188	▲ <b>19820</b>	† HM14	R
	.430	400501	VR2	R	2.754	.302	19966	† HMS14	S
			SHAFT RANGE 1.890 - 2.090		2.802	.250	▲19844	X15	D
	.430	400505	VR2	V			O.D. LISTED IS PRESSFIT I.D.		
			SHAFT RANGE 1.890 - 2.090		2.834	.197	19841	SL2	T
	.562	20168	J2-KIT	R			W/ALUMINUM CASE		
			SEE TYPE J SECTION (HM LIP)		2.835	.469	▲ <b>19848</b>	† CRWH1	R
2.365	.219	709014	WS	R	2.874	.703	19876	† C8	RR
2.365	.219	712124	WS	V	2.875	.256	19882	XHM	R
2.371	.250	▲ <b>19737</b>	† HM14	R			O.D. LISTED IS PRESSFIT I.D.		
					2.875	.250	▲19880	† HM21	R
					2.875	.313	<b>19884</b>	† CRW1	V
					2.875	.313	▲ <b>19886</b>	† CRW1	R
					2.875	.313	<b>19887</b>	† CRWA1	R



Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>2.000 SHAFT (Cont.)</b>					<b>2.047 SHAFT</b>				
2.875	.375	<b>19896</b>	† CRWHA1	R	2.441	.217	20417	XA-SPL	P
2.875	.500	<b>19900</b>	† CRWH1	R			O.D. LISTED IS PRESSFIT I.D.		
			W/SS CASE & SPRING		2.561	.315	<b>▲ 20420</b>	† CRW1	R
2.880	.368	19939	† HMS14	R	2.561	.354	20433	† CRS1	R
			W/CW HELIX FROM AIR SIDE		2.590	.290	20038	HMSA96	P
2.880	.375	<b>▲ 19922</b>	† CRWA1	R	2.599	.295	<b>▲ 20431</b>	HMSA96	P
2.880	.375	<b>19923</b>	† CRWA1	P	2.638	.264	<b>▲ 20422</b>	X	P
2.962	.250	<b>▲ 20113</b>	† HM20	R			O.D. LISTED IS PRESSFIT I.D.		
			W/3.209 FLANGE		2.677	.315	20455	HMSA96	P
2.965	.313	<b>▲ 19940</b>	† HM14	R	2.677	.276	20427	HMA8	P
2.965	.500	<b>19938</b>	† HM14	R			W/AXIAL DIRT LIP		
			CLEARANCE D .275		2.677	.512	<b>▲ 20428</b>	HMSA7SP	R
2.968	.313	<b>▲ 20118</b>	† HM14	R			SPECIAL CONST.		
2.997	.250	<b>▲ 19965</b>	HM21	R	2.717	.583	20448	D7-SPL	P
2.997	.375	<b>▲ 19969</b>	† CRWH1	R	2.756	.294	<b>▲ 20439</b>	X	R
2.997	.375	<b>19970</b>	† CRWHA1	R			O.D. LISTED IS PRESSFIT I.D.		
2.997	.375	<b>19974</b>	† CRWHA1	V	2.756	.354	20457	HMSA1	R
2.997	.375	<b>19979</b>	† CRWH1	V	2.756	.374	20432	HMSA1	V
2.997	.438	19982	† HMSA24	P			W/CW HELIX FROM AIR SIDE		
3.000	.250	<b>▲ 20006</b>	† HM21	R	2.835	.315	20463	HMSA96	R
3.000	.313	<b>▲ 19992</b>	† CRW1	R	2.835	.315	20438	HMSA35	P
3.000	.313	<b>19993</b>	† CRWA1	R			W/CW HELIX FROM AIR SIDE		
3.000	.313	<b>19995</b>	† CRWA1	V	2.874	.315	20446	KIT	P
3.000	.375	<b>20002</b>	† CRWH1	V	2.953	.294	20429	HMSA29	R
3.000	.375	<b>20004</b>	† CRWH1	R			W/AXIAL DIRT LIP		
3.000	.375	<b>20005</b>	† CRWHA1	R	2.953	.390	22075	KIT	P
3.061	.250	<b>▲ 20044</b>	† HM21	R	3.071	.368	<b>▲ 20465</b>	X	P
3.061	.375	<b>▲ 20045</b>	† CRW1	R			O.D. LISTED IS PRESSFIT I.D.		
3.061	.500	<b>20053</b>	† CRWH1	R	3.268	.315	20501	KIT	R
3.061	.500	<b>20054</b>	† CRWHA1	R			SEE KIT SECTION		
3.125	.375	<b>▲ 20070</b>	† CRW1	R	3.268	.709	20700	KIT	R
3.125	.375	★ 584	FELT	F					
3.125	.500	596	FELT	F					
3.148	.250	<b>▲ 20078</b>	HM14	R	<b>2.048 SHAFT</b>				
3.150	.375	<b>▲ 20079</b>	† CRW1	R	2.727	.570	<b>▲ 20425</b>	† HMA8	R
3.189	.469	<b>▲ 20098</b>	† CRWH1	R			W/AXIAL DIRT LIP		
3.189	.469	<b>20100</b>	† CRWHA1	R	<b>2.063 SHAFT</b>				
3.251	.437	20108	KIT	R	.781		<b>99205</b>	SSLEEVE	
3.251	.438	<b>▲ 20109</b>	† CRWH1	R			SHAFT RANGE 2.057 - 2.063		
3.370	1.031	20136	CRSA4	P	.348		20766	J2-KIT	R
			HELIX-CW & 3.800 FLG,PF WD.358				SEE TYPE J SECTION (CRWH LIP)		
3.371	.438	<b>20122</b>	† CRW1	V	2.561	.313	<b>20520</b>	† CRW1	V
3.371	.438	<b>▲ 20124</b>	† CRWH1	R	2.661	.188	<b>20525</b>	HMS4	R
3.371	.438	<b>20125</b>	† CRWHA1	R	2.661	.188	20526	KIT	R
3.371	.438	<b>20127</b>	CRWH1	V			SEE KIT SECTION		
3.543	.433	<b>▲ 20140</b>	† CRWH1	R	2.750	.313	<b>20530</b>	CRWH1	R
3.623	.250	<b>▲ 20148</b>	HM21	R	2.842	.438	<b>▲ 20538</b>	† CRWH1	R
3.623	.438	<b>▲ 20144</b>	† CRWH1	R	2.875	.375	550085	† CRSA1	R
4.003	.438	<b>▲ 20158</b>	† CRWH1	R	2.875	.438	<b>▲ 20554</b>	† CRWH1	R
					2.938	.344	20560	X15	R
<b>2.008 SHAFT</b>							O.D. LISTED IS PRESSFIT I.D.		
2.480	.470	20209	HMSA96	R	2.997	.438	<b>▲ 20586</b>	† CRWH1	R
			P.F. WIDTH .337"		3.000	.313	<b>▲ 20608</b>	† HM21	R
2.598	.413	20215	HMSA96	R	3.000	.375	<b>▲ 20594</b>	† CRW1	R
			P.F. WIDTH .295 (7.5MM)		3.000	.375	<b>20599</b>	† CRWA1	V
2.756	.433	20216	HMSASPL	P	3.061	.313	<b>▲ 20643</b>	† CRWH1	R
			W/CCW HELIX FROM AIR SIDE		3.125	.375	<b>20659</b>	† CRW1	R
<b>2.043 SHAFT</b>					3.149	.250	20669	† HM21	R
2.835	.315	20403	HMSA29	R	3.149	.500	20672	† TL6	D
<b>2.045 SHAFT</b>							P.F. WIDTH .395		
2.835	.618	20445	HMSA7SP	P	3.150	.266	<b>▲ 20674</b>	TL7	R
					3.189	.375	<b>▲ 20702</b>	† CRW1	R
					3.250	.294	<b>▲ 20735</b>	X15	R
							O.D. LISTED IS PRESSFIT I.D.		
					3.251	.438	<b>20747</b>	† CRWHA1	R

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**Bold numbers** are preferred designs

† Includes Bore-Tite on O.D.  
**▲** WasteWatcher numbers



## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>2.063 SHAFT (Cont.)</b>					<b>2.125 SHAFT (Cont.)</b>				
3.251	.438	▲ 20749	†CRWH1	R	2.880	.552	21236	†HMSA25	V
<b>2.086 SHAFT</b>					2.884	.401	21239	D8	V
2.685	.276	20906	HMSA7	R	2.891	.250	▲ 21121	†HM14	R
<b>2.087 SHAFT</b>					2.953	.472	21128	HMSA7	P
2.795	.453	20866	CRSA1	R	W/CCW HELIX FROM AIR SIDE				
3.203	.610	20875	†HMSA9	R	2.960	.669	▲ 21045	HMSA45	R
<b>2.088 SHAFT</b>					W/P.F. WIDTH 8.00MM (.315)				
2.911	.500	20880	HMSA97	V	2.997	.438	▲ 21134	†CRWH1	R
W/3.309 FLANGE O.D.					2.997	.438	21136	†CRWHA1	R
<b>2.094 SHAFT</b>					3.000	.250	▲ 21159	†HM21	R
2.718	.359	▲ 20952	†HM18	R	3.000	.313	▲ 21167	†CRWHA1	V
CLEARANCE D .160					3.000	.375	▲ 21163	†CRW1	R
3.149	.550	20965	†HM21	R	3.000	.375	21164	†CRWA1	R
<b>2.102 SHAFT</b>					3.000	.438	21171	†CRWH1	V
3.038	.315	21020	HMSW7	V	3.000	.438	21172	†CRWH1	R
<b>2.122 SHAFT</b>					3.000	.438	21173	†CRWHA1	R
3.030	.430	21241	HMSA97	V	3.058	.235	21294	KIT	R
<b>2.123 SHAFT</b>					FLG OD 3.266				
2.737	.438	21962	†KIT	R	3.061	.250	▲ 21208	†HM21	R
<b>2.125 SHAFT</b>					3.061	.438	▲ 21203	†CRWH1	V
.500		99210	SSLEEVE		W/STAINLESS STEEL SPRING				
		SHAFT RANGE 2.123 - 2.128			3.061	.500	▲ 21210	†CRW1	R
.781		99212	SSLEEVE		3.061	.500	21211	CRWA1	R
		SHAFT RANGE 2.124 - 2.130			3.061	.500	21213	†CRWHA1	R
.781		99836	GSLEEVE		3.125	.438	▲ 21234	†CRWH1	R
		SHAFT RANGE 2.124 - 2.130			3.125	.438	21245	†CRWHA1	P
		21307	HDDFBV1	R	3.189	.250	▲ 21265	†HM21	R
		BELLEVILLE WASHERS (2 EA/KIT)			3.189	.375	▲ 21267	†CRWA1	R
.280		400550	VR1	R	3.189	.375	21269	†CRWA1	V
		SHAFT RANGE 2.090 - 2.290			3.189	.469	21270	†CRWHA1	S
.280		400554	VR1	V	3.250	.900	21306	HDDF1	R
		SHAFT RANGE 2.090 - 2.290			O.D. LISTED IS SEAL I.D.				
.430		400551	VR2	R	3.250	.270	▲ 21298	X15	R
		SHAFT RANGE 2.090 - 2.290			O.D. LISTED IS PRESSFIT I.D.				
.430		400555	VR2	V	3.251	.438	▲ 21302	†CRWH1	R
		SHAFT RANGE 2.090 - 2.290			3.350	.438	▲ 21336	†CRWH1	R
2.490	.219	709015	WS	R	3.371	.375	▲ 21352	†CRWA1	R
2.500	.063	451069	BUW	#	3.371	.438	▲ 21353	†CRWH1	R
2.500	.188	710087	BV	D	3.500	.750	22587	KIT	R
2.500	.188	721535	BV	V	3.543	.438	▲ 21358	†CRWH1	R
2.750	.250	▲ 21059	†HM21	R	3.623	.469	▲ 21379	CRSA1	P
2.750	.375	21063	†CRW1	V	<b>2.126 SHAFT</b>				
2.750	.500	▲ 21061	†CRWA1	R	2.559	.512	21043	CRSA1	R
2.763	.250	21069	†CRW1	R	2.559	.276	21247	HMS18SP	P
2.763	.250	21070	KIT	R	2.598	.315	21048	HMSA96	P
		SEE KIT SECTION			2.717	.296	21052	D5SPL	R
2.763	.500	21285	HMSA97	V	2.756	.374	▲ 21064	HMSHA1	R
W/CCW HELIX FROM AIR SIDE					P.F. WIDTH .276				
2.875	.250	▲ 21101	†HM14	R	2.992	.315	21248	HMSA96	P
2.875	.375	▲ 21103	†CRW1	S	2.992	.563	21327	D6	P
2.875	.438	21091	†CRW1	V	RUBBER COVERED				
2.875	.438	▲ 21098	†CRW1	R	3.228	.315	21281	HMSA96	V
2.875	.438	▲ 21100	†CRWA1	R	<b>2.128 SHAFT</b>				
2.875	.438	21108	†CRWHA1	R	3.150	.532	21244	HMSA95	R
2.880	.500	▲ 21110	†HMSA16	R	<b>2.130 SHAFT</b>				
W/CCW HELIX FROM AIR SIDE					2.745	.958	21291	HM-SPL	R
2.880	.550	▲ 21111	†CRWA3	P	<b>2.136 SHAFT</b>				
W/HELIX-CCW & 3.180 FLANGE					2.904	.453	▲ 21400	†HMS17	R
					P.F. WIDTH .310 & 3.110 FLANGE				

Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>2.141 SHAFT</b>					<b>2.205 SHAFT</b>				
3.484	.329	21410	HMS14 W/CW HELIX	P	2.638	.217	22005	X	R
<hr/>					O.D. LISTED IS PRESSFIT I.D.				
<b>2.145 SHAFT</b>					2.677	.433	22454	HMA8	R
3.188	.469	▲ 21538	CRSH1	R	2.835	.453	22022	HMSA57	R
<hr/>					P.F. WIDTH .453 W/3.032 FLANGE				
<b>2.165 SHAFT</b>					2.835	.433	22048	† HMSA56	R
	.787	99863	GSLEEVE		2.835	.492	22027	† HMSA21	R
		SHAFT RANGE 2.162 - 2.169			2.843	.315	22024	HMS4SPL	P
2.670	.310	21652	HMSA56	P	2.846	.315	22026	HMSA92	R
2.913	.276	21628	HMA8	P	2.870	.315	22041	HMSA96	P
		W/AXIAL DIRT LIP			2.874	.315	▲ 22037	HMSA96	P
3.150	.315	21639	HMSA16	V	2.874	.315	22047	KIT	P
<hr/>					2.953	.315	22033	HMSA96	P
<b>2.172 SHAFT</b>					2.953	.433	22031	HMSA7SP	R
2.426	.484	21650	SL1 W/3.000 FLANGE	T	W/CW HELIX FROM AIR SIDE				
<hr/>					2.992	.435	▲ 22125	HMSA57	R
<b>2.180 SHAFT</b>					W/AXIAL DIRT LIP				
3.059	.300	21735	† HMA22	R	2.992	.472	22035	† CRSA9	R
<hr/>					P.F. WIDTH .236 SPECIAL CONST.				
<b>2.186 SHAFT</b>					2.992	.484	22013	HMSA101	R
3.131	.729	21918	VACBOOT HUB SEAL	R	W/AXIAL DIRT EXCLUDER & BUMPER				
<hr/>					3.031	.472	22049	CRSA3	P
<b>2.188 SHAFT</b>					P.F. WIDTH .472 & 13.398 WIDTH				
	.781	480219	KIT	R	3.031	.394	22029	CRSA3	R
		SPEEDI-SLEEVE & SEAL KIT			W/BOOT & 3.360" FLG OD				
	.781	99218	SSLEEVE		3.054	.551	▲ 22028	HMSASPL	R
		SHAFT RANGE 2.186 - 2.192			P.F. WIDTH .276				
2.875	.438	▲ 21736	† CRWH1	R	3.071	.295	22042	HMSA96	R
2.997	.438	▲ 21749	† CRWH1	R	W/AXIAL DIRT LIP				
3.000	.256	21756	HMA22	R	3.471	.876	22045	HMSASPL	P
3.000	.256	21756-AP	HMA22	R	<hr/>				
3.000	.340	★ 21769	† HMA22	R	<b>2.208 SHAFT</b>				
3.000	.375	▲ 21759	† CRWA1	R	2.913	.394	22120	HMSA57	R
3.000	.375	▲ 21763	† CRWA1	V	W/3.268 FLANGE O.D.				
3.000	.500	21764	† CRWH1	R	<hr/>				
3.000	.500	▲ 21771	† HMA22	R	<b>2.222 SHAFT</b>				
3.061	.500	▲ 21775	† CRWH1	R	3.543	.750	22175	UNITZED	SR
3.063	.250	515	FELT	F	<hr/>				
3.188	.469	21820	KIT	R	<b>2.230 SHAFT</b>				
		SEE KIT SECTION			.500		99229	SSLEEVE	
3.188	.688	21814	KIT	R	SHAFT RANGE 2.227 - 2.233				
		SEE KIT SECTION			.781		99230	SSLEEVE	
3.189	.640	▲ 21938	HMA4	R	SHAFT RANGE 2.227 - 2.233				
3.251	.438	▲ 21840	† CRWH1	R	<hr/>				
3.350	.438	▲ 21890	† CRWH1	R	<b>2.240 SHAFT</b>				
3.371	.438	▲ 21910	† CRWH1	R	.764		99226	SSLEEVE	
3.500	.250	★ 668	FELT	F	SHAFT RANGE 2.237 - 2.243				
3.623	.500	21950	CRSHA1	R	3.189	.610	22614	† HM14	R
<hr/>					<hr/>				
<b>2.191 SHAFT</b>					<b>2.244 SHAFT</b>				
3.055	.170	21915	X-SPL	P	2.638	.236	▲ 22225	HMSA7	R
O.D. LISTED IS PRESSFIT I.D.					2.835	.331	22224	HMSA21	P
<hr/>					3.110	.531	▲ 22230	HMSA55	R
<b>2.199 SHAFT</b>					W/3.366 FLG & AXIAL DIRT LIP				
2.737	.438	▲ 21952	† HMA90	R	3.150	.402	19676	HMSA56	R
2.804	.300	21953	HMA85	P	3.189	.450	22250	HMSA96	P
W/ALUMINUM CASE					4.810	.413	22284	HMS83	R
<hr/>					P.F. WIDTH .315 (8MM)				
<b>2.201 SHAFT</b>					<hr/>				
2.738	.197	21961	HMA73	R	<b>2.250 SHAFT</b>				
		W/2.913 FLG & AXIAL DIRT LIP			.313		99227	SSLEEVE	
3.519	.591	▲ 21955	† HMSA16	R	SHAFT RANGE 2.249 - 2.255				
W/CW HELIX FROM AIR SIDE					.500		22562	† KIT	V
<hr/>					SEE KIT SECTION				

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## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>2.250 SHAFT (Cont.)</b>					<b>2.250 SHAFT (Cont.)</b>				
	.781	<b>99225</b>	SSLEEVE		3.500	.438	<b>22582</b>	† CRWHA1	R
			SHAFT RANGE 2.249 - 2.255		3.500	.438	▲ <b>22583</b>	† CRWH1	R
	.781	99837	GSLEEVE		3.500	.438	<b>22590</b>	† CRWHA1	V
			SHAFT RANGE 2.249 - 2.255		3.565	.438	▲ <b>22610</b>	† CRWA1	R
	.469	★ <b>400578</b>	VR1	R	3.623	.438	▲ <b>22618</b>	† CRWH1	R
			SHAFT RANGE 2.090 - 2.290		3.623	.438	<b>22619</b>	† CRWHA1	R
2.625	.063	451078	BUW	#	3.751	.438	▲ <b>22626</b>	† CRWH1	R
2.625	.188	711856	BV	R	3.876	.438	▲ <b>22644</b>	† CRWH1	R
2.625	.188	721536	BV	V	4.003	.438	▲ <b>22647</b>	† CRWH1	R
2.625	.188	▲ <b>22306</b>	† HM14	R	4.063	1.220	<b>22653</b>	† CRWA3	P
2.745	.281	709016	WS	R	W/4.438 FLANGE				
2.750	.281	504275	SC	R	<b>2.272 SHAFT</b>				
2.875	.250	▲ <b>22325</b>	HM21	R	2.656	.250	22742	SL1	T
2.875	.313	▲ <b>22328</b>	† CRWA1	R	W/BRASS CASE				
2.891	.563	<b>22319</b>	† CRWA1	R	<b>2.281 SHAFT</b>				
2.997	.438	▲ <b>22338</b>	† CRWH1	R	3.154	.375	▲ 22835	† HM21	R
2.997	.438	<b>22340</b>	† CRWHA1	R	3.500	.313	★ 645	FELT	F
3.000	.250	▲ <b>22368</b>	† HM21	R	<b>2.283 SHAFT</b>				
3.000	.375	▲ <b>22353</b>	† CRW1	R	.787	<b>99219</b>	SSLEEVE		
3.000	.375	<b>22354</b>	† CRWA1	R			SHAFT RANGE 2.280 - 2.286		
3.000	.375	<b>22361</b>	† CRWA1	V	2.874	.507	22808	HMSA57	R
3.000	.375	<b>22363</b>	† CRW1	V	2.910	.390	<b>22842</b>	HMSA7	P
3.000	.438	<b>22358</b>	† CRWH1	R	W/CCW HELIX FROM AIR SIDE				
3.000	.438	<b>22359</b>	† CRWHA1	R	2.913	.512	22819	D7	P
3.000	.438	<b>22367</b>	† CRWH1	V	2.951	.292	22841	HMSA45	P
3.035	.374	22371	HMSH4	R	2.953	.276	22840	HMS4SPL	P
3.061	.250	▲ <b>22392</b>	HM21	R	2.992	.276	22821	HMSA29	R
3.061	.375	▲ <b>22382</b>	† CRW1	R	2.992	.630	20447	HMSASPL	R
3.061	.438	<b>22390</b>	† CRWH1	R	3.031	.335	22826	HMS83	R
3.061	.438	<b>22391</b>	† CRWHA1	R	3.070	.394	22845	HMSA92	R
3.061	.438	<b>22394</b>	† CRWHA1	S	W/CCW HELIX FROM AIR SIDE				
3.110	.469	▲ <b>22311</b>	VR1	R	4.055	.435	22878	HMSA96	P
			SHAFT RANGE 2.090 - 2.290		W/CW HELIX FROM AIR SIDE				
3.125	.375	▲ <b>22400</b>	† CRWA1	R	<b>2.297 SHAFT</b>				
3.125	.375	<b>22405</b>	† CRWA1	V	3.148	.359	▲ 22870	HM18	R
3.125	.500	<b>22407</b>	CRWH1	R	CLEARANCE D .185				
3.125	.563	22411	HM18	R	<b>2.313 SHAFT</b>				
			CLEARANCE D .214		.781	<b>99231</b>	SSLEEVE		
3.189	.438	▲ <b>22424</b>	† CRW1	R			SHAFT RANGE 2.309 - 2.315		
3.189	.438	<b>22425</b>	† CRWA1	P	2.997	.375	▲ <b>23030</b>	† CRW1	R
3.250	.270	▲ <b>22430</b>	X15	R	3.000	.250	▲ <b>23035</b>	† HM14	R
			O.D. LISTED IS PRESSFIT I.D.		3.000	.438	▲ <b>23040</b>	† CRWH1	V
3.251	.250	▲ <b>22468</b>	HM21	R	3.061	.313	▲ <b>23046</b>	† CRW1	R
3.251	.375	▲ <b>22440</b>	† CRW1	R	3.065	.281	23050	HM1	R
3.251	.375	<b>22441</b>	† CRWA1	R	3.125	.375	▲ <b>23061</b>	† CRW1	R
3.251	.375	<b>22450</b>	† CRWA1	P	3.125	.375	<b>23063</b>	† CRWA1	V
3.251	.438	<b>22446</b>	† CRWH1	R	3.251	.438	▲ <b>23093</b>	† CRWH1	R
3.251	.438	<b>22448</b>	† CRWHA1	R	3.251	.438	<b>23099</b>	CRWHA1	V
3.251	.438	<b>22449</b>	† CRWH1	V	3.310	.375	▲ <b>23130</b>	† HM21	R
3.251	.520	22640	† HMSHA16	P	3.350	.438	▲ <b>23152</b>	† CRWH1	R
			W/CCW HELIX		3.371	.438	▲ <b>23167</b>	† CRW1	R
3.310	.375	▲ <b>22483</b>	† HM18	R	3.374	.438	▲ <b>23169</b>	† CRWHA1	R
			CLEARANCE D .130		3.500	.250	▲ <b>23240</b>	† HM21	R
3.350	.375	<b>22484</b>	† CRW1	P	3.500	.313	▲ <b>23184</b>	CRW1	R
3.350	.438	▲ <b>22492</b>	CRWH1	R	3.751	.500	<b>23277</b>	† CRW1	R
3.350	.438	<b>22493</b>	† CRWHA1	R	3.751	.500	23279	† KIT	R
3.350	.438	<b>22495</b>	† CRWH1	V	<b>2.322 SHAFT</b>				
3.371	.375	▲ <b>22550</b>	† HM14	R	3.937	.394	23284	D8-SPL	P
3.371	.375	22573	† CRSH1	V					
3.371	.438	<b>22532</b>	† CRWHA1	R					
3.371	.438	▲ <b>22558</b>	† CRWH1	R					
3.371	.438	<b>22561</b>	† CRWH1	V					
3.400	.294	▲ <b>22563</b>	X15	R					
			O.D. LISTED IS PRESSFIT I.D.						
3.440	.250	▲ <b>22565</b>	† HM14	R					

Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>2.323 SHAFT</b>					<b>2.375 SHAFT (Cont.)</b>				
2.835	.472	<b>23228</b>	HMSA7	R	3.000	.375	▲ <b>23641</b>	† CRW1	V
3.080	.315	23297	HMSA92	P	3.061	.438	▲ <b>23644</b>	† CRWH1	R
3.083	.315	23299	HMSA24	R	3.061	.438	<b>23645</b>	† CRWH1	P
3.937	.394	23286	HMSA7SP	P	3.061	.438	<b>23655</b>	† CRWH1	V
<b>2.324 SHAFT</b>					W/STAINLESS STEEL SPRING				
3.541	.591	23244	HMSA97	R	3.125	.375	▲ <b>23646</b>	† CRW1	R
W/4 .018" FLANGE O.D.					3.125	.375	<b>23659</b>	† CRW1	S
<b>2.327 SHAFT</b>					3.125	.438	<b>23652</b>	† CRWH1	R
3.130	.315	23276	† RRH1	R	3.125	.438	<b>23654</b>	† CRWHA1	R
<b>2.328 SHAFT</b>					3.125	.438	<b>23656</b>	† CRWHA1	V
	.750	480233	KIT	P	3.189	.438	▲ <b>23666</b>	† CRWH1	R
			SPEEDI-SLEEVE & SEAL KIT		3.251	.433	<b>23678</b>	† CRWHA1	V
	.750	<b>99233</b>	SSLEEVE		3.251	.433	<b>541651</b>	† CRWHA1	R
			SHAFT RANGE 2.327 - 2.333		3.251	.453	▲ <b>23685</b>	† CRW1	P
3.000	.395	▲ <b>23300</b>	† CRW1	P	3.251	.625	▲ <b>23691</b>	† CRWA3	P
<b>2.343 SHAFT</b>					P.F. WIDTH .528 & 3.841 FLANGE				
3.350	.625	★ 1303	KIT	V	3.251	.625	<b>23698</b>	† CRWA3	V
SEE KIT SECTION					P.F. WIDTH .528 & 3.841 FLANGE				
<b>2.359 SHAFT</b>					3.350	.250	▲ <b>23725</b>	† HM21	R
3.938	.686	23590	PLUS XL	P	3.350	.375	▲ <b>23701</b>	† CRW1	R
SCOTSEAL PLUS XL					3.350	.375	<b>23702</b>	† CRWA1	R
<b>2.362 SHAFT</b>					3.350	.375	<b>23703</b>	† CRW1	P
2.953	.465	▲ 23432	HMSA	R	3.350	.375	<b>23706</b>	† CRW1	S
			W/P.F. WIDTH 5.80MM (.228)		3.350	.438	<b>23708</b>	† CRWH1	R
2.954	.208	23615	† HMSA56	R	3.350	.438	<b>23710</b>	† CRWHA1	R
3.228	.472	<b>23446</b>	HMSA7	S	3.350	.669	23695	† HMSA24	V
			W/CCW HELIX FROM AIR SIDE		3.371	.438	▲ <b>23742</b>	† CRWH1	R
3.374	.395	23450	HMS14	S	3.371	.438	<b>23746</b>	† CRWH1	V
			W/CW HELIX FROM AIR SIDE		3.428	1.000	1244	KIT	P
3.386	.276	23458	HMSA29	R	SEE KIT SECTION				
3.543	.866	23464	D5-SPL	R	3.471	.250	▲ <b>23744</b>	X15	R
3.937	1.063	23483	KIT	R	O.D. LISTED IS PRESSFIT I.D.				
			SEE KIT SECTION		3.481	.438	▲ <b>23755</b>	† CRWH1	R
4.055	.472	23484	HMSA96	P	3.481	.438	<b>23756</b>	CRWHA1	R
<b>2.375 SHAFT</b>					3.500	.375	<b>23770</b>	† CRWA1	P
.526		<b>99240</b>	SSLEEVE		3.500	.375	<b>23771</b>	† CRWH1	V
			SHAFT RANGE 2.374 - 2.380		3.500	.375	▲ <b>23779</b>	† CRWH1	R
.594		<b>99238</b>	SSLEEVE		3.500	.438	<b>23782</b>	† CRWHA1	R
			SHAFT RANGE 2.372 - 2.378		3.543	.250	23815	† HM21	R
.781		<b>99237</b>	SSLEEVE		3.543	.438	▲ <b>23808</b>	† CRWH1	R
			SHAFT RANGE 2.374 - 2.380		3.543	.438	<b>23809</b>	† CRWHA1	V
.781		99839	GSLEEVE		3.601	.438	▲ <b>23820</b>	† CRW1	R
			SHAFT RANGE 2.374 - 2.380		3.623	.438	▲ <b>23839</b>	† CRWH1	R
.280		<b>400600</b>	VR1	R	3.623	.438	<b>23841</b>	† CRWHA1	P
			SHAFT RANGE 2.290 - 2.480		3.623	.438	<b>23843</b>	† CRWHA1	V
.280		<b>400604</b>	VR1	V	W/STAINLESS STEEL SPRING				
			SHAFT RANGE 2.290 - 2.480		3.876	.438	▲ <b>23844</b>	† CRWH1	R
.430		400601	VR2	R	3.876	1.150	23806	CRSA4	P
			SHAFT RANGE 2.290 - 2.480		P.F. WIDTH .402 W/4.250 FLANGE				
.430		400605	VR2	V	4.063	1.094	<b>23857</b>	† CRWA3	P
			SHAFT RANGE 2.290 - 2.480		W/4.438 FLANGE				
.275		23870	J1-KIT	R	4.498	.391	23751	† HMSA25	V
SEE TYPE J SECTION (CRW LIP)					4.498	1.150	▲ 23860	CRSA4	P
2.750	.063	★ 451058	BUW	#	HELIX-CW W/4.875 FLG,PF WD.402				
2.750	.188	711828	BV	R	4.938	1.000	1245	KIT	P
2.750	.188	721572	BV	V	SEE KIT SECTION				
2.997	.250	▲ 23630	† HM21	R	<b>2.402 SHAFT</b>				
2.997	.438	▲ <b>23632</b>	† CRWH1	R	2.992	.276	23885	HMSA96	P
3.000	.250	▲ 23640	HM21	R	W/AXIAL DIRT LIP				
					3.071	.531	23888	D7-SPL	P
					3.460	.284	23880	X-SPL	R
					O.D. LISTED IS PRESSFIT I.D.				

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## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>2.420 SHAFT</b>					<b>2.497 SHAFT</b>				
3.000	.280	24017	HMA9	R	3.245	.420	▲ 24888	HM16	R
3.000	.402	24012	HMHASPL	R	<b>2.500 SHAFT</b>				
3.554	.276	▲ 24097	HMA7	R	.781		480249	KIT	R
		W/AXIAL DIRT LIP						SPEEDI-SLEEVE & SEAL KIT	
<b>2.430 SHAFT</b>					.781		480250	KIT	R
	.375	199	KIT	S				SPEEDI-SLEEVE & SEAL KIT	
		W/CCW HELIX FROM AIR SIDE			.555		<b>99253</b>	SSLEEVE	
<b>2.432 SHAFT</b>								SHAFT RANGE 2.497 - 2.503	
3.070	.227	▲ 24110	CRSA1	P	.781		<b>99250</b>	SSLEEVE	
		W/BI-DIR HELIX FROM AIR SIDE						SHAFT RANGE 2.500 - 2.506	
<b>2.437 SHAFT</b>					.781		99840	GSLEEVE	
2.565	.550	87823	S7					SHAFT RANGE 2.500 - 2.506	
		BORE SLEEVE			.500		<b>99248</b>	SSLEEVE	
<b>2.438 SHAFT</b>								SHAFT RANGE 2.500 - 2.506	R
	.500	<b>99242</b>	SSLEEVE					25097	HDDFBV1
		SHAFT RANGE 2.435 - 2.441						BELLEVILLE WASHERS (2 EA/KIT)	
	.781	<b>99243</b>	SSLEEVE		.280		<b>400650</b>	VR1	R
		SHAFT RANGE 2.434 - 2.440						SHAFT RANGE 2.480 - 2.680	
3.125	.500	▲ <b>24255</b>	† CRWH1	R	.280		<b>400654</b>	VR1	V
3.251	.438	▲ <b>24263</b>	† CRWH1	R				SHAFT RANGE 2.480 - 2.680	
3.350	.375	▲ <b>24286</b>	† CRW1	R	.430		400651	VR2	R
3.350	.375	<b>24287</b>	† CRWA1	R				SHAFT RANGE 2.480 - 2.680	
3.371	.438	▲ <b>24320</b>	† CRWH1	R	.430		400655	VR2	V
3.481	.438	▲ <b>24340</b>	† CRWH1	R				SHAFT RANGE 2.480 - 2.680	
3.500	.438	▲ <b>24370</b>	† CRWH1	R	.410		400659	VR1-SPL	R
3.500	.438	<b>24372</b>	† CRWH1	V				SHAFT RANGE 2.480 - 2.680	
3.543	.438	▲ <b>24445</b>	† CRWH1	R	.438		25160	J1-KIT	R
3.623	.359	▲ 24459	† G2	L			SEE TYPE J SECTION (CRW LIP)		
		CLEARANCE D .156			2.875	.063	451253	BUW	#
	.750	24466	† KIT	R	2.875	.188	711829	BV	R
<b>2.441 SHAFT</b>					2.875	.188	721566	BV	V
2.699	.350	24441	HMA8	P	2.875	.188	750551	BV	D
		W/FLANGE			2.938	.063	451248	BUW	#
3.071	.276	24283	HMA8	R	2.938	.219	★ 712135	BV	V
3.346	.394	24642	HMSHA96	P	2.995	.281	709018	WS	R
<b>2.450 SHAFT</b>					2.995	.281	712125	WS	V
	.375	187	KIT	S	3.000	.281	504277	SC	R
		HALF SEAL			3.000	.250	▲ <b>24863</b>	† HM14	R
	.223	★ 200	KIT	R	3.000	.313	24865	HM1	R
		HALF SEAL			3.125	.281	505774	SC	R
<b>2.470 SHAFT</b>					3.125	.250	▲ 24875	† HM21	R
	.217	194	KIT	P	3.130	.315	24868	KIT	T
		HALF SEAL						W/CW HELIX FROM AIR SIDE	
<b>2.474 SHAFT</b>					3.150	.250	▲ 24880	† HM21	R
3.543	.290	▲ 24670	TL1	R	3.189	.438	▲ <b>24881</b>	† CRWH1	R
<b>2.480 SHAFT</b>					3.189	.438	<b>24883</b>	† CRWH1	V
3.314	.500	24920	FF4	F	3.223	.728	25009	VACBOOT	R
3.543	.276	24800	HMSA96	P	3.223	.728	25050	† KIT	R
4.035	.236	24816	HMSHA16	P	3.226	.190	▲ 24886	HMA73	R
<b>2.492 SHAFT</b>								W/3.405 FLG & AXIAL DIRT LIP	
	.781	<b>99249</b>	SSLEEVE		3.245	.438	▲ <b>24889</b>	† CRWH1	R
		SHAFT RANGE 2.489 - 2.495			3.251	.250	▲ 24904	† HM21	R
<b>2.496 SHAFT</b>					3.251	.350	<b>24892</b>	† CRWA5	R
3.672	.313	▲ 25078	X15	R				W/SS CASE & SPRING & GRD O.D.	
		O.D. LISTED IS PRESSFIT I.D.			3.251	.375	▲ <b>24897</b>	† CRW1	R
					3.251	.375	<b>24898</b>	† CRWA1	R
					3.251	.375	<b>24899</b>	† CRWA1	V
					3.251	.438	<b>24910</b>	† CRWH1	R
					3.251	.438	<b>24911</b>	† CRWHA1	R
					3.251	.438	<b>24914</b>	† CRWH1	V
					3.251	.438	<b>24916</b>	† CRWHA1	V
					3.251	.500	<b>24913</b>	† CRW1	V
					3.301	.453	▲ 24917	† HMSA16	R
								P.F. WIDTH .330 & 3.580 FLANGE	



Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>2.500 SHAFT (Cont.)</b>					<b>2.520 SHAFT (Cont.)</b>				
3.305	.276	25013	† KIT	R	3.228	.354	25196	XA-SPL	R
3.350	.438	23000	† CRSA3	R	O.D. LISTED IS PRESSFIT I.D.				
3.350	.438	▲ <b>24931</b>	† CRWH1	R	<b>2.559 SHAFT</b>				
3.350	.438	<b>24932</b>	† CRWHA1	R	3.189	.276	<b>25518</b>	HMSA7	P
3.351	.433	★ <b>24926</b>	† CRWH1	V	W/CW HELIX FROM AIR SIDE				
3.371	.375	<b>24934</b>	CRWHA1	R	3.228	.354	25418	HMSASPL	R
3.371	.438	<b>24936</b>	† CRWHA1	V	3.230	.334	25004	† HMSA96	R
3.371	.438	▲ <b>24954</b>	† CRWH1	R	3.307	.354	<b>25419</b>	HMSA7	P
3.371	.500	<b>24941</b>	† CRWH1	S	W/CW HELIX FROM AIR SIDE				
W/STAINLESS STEEL SPRING					3.465	.394	<b>25584</b>	HMSA7	P
3.428	.375	<b>24949</b>	† CRWA1	P	W/CCW HELIX FROM AIR SIDE				
3.428	.375	▲ <b>24951</b>	† CRWA1	R	<b>2.560 SHAFT</b>				
3.428	.709	24964	† HMSA25	V	3.094	.256	▲ 25515	HMA7	R
3.500	.250	▲ 25007	† HM21	R	<b>2.562 SHAFT</b>				
3.500	.375	<b>24971</b>	† CRWA1	V	3.625	.438	<b>25652</b>	† CRWA1	V
3.500	.438	▲ <b>24980</b>	† CRW1	R	<b>2.563 SHAFT</b>				
3.500	.438	<b>24982</b>	† CRWA1	R	.781	<b>99256</b>	SSLEEVE		
3.500	.438	<b>24984</b>	† CRWH1	V	SHAFT RANGE 2.560 - 2.566				
W/STAINLESS STEEL SPRING					3.000	.063	451268	BUW	#
3.500	.438	<b>24986</b>	† CRWH1	R	3.000	.219	711831	BV	D
3.500	.438	<b>24989</b>	† CRWH1	P	3.000	.219	721517	BV	V
3.500	.438	<b>24990</b>	† CRWHA1	V	3.481	.500	▲ <b>25561</b>	† CRWHA1	R
3.500	.625	★ <b>24960</b>	CRWH	R	3.500	.438	▲ <b>25577</b>	† CRWH1	R
3.502	.406	<b>25082</b>	† CRW1	S	3.500	.500	25587	CRSHA1	P
3.505	.250	▲ 25028	† HM21	R	3.531	.344	528	FELT	F
3.543	.438	▲ <b>25043</b>	† CRWH1	R	3.623	.438	▲ <b>25641</b>	† CRWH1	R
3.543	.438	<b>25065</b>	CRWHA1	P	3.623	.469	<b>25661</b>	† CRWA1	P
3.543	.875	25066	D5	R	3.625	.313	654	FELT	F
3.544	.433	<b>25037</b>	† CRWHA1	V	3.751	.438	▲ <b>25713</b>	† CRWH1	R
3.623	.375	▲ <b>25074</b>	† CRW1	R	3.751	.438	<b>25714</b>	† CRWHA1	R
3.623	.375	<b>25075</b>	† CRWA1	R	3.751	.438	<b>25725</b>	† CRWH1	V
3.623	.375	<b>25076</b>	† CRWA1	V	3.873	.438	▲ <b>25745</b>	CRWHA1	R
3.623	.438	<b>25071</b>	CRWH1	R	3.876	.438	▲ <b>25748</b>	† CRWH1	R
3.623	.500	25077	† HMSA16	R	<b>2.598 SHAFT</b>				
W/BI-DIR HELIX FROM AIR SIDE					3.481	.438	▲ <b>25970</b>	† CRWHA1	P
3.695	.500	25085	† ALH1	S	3.999	.787	▲ <b>25990</b>	CRWA3	P
3.751	.438	▲ <b>25091</b>	CRWH1	R	W/4.600 FLANGE				
3.761	.907	25096	HDDF1	R	<b>2.607 SHAFT</b>				
O.D. LISTED IS SEAL I.D.					3.350	.375	▲ <b>25950</b>	† CRWH1	P
3.876	.438	▲ <b>25100</b>	† CRWH1	R	<b>2.621 SHAFT</b>				
3.876	.469	<b>25102</b>	† CRWHA1	P	.781	<b>99261</b>	SSLEEVE		
3.876	.559	25106	† HMSA25	V	SHAFT RANGE 2.618 - 2.624				
4.003	.375	▲ <b>25108</b>	† CRWA1	R	<b>2.624 SHAFT</b>				
4.003	.375	<b>25110</b>	† CRWA1	V	3.946	.891	26247	UNITIZE	R
4.035	.640	25140	CRSA9	V	<b>2.625 SHAFT</b>				
4.035	.640	25445	HMSA14	P	.781	480260	† KIT	P	
W/BUMPER					.781		SPEEDI-SLEEVE & SEAL KIT		R
4.040	.634	★ 25006	CRSA9	R	.781	480261	KIT		R
4.938	.500	▲ <b>25146</b>	CRWA22	P	.781		SPEEDI-SLEEVE & SEAL KIT		P
<b>2.502 SHAFT</b>					.781	480262	KIT		P
3.628	.559	25005	† HMSA25	V	.500	<b>99260</b>	SSLEEVE		
<b>2.516 SHAFT</b>					SHAFT RANGE 2.622 - 2.628				
.781		<b>99251</b>	SSLEEVE		.781	<b>99262</b>	SSLEEVE		
SHAFT RANGE 2.510 - 2.516					.781		SPEEDI-SLEEVE & SEAL KIT		P
<b>2.519 SHAFT</b>					<b>2.624 SHAFT</b>				
5.236	.511	25190	HMSA7SP	R	3.946	.891	26247	UNITIZE	R
SPECIAL CONST.					<b>2.625 SHAFT</b>				
<b>2.520 SHAFT</b>					.781	480260	† KIT	P	
3.032	.276	25176	HMS-SPL	R	.781	480261	KIT	R	
					.781	480262	KIT	P	
					.500	<b>99260</b>	SSLEEVE		
					SHAFT RANGE 2.622 - 2.628				
					.781	<b>99262</b>	SSLEEVE		
					SHAFT RANGE 2.625 - 2.631				
					.781	<b>99264</b>	SSLEEVE		
					SHAFT RANGE 2.621 - 2.627				

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Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>2.750 SHAFT (Cont.)</b>					<b>2.750 SHAFT (Cont.)</b>				
.406		<b>99272</b>	SSLLEEVE		3.936	.438	<b>▲ 27525</b>	† CRWH1	R
		SHAFT RANGE 2.750 - 2.756			3.937	.438	<b>27526</b>	† CRWA1	P
.781		<b>99274</b>	SSLLEEVE		4.001	.500	27542	† HMSA25	V
		SHAFT RANGE 2.745 - 2.751			4.003	.375	<b>27539</b>	† CRWA1	V
.781		<b>99275</b>	SSLLEEVE		4.003	.438	<b>▲ 27541</b>	† CRWH1	R
		SHAFT RANGE 2.750 - 2.756			4.003	.438	<b>27565</b>	CRWHA1	P
.781		99843	GSLEEVE		4.030	.918	27536	HDDF1	R
		SHAFT RANGE 2.745 - 2.751					O.D. LISTED IS SEAL I.D.		
.781		99844	GSLEEVE		4.125	.438	27576	† CRS1	P
		SHAFT RANGE 2.750 - 2.756			4.125	.563	27577	CRSA1	R
1.125		<b>99269</b>	SSLLEEVE		4.249	.438	<b>▲ 27600</b>	† CRWH1	R
		SHAFT RANGE 2.750 - 2.756			4.249	.438	<b>27601</b>	† CRWHA1	P
		27535	HDDFBV1	R	4.331	.500	<b>▲ 27625</b>	† CRWHA1	R
		BELLEVILLE WASHERS (2 EA/KIT)			5.501	1.375	<b>▲ 27642</b>	† CRWA2	P
.310		★ 229	KIT	R			P.F. WIDTH .500		
		HALF SEAL			<b>2.756 SHAFT</b>				
.350		<b>400700</b>	VR1	R	3.425	.335	<b>27723</b>	HMSA7	S
		SHAFT RANGE 2.680 - 2.880					W/CCW HELIX FROM AIR SIDE		
.350		<b>400704</b>	VR1	V	<b>2.761 SHAFT</b>				
		SHAFT RANGE 2.680 - 2.880			.227		287	KIT	V
.530		400701	VR2	R			HALF SEAL		
		SHAFT RANGE 2.680 - 2.880			<b>2.813 SHAFT</b>				
.530		400705	VR2	V	.594		<b>99281</b>	SSLLEEVE	
		SHAFT RANGE 2.680 - 2.880					SHAFT RANGE 2.809 - 2.815		
.500		27630	J2-KIT	R	3.250	.063	451100	BUW	#
		SEE TYPE J SECTION (CRWHA LIP)			3.250	.219	711834	BV	D
3.125	.188	27210	HM1	R	3.250	.219	721538	BV	V
3.188	.063	451290	BUW	#	3.751	.438	<b>▲ 28035</b>	† CRWH1	R
3.188	.219	711832	BV	R	3.876	.438	<b>▲ 28116</b>	† CRWH1	R
3.188	.219	721537	BV	V	4.003	.438	<b>▲ 28175</b>	† CRWH1	R
3.245	.281	709019	WS	R	4.249	.313	<b>▲ 28270</b>	† CRW1	R
3.250	.281	504279	SC	R	4.249	.438	<b>28275</b>	† CRWH1	R
3.250	.313	<b>▲ 27225</b>	HM1	R	4.250	.438	<b>28276</b>	† CRWH1	P
3.481	.438	<b>▲ 27251</b>	CRW1	R	<b>2.832 SHAFT</b>				
3.500	.250	<b>▲ 27271</b>	† HM14	R	3.622	.374	<b>28332</b>	HMSA7	V
3.500	.250	<b>546751</b>	† HM14	V			W/CCW HELIX FROM AIR SIDE		
3.500	.375	<b>▲ 27268</b>	† CRW1	R	<b>2.835 SHAFT</b>				
3.500	.375	<b>27269</b>	† CRWA1	R	3.370	.709	28305	HMS1	R
3.500	.375	<b>27272</b>	† CRWA1	V			P.F. I.D. FOR 84MM SHOULDER		
3.500	.438	<b>27280</b>	† CRWH1	R	3.780	.354	<b>28308</b>	HMSA7	S
3.538	.438	<b>▲ 27284</b>	† CRWH1	R			W/CCW HELIX FROM AIR SIDE		
3.543	.433	<b>27293</b>	† CRWH1	V	<b>2.838 SHAFT</b>				
3.543	.438	<b>▲ 27292</b>	† CRWH1	P	.500		<b>99282</b>	SSLLEEVE	
3.543	.438	<b>27295</b>	† CRWHA1	P			SHAFT RANGE 2.838 - 2.844		
3.543	.500	27558	† HMSA25	V	.500		99845	GSLEEVE	
3.544	.433	<b>27230</b>	† CRWHA1	V			SHAFT RANGE 2.838 - 2.844		
3.623	.438	<b>27324</b>	† CRWH1	V	<b>2.844 SHAFT</b>				
3.623	.438	<b>▲ 27334</b>	† CRWH1	R	3.939	.500	<b>▲ 28425</b>	† CRWA1	R
3.751	.250	<b>▲ 27394</b>	† HM21	R	3.939	.550	<b>28426</b>	† CRWHA1	R
3.751	.438	<b>▲ 27361</b>	† CRW1	R	3.939	.550	28446	† KIT	R
3.751	.438	<b>27362</b>	† CRWA1	R	4.003	.438	<b>▲ 28464</b>	† CRWH1	R
3.751	.438	<b>27365</b>	† CRWH1	V	4.003	.500	<b>28474</b>	† CRWH1	V
3.751	.438	<b>▲ 27368</b>	† CRWH1	R			W/STAINLESS STEEL SPRING		
3.751	.438	<b>27370</b>	† CRWHA1	R	<b>2.854 SHAFT</b>				
3.751	.438	<b>27377</b>	† CRWA1	P	3.932	.748	28554	UNITIZE	P
3.765	.438	<b>▲ 27426</b>	† CRWH1	R					
3.773	.350	<b>▲ 27430</b>	HMA84	R					
3.779	.762	27438	† SCOT1	R					
		SCOTSEAL							
3.876	.433	<b>27452</b>	† CRWHA1	P					
3.876	.438	<b>27467</b>	† CRWA1	R					
3.876	.438	<b>▲ 27470</b>	† CRWH1	R					
3.876	.438	<b>27471</b>	† CRWHA1	R					
3.876	.591	27461	† HMSA25	V					
3.876	.703	27501	† B5	PL					

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## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>2.869 SHAFT</b>					<b>2.913 SHAFT</b>				
	.781	<b>99286</b>	SSLEEVE		3.543	.394	29105	CRSA1	P
			SHAFT RANGE 2.866 - 2.872					W/CCW HELIX FROM AIR SIDE	
<b>2.875 SHAFT</b>						3.858	.472	<b>29112</b>	HMSA7
	.781	<b>99287</b>	SSLEEVE					W/CW HELIX FROM AIR SIDE	P
			SHAFT RANGE 2.873 - 2.879		<b>2.938 SHAFT</b>				
	.781	99846	GSLEEVE			.781	480294	KIT	P
			SHAFT RANGE 2.873 - 2.879					SPEEDI-SLEEVE & SEAL KIT	
	.205	★ 140	KIT	R		.500	<b>99290</b>	SSLEEVE	
			HALF SEAL, CCW HELIX					SHAFT RANGE 2.937 - 2.943	
	.218	★ 209	KIT	R		.781	480293	KIT	P
			HALF SEAL					SPEEDI-SLEEVE & SEAL KIT	
3.434	.294	28646	† CRSA1	R		.781	99847	GSLEEVE	
3.623	.438	<b>▲ 28654</b>	† CRWH1	R				SHAFT RANGE 2.937 - 2.943	
3.623	.438	<b>28655</b>	† CRWHA1	R	3.375	.063	451489	BUW	#
3.623	.500	28656	† AL1	S	3.375	.219	711835	BV	R
3.751	.250	<b>▲ 28700</b>	† HM21	R	3.378	.180	29208	HMS1	R
3.751	.375	<b>▲ 28669</b>	† CRWA1	R	3.623	.375	<b>▲ 29218</b>	† CRW1	R
3.751	.375	<b>28670</b>	† CRWA1	V	3.751	.375	<b>▲ 29223</b>	† CRW1	R
3.751	.438	<b>▲ 28686</b>	† CRWH1	R	3.751	.375	<b>29224</b>	† CRWA1	R
3.751	.438	<b>28687</b>	† CRWHA1	R	3.751	.375	<b>29226</b>	† CRWA1	V
3.751	.438	<b>28697</b>	† CRWH1	P	3.784	.500	29250	HM23	RT
3.751	.438	<b>28698</b>	† CRWH1	V	3.876	.375	<b>▲ 29260</b>	CRWHA1	R
3.751	.438	<b>28699</b>	† CRWHA1	V	3.876	.375	<b>29262</b>	† CRWHA1	V
3.751	.625	1243	KIT	P	3.937	.438	<b>▲ 29273</b>	† CRWA1	P
			SEE KIT SECTION		3.937	.591	29288	† HMSA25	V
3.875	.781	28758	† SCOT1	R	4.003	.438	<b>▲ 29316</b>	† CRWH1	R
			SCOTSEAL		4.003	.438	<b>29317</b>	CRWHA1	R
3.876	.188	<b>▲ 28725</b>	† HM1	R	4.003	.438	<b>29322</b>	† CRWA1	P
3.876	.250	28751	† HM21	R	4.003	.619	29292	† HMSA24	V
3.876	.438	<b>▲ 28745</b>	† CRWH1	R	4.004	.433	<b>29383</b>	† CRWHA1	V
3.876	.438	<b>28746</b>	† CRWHA1	R	4.125	.375	<b>▲ 29384</b>	† CRWH1	R
3.876	.438	<b>28748</b>	† CRWHA1	V	4.125	.375	<b>29385</b>	† CRWHA1	R
3.876	.610	<b>▲ 28720</b>	† HMSHA16	R	4.501	.438	<b>▲ 29465</b>	† CRWH1	R
			P.F. WIDTH .365 & 4.150 FLANGE		4.938	1.375	<b>▲ 29471</b>	† CRWA3	P
3.876	.610	28754	HMSHA16	V				W/5.375 FLANGE	
4.003	.250	<b>▲ 28800</b>	† HM21	R	<b>2.940 SHAFT</b>				
4.003	.375	<b>▲ 28778</b>	† CRWA1	R		.781	<b>99293</b>	SSLEEVE	
4.003	.375	<b>28779</b>	† CRWA1	V				SHAFT RANGE 2.937 - 2.943	
4.003	.438	<b>▲ 28760</b>	† CRWH1	R	<b>2.941 SHAFT</b>				
4.003	.438	<b>28761</b>	† CRWHA1	R		3.882	.774	29472	UNITIZD
4.003	.750	28790	C8	RR					P
			P.F. WIDTH .688		<b>2.948 SHAFT</b>				
4.125	.375	<b>▲ 28817</b>	† CRWH1	R		4.725	.630	29480	PLUS XL
4.125	.813	<b>▲ 28828</b>	† HMSH12	R				SCOTSEAL PLUS XL	
			P.F. WIDTH .375		<b>2.952 SHAFT</b>				
4.126	.844	28820	† SCOT1	R		3.708	.327	★ <b>29518</b>	HMSA7
			SCOTSEAL			4.409	.688	29520	HMSA8
4.176	.813	<b>▲ 28830</b>	† CRWH2	R				P.F. WIDTH 10MM	
			P.F. WIDTH .375		<b>2.953 SHAFT</b>				
4.176	.844	28832	† SCOT1	R		3.425	.276	29505	X-SPL
			SCOTSEAL					O.D. LISTED IS PRESSFIT I.D.	R
4.331	.438	<b>▲ 28841</b>	† CRWA1	P		4.724	.320	29590	† TL1
4.501	.433	<b>▲ 28848</b>	† CRWH1	R	<b>2.974 SHAFT</b>				
			HALF SEAL			.813	<b>99292</b>	SSLEEVE	
			SHAFT RANGE 2.972 - 2.976		<b>2.975 SHAFT</b>				
<b>2.900 SHAFT</b>						.314	214	KIT	R
	.315	★ 213	KIT	R				HALF SEAL	
			SEE KIT SECTION HELIX-CCW		<b>2.906 SHAFT</b>				
	.216	★ 207	KIT	R		3.813	.313	663	FELT
			SEE KIT SECTION						F
	.450	101	KIT	P					
			HALF SEAL						

Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>2.992 SHAFT</b>					<b>3.000 SHAFT (Cont.)</b>				
3.623	.385	<b>29862</b>	HMSA7	V	3.751	.375	<b>29866</b>	† CRWA1	R
			W/CCW HELIX FROM AIR SIDE		3.751	.375	<b>29867</b>	† CRWA1	P
3.661	.394	29675	HMSA6	S	3.751	.375	<b>29868</b>	† CRW1	V
			W/CCW HELIX FROM AIR SIDE		3.751	.375	<b>29870</b>	† CRWA1	V
3.692	.354	<b>29519</b>	HMSA7	V	3.751	.438	<b>29871</b>	† CRWH1	R
3.741	.370	29987	HMSA83	V	3.751	.438	<b>29872</b>	† CRWHA1	R
			W/CW HELIX FROM AIR SIDE		3.751	.452	30007	† HMSA25	V
3.858	.472	<b>29685</b>	HMSA7	S	3.876	.313	<b>29877</b>	† CRW1	V
			W/CW HELIX FROM AIR SIDE		3.876	.438	▲ <b>29887</b>	† CRWH1	R
4.213	.315	<b>29918</b>	HMSA7	V	3.876	.469	<b>29891</b>	† CRWH1	V
			W/CCW HELIX FROM AIR SIDE					W/STAINLESS STEEL SPRING	
4.370	.512	29804	UNITIZD	V	4.000	.500	▲ 29900	X2	L
			W/FELT "A" LIP					O.D. LISTED IS PRESSFIT I.D.	
<b>2.993 SHAFT</b>					4.003	.250	▲ 29968	HM21	R
	.813	<b>99299</b>	SSLEEVE		4.003	.312	29961	† HMSA25	V
			SHAFT RANGE 2.990 - 2.996		4.003	.312	29967	HMSA25	V
	.484	<b>99291</b>	SSLEEVE					W/CCW HELIX FROM AIRSIDE	
			SHAFT RANGE 2.990 - 2.996		4.003	.312	29967	HMSA25	V
	.563	<b>99298</b>	SSLEEVE					W/CW HELIX FROM AIRSIDE	
			SHAFT RANGE 2.990 - 2.996		4.003	.375	▲ <b>29906</b>	† CRW1	R
<b>3.000 SHAFT</b>					4.003	.375	<b>29907</b>	† CRWA1	R
	.813	480299	KIT	R	4.003	.375	<b>29912</b>	† CRWA1	V
			SPEEDI-SLEEVE & SEAL KIT		4.003	.375	<b>29950</b>	† CRWH1	P
	.813	480300	KIT	P	4.003	.438	<b>29925</b>	CRWHA1	P
			SPEEDI-SLEEVE & SEAL KIT		4.003	.438	<b>29951</b>	CRWH1	R
	.813	480303	KIT	P	4.003	.438	<b>29952</b>	† CRWHA1	R
			SPEEDI-SLEEVE & SEAL KIT		4.003	.438	<b>29958</b>	† CRWH1	V
	.813	<b>99300</b>	SSLEEVE		4.125	.438	▲ <b>30000</b>	† CRWH1	R
			SHAFT RANGE 3.000 - 3.006		4.125	.438	<b>30003</b>	† CRWH1	V
	.813	99848	GSLEEVE		4.249	.250	▲ 30049	† HM21	R
			SHAFT RANGE 3.000 - 3.006		4.249	.438	▲ <b>30033</b>	CRWH1	R
	.813	<b>99296</b>	SSLEEVE		4.249	.438	<b>30055</b>	† CRWHA1	P
			SHAFT RANGE 2.997 - 3.003		4.249	.438	30057	† HMSA25	V
	.625	<b>99303</b>	SSLEEVE		4.331	.438	▲ <b>30060</b>	† CRWH1	R
			SHAFT RANGE 3.000 - 3.006		4.376	.438	▲ <b>30070</b>	† CRWH1	R
	.625	86062	S1		4.500	.438	▲ <b>30087</b>	† CRWH1	R
	.500	682	SPLIT	F	4.500	.438	<b>30095</b>	† CRWHA1	R
		450166	AXGSKT6		4.501	.383	30100	† HMSA25	V
			4-.328 DIA BOLT HOLES		4.501	.438	<b>30098</b>	† CRWH1	V
	.350	<b>400750</b>	VR1	R	4.525	.375	▲ 30108	X12	R
			SHAFT RANGE 2.880 - 3.070					O.D. LISTED IS PRESSFIT I.D.	
	.350	<b>400754</b>	VR1	V	4.936	.755	30153	† HMSA25	V
			SHAFT RANGE 2.880 - 3.070		4.939	.750	▲ <b>30145</b>	† CRWA1	P
	.530	400751	VR2	R				P.F. WIDTH .438 W/5.690 FLANGE	
			SHAFT RANGE 2.880 - 3.070		4.939	.662	29917	† UNITIZE	P
	.530	400755	VR2	V	4.999	.438	▲ <b>30125</b>	† CRWH1	R
			SHAFT RANGE 2.880 - 3.070		5.501	1.375	<b>30144</b>	CRWHA6	P
3.438	.063	451265	BUW	#	5.750	.840	▲ 30148	HMSA16	P
3.438	.219	703023	BV	D				P.F. WIDTH .400 W/6.250 FLANGE	
3.438	.219	721539	BV	V	5.750	.982	30140	HMSA25	V
3.438	.219	712136	BV	V	5.750	1.300	▲ 30147	HMSA16	P
3.495	.281	709020	WS	R				HELIX-CW W/6.250 FLG,PF WD.400	
3.495	.281	712126	WS	V	<b>3.002 SHAFT</b>				
3.500	.281	504281	SC	R	3.751	.991	30026	† UNITIZE	V
3.500	.313	▲ 29840	HM1	R				HD PINION SEAL	
3.500	.375	<b>29841</b>	† CRW1	V	<b>3.010 SHAFT</b>				
3.600	.322	285	KIT	V	.953	1240	J1-KIT	R	
			HALF SEAL					SEE TYPE J SECTION (CRW LIP)	
3.623	.250	▲ <b>29850</b>	HM14	R	<b>3.011 SHAFT</b>				
3.683	.540	<b>30015</b>	CRWA86	P	.500	<b>99301</b>	SSLEEVE		
			W/4.180 FLANGE				SHAFT RANGE 3.008 - 3.014		
3.751	.250	▲ 29863	† HM21	R					
3.751	.375	▲ <b>29865</b>	CRW1	R					

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Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>3.040 SHAFT</b>					<b>3.125 SHAFT (Cont.)</b>				
3.937	.250	<b>30360</b>	HMS4	R	4.126	.781	31175	† SCOT1	R
<b>3.060 SHAFT</b>					SCOTSEAL				
	.213	103	KIT	R	4.174	.290	▲ 31203	HMA1	R
		HALF SEAL, CCW HELIX			4.249	.438	▲ <b>31227</b>	† CRWH1	R
<b>3.063 SHAFT</b>					31228 † CRWHA1 R				
		30654	HDDFBV1	R	4.249	.438	<b>31237</b>	† CRWHA1	V
		BELLEVILLE WASHERS (2 EA/KIT)			4.373	.781	31244	† SCOT1	R
3.500	.063	451291	BUW	#	SCOTSEAL				
3.500	.219	711836	BV	R	4.376	.438	▲ <b>31250</b>	† CRWH1	R
4.500	1.016	30651	HDDF1	R	4.376	.438	<b>31261</b>	† CRWHA1	P
		O.D. LISTED IS SEAL I.D.			4.438	.781	31266	† SCOT1	R
<b>3.071 SHAFT</b>					SCOTSEAL				
6.417	.630	30771	HMSA7SP	R	4.500	.672	31281	† SCOT1	R
<b>3.075 SHAFT</b>					SCOTSEAL				
3.540	.380	▲ 30772	HMA18	P	4.501	.438	▲ <b>31269</b>	† CRWH1	R
		W/3.790 FLANGE O.D.			4.562	.750	▲ <b>31284</b>	CRWH2	R
<b>3.109 SHAFT</b>					▲ <b>31299</b> † CRWH1 R				
	.325	31361	J2-KIT	R	4.626	.438	▲ <b>31297</b>	† SCOT1	R
	.500	31385	J1-KIT	R	SCOTSEAL				
	.500	31390	J1-KIT	R	4.626	.750	1306	KIT	R
	1.016	31378	J1-KIT	R	SEE KIT SECTION				
		SEE TYPE J SECTION (CRW LIP)			4.751	.438	▲ <b>31316</b>	† CRWH1	R
<b>3.125 SHAFT</b>					▲ <b>31333</b> † CRWH1 R				
	.551	<b>99307</b>	SSLEEVE		5.251	.438	▲ <b>31353</b>	† CRWH1	R
	.688	<b>99311</b>	SSLEEVE		5.495	1.003	31372	J2	R
	.813	<b>99312</b>	SSLEEVE		SEE TYPE J SECTION (CRSH LIP)				
	.813	99849	GSLEEVE		5.985	.953	31362	CRS-SPL	R
	.350	<b>400800</b>	VR1	R	<b>3.149 SHAFT</b>				
	.350	<b>400804</b>	VR1	V	4.448	.866	31490	HMSA8	R
	.530	400801	VR2	R	P.F. WIDTH 12MM				
	.530	400805	VR2	V	<b>3.150 SHAFT</b>				
	3.751	.250	▲ 31129	† HMA1		.750	<b>99313</b>	SSLEEVE	
	3.811	.355	<b>31132</b>	† CRW1		3.740	.551	▲ 31504	HMA18
	3.811	.355	▲ <b>31135</b>	† CRW1		SHAFT RANGE 3.142 - 3.150			
	3.936	.512	31144	† CRSHA1		W/3.990 FLANGE O.D.			
	4.003	.375	▲ <b>31139</b>	† CRWA1		3.780	.354	<b>31506</b>	HMSA7
	4.003	.375	<b>31152</b>	† CRWHA1		W/CCW HELIX FROM AIR SIDE			
	4.003	.438	▲ <b>31147</b>	† CRWH1		3.858	.393	<b>31497</b>	HMSA7
	4.003	.438	<b>31148</b>	† CRWHA1		W/CCW HELIX FROM AIR SIDE			
	4.049	.438	31158	P2		3.858	.393	<b>31507</b>	HMSA7
	4.125	.250	▲ 31192	HMA1		W/CCW HELIX FROM AIR SIDE			
	4.125	.375	▲ <b>31177</b>	† CRW1		3.946	.335	31494	HMSA92
	4.125	.375	<b>31179</b>	† CRWA1		W/CCW HELIX FROM AIR SIDE			
	4.125	.437	31247	† SL1		3.946	.394	<b>31492</b>	HMSA7
		W/CW HELIX FROM AIR SIDE				3.946	.394	<b>31511</b>	† CRW1
	4.125	.438	<b>31173</b>	† CRWHA1		3.946	.394	<b>31582</b>	HMSA7
	4.125	.438	<b>31185</b>	† CRWHA1		3.994	.591	31514	X15
	4.125	.438	<b>31189</b>	CRWH1		O.D. LISTED IS PRESSFIT I.D.			
<b>3.175 SHAFT</b>					<b>3.175 SHAFT</b>				
		.215	201	KIT					R
		HALF SEAL			<b>3.188 SHAFT</b>				
<b>3.188 SHAFT</b>					4.180 .750 ▲ 31753 † HMSHA4 R				
					W/4.500 FLANGE				
					4.249	.438	▲ <b>31758</b>	† CRWH1	R
					4.376	.438	▲ <b>31825</b>	† CRWH1	R
					4.501	.438	▲ <b>31855</b>	† CRWH1	R
					4.626	.438	▲ <b>31870</b>	† CRWH1	R
					4.999	.438	▲ <b>31955</b>	† CRWH1	R



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Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>3.189 SHAFT</b>					<b>3.250 SHAFT (Cont.)</b>				
3.801	.630	31897	HMA8 W/FLANGE	R	4.468	.315	32437	X4	R
<b>3.226 SHAFT</b>					O.D. LISTED IS PRESSFIT I.D.				
3.858	.394	<b>32243</b>	HMSA7 W/CW HELIX FROM AIR SIDE	P	4.500	.313	▲ 32441	X15	R
<b>3.228 SHAFT</b>					O.D. LISTED IS PRESSFIT I.D.				
	.660	<b>99328</b>	SSLEEVE		4.500	.438	<b>32448</b>	† CRWA1	P
		SHAFT RANGE 3.225 - 3.231			4.500	.610	★ 32519	† HMSHA4	R
3.791	.315	<b>32283</b>	HMSA7 W/CCW HELIX FROM AIR SIDE	V	4.500	.610	32527	† HMSHA4	V
		BI-DIRECTIONAL P.F. WIDTH .436			4.501	.250	▲ 32510	† HM21	R
3.920	.500	<b>32289</b>	HMSA7 W/CCW HELIX FROM AIR SIDE	V	4.501	.375	▲ <b>32477</b>	† CRW1	R
		BI-DIRECTIONAL P.F. WIDTH .436			4.501	.438	<b>32501</b>	† CRWH1	R
3.937	.394	<b>32290</b>	HMSA7 W/CCW HELIX FROM AIR SIDE	P	4.501	.438	<b>32502</b>	† CRWHA1	R
		SCOTSEAL			4.501	.672	32470	† SCOT1	R
3.937	.394	<b>14190</b>	HMSA7 W/CW HELIX FROM AIR SIDE	P	4.626	.433	<b>32514</b>	CRWHA1	R
4.134	.512	32304	HMSA12 W/4.331 FLANGE	S	4.626	.438	▲ <b>32540</b>	† CRWH1	R
<b>3.250 SHAFT</b>					4.718 .438 ▲ <b>32555</b> † CRWH1 R				
	.813	480325	† KIT	P	4.751 .438 ▲ <b>32560</b> † CRWH1 R				
		SPEEDI-SLEEVE & SEAL KIT			4.999 .438 ▲ <b>32582</b> † CRWH1 R				
	.595	<b>99324</b>	SSLEEVE		4.999 .438 <b>32583</b> † CRWHA1 R				
		SHAFT RANGE 3.250 - 3.256			5.501 .650 32535 † UNITIZE P				
	.595	99850	GSLEEVE		5.501 .650 32870 † UNITIZE P				
		SHAFT RANGE 3.250 - 3.256			5.501 .650 33254 HMSA25S P				
		1725	KIT	P	W/EXTRA 'A' LIP, DL PINION				
		SEE KIT SECTION			<b>3.262 SHAFT</b>				
	.688	<b>99326</b>	SSLEEVE		4.626	.500	<b>32710</b>	CRWA1	R
		SHAFT RANGE 3.250 - 3.256			W/4.910 FLANGE				
	.813	<b>99325</b>	SSLEEVE		<b>3.268 SHAFT</b>				
		SHAFT RANGE 3.250 - 3.256			3.937	.354	<b>32715</b>	HMSA7	V
	.813	99851	GSLEEVE		W/CCW HELIX FROM AIR SIDE				
		SHAFT RANGE 3.250 - 3.256			<b>3.298 SHAFT</b>				
	.813	<b>99322</b>	SSLEEVE		4.125	.563	32815	† CRSA1	R
		SHAFT RANGE 3.247 - 3.253			<b>3.307 SHAFT</b>				
3.625	.063	451275	BUW	#	3.813	.354	30370	HMSASPL	V
3.625	.188	711838	BV	R	W/CCW HELIX FROM AIR SIDE				
3.625	.188	721540	BV	V	4.094	.433	<b>33007</b>	HMSA7	V
3.745	.281	709021	WS	R	W/CCW HELIX FROM AIR SIDE				
3.750	.250	32325	† HMA1	R	4.094	.433	<b>33405</b>	HMSA7	V
3.875	.328	504283	SC	R	W/CCW HELIX FROM AIR SIDE				
3.876	.375	▲ <b>32330</b>	† CRW1	P	<b>3.310 SHAFT</b>				
3.876	.375	32332	† CRS1	V		.813	<b>99331</b>	SSLEEVE	
		W/CW HELIX FROM AIR SIDE			SHAFT RANGE 3.307 - 3.313				
4.003	.375	▲ <b>32344</b>	† CRW1	R	<b>3.312 SHAFT</b>				
4.003	.375	<b>32347</b>	† CRWA1	P	5.000	.562	33251	KIT	R
4.125	.563	32362	† CRSH1	R	<b>3.313 SHAFT</b>				
4.249	.250	▲ <b>32412</b>	† HM14	R	3.750	.063	451490	BUW	#
4.249	.375	<b>32392</b>	† CRWA1	V	3.750	.219	711840	BV	R
4.249	.375	▲ <b>32393</b>	† CRW1	R	4.125	.438	▲ <b>33033</b>	† CRWH1	R
4.249	.375	<b>32395</b>	† CRWA1	R	4.249	.438	▲ <b>33073</b>	† CRWH1	R
4.249	.438	<b>32380</b>	CRWH1	P	4.500	.438	▲ <b>33136</b>	† CRWH1	R
4.249	.438	<b>32385</b>	† CRWHA1	P	4.999	.438	<b>33206</b>	† CRWH1	R
4.249	.438	<b>32396</b>	† CRWH1	R	<b>3.346 SHAFT</b>				
4.249	.438	<b>32397</b>	† CRWHA1	R	4.055	.315	<b>33861</b>	HMSA7	V
4.249	.438	<b>32403</b>	† CRWH1	V	W/CCW HELIX FROM AIR SIDE				
4.249	.670	32410	† HMSWD26	V	4.094	.354	<b>33454</b>	HMSA7	P
4.249	.750	32394	† F1	LF	4.134	.394	<b>33408</b>	HMSA7	R
4.249	.750	33659	KIT	P	SEE KIT SECTION				
4.328	.500	<b>32532</b>	CRWA5	R	<b>3.326 SHAFT</b>				
4.376	.438	▲ <b>32424</b>	† CRWH1	R	3.262 SHAFT				

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## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>3.346 SHAFT (Cont.)</b>					<b>3.438 SHAFT (Cont.)</b>				
5.039	.826	33460	HMSA8	R	4.757	.700	34384	PLUS XL	H
		P.F. WIDTH 11MM			4.758	.750	1307	SCOTSEAL PLUS XL KIT	R
<b>3.375 SHAFT</b>					SEE KIT SECTION				
.375		<b>99338</b>	SSLEEVE		4.876	.438	<b>▲ 34398</b>	† CRWH1	R
		SHAFT RANGE 3.373 - 3.379			4.999	.438	<b>▲ 34407</b>	† CRWH1	R
.813		<b>99337</b>	SSLEEVE		4.999	.438	<b>34408</b>	† CRWHA1	R
		SHAFT RANGE 3.373 - 3.379			<b>3.465 SHAFT</b>				
.213		204	KIT	R	4.252	.427	<b>▲ 34611</b>	HMS4	V
.350		<b>400850</b>	VR1	R	W/CCW HELIX FROM AIR SIDE				
		SHAFT RANGE 3.270 - 3.470			4.252	.453	<b>34116</b>	HMSA7	V
.350		<b>400854</b>	VR1	V	W/CCW HELIX FROM AIR SIDE				
		SHAFT RANGE 3.270 - 3.470			<b>3.469 SHAFT</b>				
.530		400851	VR2	R	4.626	.625	<b>▲ 34700</b>	CRSA1	R
		SHAFT RANGE 3.270 - 3.470			<b>3.480 SHAFT</b>				
.530		400855	VR2	V	.781		<b>99340</b>	SSLEEVE	
		SHAFT RANGE 3.270 - 3.470			SHAFT RANGE 3.477 - 3.483				
3.875	.063	451273	BUW	#	<b>3.500 SHAFT</b>				
3.875	.250	711839	BV	R	.813		480350	KIT	P
3.875	.250	721575	BV	V	SPEEDI-SLEEVE & SEAL KIT				
3.948	.375	<b>33628</b>	HMSA7	P	.313		<b>99347</b>	SSLEEVE	
4.045	.500	33624	J-TYPE	R	SHAFT RANGE 3.500 - 3.506				
		W/4 EA .254 HOLES			.625		<b>99346</b>	SSLEEVE	
4.125	.375	<b>▲ 33645</b>	† CRW1	R	SHAFT RANGE 3.497 - 3.503				
4.125	.375	<b>34647</b>	† CRWA1	V	.813		<b>99350</b>	SSLEEVE	
4.249	.438	<b>33665</b>	† CRWHA1	R	SHAFT RANGE 3.500 - 3.506				
4.280	.406	<b>33654</b>	† CRWA1	S	.813		99852	GSLEEVE	
4.376	.375	<b>33699</b>	† CRWA1	V	SHAFT RANGE 3.500 - 3.506				
4.376	.375	<b>▲ 33700</b>	† CRW1	R	.813		35079	HDDFBV1	R
4.376	.375	<b>33701</b>	† CRWA1	R	BELLEVILLE WASHERS (2 EA/KIT)				
4.376	.438	<b>33711</b>	† CRWH1	R	.206		198	KIT	R
4.376	.438	<b>33712</b>	† CRWHA1	R	HALF SEAL				
4.501	.438	<b>33733</b>	† CRWA1	V	.350		<b>400900</b>	VR1	R
4.501	.438	<b>▲ 33735</b>	† CRWH1	R	SHAFT RANGE 3.470 - 3.660				
4.626	.438	<b>▲ 33772</b>	† CRWH1	R	.350		<b>400904</b>	VR1	V
4.626	.438	<b>33773</b>	† CRWHA1	R	SHAFT RANGE 3.470 - 3.660				
4.626	.438	<b>33775</b>	† CRWHA1	V	.530		400901	VR2	R
4.686	.438	<b>▲ 33807</b>	CRWH1	R	SHAFT RANGE 3.470 - 3.660				
4.999	.438	<b>▲ 33837</b>	CRWH1	R	.530		400905	VR2	V
5.251	.438	<b>33866</b>	† CRWHA1	R	SHAFT RANGE 3.470 - 3.660				
<b>3.400 SHAFT</b>					3.995	.281	709022	WS	R
4.500	.281	34000	† X14	V	3.995	.281	712542	WS	V
		O.D. LISTED IS PRESSFIT I.D.			4.000	.063	451065	BUW	#
<b>3.425 SHAFT</b>					4.000	.250	711841	BV	D
3.937	.295	<b>34115</b>	HMSA7	V	4.000	.250	721541	BV	V
		W/CCW HELIX FROM AIR SIDE			4.000	.300	34835	HM1	R
3.937	.315	<b>34120</b>	HMSA7	S	4.003	.250	<b>▲ 34840</b>	† HM14	R
		W/CCW HELIX FROM AIR SIDE			4.125	.328	504285	SC	R
<b>3.438 SHAFT</b>					4.125	.250	<b>▲ 34848</b>	HM14	R
.781		<b>99339</b>	SSLEEVE		4.125	.250	<b>546770</b>	† HM14	V
		SHAFT RANGE 3.435 - 3.441			4.249	.438	<b>▲ 34857</b>	† CRWHA1	V
4.249	.375	<b>▲ 34256</b>	† CRW1	R	4.260	.500	35116	HMSA7S	RT
4.501	.375	<b>34279</b>	† CRWA1	R	4.376	.375	<b>▲ 34860</b>	† CRW1	R
4.501	.438	<b>▲ 34282</b>	† CRWH1	R	4.376	.375	<b>34861</b>	† CRWA1	R
4.501	.438	<b>34283</b>	† CRWHA1	R	4.376	.375	<b>34866</b>	† CRWA1	V
4.626	.438	<b>▲ 34336</b>	† CRWH1	R	4.376	.433	<b>34869</b>	† CRWHA1	V
4.626	.438	<b>34338</b>	† CRWHA1	R	4.376	.438	<b>34867</b>	† CRWH1	R
4.751	.438	<b>34379</b>	† CRWA1	R	4.376	.438	<b>34868</b>	† CRWHA1	R
4.756	.438	<b>▲ 34383</b>	† CRWH1	R	4.438	.438	34890	X1	L
4.757	.859	34387	† SCOT1	R	O.D. LISTED IS PRESSFIT I.D.				
		SCOTSEAL			4.450	.531	<b>▲ 34885</b>	HM12	R

Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>3.500 SHAFT (Cont.)</b>					<b>3.543 SHAFT (Cont.)</b>				
4.499	.500	34882	† HMSA25	V	4.291	.354	35407	HMSA35	V
4.501	.250	▲ 34967	HM21	R			W/CCW HELIX FROM AIR SIDE		
4.501	.375	<b>34883</b>	† CRWA1	V	4.331	.354	<b>35409</b>	HMSA7	S
4.501	.375	▲ <b>34886</b>	† CRW1	R			W/CCW HELIX FROM AIR SIDE		
4.501	.375	<b>34887</b>	† CRWA1	R	4.528	.512	<b>35422</b>	HMSA7	P
4.501	.438	<b>34888</b>	† CRWH1	R			W/CCW HELIX FROM AIR SIDE		
4.501	.438	<b>34889</b>	† CRWHA1	R	6.299	.800	35495	HMSHASP	R
4.501	.438	<b>34891</b>	CRWHA1	P			P.F. WIDTH .669 & 6.713 FLANGE		
4.501	.438	<b>34892</b>	† CRWH1	V	<b>3.563 SHAFT</b>				
4.547	.740	▲ <b>34980</b>	† CRWHA2	R		.813	<b>99356</b>	SSLEEVE	
		P.F. WIDTH .640					SHAFT RANGE 3.560 - 3.566		
4.547	.862	34975	† SCOT1	R	4.501	.438	▲ <b>35556</b>	† CRWH1	R
		SCOTSEAL			4.626	.438	▲ <b>35593</b>	† CRWH1	R
4.547	.900	34971	PLUS XL	H	4.751	.438	▲ <b>35649</b>	† CRWH1	R
		SCOTSEAL PLUS XL			4.876	.438	▲ <b>35676</b>	† CRWH1	R
4.626	.438	▲ <b>34985</b>	† CRWH1	R	4.999	.438	▲ <b>35716</b>	† CRWH1	R
4.626	.986	35000	† SCOT1	R	<b>3.574 SHAFT</b>				
		SCOTSEAL			4.758	.625	35810	† HMSA16	P
4.682	.451	34928	† HMSHA16	V	<b>3.582 SHAFT</b>				
4.750	.706	34994	PLUS XL	H	4.370	.374	<b>35828</b>	HMSA7	V
		SCOTSEAL PLUS XL					W/CCW HELIX FROM AIR SIDE		
4.751	.250	▲ 35042	† HM21	R	<b>3.583 SHAFT</b>				
4.751	.375	<b>35039</b>	† CRWA1	V	4.094	.433	35836	UNITIZE	VR
4.751	.375	▲ <b>35040</b>	† CRWA1	P	4.370	.394	▲ 35905	† HMSA1	V
4.751	.438	▲ <b>35012</b>	† CRWH1	R			W/CCW HELIX FROM AIR SIDE		
4.751	.438	<b>35020</b>	† CRWHA1	R	<b>3.620 SHAFT</b>				
4.751	.625	<b>35029</b>	† CRWH1	R	4.626	.500	▲ 36120	† ALH1	S
4.814	.906	35060	† SCOT1	R	<b>3.621 SHAFT</b>				
		SCOTSEAL				.813	<b>99360</b>	SSLEEVE	
4.842	.904	35066	† SCOT1	R			SHAFT RANGE 3.618 - 3.624		
		SCOTSEAL			<b>3.622 SHAFT</b>				
4.842	.904	35103	† SCOTLL	H	4.331	.374	<b>36005</b>	HMSA7	V
		SCOTSEAL LONGLIFE					W/CCW HELIX FROM AIR SIDE		
4.842	.906	▲ <b>35062</b>	CRWHA2	R	4.370	.315	<b>36204</b>	HMSA7	P
		P.F. WIDTH .737					W/CCW HELIX FROM AIR SIDE		
4.842	.903	35058	PLUS XL	H	<b>3.625 SHAFT</b>				
		SCOTSEAL PLUS XL				.500	<b>99363</b>	SSLEEVE	
4.852	.904	35072	† SCOT1	R		.813	<b>99362</b>	SSLEEVE	
		SCOTSEAL					SHAFT RANGE 3.623 - 3.629		
4.953	1.096	35076	HDDF1	R	4.235	.195	539171	SLINGER	R
		O.D. LISTED IS SEAL I.D.			4.240	.380	▲ <b>36147</b>	HMSA7	V
4.999	.438	<b>35080</b>	† CRWA1	V			W/CCW HELIX FROM AIR SIDE		
4.999	.438	▲ <b>35082</b>	† CRWH1	R	4.376	.375	<b>36153</b>	† CRWA1	V
4.999	.438	<b>35083</b>	† CRWHA1	P	4.376	.375	<b>36155</b>	† CRWA1	R
5.000	.891	35075	† SCOT1	R	4.376	.375	▲ <b>36157</b>	† CRWH1	R
		SCOTSEAL			4.376	.375	<b>36158</b>	† CRWH1	P
5.126	.438	▲ <b>35086</b>	† CRWH1	R	4.500	.294	36172	X15	R
5.126	.438	<b>35095</b>	† CRWHA1	R			O.D. LISTED IS PRESSFIT I.D.		
5.251	.438	▲ <b>35096</b>	† CRWH1	R	4.501	.375	<b>36166</b>	† CRW1	R
5.251	.718	36381	KIT	P	4.626	.375	▲ <b>36177</b>	† CRW1	R
		SEE KIT SECTION			4.626	.375	<b>36179</b>	† CRWA1	V
5.251	.750	▲ <b>35098</b>	† CRWHA11	P	4.626	.438	<b>36185</b>	† CRWH1	R
5.750	.413	35105	† HMSA25	V	4.626	.438	<b>36186</b>	† CRWHA1	R
5.751	.563	35111	† CRSH1	R	4.695	.395	36221	X13	R
<b>3.504 SHAFT</b>							O.D. LISTED IS PRESSFIT I.D.		
4.173	.354	<b>35120</b>	HMSA7	V	4.751	.438	▲ <b>36220</b>	† CRWH1	R
		W/CCW HELIX FROM AIR SIDE			<b>3.543 SHAFT</b>				
<b>3.543 SHAFT</b>					4.094	.433	35833	HMSA1	V
4.134	.394	<b>35405</b>	HMSA7	V	4.134	.394	<b>35405</b>	HMSA7	V
		W/CCW HELIX FROM AIR SIDE			4.252	.394	35418	HMA7	P

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Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>3.625 SHAFT (Cont.)</b>					<b>3.740 SHAFT (Cont.)</b>				
4.751	.500	<b>36234</b>	† CRWA1 W/STAINLESS STEEL SPRING	S	4.646	.394	<b>37030</b>	HMSA7 W/CCW HELIX FROM AIR SIDE	S
4.751	.500	36250	† SL1	T	5.118	.472	<b>37076</b>	† CRW1	V
4.813	.906	36285	† SCOT1	R	5.196	.866	37408	HMSA8 P.F. WIDTH 12MM	R
4.814	.906	<b>36282</b>	CRWA2 W/ZINC PLATED CASE, W/.433 P.F.	R	<b>3.743 SHAFT</b>				
4.839	.500	36289	P1	L	.344	<b>99374</b>	SSLEEVE		
4.876	.375	<b>36337</b>	CRW NO SPRING	R	.469	<b>99364</b>	SSLEEVE		
4.876	.438	162	KIT	#	SHAFT RANGE 3.740 - 3.746				
4.876	.438	▲ <b>36314</b>	† CRWH1	R	<b>3.745 SHAFT</b>				
4.876	.750	36340	C8	RR	6.161	.305	37442	J-TYPE	P
4.999	.375	<b>36359</b>	† CRWA1	V	<b>3.749 SHAFT</b>				
4.999	.375	<b>36361</b>	† CRWA1	R	.563	<b>99376</b>	SSLEEVE		
4.999	.438	▲ <b>36363</b>	† CRWH1	R	SHAFT RANGE 3.746 - 3.752				
4.999	.438	<b>36364</b>	† CRWHA1	R	<b>3.750 SHAFT</b>				
5.000	.859	36358	† SCOT1	R	.688	900	† KIT		P
5.001	.891	36365	† SCOT1	R	.688	99853	GSLEEVE		
5.251	.375	▲ <b>36382</b>	† CRWA1	R	.350	<b>400950</b>	VR1		R
5.375	.438	<b>36391</b>	† CRWHA1	R	.350	<b>400954</b>	VR1		V
<b>3.661 SHAFT</b>					.350	SHAFT RANGE 3.660 - 3.860			
4.252	.394	<b>36660</b>	HMSA7 W/CCW HELIX FROM AIR SIDE	P	.530	400951	VR2		R
4.331	.512	<b>36614</b>	HMSA7 W/CCW HELIX	V	.530	400955	VR2		V
4.331	.276	<b>36658</b>	HMSA7 W/CCW HELIX FROM AIR SIDE	V	4.245	.281	709023	WS	R
4.488	.551	<b>36601</b>	HMSA7	V	4.250	.063	451068	BUW	#
6.063	.315	36650	J-TYPE	P	4.250	.250	★ 711844	BV	R
6.649	.449	36655	J-TYPE W/4-.477" HOLES	P	4.250	.250	721563	BV	V
<b>3.675 SHAFT</b>					4.375	.328	504287	SC	R
.216	205	KIT		R	4.376	.250	▲ <b>37320</b>	† HM14	R
SEE KIT SECTION					4.376	.250	<b>37325</b>	† HM14	V
<b>3.688 SHAFT</b>					4.500	.381	<b>37338</b>	HMSA7	P
.813	<b>99365</b>	SSLEEVE			4.501	.375	<b>37327</b>	CRW1	R
.313	<b>99368</b>	SSLEEVE			4.501	.375	<b>37328</b>	† CRW1	V
4.501	.438	▲ <b>36740</b>	† CRWHA1	R	4.501	.469	▲ <b>37330</b>	† CRWHA1	P
4.751	.438	▲ <b>36770</b>	† CRWH1	R	4.501	.376	<b>37341</b>	HMS4	V
4.999	.438	▲ <b>36880</b>	† CRWH1	R	4.501	.380	▲ <b>37340</b>	HMS4	S
5.126	.438	<b>36895</b>	† CRWA1	R	4.501	.380	<b>37342</b>	HMSA7	V
5.250	.718	36944	KIT	P	4.502	.469	<b>37332</b>	† CRWHA1	V
5.626	.438	<b>36910</b>	† CRWA1	R	4.532	.482	37504	HMA11	VT
SEE KIT SECTION					4.573	.571	37507	S1	T
<b>3.730 SHAFT</b>					4.750	.438	<b>37403</b>	† CRWHA1	P
.469	<b>99359</b>	SSLEEVE			4.751	.375	<b>37387</b>	† CRW1	P
.781	<b>99366</b>	SSLEEVE			4.751	.375	▲ <b>37388</b>	† CRW1	R
SHAFT RANGE 3.727 - 3.733					4.751	.375	<b>37389</b>	† CRWA1	R
<b>3.740 SHAFT</b>					4.751	.438	<b>37390</b>	† CRWA1	P
4.440	.315	<b>37795</b>	HMSA7 W/CCW HELIX FROM AIR SIDE	V	4.751	.438	<b>37395</b>	† CRWHA1	S
					4.751	.438	<b>37396</b>	† CRWH1	R
					4.751	.438	<b>37405</b>	† CRWH1	V
					4.751	.500	37410	† HMSA24	V
					4.751	.875	37381	† E3	RR
					4.876	.438	▲ <b>37433</b>	† CRWH1	R
					4.999	.375	<b>37524</b>	† CRW1	V

Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>3.750 SHAFT (Cont.)</b>					<b>3.875 SHAFT (Cont.)</b>				
4.999	.375	▲ 37525	† CRW1	R	4.751	.375	38649	† CRWA1	V
4.999	.375	37526	† CRWA1	R	4.751	.438	▲ 38653	† CRWH1	R
4.999	.438	37532	† CRWH1	R	4.876	.438	38673	† CRWHA1	R
4.999	.438	37533	† CRWHA1	R	4.876	.500	▲ 38669	† CRWH1	R
4.999	.469	★ 37565	† HM21	R	4.876	.500	38678	† CRWHA1	V
5.251	.438	▲ 37574	† CRWH1	R	4.999	.375	▲ 38691	† CRW1	R
5.251	.438	37577	† CRWH1	V	4.999	.375	38692	† CRWA1	R
		W/STAINLESS STEEL SPRING			4.999	.375	38694	† CRWA1	V
<b>3.753 SHAFT</b>					5.126	.438	38702	† CRWHA1	V
	.688	99372	SSLEEVE		5.126	.438	▲ 38703	† CRWH1	R
		SHAFT RANGE 3.750 - 3.756			5.126	.438	38713	† CRWHA1	R
	.344	99367	SSLEEVE		5.129	.844	38709	† SCOT1	R
		SHAFT RANGE 3.750 - 3.756					SCOTSEAL		
4.720	.607	37520	† UNITIZE	V	5.248	.844	38736	† SCOT1	R
		UNITIZED TRANSMISSION SEAL					SCOTSEAL		
<b>3.777 SHAFT</b>					5.251	.438	▲ 38730	† CRWH1	R
4.567	.508	37775	† UNITIZD	V	5.251	.438	38731	† CRWHA1	R
<b>3.778 SHAFT</b>					5.251	.438	38739	† CRWHA1	P
4.567	.354	37570	HMSA7	V	5.312	1.102	38740	HDDF1	R
		W/CCW HELIX FROM AIR SIDE					O.D. LISTED IS SEAL I.D.		
<b>3.780 SHAFT</b>					5.376	.438	▲ 38745	† CRWH1	R
4.606	.472	37825	HMSA7	S	5.376	1.016	38747	† SCOT1	R
		W/CCW HELIX FROM AIR SIDE					SCOTSEAL		
<b>3.785 SHAFT</b>					5.390	.375	▲ 38590	X12	R
	.217	211	KIT	R			O.D. LISTED IS PRESSFIT I.D.		
		HALF SEAL			5.501	.500	38749	† CRSHA1	R
<b>3.813 SHAFT</b>					5.501	.550	1214	KIT	R
4.501	.250	▲ 38040	† HD1	R			SEE KIT SECTION		
		QUILL WIPER			5.501	.938	38750	† SCOT1	R
4.501	.250	38041	† HD1	V			SCOTSEAL		
		QUILL WIPER			5.562	1.267	38751	HDDF1	R
4.999	.469	38160	CRSH1	R			O.D. LISTED IS SEAL I.D.		
5.251	.469	38220	CRSH1	R	5.626	.433	38758	† CRWHA1	R
<b>3.819 SHAFT</b>					5.690	.500	38774	† CRWH1	R
4.724	.512	38196	HMSA7	R	5.690	.750	▲ 38777	CRSHA2	R
		W/CCW HELIX FROM AIR SIDE			5.691	.938	38780	† SCOT1	R
<b>3.858 SHAFT</b>							SCOTSEAL		
4.567	.394	38585	HMSA7	V	5.691	.892	38776	PLUS XL	H
		W/CCW HELIX FROM AIR SIDE					SCOTSEAL PLUS XL		
<b>3.868 SHAFT</b>					5.693	.968	1308	KIT	R
5.376	.844	★ 1206	KIT	R			SEE KIT SECTION		
		SEE KIT SECTION			5.751	.563	38810	CRSH1	R
<b>3.871 SHAFT</b>					6.000	.625	38845	HMSA1	R
	.813	99386	SSLEEVE		<b>3.898 SHAFT</b>				
		SHAFT RANGE 3.868 - 3.874			4.331	.276	38883	HMSA7	V
<b>3.875 SHAFT</b>							W/CCW HELIX FROM AIR SIDE		
	.813	99387	SSLEEVE		4.680	.370	38880	HMSA7	VR
		SHAFT RANGE 3.873 - 3.879			<b>3.907 SHAFT</b>				
		38741	HDDFBV1	R	5.708	1.023	39070	HMSA8	R
		BELLEVILLE WASHERS (2 EA/KIT)					P.F. WIDTH 14.8MM		
		38752	HDDFBV1	R	<b>3.937 SHAFT</b>				
		BELLEVILLE WASHERS (2 EA/KIT)			4.724	.374	39361	HMSA7	V
4.751	.375	38646	† CRW1	R	4.882	.512	39367	HMSA7	V
		W/SS CASE & SPRING					W/CCW HELIX		
4.751	.375	38647	† CRWA1	R	<b>3.938 SHAFT</b>				
						.813	99393	SSLEEVE	
							SHAFT RANGE 3.935 - 3.941		
						.813	99854	GSLEEVE	
							SHAFT RANGE 3.935 - 3.941		
					4.876	.438	▲ 39245	† CRWH1	R
					4.906	.484	511853	HS9	R

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## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>3.938 SHAFT (Cont.)</b>					<b>4.000 SHAFT (Cont.)</b>				
4.999	.438	▲ <b>39275</b>	† CRWH1	R	4.999	.438	39946	† D	SS
4.999	.438	<b>39276</b>	† CRWH1	V			P.F. WIDTH .438	SPECIAL CONST.	
4.999	.438	<b>39277</b>	† CRWH1	R	5.122	.953	39979	PLUS XL	H
		W/SS CASE & SPRING						SCOTSEAL PLUX XL	
5.126	.472	▲ <b>39304</b>	† CRWHA1	V	5.126	.438	▲ <b>39975</b>	† CRWH1	R
5.251	.438	▲ <b>39320</b>	† CRWH1	R	5.126	1.047	39988	† SCOT1	R
5.372	1.031	▲ <b>39385</b>	CRWH2	R			SCOTSEAL		
		P.F. WIDTH .527			5.251	.438	<b>39996</b>	† CRWH1	V
5.373	.500	1321	† KIT	R	5.251	.438	▲ <b>39997</b>	† CRWH1	R
		SEE KIT SECTION			5.251	.438	<b>40000</b>	† CRWA1	R
5.374	1.016	39380	† SCOT1	R	5.310	.500	▲ <b>40020</b>	† CRWHA1	R
		SCOTSEAL			5.376	.438	▲ <b>40036</b>	† CRWH1	R
5.375	.438	▲ <b>39350</b>	† CRWH1	R	5.376	1.016	40040	† SCOT1	R
5.501	.438	▲ <b>39423</b>	† CRWH1	R			SCOTSEAL		
5.501	.550	★ 1219	KIT	R	5.501	.438	▲ <b>40049</b>	† CRWH1	R
		SEE KIT SECTION			5.505	.750	1322	† KIT	R
5.501	.938	39420	† SCOT1	R			SEE KIT SECTION		
		SCOTSEAL			5.626	.375	▲ <b>40077</b>	† CRWA1	R
5.504	1.016	39425	† SCOT1	R	5.626	.438	▲ <b>40078</b>	† CRWH1	R
		SCOTSEAL			5.626	.688	40086	† SCOT2	R
5.512	.591	39426	SCOTPLS	R			SCOTSEAL		
		SCOTSEAL PLUS			5.626	.688	40091	PLUS XL	H
<b>4.000 SHAFT</b>							SCOTSEAL PLUS XL		
	.500	<b>99401</b>	SSLEEVE		5.751	.438	▲ <b>40108</b>	† CRWH1	R
		SHAFT RANGE 3.998 - 4.006			5.754	1.079	40136	† SCOT1	R
	.600	<b>99395</b>	SSLEEVE				SCOTSEAL		
		SHAFT RANGE 3.998 - 4.006			5.754	.995	40129	PLUS XL	H
	.650	<b>99400</b>	SSLEEVE				SCOTSEAL PLUS XL		
		SHAFT RANGE 3.998 - 4.006			5.760	1.079	40139	† SCOT1	R
	.813	<b>99399</b>	SSLEEVE				SCOTSEAL		
		SHAFT RANGE 3.998 - 4.006			5.813	.500	40131	X	R
	.813	99855	GSLEEVE				O.D. LISTED IS PRESSFIT I.D.		
		SHAFT RANGE 3.998 - 4.006			6.001	.500	▲ <b>40138</b>	† CRWH1	R
		450194	AXGSKT1		6.250	.500	▲ <b>40158</b>	† CRWH1	R
		6-.469 DIA BOLT HOLES			<b>4.012 SHAFT</b>				
	.350	<b>401000</b>	VR1	R	5.693	.813	▲ 40210	† HMSA16	P
		SHAFT RANGE 3.860 - 4.140			<b>4.050 SHAFT</b>				
	.350	<b>401004</b>	VR1	V	5.501	.550	▲ <b>40360</b>	† CRWH6	R
		SHAFT RANGE 3.860 - 4.140					W/5.750 FLANGE		
	.530	401001	VR2	R	<b>4.063 SHAFT</b>				
		SHAFT RANGE 3.860 - 4.140			5.390	.375	40510	X12	R
	.530	401005	VR2	V			O.D. LISTED IS PRESSFIT I.D.		
		SHAFT RANGE 3.860 - 4.140			<b>4.125 SHAFT</b>				
4.495	.281	709024	WS	R		.813	<b>99412</b>	SSLEEVE	
4.495	.281	714884	WS	V			SHAFT RANGE 4.122 - 4.130		
4.500	.063	451266	BUW	#	4.999	.438	▲ <b>41125</b>	† CRWH1	R
4.500	.250	704009	BV	R	4.999	.438	<b>41126</b>	CRWH1	V
4.500	.250	721542	BV	V	4.999	.438	<b>41130</b>	† CRWH1	S
4.500	.250	★ 714885	BV	V	4.999	.718	41152	KIT	P
4.501	.250	▲ <b>39835</b>	† HM14	R			SEE KIT SECTION		
4.562	.375	39838	HMS2	P	5.126	.438	▲ <b>41170</b>	† CRWH1	R
4.625	.328	504289	SC	R	5.126	.438	<b>41171</b>	† CRWH1	V
4.876	.250	▲ 39860	† HM21	R	5.251	.438	▲ <b>41185</b>	† CRWH1	R
4.876	.438	▲ <b>39851</b>	† CRW1	R	5.251	.438	<b>41186</b>	† CRWH1	V
4.999	.250	▲ 39961	† HM21	R	5.501	.438	▲ <b>41265</b>	† CRWH1	R
4.999	.375	<b>39895</b>	† CRW1	P	5.750	.438	633	FELT	F
4.999	.375	<b>39921</b>	† CRWA1	V	5.751	.438	▲ <b>41287</b>	† CRWH1	R
4.999	.375	▲ <b>39922</b>	† CRW1	R	6.001	.438	▲ <b>41305</b>	† CRWH1	R
4.999	.375	<b>39923</b>	† CRWA1	R	6.001	.438	<b>41307</b>	† CRWH1	V
4.999	.438	<b>39930</b>	† CRWHA1	P					
4.999	.438	<b>39932</b>	† CRWH1	V					
4.999	.438	<b>39933</b>	† CRWH1	R					
4.999	.438	<b>39934</b>	† CRWHA1	R					
4.999	.438	<b>39935</b>	† CRWH1	S					



Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>4.134 SHAFT</b>					<b>4.250 SHAFT (Cont.)</b>				
4.724	.433	<b>41401</b>	HMSA7	S	6.009	1.122	42625	SCOTPLS	R
<hr/>					SCOTSEAL				
<b>4.165 SHAFT</b>					6.009	.971	42627	PLUS XL	H
5.625	.210	41555	J5SPLIT	R	SCOTSEAL PLUS XL				
W/8 EA .390 DIA. HOLES					6.043	.984	42624	† SCOT1	R
<hr/>					SCOTSEAL				
<b>4.166 SHAFT</b>					6.126	.500	▲ <b>42635</b>	† CRWH1	R
5.501	.600	▲ 41550	† HMSHA3	R	6.250	.500	▲ <b>42644</b>	† CRWH1	R
<hr/>					6.254	1.250	42672	† SCOT1	R
<b>4.188 SHAFT</b>					SCOTSEAL				
	.813	<b>99418</b>	SSLEEVE		6.254	1.245	42673	PLUS XL	H
SHAFT RANGE 4.183 - 4.191					SCOTSEAL PLUS XL				
4.999	.469	▲ 41751	CRSHA1	R	<hr/>				
5.251	.469	▲ 41761	CRSH1	R	<b>4.266 SHAFT</b>				
5.501	.500	▲ 41813	† HMSHA3	R	6.066	.875	42800	† SCOT1	R
5.501	.500	41814	† HMSHA3	V	SCOTSEAL				
5.751	.500	41833	CRSHA1	R	<hr/>				
<hr/>					<b>4.312 SHAFT</b>				
<b>4.234 SHAFT</b>							43136	HDDFBV1	R
	.781	<b>99423</b>	SSLEEVE		BELLEVILLE WASHERS (2 EA/KIT)				
SHAFT RANGE 4.226 - 4.234							43149	HDDFBV1	R
<hr/>					5.823	1.102	43135	HDDF1	R
<b>4.250 SHAFT</b>					6.000	1.320	43150	HDDF1	R
	.813	<b>99424</b>	SSLEEVE		O.D. LISTED IS SEAL I.D.				
SHAFT RANGE 4.248 - 4.256					<hr/>				
	.750	86071	S1		<b>4.313 SHAFT</b>				
	.410	<b>401100</b>	VR1	R	5.501	.433	<b>43072</b>	† CRWHA1	P
SHAFT RANGE 4.140 - 4.530					5.501	.438	▲ <b>43073</b>	† CRWHA1	R
	.410	<b>401104</b>	VR1	V	5.751	.500	43131	CRSH1	R
SHAFT RANGE 4.140 - 4.530					6.250	.500	43201	HMSH1	R
	.610	401101	VR2	R	<hr/>				
SHAFT RANGE 4.140 - 4.530					<b>4.331 SHAFT</b>				
	.610	401105	VR2	V	5.626	.472	<b>43345</b>	† CRWHA1	V
SHAFT RANGE 4.140 - 4.530					<hr/>				
4.745	.281	709025	WS	R	<b>4.374 SHAFT</b>				
4.750	.063	451276	BUW	#	5.737	.207	43746	SPLIT	R
4.750	.250	711845	BV	R	<hr/>				
4.750	.250	721564	BV	V	<b>4.375 SHAFT</b>				
4.813	.313	<b>42340</b>	HM14	R		.813	<b>99437</b>	SSLEEVE	
4.875	.328	504291	SC	R	SHAFT RANGE 4.370 - 4.378				
5.126	.250	42380	† HM21	R	5.373	.570	▲ 44269	X1	V
5.251	.250	▲ 42470	† HM21	R	O.D. LISTED IS PRESSFIT I.D.				
5.251	.375	▲ <b>42419</b>	† CRWA1	R	5.376	.438	▲ <b>43650</b>	† CRWH1	R
5.251	.375	<b>42422</b>	† CRW1	S	5.501	.438	▲ <b>43691</b>	† CRWH1	R
5.251	.438	<b>42426</b>	† CRWH1	R	5.751	.438	▲ <b>43751</b>	† CRWH1	R
5.251	.438	<b>42427</b>	† CRWHA1	R	5.751	1.016	43752	† SCOT1	R
5.251	.438	<b>42433</b>	† CRWH1	V	SCOTSEAL				
5.251	.374	<b>534954</b>	† CRWA1	V	5.751	.995	43754	PLUS XL	H
5.373	.438	▲ <b>42474</b>	† CRWA1	V	SCOTSEAL PLUS XL				
5.376	.438	▲ <b>42475</b>	† CRWH1	R	5.900	1.000	43761	PLUS XL	H
5.501	.438	▲ <b>42528</b>	† CRWH1	R	SCOTSEAL PLUS XL				
5.501	.750	42540	C8	RR	5.905	1.000	43764	† SCOT1	R
5.501	.938	42550	† SCOT1	R	SCOTSEAL				
SCOTSEAL					5.907	.984	▲ <b>43762</b>	† CRWHA2	R
5.626	.438	<b>42557</b>	† CRWA1	R	P.F. WIDTH .640				
5.751	.438	▲ <b>42573</b>	† CRWH1	R	6.001	.500	▲ <b>43771</b>	† CRWH1	R
5.876	.500	<b>42592</b>	† CRWH1	V	6.003	1.047	43800	† SCOT1	R
W/STAINLESS STEEL SPRING					SCOTSEAL				
6.001	.500	▲ <b>42616</b>	† CRWH1	R	6.063	.500	<b>541974</b>	CRWH1	R
6.008	.984	42631	† SCOTLL		6.250	.500	▲ <b>43820</b>	† CRWH1	R
SCOTSEAL LONGLIFE					6.254	.922	43860	† SCOT1	R
6.009	.984	42623	† SCOT1	R	SCOTSEAL				
SCOTSEAL					<hr/>				

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## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>4.375 SHAFT (Cont.)</b>					<b>4.500 SHAFT (Cont.)</b>				
6.254	1.047	43865	† SCOT1	R	5.751	.767	45093	PLUS XL	H
		SCOTSEAL					SCOTSEAL PLUS XL		
6.311	1.125	43875	† SCOT1	R	5.876	.984	45103	† SCOT1	R
		SCOTSEAL					SCOTSEAL		
<b>4.400 SHAFT</b>					5.876	1.009	45095	PLUS XL	H
5.230	.375	<b>44000</b>	HMSA7	P			SCOTSEAL PLUS XL		
		W/CCW HELIX FROM AIR SIDE			6.001	.500	▲ <b>45110</b>	† CRWH1	R
<b>4.438 SHAFT</b>					6.001	.500	<b>45111</b>	† CRWHA1	R
	1.000	<b>99439</b>	SSLEEVE		6.001	.500	<b>45112</b>	† CRWHA1	V
		SHAFT RANGE 4.434 - 4.442			6.015	.550	▲ <b>44892</b>	X12	R
5.000	.281	712548	BV	V			O.D. LISTED IS PRESSFIT I.D.		
5.501	.500	▲ <b>44275</b>	† CRWH1	R	6.126	.563	▲ <b>45140</b>	† CRWH1	R
5.501	.500	<b>44276</b>	† CRWH1	V	6.250	.500	▲ <b>45150</b>	† CRWH1	R
5.751	.500	▲ <b>44295</b>	† CRWH1	R	6.254	1.047	45160	† SCOT1	R
6.001	.500	▲ <b>44320</b>	† CRWH1	R			SCOTSEAL		
6.250	.500	▲ <b>44350</b>	† CRWH1	R	6.254	.750	45157	PLUS XL	H
<b>4.477 SHAFT</b>							SCOTSEAL PLUS XL		
6.250	.500	▲ <b>44630</b>	† CRWH1	R	6.311	1.125	45152	† SCOT1	R
<b>4.500 SHAFT</b>					6.409	.415	45161	X12	D
	.813	480450	KIT	R			O.D. LISTED IS PRESSFIT I.D.		
		SPEEDI-SLEEVE & SEAL KIT			6.441	.938	45162	† SCOT1	R
	.813	<b>99450</b>	SSLEEVE				SCOTSEAL		
		SHAFT RANGE 4.496 - 4.504			<b>4.528 SHAFT</b>				
	.813	99856	GSLEEVE		6.142	1.063	45280	HMSA8	R
		SHAFT RANGE 4.496 - 4.504					P.F. WIDTH 15.6MM		
4.995	.281	709026	WS	R	<b>4.563 SHAFT</b>				
4.995	.281	712127	WS	V	5.751	.500	▲ 45550	CRSHA1	R
5.000	.063	451352	BUW	#	6.250	.500	45560	CRSH1	R
5.000	.250	711857	BV	D	<b>4.606 SHAFT</b>				
5.000	.250	721543	BV	V	6.850	1.063	46060	HMSA8	R
5.125	.328	504293	SC	R			P.F. WIDTH 15.6MM		
5.251	.438	▲ <b>44913</b>	† CRWH1	R	<b>4.625 SHAFT</b>				
5.251	.438	▲ <b>44917</b>	† CRWHA1	V		.438	<b>99465</b>	SSLEEVE	
5.375	.984	44922	† SCOT1	R			SHAFT RANGE 4.621 - 4.629		
		SCOTSEAL				1.000	<b>99463</b>	SSLEEVE	
5.375	.975	44916	PLUS XL	H			SHAFT RANGE 4.621 - 4.629		
		SCOTSEAL PLUS XL				.260	401208	VR1-SPL	#
5.376	.438	▲ <b>44920</b>	† CRWH1	R			SHAFT RANGE 4.531 - 4.917		
5.376	.438	<b>44926</b>	† CRWHA1	V		.410	<b>401200</b>	VR1	R
5.501	.250	▲ <b>45025</b>	HM14	R			SHAFT RANGE 4.530 - 4.920		
5.501	.375	▲ <b>44959</b>	† CRW1	R		.410	<b>401204</b>	VR1	V
5.501	.375	<b>44960</b>	† CRWA1	R			SHAFT RANGE 4.530 - 4.920		
5.501	.435	<b>44980</b>	† CRWH1	V		.610	401201	VR2	R
		W/STAINLESS STEEL SPRING					SHAFT RANGE 4.530 - 4.920		
5.501	.438	<b>44967</b>	† CRWH1	R		.610	401205	VR2	V
5.501	.438	<b>44968</b>	† CRWHA1	R			SHAFT RANGE 4.530 - 4.920		
5.501	.438	<b>44973</b>	† CRWH1	V			SEE KIT SECTION		
5.501	.500	45001	† KIT	S			44964	† SCOT1	R
		SCOTSEAL					SCOTSEAL		
5.501	.938	45010	† SCOT1	R			45010	† SCOT1	R
		SCOTSEAL					SCOTSEAL		
5.626	.438	▲ <b>45032</b>	† CRWH1	R			▲ <b>45032</b>	† CRWH1	R
5.626	.438	<b>45033</b>	† CRWHA1	V			<b>45033</b>	† CRWHA1	V
5.751	.375	<b>45064</b>	† CRWA1	V			<b>45064</b>	† CRWA1	V
5.751	.438	▲ <b>45069</b>	† CRWH1	R			▲ <b>45069</b>	† CRWH1	R
5.751	.438	<b>45070</b>	† CRWHA1	R			<b>45070</b>	† CRWHA1	R
5.751	1.016	45099	† SCOT1	R			45099	† SCOT1	R
		SCOTSEAL					SCOTSEAL		

Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>4.625 SHAFT (Cont.)</b>					<b>4.750 SHAFT (Cont.)</b>				
6.250	.500	▲ <b>46324</b>	† CRWH1	R	6.250	.500	<b>47586</b>	† CRWHA1	V
6.623	1.093	46396	OILBATH	R	6.250	.500	47587	† KIT	R
6.623	1.094	▲ <b>46395</b>	† CRWA79	R	6.250	.610	47591	† HMSA24	R
		P.F. WIDTH .484			6.619	1.181	▲ <b>47660</b>	† HMSA28	R
							P.F. WIDTH .500		
<b>4.635 SHAFT</b>					<b>4.766 SHAFT</b>				
6.009	1.031	46390	† SCOT1	R			81774	S6	
		SCOTSEAL					SEE SLEEVE & WIPER SECTION		
<b>4.646 SHAFT</b>					6.001	1.063	47690	† SCOT1	R
4.705	.625	84041	S1				SCOTSEAL		
		SEE SLEEVE & WIPER SECTION			6.254	1.047	48000	† SCOT1	R
5.751	.625	47385	KIT	V			SCOTSEAL		
		SEE KIT SECTION			6.254	.795	48002	PLUS XL	H
<b>4.688 SHAFT</b>					6.310	1.188	1211	KIT	R
	.813	<b>99468</b>	SSLEEVE				SCOTSEAL PLUS XL		
		SHAFT RANGE 4.685 - 4.693			6.310	1.359	1215	KIT	R
		46976	HDDFBV1	R			SEE KIT SECTION		
		BELLEVILLE WASHERS (2 EA/KIT)			6.311	1.125	47697	† SCOT1	R
		80184	S1				SCOTSEAL		
		SEE SLEEVE & WIPER SECTION			6.500	1.063	1212	KIT	R
5.250	.063	451491	BUW	#			SEE KIT SECTION		
5.250	.281	711846	BV	R	6.998	1.188	1213	KIT	R
5.751	.250	▲ <b>46851</b>	† HD1	R			SEE KIT SECTION		
		QUILL WIPER			7.000	1.250	47699	† SCOT1	R
5.751	.512	<b>46790</b>	† CRWH1	S			SCOTSEAL		
5.751	.512	▲ <b>46800</b>	† CRWH1	R					
5.751	.625	1200	KIT	S					
		SEE KIT SECTION			<b>4.767 SHAFT</b>				
5.755	.750	1201	KIT	PP	6.308	1.035	47691	† PLUS XL	
		SEE KIT SECTION					DRIVE AXLE ABS VERSION		
6.000	.375	653	FELT	F	6.308	1.420	47692	PLUS XL	H
6.001	.266	▲ <b>46920</b>	† HD1	P			SCOTSEAL PLUS XL		
		QUILL WIPER			6.313	1.125	47698	† SCOT1	R
6.001	.380	▲ <b>46935</b>	† HMSW90	P			SCOTSEAL		
		P.F. WIDTH .281			6.316	1.125	47693	† SCOTLL	H
6.250	.500	<b>46950</b>	† CRWH1	R			SCOTSEAL LONGLIFE		
6.400	1.525	46975	HDDF1	R					
		O.D. LISTED IS SEAL I.D.			<b>4.811 SHAFT</b>				
<b>4.724 SHAFT</b>					5.543	.472	<b>48046</b>	HMSA7	V
5.906	.590	47245	SCOTPLS	R			W/CCW HELIX FROM AIR SIDE		
		SCOTSEAL PLUS			<b>4.813 SHAFT</b>				
<b>4.750 SHAFT</b>					5.751	.563	▲ <b>48060</b>	† CRWH1	P
	.500	<b>99475</b>	SSLEEVE		5.751	.563	<b>48062</b>	† CRWH1	V
		SHAFT RANGE 4.746 - 4.754			5.751	.563	<b>48065</b>	† CRWH1	S
5.375	.313	<b>47378</b>	† HM14	R	5.751	.813	48070	† D7	VV
5.749	.438	<b>47375</b>	† CRW1	P	5.755	.750	48075	† D7	PP
5.751	.500	<b>47379</b>	† CRW1	V			<b>4.824 SHAFT</b>		
5.751	.500	<b>47382</b>	† CRWA1	V	6.310	.875	54930	† KIT	R
		W/STAINLESS STEEL SPRING					SEE KIT SECTION		
5.751	.500	<b>47383</b>	† CRW1	R	6.311	1.125	48297	† SCOT1	R
5.751	.500	▲ <b>47394</b>	† CRWH1	R			SCOTSEAL		
5.751	.500	<b>47395</b>	† CRWHA1	R	6.500	.875	54935	† KIT	R
5.875	.500	▲ <b>47441</b>	† CRWH1	R			SEE KIT SECTION		
6.001	1.063	47483	† SCOT1	R	6.501	1.125	48298	† SCOT1	R
		SCOTSEAL					SCOTSEAL		
6.001	.500	▲ <b>47474</b>	† CRWH1	R	6.998	.875	55165	† KIT	R
6.001	.500	<b>47475</b>	† CRWHA1	R			SEE KIT SECTION		
6.001	.500	<b>47481</b>	† CRW1	V					
6.002	.300	47455	X15	R	<b>4.841 SHAFT</b>				
		O.D. LISTED IS PRESSFIT I.D.			5.751	.750	49921	KIT	V
6.250	.500	▲ <b>47583</b>	† CRWH1	R			SEE KIT SECTION		

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## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>4.875 SHAFT</b>					<b>5.000 SHAFT (Cont.)</b>				
	.625	<b>99487</b>	SSLEEVE		6.001	.500	<b>49927</b>	† CRWHA1	V
	SHAFT RANGE 4.871 - 4.879				6.001	.500	▲ <b>49928</b>	† CRWH1	R
5.501	.250	<b>48650</b>	HM14	R	6.001	.500	<b>49929</b>	† CRWHA1	R
6.000	.750	48697	KIT	S	6.125	.500	<b>49951</b>	† HDW1	R
	SEE KIT SECTION				6.126	.500	<b>49960</b>	† CRW1	V
6.001	.875	48690	† SCOT1	R	6.250	.250	▲ <b>50070</b>	† HM21	R
	SCOTSEAL				6.250	.500	▲ <b>49966</b>	† CRWH1	R
6.001	.500	<b>48689</b>	† CRWHA1	R	6.250	.500	<b>49984</b>	† CRW1	R
6.001	.500	<b>48692</b>	† CRWH1	V	6.250	.500	<b>49985</b>	† CRWA1	R
6.001	.500	▲ <b>48693</b>	† CRWH1	R	6.250	.500	<b>49990</b>	CRWH1	P
6.126	.500	▲ <b>48726</b>	† CRWH1	R	6.250	.500	<b>49991</b>	† CRWH1	V
6.250	.500	<b>48768</b>	† CRWHA1	R	6.250	.500	<b>49998</b>	† CRWHA1	R
6.250	.500	▲ <b>48769</b>	† CRWH1	R	6.254	1.047	50124	† SCOT1	R
6.254	1.047	★ 48792	† SCOT1	R		SCOTSEAL			
	SCOTSEAL				6.375	.500	▲ <b>50130</b>	† CRWH1	R
6.375	.516	<b>48883</b>	CRW3	R	6.375	.500	<b>50138</b>	† CRWHA1	R
6.379	.938	48794	† SCOT1	R	6.500	.500	▲ <b>50148</b>	† CRWH1	R
	SCOTSEAL				6.500	.500	<b>50151</b>	† CRWH1	V
6.440	.500	<b>48886</b>	† CRW3	R	6.623	.906	▲ <b>50167</b>	† CRWA79	R
	P.F. WIDTH .375 W/6.735 FLANGE				6.750	.500	▲ <b>50168</b>	† CRWH1	R
6.441	.938	48796	† SCOT1	R	6.750	.500	<b>50172</b>	† CRWHA1	R
	SCOTSEAL				7.000	.500	50185	CRSHA1	R
6.503	1.063	48884	† SCOT1	R	7.125	.500	<b>50186</b>	† HDW1	R
	SCOTSEAL				7.500	.500	50195	CRSHA1	R
<b>4.881 SHAFT</b>					<b>5.047 SHAFT</b>				
6.693	.571	48881	X14	R			450431	AXGSKT1	
	O.D. LISTED IS PRESSFIT I.D.						8-.531 DIA BOLT HOLES		
<b>4.902 SHAFT</b>					<b>5.062 SHAFT</b>				
6.309	.709	<b>49050</b>	† CRWA3	R			50656	HDDFBV1	R
	W/6.695 FLANGE						BELLEVILLE WASHERS (2 EA/KIT)		
7.085	.475	49060	X12	R	6.750	1.280	50655	HDDF1	R
	O.D. LISTED IS PRESSFIT I.D.						O.D. LISTED IS SEAL I.D.		
<b>4.921 SHAFT</b>					<b>5.063 SHAFT</b>				
6.375	.500	<b>49274</b>	† CRWHA1	V	6.125	.500	<b>50620</b>	† HDW1	R
<b>4.938 SHAFT</b>					6.126	.500	▲ <b>50618</b>	† CRWH1	R
5.500	.063	★ 451493	BUW	#	6.310	1.313	<b>50640</b>	CRWH2	R
5.500	.281	711848	BV	R	6.375	.500	<b>50650</b>	† CRWH1	R
5.500	.281	★ 721565	BV	V	<b>5.125 SHAFT</b>				
6.001	.500	▲ <b>49251</b>	† CRWH1	R		.866	<b>99491</b>	SSLEEVE	
6.250	.500	▲ <b>49301</b>	† CRWH1	R		SHAFT RANGE 5.117 - 5.125			
<b>5.000 SHAFT</b>						.813	<b>99513</b>	SSLEEVE	
	.813	218	† KIT	V		SHAFT RANGE 5.120 - 5.128			
	SEE KIT SECTION					450024	AXGSKT1		
	.813	<b>99499</b>	SSLEEVE			8-.516 DIA BOLT HOLES			
	SHAFT RANGE 4.998 - 5.006				.410	<b>401300</b>	VR1	R	
	.813	99858	GSLEEVE			SHAFT RANGE 4.920 - 5.320			
	SHAFT RANGE 4.998 - 5.006				.410	<b>401304</b>	VR1	V	
	.540	<b>99501</b>	SSLEEVE			SHAFT RANGE 4.920 - 5.320			
	SHAFT RANGE 4.998 - 5.006				.610	401301	VR2	R	
	.688	<b>99498</b>	SSLEEVE			SHAFT RANGE 4.920 - 5.320			
	SHAFT RANGE 4.998 - 5.006				.610	401305	VR2	V	
	.688	99857	GSLEEVE			SHAFT RANGE 4.920 - 5.320			
	SHAFT RANGE 4.998 - 5.006				5.750	.063	451293	BUW	#
5.495	.281	709029	WS	R	5.750	.313	★ 705012	BV	R
5.495	.281	712128	WS	V	6.126	.500	▲ <b>51240</b>	† CRWHA1	R
5.563	.281	711849	BV	D	6.126	.500	<b>51243</b>	† CRW1	V
5.563	.281	712138	BV	V	6.126	.500	<b>51247</b>	† CRW1	R
5.751	.500	▲ 49920	† HMS1	V	6.126	.750	51242	† KIT	V
	W/STAINLESS STEEL SPRING					SEE KIT SECTION			
6.000	.500	49935	† AL1	S	6.250	.500	▲ <b>51252</b>	† CRWHA1	R
					6.250	.500	<b>51253</b>	† CRWA1	V

Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>5.125 SHAFT (Cont.)</b>					<b>5.400 SHAFT (Cont.)</b>				
6.375	.500	▲ 51248	CRWH1	R	6.990	1.310	54000	HDDF1	R
6.375	.500	51255	† CRWH1	V	O.D. LISTED IS SEAL I.D.				
6.408	.625	51260	X	D	<b>5.438 SHAFT</b>				
O.D. LISTED IS PRESSFIT I.D.					1.500 99548 SSLEEVE				
6.500	.500	51276	CRSHA1	R	SHAFT RANGE 5.434 - 5.442				
6.625	.500	51277	† HDW1	R	6.625	.500	54300	† HDW1	R
7.000	.500	51320	† HDW1	R	6.688	.625	521726	HS9	R
<b>5.188 SHAFT</b>					<b>5.476 SHAFT</b>				
6.250	.500	51800	† HDW1	R	.563	99547	SSLEEVE		
6.501	.625	★ 51851	† CRWH1	R	SHAFT RANGE 5.472 - 5.480				
6.501	.625	▲ 51852	† CRWH1	V	<b>5.500 SHAFT</b>				
<b>5.250 SHAFT</b>					.518 99550 SSLEEVE				
.813 99525 SSLEEVE					SHAFT RANGE 5.498 - 5.506				
SHAFT RANGE 5.246 - 5.254					.813 99549 SSLEEVE				
.750 86076 S1					SHAFT RANGE 5.498 - 5.506				
450189 AXGSKT1					.310 401402 VR3 R				
6--.469 DIA BOLT HOLES					SHAFT RANGE 5.320 - 5.710				
5.745	.281	709030	WS	R	.310	401406	VR3	V	
6.001	.375	▲ 52440	† CRW1	R	SHAFT RANGE 5.320 - 5.710				
6.001	.500	52443	† CRWH1	V	.410	401400	VR1	R	
6.250	.500	▲ 52445	† CRWH1	R	SHAFT RANGE 5.320 - 5.710				
6.250	.500	52447	† CRWH1	V	.410	401404	VR1	V	
6.250	.250	▲ 52475	HM4	R	SHAFT RANGE 5.320 - 5.710				
6.375	.500	52492	CRWHA1	R	.610	401401	VR2	R	
6.375	.500	52498	CRWHA1	V	SHAFT RANGE 5.320 - 5.710				
6.500	.500	▲ 52488	† CRWH1	R	.610	401405	VR2	V	
6.500	.500	52489	† CRWH1	V	SHAFT RANGE 5.320 - 5.710				
6.750	.500	▲ 52648	† CRWH1	R	5.995	.281	709031	WS	R
6.750	.500	52649	† CRWH1	V	5.995	.281	712129	WS	V
6.750	.500	52651	† HDW1	R	6.125	.063	451495	BUW	#
7.125	.500	52655	† HDW1	R	6.125	.313	711851	BV	D
7.376	.945	52658	† SCOT1	R	6.127	.359	504297	SC	R
SCOTSEAL					6.250	.500	54925	† CRWA1	R
7.379	2.500	★ 52664	† SCOT1	R	6.310	1.188	▲ 54929	† CRWHA9	R
SCOTSEAL					P.F. WIDTH .500				
<b>5.311 SHAFT</b>					6.499	1.063	54940	† CRWHA2	R
.807 99533 SSLEEVE					6.500	.500	▲ 54931	† CRWH1	R
SHAFT RANGE 5.307 - 5.315					6.500	.500	54934	† CRWH1	V
<b>5.313 SHAFT</b>					6.500	.500	54936	† CRWH1	P
6.375	.500	53100	† HDW1	R	6.625	.875	56103	KIT	P
6.500	.500	53151	CRSHA1	R	SEE KIT SECTION				
<b>5.375 SHAFT</b>					6.626	.563	54949	CRSHA1	R
.813 99537 SSLEEVE					6.750	.750	595055	HS7	R
SHAFT RANGE 5.371 - 5.379					6.750	.500	54959	† CRW1	R
6.000	.063	★ 451439	BUW	#	6.750	.500	54960	† CRWA1	R
6.000	.313	711850	BV	D	6.750	.500	54971	† CRWHA1	R
6.000	.313	712549	BV	V	6.750	.500	▲ 54972	† CRWH1	R
6.000	.313	721545	BV	V	6.750	.500	54974	† CRWH1	V
6.374	.500	53688	† CRSHA1	R	6.780	.380	55152	X	R
6.499	.563	53692	CRSH1	R	O.D. LISTED IS PRESSFIT I.D.				
6.625	.500	▲ 53701	† CRWH1	R	6.876	.563	55157	CRSHA1	R
6.625	.500	53702	† CRWH1	V	6.998	1.188	▲ 55170	† CRWHA2	R
6.750	.500	53771	† CRWH1	V	SEE KIT SECTION				
6.750	.500	▲ 53775	† CRWH1	R	7.126	1.187	55172	OILBATH	R
6.876	1.000	▲ 53790	† CRWHA2	R	OILBATH				
P.F. WIDTH .375					7.250	.625	▲ 55175	† CRWHA22	R
<b>5.400 SHAFT</b>					P.F. WIDTH .536 & 7.625 FLANGE				
54001 HDDFBV1					7.250	1.187	55177	OILBATH	R
BELLEVILLE WASHERS (2 EA/KIT)					7.501	.563	55179	CRSH1	R
<b>5.512 SHAFT</b>					6.693	.591	562456	HMSA7	V

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## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>5.512 SHAFT (Cont.)</b>					<b>5.875 SHAFT (Cont.)</b>				
6.693	.591	55122	SCOTPLS	R	7.125	.500	▲ <b>58716</b>	† CRWH1	R
		SCOTSEAL PLUS			7.125	.500	<b>58717</b>	† CRWH1	V
<b>5.625 SHAFT</b>					7.125	.500	<b>58741</b>	† CRWHA1	R
	.875	<b>99560</b>	SSLEEVE		7.500	.500	▲ <b>58760</b>	† CRWH1	R
		SHAFT RANGE 5.621 - 5.629			7.641	1.510	58775	HDDF1	R
		56171	HDDFBV1	R	O.D. LISTED IS SEAL I.D.				
		BELLEVILLE WASHERS (2 EA/KIT)			<b>5.938 SHAFT</b>				
6.625	.500	▲ <b>56101</b>	† CRWH1	R	1.000		<b>99596</b>	SSLEEVE	
6.625	.500	<b>56102</b>	† CRWH1	V			SHAFT RANGE 5.934 - 5.942		
6.750	.750	56112	D5	VV	6.801	1.125	▲ <b>59380</b>	J2	R
6.875	.500	▲ <b>56136</b>	† CRWH1	R			SEE TYPE J SECTION (HMSA LIP)		
6.875	.500	<b>56137</b>	† CRWH1	V	7.000	.500	<b>59300</b>	† HDW1	R
7.125	.500	▲ <b>56160</b>	† CRWHA1	R	<b>6.000 SHAFT</b>				
7.250	1.366	56170	HDDF1	R	.500		210	KIT	V
O.D. LISTED IS SEAL I.D.							SEE KIT SECTION		
<b>5.688 SHAFT</b>					.500		<b>99601</b>	SSLEEVE	
	.035	450447	AXGSKT1				SHAFT RANGE 5.995 - 6.003		
8-.688 DIA BOLT HOLES					1.000		<b>99599</b>	SSLEEVE	
<b>5.734 SHAFT</b>							SHAFT RANGE 5.995 - 6.003		
	.563	<b>99562</b>	SSLEEVE		.687	.875	596161	CT3	R
SHAFT RANGE 5.726 - 5.734					BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT				
<b>5.750 SHAFT</b>					6.495	.281	709034	WS	R
	.813	<b>99575</b>	SSLEEVE		6.750	.437	59997	† SL1	T
		SHAFT RANGE 5.746 - 5.754			HELIX-CCW & INSTALLATION SLV				
6.375	.250	57502	HMA1	R	6.750	.500	<b>59999</b>	† CRWA1	V
6.625	.500	▲ <b>57505</b>	† CRWH1	R	6.750	.500	▲ <b>60000</b>	† CRW1	V
6.625	.500	<b>57506</b>	† CRW1	V	7.000	.625	595826	HSF1	R
6.750	.500	▲ <b>57510</b>	† CRWH1	R	7.002	.500	▲ <b>60006</b>	† CRSHA1	R
6.750	.500	<b>57522</b>	† CRWH1	V	7.126	.500	▲ <b>60012</b>	† CRWHA1	R
6.751	.500	<b>57509</b>	CRWHA1	R	7.126	.500	<b>60013</b>	† CRWHA1	V
6.876	.563	57519	CRSHA1	R	7.126	.563	★ 60004	CRSHA1	R
7.000	.500	▲ <b>57521</b>	† CRWH1	R	7.250	.500	<b>60009</b>	† HDW1	R
7.000	.500	<b>57523</b>	† CRWH1	V	7.500	.535	<b>60037</b>	HS8	R
7.000	.500	<b>57531</b>	† CRWHA1	R	7.500	.250	▲ <b>60075</b>	HM4	R
7.003	.250	57571	HMA21	R	7.500	.500	<b>60016</b>	† CRWA1	R
7.126	.563	57578	CRSHA1	R	7.500	.500	<b>60026</b>	† CRWHA1	V
7.202	.750	597304	HS6	R	7.500	.500	<b>60028</b>	† CRWHA1	R
7.502	.563	▲ <b>57584</b>	CRSHA1	R	7.702	.734	<b>595126</b>	HS8	R
<b>5.875 SHAFT</b>					<b>6.062 SHAFT</b>				
	1.000	<b>99587</b>	SSLEEVE		6.772	.551	60620	CRSA1	R
		SHAFT RANGE 5.871 - 5.879			<b>6.063 SHAFT</b>				
	1.000	99862	GSLEEVE		7.500	.500	<b>60650</b>	† HDW1	R
		SHAFT RANGE 5.871- 5.879			<b>6.125 SHAFT</b>				
		58776	HDDFBV1	R	7.125	.500	<b>61215</b>	† HDW1	R
		BELLEVILLE WASHERS (2 EA/KIT)			7.125	.550	▲ <b>61212</b>	† CRWA	V
.310		401502	VR3	R			P.F. WIDTH .500 & SS SPRING		
		SHAFT RANGE 5.710 - 6.100			7.125	.625	▲ <b>61210</b>	CRWH1	R
.310		401506	VR3	V	7.250	.500	<b>61230</b>	† HDW1	R
		SHAFT RANGE 5.710 - 6.100			7.375	.500	<b>61235</b>	† HDW1	R
.410		<b>401500</b>	VR1	R	7.502	.563	61248	CRSHA1	R
		SHAFT RANGE 5.710 - 6.100			7.625	.687	<b>HDL-1299-R</b>	HDL	R
.410		<b>401504</b>	VR1	V	7.625	.625	▲ <b>61255</b>	CRWH1	R
		SHAFT RANGE 5.710 - 6.100			7.625	.625	<b>61256</b>	CRWH1	P
.610		401501	VR2	R	<b>6.151 SHAFT</b>				
		SHAFT RANGE 5.710 - 6.100			7.865	.210	61500	SPLIT	R
.610		401505	VR2	V	<b>6.188 SHAFT</b>				
		SHAFT RANGE 5.710 - 6.100			7.500	.563	61840	CRSH1	P
6.875	.500	<b>58709</b>	† HDW1	R					
W/STAINLESS STEEL SPRING									
7.000	.500	<b>58710</b>	† HDW1	R					

Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>6.203 SHAFT</b>					<b>6.500 SHAFT (Cont.)</b>				
	.813	<b>99620</b>	SSLEEVE		7.500	.350	511193	HD1	D
			SHAFT RANGE 6.198 - 6.208					QUILL WIPER	
<b>6.204 SHAFT</b>					<b>6.614 SHAFT</b>				
7.330	.500	62000	†ALH1	S	7.638	.512	<b>594536</b>	HS8	D
<b>6.250 SHAFT</b>					<b>6.625 SHAFT</b>				
1.031		<b>99625</b>	SSLEEVE		.688	1.125	529489	CT1	R
			SHAFT RANGE 6.245 - 6.255		BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT				
	.310	401602	VR3	R	.688	1.125	594334	CT1	R
			SHAFT RANGE 6.100 - 6.500		BORE DIA. IS SHOULDER WIDTH				
	.310	401606	VR3	V	7.625	.500	<b>66217</b>	†HDW1	R
			SHAFT RANGE 6.100 - 6.500		7.750	.500	<b>66219</b>	†HDW1	R
	.275	401608	VR1-SPL	#	7.875	.500	<b>66222</b>	†HDW1	R
			SHAFT RANGE 6.100 - 6.500		8.000	.500	<b>66230</b>	†HDW1	R
	.470	<b>401600</b>	VR1	R	8.125	.500	▲ <b>66241</b>	CRWH1	R
			SHAFT RANGE 6.100 - 6.500		8.125	.875	594828	HDSA2	V
	.470	<b>401604</b>	VR1	V	<b>6.688 SHAFT</b>				
			SHAFT RANGE 6.100 - 6.500		1.250		<b>99640</b>	SSLEEVE	
	.710	401601	VR2	R				SHAFT RANGE 6.683 - 6.693	
			SHAFT RANGE 6.100 - 6.500		<b>6.750 SHAFT</b>				
	.710	401605	VR2	V	.813		<b>99675</b>	SSLEEVE	
			SHAFT RANGE 6.100 - 6.500					SHAFT RANGE 6.745 - 6.755	
1.000	1.437	595079	CT1	R			67561	HDDFBV1	R
			BORE DIA. IS SHOULDER WIDTH					BELLEVILLE WASHERS (2 EA/KIT)	
1.000	1.437	597334	CT1	R	.310		401702	VR3	R
			BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT					SHAFT RANGE 6.500 - 6.890	
7.250	.500	▲ <b>62480</b>	†HDW1	R	.310		401706	VR3	V
7.252	.500	▲ <b>62482</b>	CRWH1	R	.470		<b>401700</b>	VR1	R
7.500	.500	▲ <b>62495</b>	CRWH1	R				SHAFT RANGE 6.500 - 6.890	
7.500	.500	<b>62497</b>	CRWH1	V	.470		<b>401704</b>	VR1	V
7.750	.350	62530	X	R				SHAFT RANGE 6.500 - 6.890	
			O.D. LISTED IS PRESSFIT I.D.		.710		401701	VR2	R
7.750	.500	▲ <b>62535</b>	†CRWH1	R				SHAFT RANGE 6.500 - 6.890	
7.875	.625	<b>62572</b>	†CRWH1	R	.710		401705	VR2	V
<b>6.299 SHAFT</b>					<b>6.750 SHAFT</b>				
1.000		<b>99630</b>	SSLEEVE		7.750	.500	<b>67510</b>	†HDW1	R
			SHAFT RANGE 6.289 - 6.299		7.750	.625	67512	HDS1	V
<b>6.375 SHAFT</b>					7.750	.625	595389	HDS1	R
		63797	HDDFBV1	R	8.000	.625	<b>592519</b>	HS8	R
			BELLEVILLE WASHERS (2 EA/KIT)		8.000	.625	<b>595014</b>	HS8	V
7.000	.063	451066	BUW	#	8.000	.500	▲ <b>67515</b>	†CRWH1	R
7.000	.313	711852	BV	D	8.125	.750	<b>595762</b>	HS8	R
7.000	.313	712550	BV	V	8.250	.750	<b>594890</b>	HS8	R
7.000	.313	★721547	BV	V	8.250	.500	▲ <b>67533</b>	CRWH1	R
7.375	.625	▲ <b>63700</b>	†CRWH1	R	8.419	1.563	<b>67540</b>	†CRWH19	R
7.500	.500	<b>63717</b>	†HDW1	R				W/SLINGER	
7.875	.563	▲ <b>63734</b>	†CRWHA1	R	8.620	1.375	67560	HDDF1	R
7.875	.625	<b>63733</b>	CRWH1	R				O.D. LISTED IS SEAL I.D.	
8.120	1.265	63796	HDDF1	R	8.750	.500	<b>67600</b>	†HDW1	R
			O.D. LISTED IS SEAL I.D.		<b>6.875 SHAFT</b>				
<b>6.438 SHAFT</b>					8.125	.625	<b>595206</b>	HS8	R
7.500	.500	<b>64330</b>	†HDW1	R	8.250	.500	<b>68730</b>	†HDW1	R
7.688	.625	594760	HS7	R	8.375	.750	595958	HS7	R
7.688	.625	<b>596043</b>	HS5	R	8.375	.500	▲ <b>68745</b>	CRWH1	R
7.688	.625	<b>596362</b>	HS8	R	<b>6.500 SHAFT</b>				
			SHAFT RANGE 6.495 - 6.505		1.000		<b>99650</b>	SSLEEVE	
			SHAFT RANGE 6.495 - 6.505					SHAFT RANGE 6.495 - 6.505	
7.500	.625	527301	HS7	R				SHAFT RANGE 6.495 - 6.505	

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**Bold numbers** are preferred designs

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 ▲ WasteWatcher numbers



## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>6.875 SHAFT (Cont.)</b>					<b>7.125 SHAFT</b>				
8.500	.500	<b>68760</b>	†HDW1	R	8.125	.500	<b>595761</b>	HS5	R
<b>6.890 SHAFT</b>					8.250	.750	<b>HDL-3011-R</b>	HDL	R
	1.102	<b>99687</b>	SSLEEVE		8.250	.500	<b>71220</b>	†HDW1	R
			SHAFT RANGE 6.880 - 6.890		8.625	.625	▲ <b>71245</b>	CRWH1	R
<b>6.938 SHAFT</b>					<b>7.188 SHAFT</b>				
9.000	.625	596465	HDS1	V	8.640	.625	595323	HS7	R
9.000	.625	596556	HDS1	V	8.640	.625	<b>595643</b>	HS5	R
<b>7.000 SHAFT</b>					8.640	.625	<b>596128</b>	HDS2	R
	1.000	<b>99700</b>	SSLEEVE		<b>7.250 SHAFT</b>				
			SHAFT RANGE 6.995 - 7.005			1.250	<b>99725</b>	SSLEEVE	
	.310	401802	VR3	R				SHAFT RANGE 7.244 - 7.254	
			SHAFT RANGE 6.890 - 7.290				450158	AXGSKT1	
	.310	401806	VR3	V				10-.656 DIA BOLT HOLES	
			SHAFT RANGE 6.890 - 7.290		8.250	.500	<b>595012</b>	HS8	R
	.470	<b>401800</b>	VR1	R	8.250	.625	▲ <b>72515</b>	CRW1	R
			SHAFT RANGE 6.890 - 7.290		8.250	.500	528377	HS7	R
	.470	<b>401804</b>	VR1	V	8.750	.625	<b>595348</b>	HDS2	R
			SHAFT RANGE 6.890 - 7.290		8.750	.625	<b>72510</b>	HDS2	V
	.710	401801	VR2	R	8.750	.625	▲ <b>72539</b>	†CRWHA1	R
			SHAFT RANGE 6.890 - 7.290		8.750	.750	<b>72542</b>	CRWH1	P
	.710	401805	VR2	V	8.750	.625	595617	HDS1	V
			SHAFT RANGE 6.890 - 7.290					W/4 EA .250 LUGS	
		450155	AXGSKT1		8.750	.625	72543	HDS1	V
			8-.688 DIA BOLT HOLES		8.750	.875	72594	HDSA2	VD
1.063	1.500	523586	CT1	R	9.055	.625	▲ <b>72570</b>	†CRWHA1	R
			BORE DIA. IS SHOULDER WIDTH		<b>7.283 SHAFT</b>				
1.063	1.500	594648	CT1	R	8.850	.625	<b>72805</b>	HDS2	R
			BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT		<b>7.375 SHAFT</b>				
8.000	.500	<b>595093</b>	HS8	V	8.000	.063	451096	BUW	#
8.000	.500	<b>70008</b>	HS8	D	8.000	.313	711853	BV	D
8.000	.630	▲ <b>70016</b>	†CRWH1	R	8.000	.313	721548	BV	V
8.250	.625	594768	HS6	R	8.375	.500	<b>73720</b>	†HDW1	R
			W/HOOK & EYE SPRING CONNECTOR		8.500	.500	<b>73730</b>	†HDW1	R
8.250	.625	▲ <b>70028</b>	CRWH1	R	8.875	.625	▲ <b>73745</b>	CRWH1	R
8.250	.625	594744	HDS1	R	<b>7.438 SHAFT</b>				
8.375	.625	<b>594975</b>	HS8	R			74311	HDDFBV1	R
8.375	.688	<b>594972</b>	HS8	R				BELLEVILLE WASHERS (2 EA/KIT)	
8.375	.625	70034	CRSHA1	R	8.438	.500	<b>594508</b>	HS8	V
8.375	1.000	70037	KIT	P	9.400	1.656	74310	HDDF1	R
			SEE KIT SECTION					O.D. LISTED IS SEAL I.D.	
8.500	.750	594846	HS6	R	<b>7.453 SHAFT</b>				
			W/HOOK & EYE SPRING CONNECTOR			.813	<b>99745</b>	SSLEEVE	
8.500	.350	511220	HD1	D				SHAFT RANGE 7.444 - 7.454	
			QUILL WIPER		8.500	.750	▲ <b>74540</b>	†ALH1	S
8.500	.500	<b>70080</b>	†CRWA1	R	<b>7.480 SHAFT</b>				
8.500	.625	<b>595267</b>	HDS2	R	8.480	.500	<b>594211</b>	HS8	D
8.500	.625	▲ <b>70052</b>	†CRWH1	R	8.858	.630	<b>74814</b>	HMSA7	V
8.500	.625	<b>70053</b>	†CRWHA1	R				W/STAINLESS STEEL SPRING	
8.500	.625	<b>70054</b>	†CRWHA1	V	<b>7.500 SHAFT</b>				
8.500	.625	70055	HDS1	V		.813	<b>99750</b>	SSLEEVE	
<b>7.025 SHAFT</b>								SHAFT RANGE 7.495 - 7.505	
8.500	.625	<b>596076</b>	HDS2	V		.310	401902	VR3	R
<b>7.086 SHAFT</b>								SHAFT RANGE 7.290 - 7.680	
	.688	.876	595109	CT3		.310	401906	VR3	V
				R				SHAFT RANGE 7.290 - 7.680	
						.470	<b>401900</b>	VR1	R
<b>7.087 SHAFT</b>								SHAFT RANGE 7.290 - 7.680	
	1.299	<b>99721</b>	SSLEEVE		<b>7.500 SHAFT</b>				
			SHAFT RANGE 7.077 - 7.087			.813	<b>99750</b>	SSLEEVE	
8.087	.500	<b>594341</b>	HS8	V				SHAFT RANGE 7.495 - 7.505	

Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>7.500 SHAFT (Cont.)</b>					<b>7.875 SHAFT (Cont.)</b>				
	.470	<b>401904</b>	VR1	V		.790	<b>402000</b>	VR1	R
			SHAFT RANGE 7.290 - 7.680					SHAFT RANGE 7.480 - 8.270	
	.710	401901	VR2	R		.790	<b>402004</b>	VR1	V
			SHAFT RANGE 7.290 - 7.680					SHAFT RANGE 7.480 - 8.270	
	.710	401905	VR2	V	8.875	.500	<b>78710</b>	† HDW1	R
			SHAFT RANGE 7.290 - 7.680		9.250	1.000	▲ <b>78725</b>	CRWHA1	R
1.918	75090	J1-KIT		R	9.375	.687	<b>HDL-9176-R</b>	HDL	R
		SEE TYPE J SECTION (CRW LIP)			9.375	.625	<b>595145</b>	HDS2	D
8.500	.625	<b>75038</b>	HS8	R			W/SPARK FREE I.D.		
			W/HOOK & EYE SPRING CONNECTOR		9.375	.625	595475	HDS1	V
8.500	.625	▲ <b>75030</b>	CRWH1	R	9.375	.625	▲ <b>78738</b>	CRWH1	R
8.750	.625	<b>595822</b>	HS5	D	9.375	1.281	595063	HDSE1	RR
8.750	.500	<b>75046</b>	† HDW1	R	9.500	.625	<b>596079</b>	HDS2	V
8.750	.625	75048	HDS1	V	10.234	.625	<b>78790</b>	HDS2	R
9.000	.625	▲ <b>75050</b>	† CRWH1	R	<b>7.938 SHAFT</b>				
9.000	.625	<b>75052</b>	† CRWHA1	P		1.000	<b>99799</b>	SSLEEVE	
9.000	.625	75053	HDS1	V				SHAFT RANGE 7.933 - 7.943	
9.000	.750	<b>75054</b>	HDS2	V	8.750	.344	<b>79302</b>	HM14	R
9.250	.500	<b>75069</b>	† HDW1	R	9.125	.500	<b>79620</b>	† HDW1	R
9.250	.625	75067	HDS1	V	9.500	.625	<b>596078</b>	HDS2	V
<b>7.625 SHAFT</b>					9.500	.625	<b>596207</b>	HDS2	R
8.625	.563	▲ <b>76215</b>	CRWH1	R	<b>8.000 SHAFT</b>				
8.875	.625	<b>595207</b>	HS8	R		1.000	<b>99800</b>	SSLEEVE	
8.875	.500	<b>76225</b>	† HDW1	R				SHAFT RANGE 7.995 - 8.005	
9.125	.625	▲ <b>76255</b>	CRWH1	R	1.500		87577	LDSL4	
<b>7.680 SHAFT</b>								FOR SEAL SH SIZE 8.188	
9.250	.500	<b>596425</b>	HS8	R		.310	402002	VR3	R
			W/HOOK & EYE SPRING CONNECTOR			.310	402006	VR3	V
<b>7.750 SHAFT</b>								SHAFT RANGE 7.680 - 8.270	
	1.000	<b>99775</b>	SSLEEVE			.470	<b>401990</b>	VR1	R
			SHAFT RANGE 7.745 - 7.755					SHAFT RANGE 7.680 - 8.270	
8.750	.500	<b>529601</b>	HS8	R		.470	<b>401994</b>	VR1	V
8.750	.625	<b>595813</b>	HS5	D				SHAFT RANGE 7.680 - 8.270	
8.750	.500	<b>77506</b>	† HDW1	R		.710	401991	VR2	R
9.000	.625	77531	HDS1	R				SHAFT RANGE 7.680 - 8.270	
9.250	.625	<b>595146</b>	HDS2	D		.710	401995	VR2	V
			W/SPARK FREE I.D.					SHAFT RANGE 7.680 - 8.270	
9.250	.625	595474	HDS1	V	.688	.875	528035	CT3	R
9.250	1.250	596375	HDSE2	VV				BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT	
9.250	.625	77539	HDS1	V	.688	.875	528745	CT3	R
9.250	.625	▲ <b>77540</b>	CRWH1	R				BORE DIA. IS SHOULDER WIDTH	
<b>7.800 SHAFT</b>					9.000	.500	<b>595022</b>	HS8	V
		78021	HDDFBV1	R	9.000	.625	<b>594935</b>	HS8	V
10.000	1.750	78020	HDDF1	R	9.000	.350	511195	HD1	D
<b>7.813 SHAFT</b>								QUILL WIPER	
	2.250	85106	LDSL4		9.000	.625	▲ <b>79960</b>	CRWH1	R
		FOR SEAL SH SIZE 8.000	(203.20MM)		9.000	.625	<b>79961</b>	CRWHA1	R
<b>7.835 SHAFT</b>					9.250	.625	<b>592376</b>	HS8	R
9.500	.625	<b>596080</b>	HDS2	V	9.250	.625	77996	HDS1	V
<b>7.874 SHAFT</b>					9.250	.625	▲ <b>79997</b>	CRWH1	R
9.055	.625	<b>531194</b>	HDS2	R	9.250	.625	<b>79998</b>	† CRWHA1	R
9.252	.591	<b>78760</b>	HMSA7	R	9.375	.750	595732	HDS1	R
			W/STAINLESS STEEL SPRING		9.500	.625	<b>595404</b>	HS5	R
<b>7.875 SHAFT</b>					9.500	.687	<b>HDL-3921-R</b>	HDL	R
	1.359	<b>99787</b>	SSLEEVE		9.500	.350	511196	HD1	D
			SHAFT RANGE 7.869 - 7.879					QUILL WIPER	
					9.500	.625	596567	HDS7	H
					9.500	.625	▲ <b>80010</b>	† CRWH1	R
					9.500	.687	<b>80009</b>	HDS2	V
					9.750	.750	<b>595036</b>	HDS2	V
					9.750	.750	80030	HDS1	V

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## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>8.000 SHAFT (Cont.)</b>					<b>8.250 SHAFT (Cont.)</b>				
10.000	.688	<b>595888</b>	HS8	R	9.500	.625	<b>593342</b>	HS8	R
			W/HOOK & EYE SPRING CONNECTOR					W/HOOK & EYE SPRING CONNECTOR	
10.000	.750	590326	HS7	R	9.500	.625	595675	HDS1	R
10.000	.750	595326	HS6	R	9.500	.578	▲ <b>82521</b>	CRW1	R
10.000	.750	<b>595327</b>	HS8	R	9.500	.625	592723	HDS1	R
			W/HOOK & EYE SPRING CONNECTOR					W/4 EA .125 LUGS	
10.000	1.375	595437	HDSE2	R	9.500	.625	<b>592835</b>	HDS2	R
			W/8 EA LUBE HOLE					W/4 EA .125 LUGS	
10.000	.625	★ <b>80037</b>	† CRWH1	R	9.500	.625	<b>592942</b>	HDS2	D
10.000	.625	<b>80038</b>	CRWHA1	R	9.500	.625	<b>82524</b>	HDS2	R
10.000	.625	80086	HDS3	D	9.500	.625	<b>82526</b>	HDS2	V
			W/4 EA .500 ADJ. LUGS		9.500	.875	592780	HDS1	R
10.000	.688	590725	HDS1	R	9.750	.625	590720	HDS1	R
10.000	.750	590463	HDS1	R	10.000	.750	590729	HDS1	R
10.000	.750	<b>590726</b>	HDS2	R	10.000	.750	<b>593511</b>	HDS2	R
			W/3 EA .125 LUGS		10.062	1.560	82540	HDDF1	R
10.000	.750	<b>593446</b>	HDS2	R					
10.000	.750	80087	HDS1	R	10.250	.750	591929	HS7	R
			W/3 EA .125 LUGS		10.250	.750	<b>592556</b>	HS8	R
10.000	.875	591977	HDSA1	RD				W/HOOK & EYE SPRING CONNECTOR	
10.000	.875	<b>592493</b>	HDS2	D	10.250	.812	<b>HDL-4499-R</b>	HDL	R
10.000	.906	592161	HDSB1	RD	10.250	.625	<b>82559</b>	HDS2	V
10.000	1.000	592328	HDSB1	RD	10.250	.625	▲ <b>82560</b>	CRWH1	R
10.000	1.000	80088	HDS1	R	10.250	.688	590252	HDS1	R
10.000	1.000	80091	HDS1	V	10.250	.750	<b>593644</b>	HDS2	D
10.000	1.125	592075	HDSA2	RD	10.250	.750	82561	HDS3	D
10.000	1.250	590727	HSC1	RD				W/4 EA .500 ADJ. LUGS	
10.000	1.250	592336	HDSA1	RD	10.250	.750	82562	HDS1	R
10.002	1.000	590733	HDSB1	RD	10.250	.750	82563	HDS1	V
10.125	1.250	80092	HDSB1	RD	10.250	.813	590237	HDS1	R
11.000	1.000	592982	HDS1	R	10.250	.813	<b>82555</b>	HDS2	V
11.625	1.079	80097	CRSHA2	R	10.250	.875	590741	HDS1	R
					10.250	.875	591921	HDSB1	RD
<b>8.063 SHAFT</b>					10.250	1.000	590358	HDS1	R
10.062	1.000	590376	HDS1	R	10.250	1.250	590357	HDSB1	RD
10.190	.875	592826	HDS1	R	10.250	1.750	592380	HDSE1	RR
<b>8.071 SHAFT</b>					10.385	.875	593434	HDS1	R
9.843	.630	596346	HDS1	R	10.500	.875	590750	HDS1	R
<b>8.125 SHAFT</b>					11.500	.750	593344	HDS3	D
9.378	.625	593198	HDS1	R				W/4 EA .500 ADJ. LUGS	
10.000	.625	<b>593239</b>	HDS2	R	11.500	.750	<b>595376</b>	HDS2	D
10.125	.625	593340	HDS3	D	11.500	.750	82570	HDS1	R
			W/4 EA .500 ADJ. LUGS		<b>8.313 SHAFT</b>				
10.125	.625	▲ <b>81245</b>	CRWH1	R	1.250	85885		LDSL4	
10.125	.625	<b>81246</b>	CRWHA1	R	FOR SEAL SH SIZE 8.500			(215.90MM)	
10.125	.750	590312	HDS1	R	2.000	85995		LDSL4	
10.125	.750	81252	HDS1	V	FOR SEAL SH SIZE 8.500			(215.90MM)	
10.125	1.000	81253	HDS1	R	<b>8.319 SHAFT</b>				
10.135	.750	592800	HDS1	R	2.500	87923		LDSL4	
10.250	.875	590739	HDS1	R	FOR SEAL SH SIZE 8.507				
<b>8.188 SHAFT</b>					<b>8.345 SHAFT</b>				
10.000	.750	<b>595328</b>	HDS2	R	10.750	1.250	594186	HDS1	R
10.188	1.000	592707	HDS1	R	<b>8.353 SHAFT</b>				
<b>8.250 SHAFT</b>					1.500	86907		LDSL4	
			HDDFBV1	R	FOR SEAL SH SIZE 8.541			(216.94MM)	
.688	1.125	82541	CT1	R	<b>8.375 SHAFT</b>				
		527820		R	9.625	.625	592092	HS7	R
			BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT		9.750	.750	596198	HDS7	R
9.250	.625	▲ <b>82510</b>	CRWH1	R	9.750	.625	83702	HDS3	D
9.252	.500	▲ <b>82512</b>	† CRWH1	R				W/4 EA .500 ADJ. LUGS	
9.500	.625	592180	HS7	R					

Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>8.375 SHAFT (Cont.)</b>					<b>8.500 SHAFT (Cont.)</b>				
9.750	.750	523886	HDS1	R	10.500	.625	<b>593392</b>	HS8	R
9.750	.750	<b>83701</b>	HDS2	V			W/HOOK & EYE SPRING CONNECTOR		
9.875	.687	<b>HDL-3933-R</b>	HDL	R	10.500	.625	<b>595493</b>	HS8	H
9.875	.687	596111	HDS1	R			W/HOOK & EYE SPRING CONNECTOR		
9.875	.625	83705	HDS3	D	10.500	.750	590578	HS7	R
		W/4 EA .500 ADJ. LUGS			10.500	.750	<b>590848</b>	HS8	R
10.375	.750	592830	HS7	R	10.500	.625	<b>594967</b>	HDS2	V
10.375	.750	<b>593346</b>	HS8	R	10.500	1.000	594902	HDSA2	VD
		W/HOOK & EYE SPRING CONNECTOR			10.500	.625	85013	HDS3	D
10.375	.750	591978	HDS1	R			W/4 EA .500 ADJ. LUGS		
10.375	.750	593345	HDS3	D	10.500	.625	★ <b>85014</b>	CRWA1	R
		W/4 EA .500 ADJ. LUGS			10.500	.625	▲ <b>85015</b>	CRWH1	R
10.375	1.000	590746	HDS1	R	10.500	.625	85018	HDS1	V
10.500	.875	593212	HDS1	R	10.500	.688	590751	HDS1	R
10.625	.875	590765	HDS1	R	10.500	.688	<b>85017</b>	HDS2	R
<b>8.438 SHAFT</b>							W/4 EA .125 LUGS		
10.000	.625	84369	HDS1	R	10.500	.750	592572	HDS1	R
10.000	.625	84385	HDS1	V	10.500	.875	592488	HDSA1	RD
10.438	.875	590465	HDS1	R	10.500	.875	592798	HDSA1	VD
<b>8.500 SHAFT</b>					10.500	1.000	590244	HDS1	R
							W/4 EA .188 LUGS		
	1.000	85158	LDSL3		10.500	1.000	590754	HDS1	R
		FOR SEAL SH SIZE 8.688	(220.68MM)		10.500	1.000	592149	HDSB1	RD
	2.125	86167	LDSL3		10.500	1.125	590755	HDSA1	RD
		FOR SEAL SH SIZE 8.688	(220.68MM)		10.500	1.250	590245	HDSA1	RD
.813	1.000	594343	CT3	R	10.500	1.250	590756	HDS1	R
		BORE DIA. IS SHOULDER WIDTH	W/BUTT JOINT		10.500	1.250	590757	HDS01	RR
9.500	.500	594503	HS7	V	10.625	.625	▲ <b>85085</b>	CRWHA1	R
9.500	.500	<b>594745</b>	HS8	V	<b>8.540 SHAFT</b>				
9.750	.562	<b>HDL-1705-R</b>	HDL	R	9.750	.625	<b>593855</b>	HDS2	D
9.750	.625	595304	HS7	R	<b>8.625 SHAFT</b>				
9.750	.625	<b>595457</b>	HS8	R			2.750	85643	LDSL3
		W/HOOK & EYE SPRING CONNECTOR					FOR SEAL SH SIZE 8.813	(223.85MM)	
9.750	.750	HDLA-3066-R	HDLA	R	.688	1.125	529490	CT1	R
9.750	.870	595513	HDSA2	D			BORE DIA. IS SHOULDER WIDTH	W/BUTT JOINT	
9.750	.625	593020	HDS1	R	10.000	.625	593907	HDS1	R
9.750	.625	<b>593768</b>	HDS2	D	10.000	.750	590732	HDS1	R
9.750	.625	595279	HDS1	D	10.125	.609	513529	HS9	R
		W/ LT. SPRING			10.125	.609	<b>595566</b>	HS5	R
9.750	.625	▲ <b>85002</b>	† CRWH1	R	10.125	.625	592404	HS7	R
10.000	.500	<b>592631</b>	HS8	R	10.125	.687	<b>HDL-3939-R</b>	HDL	R
10.000	.500	<b>594941</b>	HS8	D	10.125	.750	592217	HS7	R
10.000	.625	<b>594318</b>	HS8	R	10.125	.625	86225	HDS3	D
10.000	.687	<b>HDL-8453-R</b>	HDL	R			W/4 EA .500 ADJ. LUGS		
10.000	.625	595473	HDS1	V	10.125	.688	590735	HDS1	R
10.000	.875	596196	HDSA1	V	10.125	.750	592206	HDS1	R
10.000	.625	590503	HDS1	R	10.250	.625	86230	HDS3	D
10.000	.625	<b>593740</b>	HDS2	D			W/4 EA .500 ADJ. LUGS		
10.000	.625	<b>593782</b>	HDS2	R	10.250	.750	592661	HDS1	R
10.000	.625	596415	HDS7	R	10.500	.750	590758	HDS1	R
10.000	.625	85007	HDS3	D	10.500	.750	86235	HDS1	V
		W/4 EA .500 ADJ. LUGS			10.625	.625	593350	HDS3	D
10.000	.625	▲ <b>85009</b>	CRWH1	R			W/4 EA .500 ADJ. LUGS		
10.000	.625	85019	HDS1	V	10.625	.625	▲ <b>86260</b>	CRWH1	R
10.000	.688	590730	HDS1	R	10.625	.688	590766	HDS1	R
10.000	.688	85008	HDS1	R	10.625	.750	<b>592358</b>	HDS2	R
		W/6 EA .063 LUGS			10.625	.750	592433	HDS1	R
10.000	.750	592480	HDS1	R	10.625	.750	86240	HDS1	V
10.000	.750	<b>85012</b>	HDS2	V	10.625	.750	86240	HDS1	V
10.000	1.000	590731	HDSA1	RD	10.625	1.000	592652	HDS1	R
10.000	1.250	595527	HDS01	DD	10.750	.875	592576	HDS1	R
		W/LUBE HOLES ON O.D.			10.750	1.000	591939	HDS1	R
10.500	.625	<b>592692</b>	HS8	R	11.750	1.000	590828	HDS1	R
10.500	.625	593349	HS7	R					

★Contact manufacturer for availability  
**Bold numbers** are preferred designs

† Includes Bore-Tite on O.D.  
 ▲ WasteWatcher numbers

## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>8.653 SHAFT</b>					<b>8.750 SHAFT (Cont.)</b>				
10.039	.630	596174	HDS1	R	10.250	.875	594333	HDSC1	RD
<b>8.661 SHAFT</b>					10.500	.750	590448	HDS1	R
	1.000	87319	LDSL4		10.500	.750	87496	HDS1	V
	FOR SEAL SH SIZE 8.849		(224.77MM)		10.625	.750	592428	HDS1	R
	1.181	87143	LDSL4		10.625	.750	<b>593975</b>	HDS2	R
	FOR SEAL SH SIZE 8.850		(224.79MM)		10.750	.625	▲ <b>87541</b>	CRWH1	R
	.787	<b>402200</b>	VR1	R	10.750	.750	592483	HDS1	R
	SHAFT RANGE 8.268 - 9.252				10.750	.750	593353	HDS3	D
9.661	.500	596054	HS6	V	W/4 EA .500 ADJ. LUGS				
	W/HOOK & EYE SPRING CONNECTOR				10.750	.750	87499	HDS1	V
9.843	.630	<b>86607</b>	HMSA7	V	10.750	.875	590769	HDS1	R
	W/STAINLESS STEEL SPRING				10.750	.875	592492	HDSA1	RD
9.911	.625	<b>86612</b>	HS8	V	10.750	1.000	590770	HDS1	R
10.228	.625	<b>86610</b>	HDS2	R	10.750	1.375	592327	HDSE1	RR
10.819	.950	590778	HDS1	R	10.750	1.750	590773	HDSE1	RR
<b>8.662 SHAFT</b>					<b>8.812 SHAFT</b>				
	2.250	87707	LDSL3		2.000	86551	LDSL4		
	FOR SEAL SHAFT SIZE 8.850				FOR SEAL SH SIZE 9.000 (228.60MM)				
<b>8.687 SHAFT</b>					<b>8.813 SHAFT</b>				
	2.250	86543	LDSL3		1.000	85688	LDSL3		
	FOR SEAL SH SIZE 8.875 (225.43MM)				FOR SEAL SH SIZE 9.000 (228.60MM)				
<b>8.688 SHAFT</b>					2.250	85920	LDSL3		
		86851	HDDFBV1	R	FOR SEAL SH SIZE 9.000 (228.60MM)				
10.500	.625	593487	HDS1	R	2.250	85999	LDSL4		
10.911	1.924	86850	HDDF1	R	FOR SEAL SH SIZE 9.000 (228.60MM)				
<b>8.750 SHAFT</b>					9.375	.250	528232	HD1	D
	1.500	87196	LDSL3		QUILL WIPER				
	FOR SEAL SH SIZE 8.938		(227.03MM)		10.125	.625	596233	HDS3	D
	.310	402202	VR3	R	W/4 EA .500 ADJ. LUGS				
	SHAFT RANGE 8.270 - 9.170				<b>8.858 SHAFT</b>				
	.310	402206	VR3	V	11.016	.906	592795	HDS1	R
	SHAFT RANGE 8.270 - 9.170				<b>8.866 SHAFT</b>				
	.790	<b>402204</b>	VR1	V	2.500	87166	LDSL4		
	SHAFT RANGE 8.270 - 9.250				FOR SEAL SHAFT SIZE 9.054				
9.750	.500	<b>87440</b>	HS8	V	2.500	87524	LDSL4		
9.750	.350	511501	HD1	D	FOR SEAL SH SIZE 9.055				
	QUILL WIPER				<b>8.867 SHAFT</b>				
10.000	.625	590723	HS7	R	1.000	87462	LDSL4		
10.000	.625	<b>592627</b>	HS8	R	FOR SEAL SH SIZE 9.055				
10.000	.625	<b>593393</b>	HS8	R	<b>8.875 SHAFT</b>				
	W/HOOK & EYE SPRING CONNECTOR				1.250	85973	LDSL3		
10.000	.625	<b>595042</b>	HS8	D	FOR SEAL SH SIZE 9.063 (230.20MM)				
10.000	.625	★ 87460	† HMS1	R	1.250	87526	LDSL4		
10.000	.750	594939	HDS1	V	FOR SEAL SH SIZE 9.063				
10.000	.625	590408	HDS1	R	.688	.875	524375	CT3	R
10.000	.625	<b>592626</b>	HDS2	R	BORE DIA. IS SHOULDER WIDTH				
10.000	.625	593351	HDS3	D	.688	.875	530096	CT3	R
	W/4 EA .500 ADJ. LUGS				BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT				
10.250	.609	518386	HS9	R	10.125	.625	592458	HS7	R
10.250	.687	<b>HDL-3946-R</b>	HDL	R	10.125	.625	<b>592459</b>	HS8	R
10.250	.625	594934	HDS1	R	10.125	.625	<b>593394</b>	HS8	R
10.250	.625	87490	HDS3	D	W/HOOK & EYE SPRING CONNECTOR				
	W/4 EA .500 ADJ. LUGS				10.125	.875	595127	HDSA2	DD
10.250	.625	<b>87492</b>	HDS2	V	10.125	.625	592289	HDS1	R
10.250	.688	593352	HDS3	D	10.125	.625	<b>593779</b>	HDS2	D
	W/4 EA .500 ADJ. LUGS				10.125	.625	▲ <b>88710</b>	CRWH1	R
10.250	.688	87491	HDS1	R	10.125	.750	88702	HDS1	R
10.250	.688	87493	HDS1	V	10.375	.625	<b>596061</b>	HS8	V
10.250	.750	590546	HDS1	R					

Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>8.875 SHAFT (Cont.)</b>					<b>9.000 SHAFT (Cont.)</b>				
10.375	.750	<b>592991</b>	HS8	R	10.500	.625	<b>594641</b>	HS5	R
10.875	.625	88706	HDS1	V	10.500	.687	<b>HDL-3954-R</b>	HDL	R
10.875	.625	▲ <b>88760</b>	CRWH1	R	10.500	.750	<b>592600</b>	HS8	R
10.875	.750	590780	HDS1	R	10.500	.750	<b>595536</b>	HS8	D
10.875	.750	593354	HDS3	D	10.500	.750	<b>595718</b>	HDS2	R
		W/4 EA .500 ADJ. LUGS					W/4 EA .250 LUGS		
10.875	.875	591984	HDSA1	RD	10.500	.625	<b>593138</b>	HDS2	D
10.875	1.000	590781	HDS1	R	10.500	.625	<b>593743</b>	HDS2	R
11.000	.875	592650	HDS1	R	10.500	.625	<b>90020</b>	HDS2	V
11.000	.875	593355	HDS3	D	10.500	.625	90022	HDS1	V
		W/4 EA .500 ADJ. LUGS			10.500	.625	90023	HDS1	R
11.250	.875	592464	HDSA1	RD	10.500	.625	90027	HDS3	D
<b>8.900 SHAFT</b>					<b>9.000 SHAFT (Cont.)</b>				
10.625	.625	595752	HDS1	R	10.500	.688	590761	HDS1	R
<b>8.938 SHAFT</b>					10.500	.750	90024	HDS1	R
2.500		86546	LDSL4		10.500	.875	597343	HDSA1	RD
		FOR SEAL SH SIZE 9.126	(231.80MM)		10.625	.625	592214	HDS1	R
.688	1.125	531635	CT1	R	10.674	.703	<b>592779</b>	HS8	R
		BORE DIA. IS SHOULDER WIDTH			10.750	.750	590774	HDS1	R
9.938	.625	595004	HS7	R	10.750	.250	596227	HD1	D
<b>9.000 SHAFT</b>							QUILL WIPER		
1.000		87555	LDSL3		11.000	.625	<b>593362</b>	HS8	R
		FOR SEAL SH SIZE 9.188					W/HOOK & EYE SPRING CONNECTOR		
1.750		85846	LDSL4		11.000	.750	<b>595438</b>	HDS2	H
		FOR SEAL SH SIZE 9.188	(233.38MM)		11.000	1.000	594903	HDSA2	VD
.688	1.125	524204	CT1	R	11.000	.625	▲ <b>90036</b>	CRWH1	R
		BORE DIA. IS SHOULDER WIDTH			11.000	.625	90062	HDS3	D
.688	1.125	527819	CT1	R			W/4 EA .500 ADJ. LUGS		
		BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT			11.000	.625	90065	HDS1	V
10.000	.500	<b>590419</b>	HS8	R	11.000	.750	<b>590787</b>	HDS2	R
10.000	.500	590724	HS7	R	11.000	.750	90063	HDS1	R
10.000	.625	590492	HS7	R	11.000	.750	90066	HDS1	V
10.000	.625	<b>593357</b>	HS8	R	11.000	.750	<b>90067</b>	HDS2	V
		W/HOOK & EYE SPRING CONNECTOR			11.000	.875	<b>590788</b>	HDS2	D
10.000	.750	HDLA-3031-R HDLA		R	11.000	1.000	90064	HDS1	R
10.000	.625	▲ <b>90006</b>	CRWH1	R	11.000	1.250	592028	HSDS1	RR
10.125	.625	<b>594829</b>	HS8	R	11.000	1.250	594007	HSDS1	VV
10.125	.625	<b>595683</b>	HS8	R	11.054	.750	592714	HDS1	R
10.125	.750	590738	HDS1	R	11.062	.750	592914	HDS1	R
10.187	.625	<b>595485</b>	HDS2	V	11.250	.875	592654	HDS1	R
10.187	.625	<b>592514</b>	HDS2	R	11.500	1.000	590811	HDS1	R
10.250	.625	592581	HS7	R	<b>9.016 SHAFT</b>				
10.250	.625	<b>593395</b>	HS8	R	10.236	.625	<b>593460</b>	HS8	R
		W/HOOK & EYE SPRING CONNECTOR			<b>9.048 SHAFT</b>				
10.250	.625	<b>595248</b>	HS8	V	10.630	.625	<b>90056</b>	HDS2	V
10.250	.625	<b>593729</b>	HDS2	D	<b>9.055 SHAFT</b>				
		W/4 EA .500 LUGS			1.000		89943	LDSL3	
10.250	.625	90018	HDS3	D			FOR SEAL SH SIZE 9.243		
		W/4 EA .500 ADJ. LUGS			1.575		85881	LDSL4	
10.250	.625	90019	HDS1	R			FOR SEAL SH SIZE 9.243	(234.77MM)	
10.250	.750	592669	HDS1	D	2.500		87089	LDSL4	
10.250	.750	90017	HDS1	R			FOR SEAL SH SIZE 9.243	(234.77MM)	
10.250	.875	90054	HDSA2	VD	10.236	.591	596394	HDS1	V
10.375	.625	590062	HDS1	R	10.621	.630	592683	HDS1	R
10.375	.750	590622	HDS1	R	<b>9.063 SHAFT</b>				
10.498	.750	596199	HDS7	R	1.500		85931	LDSL4	
		W/4 EA .250 LUGS					FOR SEAL SH SIZE 9.250	(234.95MM)	
10.498	.750	596200	HDS7	R	10.300	.625	595189	HDS1	R
10.500	.609	510966	HS9	R	10.750	.625	593302	HDS1	R
10.500	.625	528720	HS7	R	11.214	1.257	595276	HSDS2	DD
10.500	.625	<b>593396</b>	HS8	R	11.214	1.000	592580	HDSA1	RD
		W/HOOK & EYE SPRING CONNECTOR							

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**Bold numbers** are preferred designs

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 ▲ WasteWatcher numbers



## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>9.125 SHAFT</b>					<b>9.250 SHAFT (Cont.)</b>				
	1.000	86547	LDSL4		11.000	.750	593368	HDS3	D
	FOR SEAL SH SIZE 9.313 (236.55MM)						W/4 EA .500 ADJ. LUGS		
	1.500	90130	LDSL4		11.000	1.375	590791	HSD1	RR
	FOR SEAL SHAFT SIZE 9.313				11.000	1.375	592452	HDSA1	RD
10.375	.625	592653	HDS1	R	11.250	.625	593625	HS7	R
10.625	.687	<b>HDL-3957-R</b>	HDL	R	11.250	.750	<b>592858</b>	HS8	R
10.625	.625	91250	HDS3	D	11.250	.750	593370	HS7	R
		W/4 EA .500 ADJ. LUGS			11.250	.625	<b>593467</b>	HDS2	R
10.625	.688	590270	HDS1	R	11.250	.625	▲ <b>92536</b>	† CRWHA1	R
10.625	.688	593363	HDS3	D	11.250	.625	92543	HDS1	V
		W/4 EA .500 ADJ. LUGS			11.250	.688	590701	HDS1	R
10.625	.750	590442	HDS1	R	11.250	.750	590797	HDS1	R
10.750	.250	515028	HD1	D	11.250	.750	593369	HDS3	D
		QUILL WIPER					W/4 EA .500 ADJ. LUGS		
10.750	.625	91255	HDS3	D	11.250	.813	<b>92544</b>	HDS2	V
		W/4 EA .500 ADJ. LUGS			11.250	.875	593312	HDSA1	VD
10.750	.750	91256	HDS1	R	11.250	1.000	590798	HDS1	R
11.000	.750	590567	HDS1	R	11.250	1.375	590039	HSD1	DD
11.125	.812	<b>91202</b>	HDS2	R	11.250	1.375	593263	HDSE2	RR
11.125	.812	<b>91235</b>	HDS2	R	11.375	.875	590472	HDS1	R
		W/4 EA .500 ADJ. LUGS			11.500	.875	592562	HDS1	R
11.125	.625	91260	HDS3	D	11.500	.875	593371	HDS3	D
		W/4 EA .500 ADJ. LUGS					W/4 EA .500 ADJ. LUGS		
11.125	.688	590174	HDS1	R	12.750	.625	▲ <b>92570</b>	CRWHA1	R
11.125	.688	91261	HDS1	V	12.750	1.250	<b>92574</b>	CRWHA1	R
11.125	.813	592345	HDS1	R	<b>9.260 SHAFT</b>				
11.125	1.000	590609	HDS1	R	1.102		87789	LDSL4	
11.375	.875	592013	HDS1	R			FOR SEAL SHAFT SIZE 9.448		
<b>9.134 SHAFT</b>					<b>9.312 SHAFT</b>				
10.624	.688	<b>593607</b>	HDS2	D			93116	HDDFBV1	R
<b>9.188 SHAFT</b>							86754	LDSL4	
10.375	.750	<b>590747</b>	HDS2	D			FOR SEAL SH SIZE 9.500 (241.30MM)		
10.938	.750	596487	HDS1	R			1.250	87807	LDSL4
<b>9.250 SHAFT</b>							FOR SEAL SHAFT SIZE 9.500		
	.625	87784	LDSL4		11.000	1.437	93115	HDDF1	R
	FOR SEAL SH SIZE 9.438				11.625	1.754	93125	HDDF1	R
	.875	84643	LDSL4		<b>9.313 SHAFT</b>				
	FOR SEAL SH SIZE 9.438 (239.73MM)						93126	HDDFBV1	R
10.438	.875	595331	HDSA1	VD			1.500	85377	LDSL4
10.438	.875	92591	HDSA1	RD			FOR SEAL SH SIZE 9.500 (241.30MM)		
10.500	.625	591881	HS7	R			2.250	84843	LDSL4
10.500	.625	<b>593366</b>	HS8	R			FOR SEAL SH SIZE 9.500		
		W/HOOK & EYE SPRING CONNECTOR			10.000	.063	451033	BUW	#
10.500	.625	590762	HDS1	R	10.000	.344	★ 710695	BV	D
10.500	.625	593365	HDS3	D	10.000	.344	712552	BV	V
		W/4 EA .500 ADJ. LUGS			<b>9.375 SHAFT</b>				
10.500	.625	<b>596466</b>	HDS2	V	10.625	.625	590764	HS7	R
10.500	.750	590763	HDS1	R	10.625	.625	592713	HS6	R
10.500	.750	<b>592741</b>	HDS2	R	10.625	.625	<b>593397</b>	HS8	R
10.750	.609	520868	HS9	R			W/HOOK & EYE SPRING CONNECTOR		
10.750	.687	<b>HDL-3963-R</b>	HDL	R	10.625	.625	593372	HDS3	D
10.750	.656	92534	HDS1	R			W/4 EA .500 ADJ. LUGS		
10.750	.656	92537	HDS3	D	10.875	.750	590779	HS7	R
		W/4 EA .500 ADJ. LUGS			10.875	.750	591988	HDS1	R
10.750	.688	590775	HDS1	R	11.000	.750	590485	HDS1	R
10.750	.688	591973	HDS1	R	11.375	.812	<b>HDL-4610-R</b>	HDL	R
		W/4 EA .125 LUGS			11.375	.875	<b>592651</b>	HS8	R
10.750	.750	590093	HDS1	R	11.375	1.000	<b>592546</b>	HS8	R
10.750	.750	<b>592348</b>	HDS2	D	11.375	.875	595130	HDS1	V
10.875	.750	592016	HDS1	R					
11.000	.625	92532	HDS3	D					
		W/4 EA .500 ADJ. LUGS							

Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>9.375 SHAFT (Cont.)</b>					<b>9.500 SHAFT (Cont.)</b>				
11.375	.750	590806	HDS1	R	10.750	.313	95052	HM21	R
11.375	.750	592462	HDS1	D	10.750	.625	590776	HDS1	R
11.375	.750	593373	HDS3	D	10.750	.625	593375	HDS3	D
		W/4 EA .500 ADJ. LUGS					W/4 EA .500 ADJ. LUGS		
11.375	.875	93751	HDS1	R	10.750	.625	<b>95044</b>	HDS2	V
11.375	1.000	592642	HDS1	R	10.750	.625	<b>95045</b>	HDS2	R
11.500	.875	590812	HDS1	R	11.000	.625	<b>531331</b>	HS8	R
12.750	1.250	590688	HDSB1	RD	11.000	.625	592042	HS7	R
<b>9.435 SHAFT</b>					11.000	.625	<b>95075</b>	HS8	V
10.500	.625	594528	HS7	R	11.000	.750	590166	HS7	R
<b>9.438 SHAFT</b>					11.000	.625	590653	HDS1	R
10.625	.750	592051	HDS1	R	11.000	.625	590792	HDS1	R
10.635	.750	593894	HDS1	R			W/4 EA .125 LUGS		
10.688	.625	592126	HS7	R	11.000	.625	<b>592693</b>	HDS2	R
11.250	.625	593129	HDS1	R	11.000	.625	<b>593133</b>	HDS2	R
11.250	.625	595529	HDS3	D	11.000	.625	95046	HDS3	D
		W/4 EA .500 ADJ. LUGS					W/4 EA .500 ADJ. LUGS		
11.438	.875	590810	HDS1	R	11.000	.688	95042	HDS1	V
11.500	.875	590284	HDS1	R	11.000	.750	95047	HDS1	R
11.500	.875	593374	HDS3	D	11.000	.625	596566	HDS7	H
		W/4 EA .500 ADJ. LUGS			11.125	.625	590070	HDS1	R
11.500	1.000	592397	HDS1	R	11.125	.625	95056	HDS3	D
<b>9.440 SHAFT</b>							W/4 EA .500 ADJ. LUGS		
2.500		87280	LDSL3		11.250	.750	<b>HDL-3981-R</b>	HDL	R
		FOR SEAL SH SIZE 9.628	(244.51MM)		11.250	.750	HDLA-3981-R	HDLA	R
<b>9.448 SHAFT</b>					11.250	.625	591932	HDS1	R
.984		87435	LDSL3		11.250	.625	593378	HDS3	D
		FOR SEAL SH SIZE 9.636	(244.75MM)				W/4 EA .500 ADJ. LUGS		
<b>9.449 SHAFT</b>					11.500	.812	<b>HDL-3984-R</b>	HDL	R
1.181		87144	LDSL4		11.500	1.000	<b>595431</b>	HS8	R
		FOR SEAL SH SIZE 9.637			11.500	1.000	595909	HDS1	R
10.827	.630	<b>94485</b>	HMSA7	V			W/4 EA .375 LUGS		
		W/STAINLESS STEEL SPRING			11.500	.625	526302	HDS1	R
11.803	.984	590839	HDS1	R	11.500	.625	<b>593666</b>	HDS2	D
<b>9.500 SHAFT</b>					11.500	.625	<b>▲ 95062</b>	† CRW1	R
1.000		86633	LDSL3		11.500	.625	95069	HDS3	D
		FOR SEAL SH SIZE 9.688	(246.08MM)				W/4 EA .500 ADJ. LUGS		
1.250		86564	LDSL4		11.500	.750	590813	HDS1	R
		FOR SEAL SH SIZE 9.688	(246.08MM)		11.500	.813	590814	HDS1	R
2.500		86562	LDSL4		11.500	.813	95068	HDS1	V
		FOR SEAL SH SIZE 9.688	(246.08MM)		11.500	.875	<b>95071</b>	HDS2	R
.688	1.125	595613	CT1	R	11.500	.938	590816	HDS1	R
		BORE DIA. IS SHOULDER WIDTH			11.500	.938	<b>590817</b>	HDS2	R
1.063	1.500	595604	CT1	R	11.500	.938	590818	HDS1	R
		BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT					W/6 EA .125 LUGS		
10.500	.500	590749	HS7	R	11.500	.938	<b>590819</b>	HDS2	R
10.500	.500	<b>592607</b>	HS8	R			W/6 EA .250 LUGS		
10.500	.500	<b>593398</b>	HS8	R	11.500	1.000	590820	HDS1	R
		W/HOOK & EYE SPRING CONNECTOR			11.500	1.000	<b>95072</b>	HDS2	R
10.500	.500	<b>594502</b>	HS8	V	11.500	1.250	531679	HDSD1	VV
10.500	.500	<b>95000</b>	HS8	D	11.500	1.250	590375	HDSA1	RD
10.500	.350	511197	HD1	D	11.500	1.250	591960	HDSC1	DD
		QUILL WIPER			11.500	1.250	593081	HDSD1	RR
10.500	.438	<b>▲ 95048</b>	† CRW1	R	11.500	1.250	593667	HDSA2	DD
		W/SS CASE & SPRING			12.500	.688	95081	CRSA4	R
10.750	.625	592209	HS7	R	<b>9.563 SHAFT</b>				
10.750	.625	<b>593376</b>	HS8	R			95621	HDDFBV1	R
		W/HOOK & EYE SPRING CONNECTOR					1.000	85073	LDSL4
10.750	.625	<b>595922</b>	HDS2	D			FOR SEAL SH SIZE 9.750	(247.65MM)	
							2.000	85397	LDSL4
							FOR SEAL SH SIZE 9.750	(247.65MM)	
					10.563	.500	<b>592623</b>	HS8	R
					10.563	.500	<b>594146</b>	HS8	D
							W/HOOK & EYE SPRING CONNECTOR		

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## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>9.563 SHAFT (Cont.)</b>					<b>9.750 SHAFT (Cont.)</b>				
10.875	.625	590782	HDS1	R	11.000	.875	593053	HDSA1	RD
11.859	1.949	95620	HDDF1	R	11.000	1.000	593428	HDSA1	DD
<b>9.620 SHAFT</b>					11.125	.875	594974	HDSA2	D
10.625	.500	<b>591981</b>	HS8	R	11.125	.625	▲ <b>97542</b>	CRWH1	R
10.625	.500	592199	HS7	R	11.125	.750	590795	HDS1	R
10.875	.625	590015	HDS1	R	11.125	.750	<b>592501</b>	HDS2	R
12.750	1.250	96290	HDSA1	RD	11.250	.625	593385	HS7	R
<b>9.625 SHAFT</b>					11.250	.625	<b>593386</b>	HS8	R
10.625	.500	<b>595476</b>	HS8	V	W/HOOK & EYE SPRING CONNECTOR				
			W/HOOK & EYE SPRING CONNECTOR		11.250	.687	<b>HDL-3985-R</b>	HDL	R
10.875	.750	590783	HDS1	R	11.250	.750	593177	HS7	R
10.875	.750	<b>592420</b>	HDS2	R	11.250	.875	595514	HDSA2	D
10.875	.750	593380	HDS3	D	11.250	.625	590655	HDS1	R
		W/4 EA .500 ADJ. LUGS			11.250	.625	593384	HDS3	D
10.875	.875	590784	HDS1	R	11.250	.625	▲ <b>97545</b>	CRWH1	R
11.000	.750	525448	HDS1	R	11.250	.750	590800	HDS1	R
11.125	.625	592520	HS7	R	11.500	.750	592272	HDS1	R
11.625	.625	▲ <b>96245</b>	CRWH1	R	11.500	.750	593387	HDS3	D
11.625	.813	<b>96231</b>	HDS2	V	W/4 EA .500 ADJ. LUGS				
11.625	1.000	593659	HDSC1	RD	11.750	.625	97549	HDS1	V
11.625	1.000	<b>96230</b>	HDS2	V	11.750	.625	▲ <b>97550</b>	CRWH1	R
11.625	1.500	594292	HDSE1	RR	11.750	.688	591897	HDS1	R
		W/8 EA LUBE HOLES			11.750	.750	590832	HDS1	R
11.625	1.500	962952	HDSE2	RR	11.750	.750	593388	HDS3	D
<b>9.688 SHAFT</b>					11.750	1.000	595568	HDSA1	D
10.875	.625	595810	HDS1	D	11.750	1.000	97548	HDS1	R
10.875	.625	594080	HDS1	R	11.750	1.000	<b>97551</b>	HDS2	V
11.500	.625	594906	HDS3	D	12.000	.875	590422	HDS1	R
		W/4 EA .500 ADJ. LUGS			<b>9.790 SHAFT</b>				
11.500	1.000	<b>96880</b>	HDS2	V	11.125	.625	<b>593936</b>	HDS2	D
<b>9.719 SHAFT</b>					<b>9.813 SHAFT</b>				
11.625	.700	590665	HDS1	R		.625	85987	LDSL4	
<b>9.750 SHAFT</b>							FOR SEAL SH SIZE 10.000	(254.00MM)	
	1.438	84965	LDSL4			1.125	86413	LDSL4	
			FOR SEAL SH SIZE 9.938 (252.43MM)				FOR SEAL SH SIZE 10.000	(254.00MM)	
	2.250	85045	LDSL4			2.000	84156	LDSL3	
			FOR SEAL SH SIZE 9.938 (252.43MM)				FOR SEAL SH SIZE 10.000	(254.00MM)	
	.310	402502	VR3	R		2.000	87067	LDSL4	
			SHAFT RANGE 9.170 - 10.240				FOR SEAL SH SIZE 10.000	(254.00MM)	
	.310	402506	VR3	V	<b>9.835 SHAFT</b>				
			SHAFT RANGE 9.170 - 10.240		1.575		90773	LDSL4	
10.750	.500	592988	HS7	R	FOR SEAL SH SIZE 10.023				
10.750	.500	595530	HS6	R	<b>9.840 SHAFT</b>				
		W/HOOK & EYE SPRING CONNECTOR			11.020	.625	<b>596062</b>	HS8	V
10.750	.350	596455	HD1	D	<b>9.842 SHAFT</b>				
		QUILL WIPER			11.016	.630	592917	HDS1	R
11.000	.625	590785	HS7	R	<b>9.844 SHAFT</b>				
11.000	.625	<b>593382</b>	HS8	R	11.409	.875	595219	HDSC2	R
		W/HOOK & EYE SPRING CONNECTOR			11.409	.625	<b>98444</b>	HDS2	R
11.000	.625	<b>593492</b>	HDS2	R	11.409	.625	<b>98445</b>	HDS2	R
		W/4 EA .375 LUGS			W/4 EA .375 LUGS				
11.000	.625	<b>593611</b>	HDS2	R	<b>9.875 SHAFT</b>				
11.000	.625	<b>593646</b>	HDS2	D		.790	<b>402500</b>	VR1	R
11.000	.625	596561	HDS7	R			SHAFT RANGE 9.250 - 10.430		
11.000	.625	596561	HDS7	R		.790	<b>402504</b>	VR1	V
11.000	.625	97526	HDS1	R			SHAFT RANGE 9.250 - 10.430		
11.000	.625	97527	HDS3	D	10.875	.500	591905	HS7	R
11.000	.625	97528	HDS1	V					
11.000	.625	<b>97529</b>	HDS2	V					
11.000	.750	590133	HDS1	R					

Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>9.875 SHAFT (Cont.)</b>					<b>10.000 SHAFT (Cont.)</b>				
11.375	.750	590363	HDS1	R	11.500	.750	<b>1000258</b>	HS8	R
11.375	.750	<b>592763</b>	HDS2	R	11.500	1.250	1000920	HDSA1	RD
11.375	.750	<b>594364</b>	HDS2	R	11.500	.625	1000230	HDS1	R
		W/4 EA .500 ADJ. LUGS			11.500	.625	<b>1000232</b>	HDS2	R
11.500	.750	592727	HDS1	R	11.500	.625	<b>1000233</b>	HDS2	V
11.875	1.000	<b>595106</b>	HDS2	R	11.500	.625	1000239	HDS3	D
11.875	.688	590841	HDS1	R			W/4 EA .500 ADJ. LUGS		
11.875	.688	593389	HDS3	D	11.500	.688	1000240	HDS1	R
		W/4 EA .500 ADJ. LUGS			11.500	.688	<b>1000243</b>	HDS2	V
11.875	.875	590842	HDS1	R	11.500	.750	1000250	HDS1	R
11.875	1.000	592847	HDSA2	RD	11.625	.750	1000330	HDS1	R
12.000	.750	1330	KIT	R	11.687	.750	1000335	HDS1	R
		SEE KIT SECTION			11.750	.625	1000367	HS7	R
12.000	.875	590850	HDS1	R	11.750	.625	1000360	HDS1	R
12.000	1.000	590851	HDS1	R	11.750	.625	1000369	HDS3	D
<b>9.938 SHAFT</b>					W/4 EA .500 ADJ. LUGS				
11.188	.625	<b>594753</b>	HS8	R	11.750	.750	1000380	HDS1	R
11.438	.750	592529	HS7	R	11.750	.938	1000940	HDSC1	RD
11.438	.750	<b>592731</b>	HS8	R	11.750	.938	1000943	HDSC2	DD
11.938	.875	590444	HDS1	R	11.750	1.000	1000420	HDS1	R
12.000	.750	592463	HDS1	D	11.750	1.000	1000941	HDSC1	RD
12.000	1.000	<b>529752</b>	HDS2	R	11.875	.625	1000450	HDS1	R
12.000	1.000	590351	HDS1	R	11.875	1.250	1000948	HDS02	RR
12.125	1.000	592816	HDS1	R	12.000	.625	1000025	HS7	V
<b>10.000 SHAFT</b>					12.000	.625	1000527	HS7	R
	1.000	90070	LDL3V3		12.000	.625	<b>1000528</b>	HS8	R
		FOR SEAL SH SIZE 10.188					W/HOOK & EYE SPRING CONNECTOR		
11.000	.500	1000017	HS7	R	12.000	.625	<b>594889</b>	HS8	V
11.000	.562	<b>1000018</b>	HS8	R	12.000	.625	<b>596414</b>	HS8	V
11.000	.350	511198	HD1	D			W/HOOK & EYE SPRING CONNECTOR		
		QUILL WIPER			12.000	.810	<b>1000558</b>	HS8	V
11.000	.375	<b>▲100042</b>	HMS4	R	12.000	.812	<b>HDL-3997-R</b>	HDL	R
11.250	.625	1000117	HS7	R	12.000	.875	<b>1000568</b>	HS8	D
11.250	.625	<b>1000118</b>	HS8	R	12.000	1.000	<b>1000588</b>	HS8	R
		W/HOOK & EYE SPRING CONNECTOR			12.000	.350	511199	HD1	D
11.250	.625	<b>1000128</b>	HS8	D			QUILL WIPER		
11.250	.875	1000914	HDSA2	V	12.000	.625	<b>▲100051</b>	CRWH1	R
11.250	.625	1000108	HDS1	R	12.000	.625	1000520	HDS1	R
11.250	.625	1000110	HDS1	R	12.000	.625	1000529	HDS3	D
11.250	.625	<b>1000111</b>	HDS2	R			W/4 EA .500 ADJ. LUGS		
11.250	.625	1000113	HDS1	R	12.000	.625	<b>100075</b>	†CRWA1	R
		W/4 EA .125 LUGS			12.000	.688	1000530	HDS1	R
11.250	.625	<b>1000114</b>	HDS2	V	12.000	.750	<b>1000523</b>	HDS2	V
11.250	.625	<b>1000115</b>	HDS2	R	12.000	.750	1000540	HDS1	R
		W/4 EA .125 LUGS					W/4 EA .500 ADJ. LUGS		
11.250	.625	1000116	HDS1	V	12.000	.750	1000541	HDS1	R
		W/6 EA .125 LUGS					W/3 EA .125 LUGS		
11.250	.625	1000119	HDS3	D	12.000	.750	<b>1000542</b>	HDS2	R
		W/4 EA .500 ADJ. LUGS			12.000	.750	1000543	HDS1	V
11.250	.625	<b>1000126</b>	HDS2	V	12.000	.813	1000550	HDS1	R
		W/4 EA .125 LUGS			12.000	.875	1000560	HDS1	R
11.250	.625	1000129	HDS7	R	12.000	.875	1000950	HDSA1	RD
11.250	.625	1000313	HDS1	V	12.000	1.000	1000580	HDS1	R
11.250	.750	1000130	HDS1	R	12.000	1.000	<b>1000582</b>	HDS2	R
11.250	.875	1000910	HDSA1	RD	12.000	1.250	1000952	HDSA1	RD
11.252	.625	<b>▲100044</b>	CRWHA1	R	12.000	1.250	1000953	HDSB1	RD
11.370	.750	<b>1000183</b>	HDS2	V	12.000	1.250	1000955	HDSE1	RR
11.375	.750	1000180	HDS1	R	12.000	1.500	1000954	HDSA1	RD
11.500	.625	1000237	HS7	R	12.000	1.750	1000958	HDS02	RR
11.500	.625	<b>1000238</b>	HS8	R	12.125	.875	1000620	HDS1	R
		W/HOOK & EYE SPRING CONNECTOR			12.250	.812	<b>HDL-3669-R</b>	HDL	R
11.500	.687	<b>HDL-3992-R</b>	HDL	R	12.250	.875	1000660	HDS1	R
11.500	.750	1000257	HS7	R	12.438	.875	1000740	HDS1	R
					12.500	1.000	1000971	HDSA1	RD

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## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>10.063 SHAFT</b>					<b>10.236 SHAFT (Cont.)</b>				
	2.250	86000	LDLSLV4		11.236	.500	<b>1024018</b>	HS8	R
	FOR SEAL SH SIZE 10.250		(260.35MM)		12.590	.984	1024690	HDS1	R
11.688	.750	1006330	HDS1	R	<b>10.250 SHAFT</b>				
11.688	.750	1006332	HDS1	R	11.250	.625	1025017	HS7	R
	W/4 EA .125 LUGS				11.250	.625	<b>1025018</b>	HS8	V
<b>10.120 SHAFT</b>					11.250	.563	<b>102520</b>	CRWH1	R
12.000	1.000	1012500	HDS1	R	11.438	1.000	1025104	HDS1	R
<b>10.125 SHAFT</b>					11.500	.625	1025117	HS7	R
11.375	.625	1013117	HS7	R	11.500	.625	<b>1025118</b>	HS8	R
11.625	.625	1013237	HS7	R	W/HOOK & EYE SPRING CONNECTOR				
11.625	.687	<b>HDL-3999-R</b>	HDL	R	11.500	.625	<b>1025112</b>	HDS2	D
11.625	.750	1013257	HS7	R	11.500	.625	1025119	HDS3	D
11.625	.688	1013240	HDS1	R	W/4 EA .500 ADJ. LUGS				
11.625	.688	<b>1013242</b>	HDS2	R	11.750	.625	1025237	HS7	R
11.625	.688	1013244	HDS1	R	11.750	.625	1025527	HS7	R
	W/4 EA .125 LUGS				11.750	.687	<b>HDL-4004-R</b>	HDL	R
11.625	.688	<b>1013245</b>	HDS2	R	11.750	.750	1025257	HS7	R
	W/4 EA .125 LUGS				11.750	.688	1025240	HDS1	R
11.625	.688	1013249	HDS3	D	11.750	.688	<b>1025244</b>	HDS2	V
	W/4 EA .500 ADJ. LUGS				11.750	.688	1025249	HDS3	D
11.625	.750	1013250	HDS1	R	11.750	.750	1025250	HDS1	R
11.750	.687	<b>HDL-5989-R</b>	HDL	R	11.750	.750	<b>1025252</b>	HDS2	R
11.750	.750	<b>1012334</b>	HS8	R	12.000	.625	<b>1025368</b>	HS8	R
	W/HOOK & EYE SPRING CONNECTOR				12.000	.625	102530	HDS3	D
11.750	.750	<b>1012338</b>	HS8	R	W/4 EA .500 ADJ. LUGS				
11.750	.688	1013320	HDS1	R	12.000	.750	1025380	HDS1	R
11.750	.688	1013329	HDS3	D	12.017	.750	<b>1025428</b>	HS8	R
	W/4 EA .500 ADJ. LUGS				12.017	.750	<b>1025435</b>	HS5	R
11.750	.938	1013930	HDSC1	RD	12.250	.625	<b>1025528</b>	HS8	R
12.000	.750	1013470	HDS1	R	W/HOOK & EYE SPRING CONNECTOR				
12.000	1.000	1013490	HDS1	R	12.250	.625	▲ <b>102540</b>	CRWH1	R
12.125	.625	<b>1013528</b>	HS8	R	12.250	.625	1025520	HDS1	R
12.125	.875	1013560	HDS1	R	12.250	.625	1025529	HDS3	D
12.250	.875	1013620	HDS1	R	W/4 EA .500 ADJ. LUGS				
12.375	.875	1013660	HDS1	R	12.250	.750	1025540	HDS1	R
<b>10.160 SHAFT</b>					12.250	.750	1025543	HDS1	V
11.160	.500	<b>1016018</b>	HS8	R	12.250	1.000	1025580	HDS1	R
<b>10.188 SHAFT</b>					12.250	1.000	<b>1025582</b>	HDS2	D
	1.125	84962	LDLSLV4		12.250	1.250	1025951	HDSC1	RD
	FOR SEAL SH SIZE 10.375		(263.53MM)		12.375	.875	1025620	HDS1	R
.688	.875	524434	CT3	R	12.500	.750	<b>1025133</b>	HDS2	R
	BORE DIA. IS SHOULDER WIDTH				12.500	.875	1025660	HDS1	R
11.188	.500	<b>1018019</b>	HS8	D	<b>10.313 SHAFT</b>				
11.188	.500	1019017	HS7	R	1.500	85636	LDLSLV4		
11.188	.500	<b>1019018</b>	HS8	R	FOR SEAL SH SIZE 10.500		(266.70MM)		
11.438	.625	1019110	HDS1	R	2.000	85629	LDLSLV4		
11.688	.625	1019230	HDS1	R	FOR SEAL SH SIZE 10.500		(266.70MM)		
11.875	.625	1019347	HS7	R	2.250	85191	LDLSLV3		
12.000	.750	<b>1018452</b>	HDS2	V	FOR SEAL SH SIZE 10.500				
12.188	.875	1019560	HDS1	R	12.188	1.000	1031490	HDS1	R
12.250	1.000	1019600	HDS1	R	<b>10.375 SHAFT</b>				
12.313	.875	1019620	HDS1	R	11.625	.625	1038117	HS7	R
12.372	.719	1019640	HDS1	R	11.625	.875	1037912	HDSA2	D
12.438	.875	1019660	HDS1	R	11.625	.875	1037143	HDS1	V
<b>10.220 SHAFT</b>					11.625	.875	1038140	HDS1	R
11.750	.750	1022300	HDS1	R	11.625	.875	<b>1038142</b>	HDS2	R
<b>10.236 SHAFT</b>					11.625	.875	<b>1038143</b>	HDS2	D
	1.968	87738	LDLSLV3		11.875	.750	1038257	HS7	R
	FOR SEAL SH SIZE 10.424				11.875	.750	1038250	HDS1	R
					11.875	.750	<b>1038252</b>	HDS2	D
					12.197	1.000	1038440	HDS1	R



Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>10.375 SHAFT (Cont.)</b>					<b>10.500 SHAFT (Cont.)</b>				
12.250	1.000	1038490	HDS1	R	12.000	.625	1050239	HDS3	D
12.375	.875	1038560	HDS1	R			W/4 EA .500 ADJ. LUGS		
12.375	.875	<b>1038563</b>	HDS2	D	12.000	.688	1050211	HDS7	H
12.500	.875	1038620	HDS1	R	12.000	.688	1050240	HDS1	R
12.625	.875	1038660	HDS1	R	12.000	.688	<b>1050243</b>	HDS2	R
<b>10.415 SHAFT</b>					12.000	.688	<b>1050244</b>	HDS2	D
11.625	.875	<b>1041162</b>	HDS2	D	12.000	.750	1050250	HDS1	R
<b>10.438 SHAFT</b>					12.000	.750	<b>1050251</b>	HDS2	V
1.063	1.500	596110	CT1	R	12.000	.750	<b>1050252</b>	HDS2	R
			BORE DIA. IS SHOULDER WIDTH		12.000	.750	<b>1050253</b>	HDS2	R
11.679	.875	1044140	HDS1	R			W/4 EA .188 LUGS		
11.688	.875	<b>1043148</b>	HS8	R	12.000	.750	<b>1050254</b>	HDS2	D
11.938	.750	1044257	HS7	R	12.000	.750	1050543	HDS1	V
12.430	1.000	1044550	HDS1	R	12.000	.875	1050916	HDSC1	RD
12.438	.875	1044560	HDS1	R	12.000	1.000	1050291	HDS1	D
12.500	1.000	1044600	HDS1	R	12.125	.625	<b>1050312</b>	HDS2	D
12.563	.875	1044620	HDS1	R	12.125	.625	105080	HDS3	D
12.625	1.000	1044640	HDS1	R			W/4 EA .500 ADJ. LUGS		
12.688	.875	1044660	HDS1	R	12.125	.750	1050330	HDS1	R
<b>10.441 SHAFT</b>					12.250	.750	1050380	HDS1	R
	2.165	86798	LDSL4		12.344	.906	1050440	HDS1	R
		FOR SEAL SH SIZE 10.629	(269.98MM)		12.500	.625	1050527	HS7	R
<b>10.500 SHAFT</b>					12.500	.625	<b>1050528</b>	HS8	R
	1.000	85072	LDSL4				W/HOOK & EYE SPRING CONNECTOR		
		FOR SEAL SH SIZE 10.688	(271.48MM)		12.500	.812	<b>HDL-4017-R</b>	HDL	R
	1.500	85839	LDSL4		12.500	.916	1050577	HS7	R
		FOR SEAL SH SIZE 10.688	(271.48MM)		12.500	.625	<b>▲105051</b>	CRWH1	R
	2.750	86013	LDSL4		12.500	.625	1050520	HDS1	R
		FOR SEAL SH SIZE 10.688			12.500	.625	<b>1050523</b>	HDS2	R
11.500	.500	<b>1050014</b>	HS8	R	12.500	.625	<b>1050524</b>	HDS2	V
		W/HOOK & EYE SPRING CONNECTOR			12.500	.625	1050525	HDS1	R
11.500	.500	1050017	HS7	R			W/6 EA .125 LUGS		
11.500	.500	<b>1050018</b>	HS8	R	12.500	.625	1050529	HDS3	D
11.500	.500	<b>594200</b>	HS8	V			W/4 EA .500 ADJ. LUGS		
11.500	.625	1050037	HS7	R	12.500	.688	1050530	HDS1	R
11.500	.625	<b>1050038</b>	HS8	R	12.500	.750	1050540	HDS1	R
		W/HOOK & EYE SPRING CONNECTOR			12.500	.750	<b>1050542</b>	HDS2	R
11.500	.350	532293	HD1	D	12.500	.750	<b>1050544</b>	HDS2	V
		QUILL WIPER			12.500	.813	1050550	HDS1	R
11.750	.625	1050117	HS7	R	12.500	.875	1050560	HDS1	R
11.750	.625	<b>1050118</b>	HS8	R	12.500	.906	1050570	HDS1	R
		W/HOOK & EYE SPRING CONNECTOR			12.500	1.000	1050578	HDS1	D
11.750	.625	<b>▲105010</b>	CRWH1	R	12.500	1.000	1050580	HDS1	R
11.750	.625	1050110	HDS1	R	12.500	1.000	<b>1050582</b>	HDS2	R
11.750	.625	<b>1050112</b>	HDS2	R	12.500	1.000	<b>1050593</b>	HDS2	V
11.750	.625	1050113	HDS1	V	12.500	1.000	1050956	HDSA1	RD
11.750	.625	1050119	HDS3	D	12.500	1.000	1050958	HDSB1	RD
		W/4 EA .500 ADJ. LUGS			12.500	1.250	1050957	HSDS2	RR
11.750	.875	1050140	HDS1	R			W/LUBE HOLES ON O.D.		
12.000	.625	<b>1050236</b>	HS8	R	12.625	.875	1050620	HDS1	R
		W/HOOK & EYE SPRING CONNECTOR			12.625	1.000	1050630	HDS1	R
12.000	.625	1050237	HS7	R	12.750	.875	1050660	HDS1	R
12.000	.625	<b>1050238</b>	HS8	R	12.750	1.250	1050690	HDS1	R
12.000	.687	<b>HDL-4011-R</b>	HDL	R	13.000	.688	<b>1050754</b>	HDS2	V
12.000	.750	1050257	HS7	R	<b>10.531 SHAFT</b>				
12.000	.750	<b>1050258</b>	HS8	R	12.031	.625	1053237	HS7	R
12.000	1.250	1050912	HDS2	RR	<b>10.557 SHAFT</b>				
12.000	.688	<b>1050242</b>	HDS2	V			2.250	85491	LDSL4
12.000	.688	<b>1050248</b>	HDS2	V			FOR SEAL SH SIZE 10.745	(272.92MM)	
		W/4 EA .250 LUGS			<b>10.562 SHAFT</b>				
12.000	.625	1050230	HDS1	R			1.750	86468	LDSL4
							FOR SEAL SH SIZE 10.750	(273.05MM)	

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## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>10.562 SHAFT (Cont.)</b>					<b>10.750 SHAFT (Cont.)</b>				
	1.813	86544	LDSL4		12.250	.750	1075257	HS7	R
	FOR SEAL SHAFT SIZE 10.750				12.250	.625	1075230	HDS1	R
<b>10.563 SHAFT</b>					12.250	.625	<b>1075232</b>	HDS2	D
	1.500	87768	LDSL4		12.250	.625	1075239	HDS3	D
	FOR SEAL SH SIZE 10.563				W/4 EA .500 ADJ. LUGS				
<b>10.625 SHAFT</b>					12.250	.688	1075240	HDS1	R
11.375	.313	<b>106205</b>	HM14	R	12.250	.750	1075250	HDS1	R
11.812	.625	1063100	HDS1	R	12.250	.813	1075920	HDSA1	RD
11.875	.625	1063117	HS7	R	12.250	.875	1075928	HDSC1	RD
12.125	.750	1063257	HS7	R	12.250	1.025	1075910	HDSC1	R
12.125	.750	1063250	HDS1	R	12.250	1.250	1075923	HDS2	VV
12.250	.750	1063330	HDS1	R	12.375	.625	1075310	HDS1	R
12.375	.750	1063380	HDS1	R	12.500	.875	<b>HDL-4033-R</b>	HDL	R
12.500	.750	1063470	HDS1	R	12.500	.625	1075360	HDS1	R
12.500	.969	1062945	HDSA1	RD	12.500	.625	<b>1075365</b>	HDS2	R
12.625	.875	1063560	HDS1	R	W/4 EA .125 LUGS				
12.750	.875	1063620	HDS1	R	12.500	.625	<b>1075366</b>	HDS2	V
12.875	.875	1063660	HDS1	R	12.500	.625	1075367	HDS1	V
13.000	.750	1063710	HDS1	R	12.500	.625	1075369	HDS3	D
13.000	.750	<b>1063712</b>	HDS2	R	W/4 EA .500 ADJ. LUGS				
13.000	1.000	1063971	HDSB1	RD	12.500	.688	<b>1075375</b>	HDS2	R
<b>10.630 SHAFT</b>					W/4 EA .125 LUGS				
12.254	.630	1063310	HDS1	R	12.500	.875	1075942	HDSA2	RD
<b>10.688 SHAFT</b>					12.625	.750	1075470	HDS1	R
12.500	.625	<b>1068453</b>	HDS2	V	12.750	.625	<b>HDL-3014-R</b>	HDL	R
12.500	.625	1068456	HDS1	V	12.750	.625	1075527	HS7	R
12.500	1.000	1068940	HDSA1	RD	12.750	.625	<b>1075528</b>	HS8	R
12.688	.750	1069540	HDS1	R	W/HOOK & EYE SPRING CONNECTOR				
13.000	.688	<b>1068693</b>	HDS2	V	12.750	.625	<b>▲ 107551</b>	CRWH1	R
<b>10.709 SHAFT</b>					12.750	.625	1075520	HDS1	R
11.960	.630	1071110	HDS1	R	12.750	.625	<b>1075523</b>	HDS2	D
<b>10.710 SHAFT</b>					12.750	.625	<b>1075524</b>	HDS2	V
12.511	.625	<b>1071448</b>	HS8	R	12.750	.625	1075529	HDS3	D
<b>10.750 SHAFT</b>					W/4 EA .500 ADJ. LUGS				
	2.500	86435	LDSL4		12.750	.750	1075540	HDS1	R
	FOR SEAL SH SIZE 10.938 (277.83MM)				12.750	.750	527312	HDS1	V
	.310	402752	VR3	R	12.750	.813	1075550	HDS1	R
	SHAFT RANGE 10.240 - 11.220				12.750	.875	1075560	HDS1	R
	.310	402756	VR3	V	12.750	1.000	1075580	HDS1	R
	SHAFT RANGE 10.240 - 11.220				12.750	1.000	<b>1075582</b>	HDS2	R
.688	1.125	594369	CT1	R	12.750	1.000	1075583	HDS1	V
BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT					12.750	1.000	<b>1075584</b>	HDS2	V
11.750	.500	<b>1075018</b>	HS8	R	12.875	.875	1075620	HDS1	R
12.000	.625	1075117	HS7	R	12.900	1.375	1075642	HDS1	R
12.000	.625	<b>1075118</b>	HS8	R	12.938	.719	510304	HS9	R
12.000	.625	<b>1075128</b>	HS8	V	13.000	.875	1075660	HDS1	R
12.000	.625	<b>1075114</b>	HDS2	V	13.250	1.000	1075780	HDS1	R
12.000	1.375	1075912	HDS2	RR	13.371	1.250	107591	HDSB1	RD
W/LUBE HOLES ON O.D.					<b>10.788 SHAFT</b>				
12.000	.625	1075110	HDS1	R	12.250	.688	<b>1078192</b>	HDS2	D
12.000	.625	<b>1075112</b>	HDS2	R	<b>10.813 SHAFT</b>				
12.000	.625	<b>1075115</b>	HDS2	R	1.000	81389	LDSL3		
W/4 EA .125 LUGS					FOR SEAL SH SIZE 11.000 (279.40MM)				
12.000	1.375	1075918	HDSE1	RR	2.000	85033	LDSL4		
W/SS SPRING & LUBE HOLES					FOR SEAL SH SIZE 11.000 (279.40MM)				
12.250	.625	1075237	HS7	R	1.750	86469	LDSL4		
12.250	.625	<b>1075238</b>	HS8	R	FOR SEAL SH SIZE 11.001 (279.43MM)				
W/HOOK & EYE SPRING CONNECTOR					<b>10.827 SHAFT</b>				
12.250	.687	<b>HDL-4023-R</b>	HDL	R	12.205	.630	1082150	HDS1	V

Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>10.846 SHAFT</b>					<b>11.000 SHAFT (Cont.)</b>				
	.709	86601	LDSL4		12.250	.625	1100110	HDS1	R
	FOR SEAL SH SIZE 11.034		(280.26MM)		12.250	.625	<b>1100112</b>	HDS2	R
<b>10.875 SHAFT</b>					12.250	.625	<b>1100113</b>	HDS2	D
		108711	HDDFBV1	R	12.250	.625	<b>1100115</b>	HDS2	R
	2.000	84510	LDSL4				W/4 EA .125 LUGS		
	FOR SEAL SH SIZE 11.063		(281.00MM)		12.250	.625	1100119	HDS3	D
12.125	.625	<b>1088118</b>	HS8	R			W/4 EA .500 ADJ. LUGS		
12.125	.625	1088110	HDS1	R	12.250	.625	▲ <b>110030</b>	CRWHA1	R
12.260	1.000	1088190	HDS1	R	12.500	.625	1100237	HS7	R
12.375	.750	1088257	HS7	R	12.500	.625	<b>1100238</b>	HS8	R
12.375	.750	1087253	HDS1	V			W/HOOK & EYE SPRING CONNECTOR		
12.375	.750	1088250	HDS1	R	12.500	.687	<b>HDL-4611-R</b>	HDL	R
12.500	.687	<b>HDL-4028-R</b>	HDL	R	12.500	.750	1100152	HS6	R
12.500	1.000	1088340	HDS1	R			W/HOOK & EYE SPRING CONNECTOR		
12.750	.688	<b>1087468</b>	HS8	R	12.500	.750	1100257	HS7	R
12.875	.578	527099	HS6	R	12.500	.750	<b>1100258</b>	HS8	R
12.875	.875	1088560	HDS1	R	12.500	.625	1100220	HDS1	R
12.969	1.540	108710	HDDF1	R			W/4 EA .500 ADJ. LUGS		
					12.500	.625	1100230	HDS1	R
13.000	.875	1088620	HDS1	R	12.500	.625	1100233	HDS1	V
13.125	.875	1088660	HDS1	R	12.500	.625	1100239	HDS3	D
<b>10.885 SHAFT</b>							W/4 EA .500 ADJ. LUGS		
12.125	.625	1088068	HDS1	R	12.500	.750	1100250	HDS1	R
<b>10.938 SHAFT</b>					12.500	.875	1100270	HDS1	R
12.188	.625	1094110	HDS1	R	12.500	1.250	1100912	HDS02	RR
12.688	.625	1094360	HDS1	R	12.500	1.250	1100918	HDSA1	RD
12.750	.625	1093440	HDS1	R	12.625	.250	511460	HD1	D
<b>11.000 SHAFT</b>							QUILL WIPER		
1.000		81351	LDSL4		12.680	.750	1100330	HDS1	R
	FOR SEAL SH SIZE 11.188		(284.18MM)		13.000	.625	<b>1100521</b>	HS8	D
1.375		86533	LDSL4				W/HOOK & EYE SPRING CONNECTOR		
	FOR SEAL SH SIZE 11.188		(284.18MM)		13.000	.625	<b>1100526</b>	HS8	R
1.500		86486	LDSL4				W/HOOK & EYE SPRING CONNECTOR		
	FOR SEAL SH SIZE 11.188		(284.18MM)		13.000	.625	1100527	HS7	R
2.125		86168	LDSL3		13.000	.625	<b>1100528</b>	HS8	R
	FOR SEAL SH SIZE 11.188		(284.18MM)		13.000	.812	<b>HDL-4036-R</b>	HDL	R
2.500		86378	LDSL3		13.000	.813	1100557	HS7	R
	FOR SEAL SH SIZE 11.188		(284.18MM)		13.000	.813	<b>1100558</b>	HS8	V
2.500		86454	LDSL4		13.000	.625	▲ <b>110051</b>	CRWH1	R
	FOR SEAL SH SIZE 11.188		(284.18MM)		13.000	.625	1100518	HDS3	D
.790		<b>402750</b>	VR1	R			W/4 EA .500 ADJ LUGS & SS CASE		
	SHAFT RANGE 10.430 - 11.420				13.000	.625	1100520	HDS1	R
.790		<b>402754</b>	VR1	V	13.000	.625	<b>1100523</b>	HDS2	V
	SHAFT RANGE 10.430 - 11.420				13.000	.625	1100524	HDS1	V
.688	1.125	524206	CT1	R	13.000	.625	1100529	HDS3	D
	BORE DIA. IS SHOULDER WIDTH						W/4 EA .500 ADJ. LUGS		
.813	1.250	524928	CT1	R	13.000	.688	1100530	HDS1	R
	BORE DIA. IS SHOULDER WIDTH				13.000	.750	1100540	HDS1	R
12.000	.500	★ 718053	BV	R	13.000	.812	<b>1100555</b>	HDS2	R
12.000	.500	721550	BV	V			W/4 EA .500 ADJ. LUGS		
12.000	.500	1100017	HS7	R	13.000	.813	1100550	HDS1	R
12.000	.625	1100027	HS7	R	13.000	.813	<b>1100553</b>	HDS2	R
12.181	.591	<b>1100048</b>	HS8	R	13.000	.875	1100560	HDS1	R
12.250	.625	1100117	HS7	R	13.000	.875	1100950	HDSA1	RD
12.250	.625	<b>1100118</b>	HS8	R	13.000	1.000	1100580	HDS1	R
	W/HOOK & EYE SPRING CONNECTOR				13.000	1.000	<b>1100585</b>	HDS2	R
12.250	.625	<b>1100102</b>	HDS2	D	13.000	1.000	1100951	HDSA1	RD
	W/4 EA .125 LUGS				13.000	1.250	1100952	HDSA1	RD
12.250	.625	1100103	HDS1	V	13.000	1.250	1100953	HDSB1	RD
12.250	.625	<b>1100104</b>	HDS2	V	13.000	1.250	1100954	HDSC1	RD
					13.000	1.250	1100958	HDSE1	RR
					13.125	.875	1100620	HDS1	R
					13.250	.875	1100660	HDS1	R
					13.500	.687	<b>HDL-3060-R</b>	HDL	R
					13.500	1.250	1100971	HDSA1	RD

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 ▲ WasteWatcher numbers

## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>11.001 SHAFT</b>					<b>11.250 SHAFT (Cont.)</b>				
	1.000	90139	LDSL4		12.750	.625	<b>1125238</b>	HS8	R
	FOR SEAL SH SIZE 11.189		(284.28MM)					W/HOOK & EYE SPRING CONNECTOR	
<b>11.023 SHAFT</b>					12.750	.750	<b>1125218</b>	HS8	V
	1.181	87142	LDSL4					W/HOOK & EYE SPRING CONNECTOR	
	FOR SEAL SH SIZE 11.212		(284.80MM)		12.750	.750	1125257	HS7	R
<b>11.024 SHAFT</b>					12.750	.625	1125230	HDS1	R
12.197	.630	<b>1102082</b>	HDS2	D	12.750	.625	1125239	HDS3	D
13.378	.984	1102690	HDS1	R				W/4 EA .500 ADJ. LUGS	
<b>11.026 SHAFT</b>					12.750	.688	1125240	HDS1	R
12.256	.750	<b>1102042</b>	HDS2	R	12.750	.750	1125250	HDS1	R
<b>11.031 SHAFT</b>					12.750	.750	<b>1125252</b>	HDS2	D
	1.260	87525	LDSL4		12.750	.750	1125253	HDS1	V
	FOR SEAL SH SIZE 11.219				12.750	.875	1125270	HDS1	R
12.031	.625	1103027	HS7	R	12.750	1.250	1125920	HDSE1	RR
<b>11.054 SHAFT</b>					12.750	.625	1125219	HDS7	H
	1.750	85469	LDSL4		13.250	.625	1125527	HS7	R
	FOR SEAL SH SIZE 11.250		(285.75MM)		13.250	.625	<b>1125528</b>	HS8	R
<b>11.063 SHAFT</b>								W/HOOK & EYE SPRING CONNECTOR	
12.250	.750	1105201	HDS1	R	13.250	.813	1125557	HS7	R
12.500	.750	1106200	HDS1	R	13.250	.625	<b>1125522</b>	HDS2	R
12.750	.750	1106340	HDS1	R	13.250	.625	<b>1125524</b>	HDS2	R
13.000	.750	1106430	HDS1	R				W/4 EA .375 LUGS	
13.063	.875	1106560	HDS1	R	13.250	.625	1125529	HDS3	D
13.188	.875	1106620	HDS1	R				W/4 EA .500 ADJ. LUGS	
13.313	.875	1106660	HDS1	R	13.250	.813	1125550	HDS1	R
<b>11.125 SHAFT</b>					13.250	.813	<b>1125553</b>	HDS2	R
12.125	.500	<b>1112018</b>	HS8	R	13.250	.875	1125560	HDS1	R
12.375	.625	<b>1113118</b>	HS8	R	13.250	.938	1125570	HDS1	R
12.750	1.000	1113340	HDS1	R	13.250	1.000	1125580	HDS1	R
13.000	1.000	1113490	HDS1	R	13.375	.875	1125620	HDS1	R
13.125	.875	1113560	HDS1	R	13.500	.875	1125660	HDS1	R
13.250	.875	1113620	HDS1	R	13.500	.875	1125661	HDS1	R
13.375	.875	1113660	HDS1	R				W/4 EA .125 LUGS	
<b>11.187 SHAFT</b>					13.500	1.000	1125680	HDS1	R
	1.250	86269	LDSL4		13.500	1.000	<b>1125792</b>	HDS2	R
	FOR SEAL SH SIZE 11.375		(288.93MM)		<b>11.313 SHAFT</b>				
<b>11.188 SHAFT</b>									
	2.250	85212	LDSL4		1.500	84094	LDSL4		
	FOR SEAL SH SIZE 11.375		(288.93MM)			FOR SEAL SH SIZE 11.500		(292.10MM)	
12.188	.500	1119017	HS7	R	2.000	87746	LDSL4		
12.500	.625	<b>1118122</b>	HDS2	R		FOR SEAL SH SIZE 11.501			
12.500	.750	1118130	HDS1	R	13.000	.625	1131340	HDS1	R
13.500	1.000	1118680	HDS1	R	13.312	.875	1131560	HDS1	R
<b>11.190 SHAFT</b>					13.438	.875	1131620	HDS1	R
	2.250	87566	LDSL4		13.562	.875	1131660	HDS1	R
	FOR SEAL SH SIZE 11.378				<b>11.344 SHAFT</b>				
<b>11.250 SHAFT</b>					12.594	.625	1134117	HS7	R
12.000	.375	711566	BV	R	<b>11.375 SHAFT</b>				
12.250	.625	1125027	HS7	R					
12.500	.625	1125117	HS7	R	2.250	86145	LDSL4		
12.500	.625	1125110	HDS1	R		FOR SEAL SH SIZE 11.563		(293.70MM)	
12.500	.625	<b>1125111</b>	HDS2	R	12.375	.500	1138017	HS7	R
12.500	.625	1125113	HDS1	V	12.625	.625	1138117	HS7	R
12.750	.625	<b>1125235</b>	HS5	R	12.875	.750	<b>1138256</b>	HS8	R
12.750	.625	1125237	HS7	R				W/HOOK & EYE SPRING CONNECTOR	
					12.875	.750	1138257	HS7	R
					12.875	.750	<b>1138258</b>	HS8	R
					12.875	.750	1138250	HDS1	R
					12.875	.750	1138251	HDS1	R
								W/4 EA .125 LUGS	
					12.875	.750	<b>1138252</b>	HDS2	R
					12.875	.750	1138259	HDS3	D
								W/4 EA .500 ADJ. LUGS	
					13.000	.625	<b>▲ 113740</b>	CRW1	R

Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>11.375 SHAFT (Cont.)</b>					<b>11.500 SHAFT (Cont.)</b>				
13.000	.625	1138319	HDS3	D	12.750	.625	1150119	HDS3	D
		W/4 EA .500 ADJ. LUGS					W/4 EA .500 ADJ. LUGS		
13.000	.688	1138320	HDS1	R	12.750	.625	1150127	HDS1	V
13.000	.688	1138322	HDS1	R	12.750	.625	<b>594376</b>	HDS2	R
		W/4 EA .125 LUGS			12.750	1.500	1150912	HDSE2	DD
13.000	.688	<b>1138323</b>	HDS2	R	12.875	.688	1150170	HDS1	R
13.000	.688	1138325	HDS1	R	13.000	.625	1150237	HS7	R
		W/8 EA .250 LUGS			13.000	.625	<b>1150238</b>	HS8	R
13.000	.750	1138330	HDS1	R			W/HOOK & EYE SPRING CONNECTOR		
13.000	.750	1138331	HDS1	R	13.000	.687	<b>HDL-4057-R</b>	HDL	R
		W/4 EA .125 LUGS			13.000	.750	1150257	HS7	R
13.000	.750	1138334	HDS1	R	13.000	.750	<b>1150258</b>	HS8	R
		W/8 EA .250 LUGS			13.000	.750	<b>1150259</b>	HS8	D
13.375	.812	<b>HDL-4052-R</b>	HDL	R			W/HOOK & EYE SPRING CONNECTOR		
13.375	1.000	<b>1138588</b>	HS8	R	13.000	.625	<b>1150114</b>	HDS2	V
13.375	.813	1138550	HDS1	R	13.000	.625	▲ <b>115021</b>	CRWH1	R
13.375	1.000	1138580	HDS1	R	13.000	.625	1150239	HDS3	D
13.500	.875	1138620	HDS1	R			W/4 EA .500 ADJ. LUGS		
13.500	1.000	1138630	HDS1	R	13.000	.688	<b>1150212</b>	HDS2	R
13.625	.875	1138660	HDS1	R			W/4 EA .125 LUGS		
<b>11.417 SHAFT</b>					13.000	.688	1150240	HDS1	R
	1.750	86441	LDSL4		13.000	.688	1150242	HDS1	R
		FOR SEAL SH SIZE 11.605	(294.77MM)				W/6 EA .375 LUGS		
12.981	.625	<b>1141228</b>	HS8	R	13.000	.688	<b>1150243</b>	HDS2	R
12.984	.630	592915	HDS1	R	13.000	.688	<b>1150244</b>	HDS2	R
12.994	.875	1141937	HDSA1	V			W/6 EA .250 LUGS		
13.000	.875	1141273	HDSA2	V	13.000	.709	1150241	HDS1	R
13.142	.750	<b>1142332</b>	HDS2	R	13.000	.750	115025	HDSA1	RD
13.142	.750	<b>1142334</b>	HDS2	R	13.000	.750	1150250	HDS1	R
		W/4 EA .375 LUGS			13.000	.750	<b>1150253</b>	HDS2	R
<b>11.422 SHAFT</b>					13.000	.750	1150254	HDS1	D
12.922	.750	1142257	HS7	R	13.000	.750	1150283	HDS1	V
<b>11.438 SHAFT</b>					13.000	.750	1150919	HDSA1	DD
13.000	.688	1144300	HDS1	R	13.000	.875	1150925	HDSA1	DD
13.000	.688	1144305	HDS1	R	13.000	1.063	1150920	HDSA1	RD
		W/4 EA .500 LUGS			13.000	.688	<b>1150210</b>	HDS2	V
13.625	.875	1144620	HDS1	R	13.125	1.000	1150340	HDS1	R
13.688	.875	1144660	HDS1	R	13.250	.750	<b>594850</b>	HS5	R
<b>11.446 SHAFT</b>					13.250	.750	1150380	HDS1	R
13.430	.875	1144560	HDS1	R	13.375	.750	1150470	HDS1	R
<b>11.500 SHAFT</b>					13.500	.625	<b>1150526</b>	HS8	D
	.750	86150	LDSL4		13.500	.625	1150527	HS7	R
		FOR SEAL SH SIZE 11.688	(296.88MM)		13.500	.625	<b>1150528</b>	HS8	R
	.750	90761	LDSL4				W/HOOK & EYE SPRING CONNECTOR		
		FOR SEAL SHAFT SIZE 11.688			13.500	.812	<b>HDL-4063-R</b>	HDL	R
12.500	.500	<b>1150018</b>	HS8	R	13.500	.813	1150557	HS7	R
12.500	.500	<b>1150019</b>	HS8	D	13.500	1.000	<b>1150578</b>	HS8	R
		W/HOOK & EYE SPRING CONNECTOR			13.500	1.000	1150587	HS7	R
12.500	.500	<b>595181</b>	HS5	R	13.500	1.000	511766	HS7	R
12.500	.625	1150017	HS7	R	13.500	1.000	525669	HS6	R
12.500	.625	<b>1150028</b>	HS8	R	13.500	.625	▲ <b>115041</b>	CRWH1	R
		W/HOOK & EYE SPRING CONNECTOR			13.500	.625	<b>1150522</b>	HDS2	R
12.750	.625	<b>1150116</b>	HS8	R	13.500	.625	<b>1150524</b>	HDS2	V
		W/HOOK & EYE SPRING CONNECTOR			13.500	.625	1150529	HDS3	D
12.750	.625	1150117	HS7	R			W/4 EA .500 ADJ. LUGS		
12.750	.625	<b>1150118</b>	HS8	R	13.500	.688	1150284	HDS1	V
12.750	.625	1150110	HDS1	R	13.500	.688	1150530	HDS1	R
12.750	.625	<b>1150112</b>	HDS2	R	13.500	.750	1150540	HDS1	R
12.750	.625	<b>1150113</b>	HDS2	D	13.500	.750	<b>1150546</b>	HDS2	R
							W/4 EA .125 LUGS		
					13.500	.750	1150547	HDS1	V
					13.500	.813	1150550	HDS1	R
					13.500	.813	<b>1150552</b>	HDS2	V
					13.500	.813	1150553	HDS1	V
					13.500	.875	1150560	HDS1	R

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## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>11.500 SHAFT (Cont.)</b>					<b>11.750 SHAFT (Cont.)</b>				
13.500	1.000	<b>1150572</b>	HDS2	D	13.250	.750	1175253	HDS1	R
13.500	1.000	1150580	HDS1	R			W/4 EA .125	LUGS	
13.500	1.000	<b>1150582</b>	HDS2	R	13.250	.750	<b>1175254</b>	HDS2	R
13.500	1.250	1150953	HDS1	RR			W/4 EA .125	LUGS	
13.500	1.250	1150954	HDS2	RR	13.250	.750	<b>1175255</b>	HDS2	V
13.625	.875	1150620	HDS1	R	13.250	.750	1175283	HDS1	V
13.750	.875	1150660	HDS1	R	13.250	.875	1175920	HDSC1	RD
<b>11.562 SHAFT</b>					13.250	.875	1175924	HDSA2	VD
	1.000	90333	LDSL4		13.250	.688	1175219	HDS7	R
	FOR SEAL SH SIZE 11.75		(298.45MM)		13.252	.750	1175300	HDS1	R
<b>11.575 SHAFT</b>					13.500	.625	1175360	HDS1	R
12.575	.500	1158017	HS7	R	13.750	.625	1175527	HS7	R
<b>11.623 SHAFT</b>					13.750	.813	1175557	HS7	R
	1.417	87875	LDSL3		13.750	1.000	1175587	HS7	R
	FOR SEAL SH SIZE 11.811				13.750	.625	117570	HDS3	D
<b>11.625 SHAFT</b>							W/4 EA .500 ADJ.	LUGS	
		116501	HDDFBV1	R	13.750	.875	1175560	HDS1	R
12.875	.625	<b>1162112</b>	HDS2	R	13.750	.875	<b>1175563</b>	HDS2	D
13.125	.750	1162216	HS6	R	13.750	.875	<b>1175565</b>	HDS2	R
13.125	.750	1163257	HS7	R			W/4 EA .125	LUGS	
13.125	.750	<b>1163259</b>	HS8	D	13.750	.875	1175569	HDS3	D
13.125	.688	<b>1163244</b>	HDS2	V			W/4 EA .500 ADJ.	LUGS	
13.125	1.000	1163290	HDS1	R	13.750	1.000	1175580	HDS1	R
13.191	.750	1163250	HDS1	R	13.750	1.000	<b>1175582</b>	HDS2	R
13.250	1.290	116500	HDDF1	R	13.750	1.000	1175583	HDS1	V
		O.D. LISTED IS SEAL I.D.			13.750	1.250	1175952	HDSB1	RD
13.625	.813	1163557	HS7	R	13.750	1.813	1175595	HDS1	R
<b>11.688 SHAFT</b>					13.875	.875	1175620	HDS1	R
12.938	.625	1169110	HDS1	R	14.000	.875	1175660	HDS1	R
13.062	.750	1169180	HDS1	R	14.000	1.000	1175680	HDS1	R
13.188	.625	1169235	HS7	V	<b>11.808 SHAFT</b>				
13.500	.866	<b>530513</b>	HS8	R	13.308	.750	1180257	HS7	R
		1 PKG/2 CUTS			<b>11.811 SHAFT</b>				
<b>11.750 SHAFT</b>							2.500	86903	LDSL4
	2.375	87872	LDSL3				FOR SEAL SH SIZE 11.999		(284.46MM)
					12.811	.500	596055	HS6	V
	.310	403002	VR3	R			W/HOOK & EYE SPRING CONNECTOR		
		SHAFT RANGE 11.220 - 12.200			13.311	.750	<b>1181218</b>	HS8	R
	.310	403006	VR3	V	13.378	.709	1181300	HDS1	R
		SHAFT RANGE 11.220 - 12.200			13.386	.787	<b>1181258</b>	HS8	R
	.688	1.125	593629	CT1			W/HOOK & EYE SPRING CONNECTOR		
	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT				13.575	.984	<b>1181428</b>	HS8	R
13.000	.625	<b>1175118</b>	HS8	R			W/HOOK & EYE SPRING CONNECTOR		
13.188	.875	1175190	HDS1	R	13.780	.984	1181500	HDS1	R
13.250	.625	<b>1175236</b>	HS8	R	<b>11.812 SHAFT</b>				
		W/HOOK & EYE SPRING CONNECTOR					1.125	86643	LDSL4
13.250	.625	1175237	HS7	R			FOR SEAL SH SIZE 12.000		(304.80MM)
13.250	.625	<b>1175238</b>	HS8	R			1.125	86687	LDSL4
13.250	.687	<b>HDL-4064-R</b>	HDL	R			FOR SEAL SH SIZE 12.000		(304.80MM)
13.250	.750	1175257	HS7	R	<b>11.813 SHAFT</b>				
13.250	.750	<b>1175258</b>	HS8	V			1.500	85979	LDSL4
		W/HOOK & EYE CONNECTOR					FOR SEAL SH SIZE 12.000		(304.80MM)
13.250	.625	1175239	HDS3	D			2.000	85874	LDSL4
		W/4 EA .500 ADJ. LUGS					FOR SEAL SH SIZE 12.000		(304.80MM)
13.250	.688	<b>1175224</b>	HDS2	V			2.250	84819	LDSL3
13.250	.688	1175240	HDS1	R			FOR SEAL SH SIZE 12.000		(304.80MM)
13.250	.688	1175243	HDS1	V			2.250	85046	LDSL4
13.250	.750	1175250	HDS1	R			FOR SEAL SH SIZE 12.000		(304.80MM)
13.250	.750	<b>1175252</b>	HDS2	R			2.750	85844	LDSL4
							FOR SEAL SH SIZE 12.000		(304.80MM)
					12.813	.500	1181017	HS7	R



Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code	
<b>11.813 SHAFT (Cont.)</b>					<b>12.000 SHAFT (Cont.)</b>					
13.250	1.000	1181195	HDS1	R	13.000	.500	<b>1200018</b>	HS8	R	
13.313	.750	1181257	HS7	R	13.000	.500	<b>1200028</b>	HS8	D	
13.780	1.000	1181577	HS7	R	13.000	.625	1200037	HS7	R	
13.812	.875	1181560	HDS1	R	13.000	.350	511200	HD1	D	
13.938	.875	1181620	HDS1	R			QUILL WIPER			
14.000	.750	<b>1180614</b>	HDS2	R	13.250	.625	1200117	HS7	R	
		W/4 EA .250 LUGS			13.250	.625	<b>1200118</b>	HS8	R	
14.000	.750	1181619	HDS3	D			W/HOOK & EYE SPRING CONNECTOR			
		W/4 EA .500 ADJ. LUGS			13.250	.625	1200110	HDS1	R	
14.000	.875	<b>1181593</b>	HDS2	V	13.250	.625	1200119	HDS3	D	
14.000	.875	1181640	HDS1	R			W/4 EA .500 ADJ. LUGS			
14.000	1.000	1181641	HDS1	R	13.250	1.000	1200100	HDS1	V	
14.000	1.250	1181960	HDSE1	RR	13.250	1.000	1200150	HDS1	R	
14.063	.875	1181660	HDS1	R	13.279	1.000	<b>1200103</b>	HDS2	V	
<b>11.875 SHAFT</b>					13.500	.625	<b>1200236</b>	HS8	R	
	.790	<b>403000</b>	VR1	R			W/HOOK & EYE SPRING CONNECTOR			
		SHAFT RANGE 11.420 - 12.200			13.500	.625	1200237	HS7	R	
	.790	<b>403004</b>	VR1	V	13.500	.625	<b>1200238</b>	HS8	R	
		SHAFT RANGE 11.420 - 12.200			13.500	.687	<b>HDL-4612-R</b>	HDL	R	
12.875	.625	<b>1187028</b>	HS8	R	13.500	.750	1200257	HS7	R	
		W/HOOK & EYE SPRING CONNECTOR			13.500	.750	<b>1200258</b>	HS8	R	
13.125	.625	<b>1188118</b>	HS8	R	13.500	.750	1200259	HS7	V	
13.375	.750	1188257	HS7	R	13.500	.750	593650	HS9	R	
<b>11.906 SHAFT</b>					13.500	.625	1200230	HDS1	R	
13.156	.625	1191117	HS7	R	13.500	.625	<b>1200231</b>	HDS2	R	
<b>11.938 SHAFT</b>					13.500	.625	1200233	HDS1	V	
13.938	.625	1194527	HS7	R	13.500	.625	<b>1200235</b>	HDS2	R	
13.938	.625	1194520	HDS1	R			W/ 4 EA .125" LUGS			
<b>11.947 SHAFT</b>					13.500	.625	1200239	HDS3	D	
13.947	1.000	<b>1194588</b>	HS8	R			W/4 EA .500 ADJ. LUGS			
<b>11.950 SHAFT</b>					13.500	.625	1200280	HDS1	D	
14.000	.688	1195530	HDS1	R	13.500	.688	1200220	HDS1	R	
<b>11.952 SHAFT</b>							W/4 EA .500 ADJ. LUGS			
13.952	1.000	<b>1195588</b>	HS8	R	13.500	.688	1200240	HDS1	R	
<b>11.963 SHAFT</b>					13.500	.688	1200241	HDS1	R	
13.963	1.000	<b>1196588</b>	HS8	R			W/4 EA .063 LUGS			
<b>11.968 SHAFT</b>					13.500	.688	1200242	HDS1	R	
	.709	86600	LDSL4				W/4 EA .125 LUGS			
		FOR SEAL SH SIZE 12.156	(308.76MM)		13.500	.688	<b>1200243</b>	HDS2	R	
	.688	.875	528036	CT3	R	13.500	.688	1200245	HDS1	R
		BORE DIA. IS SHOULDER WIDTH	W/BUTT JOINT				W/4 EA .375 LUGS			
<b>11.971 SHAFT</b>					13.500	.750	1200250	HDS1	R	
13.771	1.000	<b>1197588</b>	HS8	R	13.500	.750	1200252	HDS1	R	
<b>12.000 SHAFT</b>							W/4 EA .188 LUGS			
	2.250	85577	LDSL4		13.500	.750	1200254	HDS1	R	
		FOR SEAL SH SIZE 12.188	(309.58MM)				W/8 EA .125 LUGS			
	2.250	87406	LDSL3		13.500	.750	<b>1200255</b>	HDS2	R	
		FOR SEAL SH SIZE 12.188	(309.58MM)		13.500	.875	1200920	HDSA1	RD	
.688	.875	524380	CT3	R	13.500	.625	1213210	HDS7	R	
		BORE DIA. IS SHOULDER WIDTH			13.500	.625	1213211	HDS7	R	
.813	1.250	524208	CT1	R			W/4 EA .313 LUGS			
		BORE DIA. IS SHOULDER WIDTH			13.625	.625	120045	HDS3	D	
1.063	1.500	525582	CT1	R			W/4 EA .500 ADJ. LUGS			
		BORE DIA. IS SHOULDER WIDTH			13.625	.688	1200300	HDS1	D	
13.000	.500	<b>1200015</b>	HS5	R	13.625	.688	1200320	HDS1	R	
13.000	.500	1200017	HS7	R	13.625	.688	1200324	HDS1	R	
							W/4 EA .250 LUGS			
					13.625	.750	1200330	HDS1	R	
					13.625	.750	1200338	HDS1	D	
					13.688	.875	1200340	HDS1	R	
					13.750	.750	1200380	HDS1	R	
					13.938	.688	1200500	HDS7	R	
					13.992	1.750	1200940	HDS01	RR	
					14.000	.625	<b>1200524</b>	HS8	R	
							W/HOOK & EYE SPRING CONNECTOR			

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## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>12.000 SHAFT (Cont.)</b>					<b>12.125 SHAFT</b>				
14.000	.625	1200527	HS7	R	13.125	.500	<b>1212018</b>	HS8	R
14.000	.688	<b>1200538</b>	HS8	R	13.375	.625	<b>1213118</b>	HS8	R
			W/HOOK & EYE SPRING CONNECTOR		13.500	.625	1213160	HDS1	R
14.000	.750	<b>HDL-4071-R</b>	HDL	R	13.875	.750	1213380	HDS1	R
14.000	.812	<b>HDL-4072-R</b>	HDL	R	13.875	.750	<b>1213382</b>	HDS2	R
14.000	.813	1200557	HS7	R	14.000	.855	<b>1215508</b>	HS8	R
14.000	.813	<b>1200558</b>	HS8	R	14.000	1.000	1213490	HDS1	R
14.000	.813	<b>1200559</b>	HS8	D	14.250	.875	1213620	HDS1	R
14.000	1.000	1200587	HS7	R	<b>12.156 SHAFT</b>				
14.000	.625	1200518	HDS3	D	13.500	.625	1215110	HDS1	R
			W/4 EA .500 ADJ LUGS & SS CASE		<b>12.188 SHAFT</b>				
14.000	.625	1200520	HDS1	R	13.438	.625	<b>1219112</b>	HDS2	R
14.000	.625	1200522	HDS1	R	13.688	.625	<b>1218238</b>	HS8	R
			W/4 EA .125 LUGS		13.688	.625	1219237	HS7	R
14.000	.625	1200523	HDS1	V	13.688	.625	1219230	HDS1	R
14.000	.625	<b>1200526</b>	HDS2	R	<b>12.238 SHAFT</b>				
			W/4 EA .125 LUGS		13.750	.750	<b>1223312</b>	HDS2	H
14.000	.625	1200529	HDS3	D	<b>12.250 SHAFT</b>				
			W/4 EA .500 ADJ. LUGS		13.375	.625	▲ <b>122555</b>	CRWH1	R
14.000	.625	▲ <b>120060</b>	CRW1	R	13.500	.625	<b>1225118</b>	HS8	R
14.000	.688	1200530	HDS1	R	13.750	.625	1225237	HS7	R
14.000	.688	1200533	HDS1	V	13.750	.625	<b>1225238</b>	HS8	R
14.000	.688	1200535	HDS1	R				W/HOOK & EYE SPRING CONNECTOR	
			W/4 EA .500 LUGS		13.750	.687	<b>HDL-4613-R</b>	HDL	R
14.000	.750	1200540	HDS1	R	13.750	.750	<b>1225125</b>	HS5	R
14.000	.750	<b>1200541</b>	HDS2	R	13.750	.750	1225257	HS7	R
14.000	.750	<b>1200545</b>	HDS2	R	13.750	.875	<b>HDL-4614-R</b>	HDL	R
			W/4 EA .125 LUGS		13.750	.625	1225230	HDS1	R
14.000	.813	1200550	HDS1	R	13.750	.625	<b>1225232</b>	HDS2	V
14.000	.813	<b>1200553</b>	HDS2	R	13.750	.625	1225239	HDS3	D
14.000	.844	1200962	HDSA2	VD				W/4 EA .500 ADJ. LUGS	
			W/LIGHT SPRING		13.750	.688	1225240	HDS1	R
14.000	.875	1200560	HDS1	R	13.750	.688	<b>1225245</b>	HDS2	R
14.000	1.000	1200580	HDS1	R				W/4 EA .125 LUGS	
14.000	1.000	<b>1200585</b>	HDS2	R	13.750	.688	1225247	HDS1	V
14.000	1.000	1200593	HDS1	V	13.750	.688	<b>1225282</b>	HDS2	D
14.000	1.000	1200955	HDSA2	RD	13.750	.719	1225241	HDS1	R
14.000	1.000	1200958	† HDSB1	RD	13.750	.750	1225250	HDS1	R
14.000	1.250	1200952	HDSB1	RD	13.750	.750	<b>1225252</b>	HDS2	R
14.000	1.250	1200968	HDS1	RR	13.750	.875	1225928	HDSC1	RD
14.000	.812	1200521	HDS7	R	13.750	1.105	1225920	HDSC1	R
14.188	1.000	1200640	HDS1	R	13.750	.750	1225259	HDS7	D
14.250	.875	1200660	HDS1	R	13.813	.625	<b>1225283</b>	HDS2	V
14.250	1.000	1200680	HDS1	R	13.813	.625	▲ <b>122580</b>	CRW1	R
14.250	1.188	<b>1200691</b>	HDS2	R	13.813	.719	1225300	HDS1	R
14.375	1.000	1200730	HDS1	R	14.000	.750	1225380	HDS1	R
14.500	.875	1200760	HDS1	R	14.000	.875	1225410	HDS1	R
14.500	1.000	1200782	HDS1	D	14.000	.688	1225379	HDS7	R
14.750	.875	1200820	HDS1	R	14.250	.500	<b>1225518</b>	HS8	R
<b>12.050 SHAFT</b>					14.250	.812	<b>HDL-4075-R</b>	HDL	R
13.313	.750	1205144	HDS1	R	14.250	.813	1225557	HS7	R
<b>12.063 SHAFT</b>					14.250	.625	<b>1225532</b>	HDS2	R
	.625	85418	LDSL4		14.250	.640	<b>1225523</b>	HDS2	D
			(311.15MM)		14.250	.640	<b>1225525</b>	HDS2	R
	.875	87248	LDSL4		14.250	.640	1225529	HDS3	D
			(311.15MM)					W/4 EA .500 ADJ. LUGS	
	2.500	86404	LDSL3		14.250	.665	<b>1225495</b>	HDS2	R
			(311.15MM)		14.250	.665	1225496	HDS1	R
13.125	.875	1206030	HDS1	R	14.250	.719	1225500	HDS1	R
13.313	.750	1206130	HDS1	R	14.250	.750	1225540	HDS1	R
<b>12.100 SHAFT</b>									
14.000	1.250	594330	HDSB1	R					

Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>12.250 SHAFT (Cont.)</b>					<b>12.500 SHAFT (Cont.)</b>				
14.250	.750	1225541	HDS1	R	2.500		86947	LDSL4	
		W/4 EA .125 LUGS					FOR SEAL SH SIZE 12.688	(322.28MM)	
14.250	.750	<b>1225542</b>	†HDS2	R	13.500	.500	1250017	HS7	R
14.250	.750	<b>1225543</b>	HDS2	D	13.500	.500	<b>1250018</b>	HS8	R
14.250	.750	1225544	HDS1	R	13.500	.500	1250027	HS7	R
		W/4 EA .250 LUGS			13.500	.350	513034	HD1	D
14.250	.750	<b>1225545</b>	HDS2	R			QUILL WIPER		
		W/4 EA .250 LUGS			13.750	.625	1250117	HS7	R
14.250	.750	<b>1225573</b>	HDS2	V	13.750	.625	<b>1250118</b>	HS8	R
14.250	.813	1225550	HDS1	R			W/HOOK & EYE SPRING CONNECTOR		
14.250	.813	<b>1225554</b>	HDS2	V	13.750	.625	<b>1250128</b>	HS8	H
14.250	1.000	1225580	HDS1	R	13.750	.625	1250110	HDS1	R
14.250	1.000	<b>1225582</b>	HDS2	D	13.750	.625	1250113	HDS1	V
14.250	1.000	<b>1225583</b>	HDS2	R	13.750	.625	<b>1250115</b>	HDS2	V
14.250	1.000	▲ <b>122590</b>	CRWHA1	R	13.750	.625	1250119	HDS3	D
14.250	1.125	1225590	HDS1	R			W/4 EA .500 ADJ. LUGS		
14.250	1.250	1225588	HDSA2	RD	13.750	.750	1250130	HDS1	R
14.250	1.250	1225600	HDS1	R	13.750	.906	1250912	HDSA2	RD
14.250	1.250	1225912	HDSE2	RR	13.922	.516	511843	HS9	R
		W/8 EA .125 LUBE HOLES on O.D.			14.000	.500	511705	HS9	R
14.250	1.250	1225918	HDSE1	RR	14.000	.625	<b>1250238</b>	HS8	R
		W/8 EA .125 LUBE HOLES ON O.D.			14.000	.687	<b>HDL-4079-R</b>	HDL	R
14.250	1.250	1225960	HDSA1	RD	14.000	.750	1250257	HS7	R
14.250	.750	1225549	HDS7	R	14.000	.750	<b>1250258</b>	HS8	R
14.250	.812	1225370	HDS7	R	14.000	.875	1250272	HDSA2	D
14.250	1.250	1225589	HDS7	R	14.000	.625	1250230	HDS1	R
14.500	.875	1225660	HDS1	R	14.000	.688	1250240	HDS1	R
					14.000	.688	<b>1250242</b>	HDS2	R
					14.000	.688	<b>1250244</b>	HDS2	R
<b>12.283 SHAFT</b>							W/4 EA .125 LUGS		
13.750	.688	<b>1228172</b>	HDS2	D	14.000	.688	1250249	HDS3	D
<b>12.312 SHAFT</b>							W/4 EA .500 ADJ. LUGS		
	1.500	90174	LDSL4		14.000	.750	1250250	HDS1	R
		FOR SEAL SH SIZE 12.500			14.000	.750	<b>1250252</b>	HDS2	R
<b>12.313 SHAFT</b>					14.000	.813	1250260	HDS1	R
	.750	83760	LDSL4		14.000	.875	1250922	HDSA2	D
		FOR SEAL SH SIZE 12.500	(317.50MM)		14.000	.906	1250924	HDSA2	V
<b>12.373 SHAFT</b>					14.000	.688	1250239	HDS7	R
13.875	.688	<b>1238242</b>	HDS2	D	14.000	.906	1250570	HDS1	R
<b>12.375 SHAFT</b>					14.250	.875	1250350	HDS1	V
13.875	.625	1238237	HS7	R	14.250	.875	1250410	HDS1	R
13.875	.687	<b>HDL-4076-R</b>	HDL	R	14.500	.812	<b>HDL-4083-R</b>	HDL	R
13.875	.750	1238257	HS7	R	14.500	.813	1250557	HS7	R
13.875	.688	1238240	HDS1	R	14.500	.813	<b>1250558</b>	HS8	R
13.875	.750	1238250	HDS1	R	14.500	1.000	<b>1250578</b>	HS8	R
14.000	.687	<b>HDL-4056-R</b>	HDL	R	14.500	.750	1250540	HDS1	R
14.000	.750	1238330	HDS1	R	14.500	.750	<b>1250542</b>	HDS2	R
14.250	.875	1238480	HDS1	R	14.500	.750	1250549	HDS3	D
14.375	1.000	1238580	HDS1	R			W/4 EA .500 ADJ. LUGS		
14.500	.875	1238620	HDS1	R	14.500	.750	<b>593499</b>	HDS2	R
14.500	1.000	1238630	HDS1	R	14.500	.813	1250550	HDS1	R
<b>12.400 SHAFT</b>					14.500	.813	<b>1250553</b>	HDS2	R
		124021	HDDFBV1	R	14.500	.813	<b>1250554</b>	HDS2	V
14.375	1.656	124020	HDDF1	R	14.500	.813	<b>1250555</b>	HDS2	R
<b>12.469 SHAFT</b>							W/4 EA .500 LUGS		
14.000	.750	1247300	HDS1	R	14.500	.875	1250560	HDS1	R
<b>12.500 SHAFT</b>					14.500	.875	1250561	HDS1	R
	2.125	86169	LDSL4				W/4 EA .125 LUGS		
		FOR SEAL SH SIZE 12.688	(322.28MM)		14.500	.875	<b>1250564</b>	HDS2	R
					14.500	.875	1250565	HDS1	R
							W/4 EA .375 LUGS		
					14.500	.875	1250566	HDS1	R
							W/4 EA .188 LUGS		
					14.500	.875	<b>1250567</b>	HDS2	R
							W/4 EA .125 LUGS		

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## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>12.500 SHAFT (Cont.)</b>					<b>12.688 SHAFT (Cont.)</b>				
14.500	.906	1250574	HDS1	R	16.500	.688	<b>1269900</b>	HDS2	R
		W/4 EA .438 LUGS							
14.500	1.000	1250580	HDS1	R	<b>12.750 SHAFT</b>				
14.500	1.000	<b>1250582</b>	HDS2	R	.688	87513	LDLVL4		
14.500	1.250	1250950	HDSA1	RD		FOR SEAL SH SIZE 12.938			
14.500	1.250	1250952	HDS1	RR	.875	87246	LDLVL4		
14.625	1.000	1250630	HDS1	R	FOR SEAL SH SIZE 12.938 (328.63MM)				
14.750	.875	1250660	HDS1	R	1.125	82099	LDLVL3		
14.750	1.000	1250680	HDS1	R	FOR SEAL SH SIZE 12.938 (328.63MM)				
15.000	.813	1250750	HDS1	R	1.500	90143	LDLVL3		
<b>12.563 SHAFT</b>					FOR SEAL SH SIZE 12.938 (328.63MM)				
14.250	.750	1256330	HDS1	R	13.625	.563	<b>127540</b>	HMSA7	R
<b>12.565 SHAFT</b>					14.250	.625	<b>1275238</b>	HS8	R
14.063	.750	1256250	HDS1	R	14.250	.625	<b>594327</b>	HS8	V
<b>12.590 SHAFT</b>					14.250	.687	<b>HDL-4089-R</b>	HDL	R
14.125	1.000	1259300	HDS1	R	14.250	.750	1275255	HS7	V
<b>12.598 SHAFT</b>					14.250	.750	1275257	HS7	R
.980	87434	LDLVL3			14.250	.688	1275240	HDS1	R
FOR SEAL SH SIZE 12.786 (324.76MM)					14.250	.688	<b>1275242</b>	HDS2	R
.196	<b>403203</b>	VR4	R		14.250	.688	<b>1275243</b>	HDS2	V
SHAFT RANGE 12.598-12.795					14.250	.688	1275244	HDS1	V
14.492	.750	1259476	HS6	R	14.250	.688	<b>1275246</b>	HDS2	D
<b>12.620 SHAFT</b>					W/4 EA .500 LUGS				
14.250	.750	1262340	HDS1	R	14.250	.688	1275249	HDS3	D
<b>12.625 SHAFT</b>					W/4 EA .500 ADJ. LUGS				
.310	403252	VR3	R		14.250	.688	<b>1275256</b>	HDS2	V
SHAFT RANGE 12.200 - 13.190					W/4 EA .500 ADJ. LUGS				
.310	403256	VR3	V		14.250	.750	1275250	HDS1	R
SHAFT RANGE 12.200 - 13.190					14.250	.750	<b>1275252</b>	HDS2	R
.790	<b>403250</b>	VR1	R		14.250	.625	1275219	HDS7	H
SHAFT RANGE 12.200 - 13.190					14.500	.625	<b>1275368</b>	HS8	R
.790	<b>403254</b>	VR1	V		14.500	.688	<b>1275373</b>	HDS2	V
SHAFT RANGE 12.200 - 13.190					14.750	.875	1275560	HDS1	R
1.063	1.500	596098	CT1	R	14.750	.875	1275569	HDS3	D
BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT					W/4 EA .500 ADJ. LUGS				
13.875	.625	1263117	HS7	R	14.750	1.000	1275580	HDS1	R
13.875	.625	<b>1262112</b>	HDS2	R	14.750	1.000	<b>1275582</b>	HDS2	R
14.125	.625	<b>1263238</b>	HS8	R	14.750	1.250	1275590	HDS1	R
14.125	.750	1263237	HS7	R	14.750	1.250	1275950	HDSB1	RD
14.125	.750	1263250	HDS1	R	15.000	.875	1275660	HDS1	R
14.125	.750	<b>1263252</b>	HDS2	D	15.250	.688	1275740	HDS1	R
14.125	1.000	1263290	HDS1	R	15.250	.875	1275760	HDS1	R
14.250	.750	1263330	HDS1	R	15.500	.875	1275820	HDS1	R
14.500	.875	1263480	HDS1	R	15.750	1.000	<b>1275892</b>	HDS2	R
14.500	1.000	1263490	HDS1	R	<b>12.795 SHAFT</b>				
14.625	.875	1263569	HDS3	D	14.370	.630	<b>1279282</b>	HDS2	D
<b>12.688 SHAFT</b>					<b>12.812 SHAFT</b>				
13.688	.500	<b>1268018</b>	HS8	R	1.750	86970	LDLVL4		
14.000	.750	1268130	HDS1	R	FOR SEAL SH SIZE 13.000 (330.20MM)				
14.250	.750	1269290	HDS1	R	<b>12.813 SHAFT</b>				
14.688	.813	1269557	HS7	R	1.000	86258	LDLVL4		
14.750	1.000	1269600	HDS1	R	FOR SEAL SH SIZE 13.000 (330.20MM)				
15.000	.875	1269700	HDS1	R	1.375	84263	LDLVL4		
15.250	.875	1269800	HDS1	R	FOR SEAL SH SIZE 13.000 (330.20MM)				
					1.500	86721	LDLVL4		
					FOR SEAL SH SIZE 13.000 (330.20MM)				
					2.000	84390	LDLVL3		
					FOR SEAL SH SIZE 13.000 (330.20MM)				
					2.500	86722	LDLVL4		
					FOR SEAL SH SIZE 13.000 (330.20MM)				
					14.312	.750	1281250	HDS1	R
					14.375	.625	1281260	HDS1	V

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Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>12.875 SHAFT</b>					<b>13.000 SHAFT (Cont.)</b>				
14.125	.875	1287912	HDSA2	R	15.000	.813	1300557	HS7	R
14.375	.625	1288237	HS7	R	15.000	.813	<b>1300558</b>	HS8	R
14.375	.750	1288257	HS7	R	15.000	.813	<b>1300568</b>	HS8	D
14.500	.688	<b>1288322</b>	HDS2	R	15.000	1.000	1300587	HS7	R
14.750	.875	1288480	HDS1	R	15.000	1.000	1300600	HDS7	R
14.750	1.000	1288490	HDS1	R	15.000	.750	1300540	HDS1	R
14.875	1.000	1288580	HDS1	R	15.000	.750	<b>1300542</b>	HDS2	R
15.000	.875	1288620	HDS1	R	15.000	.750	1300549	HDS3	D
15.250	.875	1288710	HDS1	R			W/4 EA .500 ADJ. LUGS		
15.500	.875	1288800	HDS1	R	15.000	.813	1300550	HDS1	R
<b>12.938 SHAFT</b>					15.000	.813	<b>1300552</b>	HDS2	R
14.250	.625	<b>1293098</b>	HS8	R	15.000	.813	1300553	HDS1	R
<b>12.975 SHAFT</b>							W/4 EA .344 LUGS		
14.500	.750	<b>1297218</b>	HS8	R	15.000	.875	1300560	HDS1	R
<b>13.000 SHAFT</b>					15.000	.875	<b>1300565</b>	HDS2	R
	1.750	85535	LDSL4				W/4 EA .125 LUGS		
	FOR SEAL SH SIZE 13.188		(334.98MM)		15.000	.938	1300570	HDS1	R
.688	1.125	524209	CT1	R	15.000	.938	1300573	HDS1	V
	BORE DIA. IS SHOULDER WIDTH				15.000	1.000	1300580	HDS1	R
1.063	1.500	523587	CT1	R	15.000	1.000	<b>1300582</b>	HDS2	V
	BORE DIA. IS SHOULDER WIDTH				15.000	1.000	<b>1300585</b>	HDS2	R
14.000	.063	451300	BUW	#	15.000	1.313	1300590	HDSE1	RR
14.000	.500	711854	BV	D	15.375	1.375	1300973	HDSE2	DD
14.000	.500	<b>1300018</b>	HS8	R	16.000	1.000	1300990	HDSA1	RD
14.000	.500	<b>1300019</b>	HS8	D	<b>13.063 SHAFT</b>				
14.500	.625	1300237	HS7	R	1.125	84963	LDSL4		
14.500	.687	<b>HDL-4093-R</b>	HDL	R	FOR SEAL SH SIZE 13.250		(336.50MM)		
14.500	.750	1300257	HS7	R	<b>13.125 SHAFT</b>				
14.500	.750	<b>1300258</b>	HS8	R	.687	.875	596435	CT3	R
14.500	.750	<b>1300259</b>	HS8	D	BORE DIA. IS SHOULDER WIDTH		W/BUTT JOINT		
14.500	.688	1300240	HDS1	R	.688	.875	524381	CT3	R
14.500	.688	1300242	HDS1	R	BORE DIA. IS SHOULDER WIDTH				
		W/4 EA .125 LUGS			14.625	.750	1313257	HS7	R
14.500	.688	1300243	HDS1	R	15.125	.750	<b>592920</b>	HS8	R
		W/4 EA .375 LUGS			15.125	.813	1313557	HS7	R
14.500	.688	<b>1300244</b>	HDS2	R	15.125	.875	1313560	HDS1	R
14.500	.688	1300249	HDS3	D	15.250	.875	1313620	HDS1	R
		W/4 EA .500 ADJ. LUGS			15.500	.875	1313710	HDS1	R
14.500	.688	1300254	HDS1	V	15.750	.875	1313800	HDS1	R
14.500	.688	<b>1300283</b>	HDS2	V	<b>13.187 SHAFT</b>				
14.500	.750	1300250	HDS1	R	14.688	.688	<b>1318222</b>	HDS2	R
14.500	.750	1300251	HDS1	D	<b>13.188 SHAFT</b>				
14.500	.750	<b>1300252</b>	HDS2	R	14.188	.500	1319017	HS7	R
14.500	.750	1300253	HDS1	V	14.500	.750	<b>1318102</b>	HDS2	R
14.500	.875	1300900	HDSA1	RD	14.500	1.250	1318920	HSDS2	RR
14.500	.875	1300901	HDSA2	D	<b>13.220 SHAFT</b>				
14.500	1.000	1300290	HDS1	R	14.407	.625	1322100	HDS1	R
14.500	1.000	<b>1300292</b>	HDS2	R	<b>13.250 SHAFT</b>				
14.500	1.000	1300920	HDSA1	RD	14.750	.625	<b>1325228</b>	HS8	R
14.500	1.500	1300921	HSDS2	DD	14.750	.625	1325237	HS7	R
14.500	.875	1300929	HDSB1	RD	14.750	.625	<b>1325238</b>	HS8	R
14.606	.703	513509	HS9	R			W/HOOK & EYE SPRING CONNECTOR		
14.625	.750	1300337	HS7	R	14.750	.687	<b>HDL-4101-R</b>	HDL	R
14.625	.750	1300330	HDS1	R	14.750	.750	1325257	HS7	R
14.734	.703	514635	HS9	R	14.750	.625	1325230	HDS1	R
14.750	.875	1300410	HDS1	R	14.750	.625	<b>1325232</b>	HDS2	D
14.750	1.000	1300420	HDS1	R	14.750	.625	1325235	HDS1	V
14.812	.625	1300444	HDS1	R	14.750	.625	1325239	HDS3	D
14.875	.875	1300480	HDS1	R			W/4 EA .500 ADJ. LUGS		
15.000	.625	1300527	HS7	R					
15.000	.750	<b>1300548</b>	HS8	R					
15.000	.812	<b>HDL-4099-R</b>	HDL	R					

★Contact manufacturer for availability  
**Bold numbers** are preferred designs

† Includes Bore-Tite on O.D.  
 ▲ WasteWatcher numbers

## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>13.250 SHAFT (Cont.)</b>					<b>13.358 SHAFT</b>				
14.750	.688	1325240	HDS1	R	15.000	.750	1335340	HDS1	R
14.750	.688	<b>1325242</b>	HDS2	R	<b>13.375 SHAFT</b>				
14.750	.688	<b>1325243</b>	HDS2	V	14.375	.500	1338017	HS7	R
14.750	.688	<b>1325244</b>	HDS2	R	14.875	.625	<b>1338235</b>	HS5	R
		W/4 EA .125 LUGS			14.875	.625	<b>1338238</b>	HS8	R
14.750	.688	<b>596517</b>	† HDS2	R	14.875	.625	<b>594057</b>	HS8	R
14.750	.750	1325250	HDS1	R	14.875	.750	1338257	HS7	R
14.750	.750	<b>1325252</b>	HDS2	R	14.875	.750	1338250	HDS1	R
14.750	.906	1325922	HDSA2	D	15.000	.750	1338330	HDS1	R
14.750	.906	1325928	HDSA2	V	15.250	.875	1338480	HDS1	R
14.750	1.000	1325290	HDS1	R	15.375	.813	1338557	HS7	R
14.875	.687	<b>HDL-7734-R</b>	HDL	R	15.375	1.000	1338587	HS7	R
14.875	.688	1325300	HDS1	R	15.375	.875	1338560	HDS1	R
14.875	.750	1325330	HDS1	R	15.500	.875	1338620	HDS1	R
14.875	.750	1325339	HDS3	D	15.750	.875	1338710	HDS1	R
		W/4 EA .500 ADJ. LUGS			15.750	.875	<b>1337712</b>	HDS2	R
14.875	.938	1325340	HDS1	R	16.000	.875	1338800	HDS1	R
14.875	1.000	1325932	HDSA2	D	WITH 4 EA .252 FIXED LUGS				
15.000	.750	1325380	HDS1	R	<b>13.386 SHAFT</b>				
15.000	.750	1325389	HDS3	D	15.000	.875	1338273	HDSA2	V
		W/4 EA .500 ADJ. LUGS			15.118	.787	<b>1338332</b>	HDS2	R
15.000	.875	1325410	HDS1	R	15.354	1.000	1338577	HS7	R
15.000	1.000	1325420	HDS1	R	15.740	.984	1339690	HDS1	R
15.000	1.250	1325940	HDSA1	RD	15.748	1.094	1339680	HDS1	R
15.125	.875	1325480	HDS1	R	<b>13.469 SHAFT</b>				
15.250	.813	1325557	HS7	R	14.469	.500	1347017	HS7	R
15.250	1.000	<b>1325588</b>	HS8	R	<b>13.500 SHAFT</b>				
15.250	.750	1325540	HDS1	R	14.500	.500	<b>1350014</b>	HS8	R
15.250	.750	1325549	HDS3	D	14.500	.500	<b>1350018</b>	HS8	R
		W/4 EA .500 ADJ. LUGS			14.500	.500	<b>1350028</b>	HS8	R
15.250	.875	1325560	HDS1	R	W/HOOK & EYE SPRING CONNECTOR				
15.250	1.000	1325580	HDS1	R	14.750	.625	<b>1350112</b>	HDS2	R
15.250	1.000	1325950	HDSA1	RD	14.922	.500	<b>1350158</b>	HS8	R
15.250	1.125	1325590	HDS1	R	15.000	.625	<b>1350235</b>	HS5	D
15.250	1.250	1325600	HDS1	R	15.000	.625	1350237	HS7	R
15.250	1.250	<b>1325605</b>	HDS2	R	15.000	.625	<b>1350238</b>	HS8	R
15.250	1.250	<b>1325606</b>	HDS2	D	W/HOOK & EYE SPRING CONNECTOR				
15.250	.750	1325569	HDS7	R	15.000	.687	<b>HDL-4121-R</b>	HDL	R
15.375	1.000	1325630	HDS1	R	15.000	.750	1350257	HS7	R
15.500	.875	1325660	HDS1	R	15.000	.750	<b>1350258</b>	HS8	R
15.500	1.000	1325680	HDS1	R	15.000	.750	<b>1350259</b>	HS8	D
15.750	.875	1325760	HDS1	R	15.000	.625	1350230	HDS1	R
16.000	.875	1325820	HDS1	R	15.000	.625	<b>1350232</b>	HDS2	D
<b>13.313 SHAFT</b>					<b>13.500 SHAFT</b>				
	.813	86319	LDSL4		15.000	.625	<b>1350233</b>	HDS2	D
		FOR SEAL SH SIZE 13.500			15.000	.625	1350239	HDS3	D
	.813	86688	LDSL4		W/4 EA .125 LUGS				
		FOR SEAL SH SIZE 13.500					<b>1350233</b>	HDS2	D
	1.500	87463	LDSL4				1350239	HDS3	D
		FOR SEAL SH SIZE 13.500			W/4 EA .500 ADJ. LUGS				
	2.000	85852	LDSL3		15.000	.688	1350240	HDS1	R
		FOR SEAL SH SIZE 13.500			15.000	.688	1350245	HDS1	V
14.875	.750	1331300	HDS1	R	15.000	.750	1350250	HDS1	R
15.000	1.000	<b>1331348</b>	HS8	R	15.000	.750	1350251	HDS1	R
15.000	.750	1331340	HDS1	R	W/4 EA .125 LUGS				
15.250	.875	1331500	HDS1	R	15.000	.750	<b>1350252</b>	HDS2	R
15.375	.875	1331600	HDS1	R	15.000	.750	1350253	HDS1	D
15.438	.875	1331620	HDS1	R	15.000	.750	<b>1350212</b>	HDS2	V
15.500	.875	1331630	HDS1	R	15.125	.750	1350330	HDS1	R
15.500	1.000	1331640	HDS1	R	15.250	.750	1350387	HS7	R
15.750	.875	1331740	HDS1	R	15.250	.750	1350380	HDS1	R
16.000	.875	1331800	HDS1	R	15.250	.875	1350410	HDS1	R
					15.312	.625	1350444	HDS1	R
					15.375	.875	1350480	HDS1	R



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Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>13.500 SHAFT (Cont.)</b>					<b>13.750 SHAFT</b>				
15.438	.875	1350510	HDS1	R			137571	HDDFBV1	R
15.500	.625	1350527	HS7	R	.310		403502	VR3	R
15.500	.812	<b>HDL-4128-R</b>	HDL	R			SHAFT RANGE 13.190 - 14.370		
15.500	.812	<b>HDL-4128-V</b>	HDL	V	.310		403506	VR3	V
15.500	.813	1350557	HS7	R			SHAFT RANGE 13.190 - 14.370		
15.500	.813	<b>594222</b>	HS8	R	.790		<b>403500</b>	VR1	R
		W/HOOK & EYE SPRING CONNECTOR					SHAFT RANGE 13.190 - 14.370		
15.500	1.000	1350587	HS7	R	.790		<b>403504</b>	VR1	V
15.500	1.375	1350962	HDS02	R			SHAFT RANGE 13.190 - 14.370		
15.500	.750	1350540	HDS1	R	14.750	.500	1375017	HS7	R
15.500	.750	<b>1350542</b>	HDS2	R	14.750	.500	<b>1375018</b>	HS8	R
15.500	.750	1350549	HDS3	D	15.000	.625	1375110	HDS1	R
		W/4 EA .500 ADJ. LUGS			15.000	.750	1375130	HDS1	R
15.500	.813	1350550	HDS1	R	15.000	.750	1375131	HDS1	D
15.500	.813	1350551	HDS1	R	15.000	.750	<b>1375133</b>	HDS2	R
		W/4 EA .375 LUGS					W/4 EA .125 LUGS		
15.500	.813	<b>1350552</b>	HDS2	R	15.250	.625	<b>1375236</b>	HS8	R
15.500	.813	1350553	HDS1	R			W/HOOK & EYE SPRING CONNECTOR		
		W/4 EA .375 LUGS			15.250	.625	1375237	HS7	R
15.500	.813	<b>1350554</b>	HDS2	R	15.250	.625	<b>1375238</b>	HS8	R
		W/4 EA .125 LUGS			15.250	.750	1375257	HS7	R
15.500	.813	1350555	HDS1	V	15.250	.625	1375230	HDS1	R
15.500	.813	<b>1350564</b>	HDS2	V	15.250	.625	1375239	HDS3	D
15.500	.875	1350560	HDS1	R			W/4 EA .500 ADJ. LUGS		
15.500	.875	1350954	HDSA2	RD	15.250	.688	<b>1375224</b>	HDS2	V
15.500	1.000	1350580	HDS1	R	15.250	.688	1375240	HDS1	R
15.500	1.000	1350583	HDS1	V	15.250	.688	<b>1375242</b>	HDS2	R
15.500	1.063	1350590	HDS1	R	15.250	.750	1375250	HDS1	R
		W/4 EA .438 LUGS			15.250	.625	1375719	HDS7	H
15.500	1.250	1350591	HDS1	R	15.438	.750	1375340	HDS1	R
15.500	1.250	1350953	HDE1	RR	15.500	.750	1375380	HDS1	R
15.500	1.250	1350970	HDSB1	RD	15.500	.750	<b>1375382</b>	HDS2	R
15.500	1.250	593517	HDSB1	VD	15.500	.750	1375387	HDS1	V
15.500	1.375	1350980	HDS01	RR	15.500	.750	<b>1375388</b>	HDS2	H
15.500	1.500	1350592	HDS1	R	15.500	.875	1375418	HDSA1	VD
15.500	.812	1350520	HDS7	R	15.508	.750	1375430	HDS1	R
15.500	1.000	<b>1350532</b>	HDS2	R	15.563	1.000	1375445	HDS1	R
		WITH SPRING KOVER			15.750	.625	1375527	HS7	R
15.750	.875	1350660	HDS1	R	15.750	.625	<b>1375528</b>	HS8	R
15.752	1.000	1350690	HDS1	R			W/HOOK & EYE SPRING CONNECTOR		
16.000	.875	1350760	HDS1	R	15.750	.812	<b>HDL-4129-R</b>	HDL	R
16.500	1.000	1350750	HDS1	R	15.750	.813	1375557	HS7	R
17.300	1.000	1350900	HDS1	R	15.750	1.000	<b>1375588</b>	HS8	R
					15.750	.625	<b>1375522</b>	HDS2	R
					15.750	.625	1375529	HDS3	D
							W/4 EA .500 ADJ. LUGS		
					15.750	.750	1375540	HDS1	R
					15.750	.750	1375543	HDS1	V
					15.750	.750	<b>1375544</b>	HDS2	V
					15.750	.813	1375550	HDS1	R
					15.750	.813	<b>1375553</b>	HDS2	V
					15.750	.875	1375560	HDS1	R
					15.750	1.000	<b>1375542</b>	HDS2	R
					15.750	1.000	1375580	HDS1	R
					15.817	1.875	137570	HDDF1	R
							O.D. LISTED IS SEAL I.D.		
					16.000	.875	1375660	HDS1	R
					16.000	1.000	1375680	HDS1	R
					16.250	.875	1375760	HDS1	R
					16.500	.875	1375820	HDS1	R
					<b>13.780 SHAFT</b>				
					15.279	.750	1378257	HS7	R
					15.708	.787	<b>1378508</b>	HS8	R

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## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>13.813 SHAFT</b>					<b>14.000 SHAFT (Cont.)</b>				
	1.000	85074	LDSL4		15.500	.750	<b>1400258</b>	HS8	R
	FOR SEAL SH SIZE 14.000		(355.60MM)		15.500	.750	<b>1400259</b>	HS8	D
	1.500	81390	LDSL3		15.500	.875	1400928	HDSC1	RD
	FOR SEAL SH SIZE 14.000		(355.60MM)		15.500	.625	1400230	HDS1	R
	2.000	85179	LDSL4		15.500	.625	<b>1400232</b>	HDS2	R
	FOR SEAL SH SIZE 14.000		(355.60MM)		15.500	.625	<b>1400233</b>	HDS2	D
1.063	1.500	594110	CT1	R	15.500	.625	<b>1400234</b>	HDS2	V
BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT					15.500	.625	<b>1400235</b>	HDS2	R
16.000	1.000	1381600	HDS1	R	W/4 EA .125 LUGS				
16.000	1.000	<b>1381602</b>	HDS2	R	15.500	.625	1400239	HDS3	D
<b>13.875 SHAFT</b>					W/4 EA .500 ADJ. LUGS				
15.125	.875	1387912	HDSA2	RD	15.500	.688	1400240	HDS1	R
15.375	.625	<b>1387238</b>	HS8	R	15.500	.750	1400250	HDS1	R
W/HOOK & EYE SPRING CONNECTOR					15.500	.750	1400253	HDS1	V
15.375	.750	1388257	HS7	R	15.500	.750	1400254	HDS1	D
15.440	.750	1388300	HDS1	R	W/4 EA .125 LUGS				
15.875	1.000	<b>1388588</b>	HS8	R	15.500	.750	1400255	HDS1	R
16.000	1.000	1387610	HDS7	R	W/4 EA .188 LUGS				
16.000	1.000	1388630	HDS1	R	15.500	.985	1400910	HDSC1	R
<b>13.938 SHAFT</b>					15.500	1.000	1400925	HDSA1	RD
15.437	.750	1394257	HS7	R	15.500	1.500	1400926	HDSD2	DD
15.438	.625	1394230	HDS1	R	15.510	.688	<b>1400222</b>	HDS2	D
15.438	.688	1394240	HDS1	R	15.510	.688	1400223	HDS3	D
15.438	.750	1394250	HDS1	R	W/4 EA .500 ADJ. LUGS				
15.500	.750	1394260	HDS1	R	15.562	.750	1400300	HDS1	R
15.500	.750	<b>1394262</b>	HDS2	R	15.562	.750	<b>1400303</b>	HDS2	R
15.744	1.000	1394430	HDS1	R	15.562	.750	1400309	HDS3	D
15.744	1.000	<b>1394432</b>	HDS2	R	W/4 EA .500 ADJ. LUGS				
15.744	1.250	1394942	HDSA2	RD	15.625	.625	1400310	HDS1	R
15.750	.938	1394450	HDS1	R	15.625	.625	1400313	HDS1	R
16.000	.875	1394600	HDS1	R	W/4 EA .125 LUGS				
16.250	.875	1394700	HDS1	R	15.625	.625	1400314	HDS1	V
16.500	.875	1394740	HDS1	R	15.734	.531	511701	HS9	R
<b>13.980 SHAFT</b>					15.750	.687	<b>HDL-5991-R</b>	HDL	R
15.500	.625	<b>1398232</b>	HDS2	R	15.750	.750	<b>HDL-4134-R</b>	HDL	R
<b>14.000 SHAFT</b>					15.750	.750	<b>1400388</b>	HS8	R
1.500	81352	LDSL3			W/HOOK & EYE SPRING CONNECTOR				
FOR SEAL SH SIZE 14.188		(360.38MM)			15.750	.688	1400370	HDS1	R
1.500	86357	LDSL4			15.750	.750	1400380	HDS1	R
FOR SEAL SH SIZE 14.000		(355.60MM)			15.750	.750	<b>1400382</b>	HDS2	R
2.000	86153	LDSL4			15.750	.750	<b>1400383</b>	HDS2	V
FOR SEAL SH SIZE 14.188		(360.38MM)			15.750	.750	<b>1400384</b>	HDS2	R
2.500	86473	LDSL4			W/4 EA .125 LUGS				
FOR SEAL SH SIZE 14.188		(360.38MM)			15.750	.750	1400389	HDS3	D
.938	1.375	593037	CT1	R	W/4 EA .500 ADJ. LUGS				
BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT					15.750	.813	1400390	HDS1	R
1.063	1.500	530733	CT1	R	15.750	.875	1400410	HDS1	R
BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT					15.752	.813	1400430	HDS1	R
14.188	1.375	89951	LDSL3		16.000	.625	<b>1400528</b>	HS8	R
FOR SEAL SH SIZE 14.188					16.000	.625	<b>1400538</b>	HS8	R
15.000	.500	1400017	HS7	R	16.000	.625	<b>594196</b>	HS8	R
15.000	.500	<b>1400018</b>	HS8	R	W/HOOK & EYE SPRING CONNECTOR				
15.000	.625	<b>594326</b>	HS8	V	16.000	.750	1400548	HS7	R
15.000	.350	514423	HD1	D	16.000	.812	<b>HDL-4135-R</b>	HDL	R
QUILL WIPER					16.000	.813	1400557	HS7	R
15.500	.625	1400227	HS7	D	16.000	1.000	<b>1400578</b>	HS8	R
15.500	.625	1400237	HS7	R	W/HOOK & EYE SPRING CONNECTOR				
15.500	.625	<b>1400238</b>	HS8	R	16.000	1.000	1400587	HS7	R
W/HOOK & EYE SPRING CONNECTOR					16.000	1.000	<b>1400588</b>	HS8	R
15.500	.687	<b>HDL-4131-R</b>	HDL	R	16.000	1.000	<b>1400598</b>	HS8	R
15.500	.750	1400257	HS7	R	16.000	1.000	1400958	HDSA1	RD
					16.000	.750	1400540	HDS1	R
					16.000	.750	1400543	HDS1	V
					16.000	.750	<b>1400545</b>	HDS2	R
					W/4 EA .125 LUGS				

Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>14.000 SHAFT (Cont.)</b>					<b>14.188 SHAFT (Cont.)</b>				
16.000	.750	1400549	HDS3	D	16.188	.813	1419557	HS7	R
		W/4 EA .500 ADJ. LUGS			16.188	.813	1419550	HDS1	R
16.000	.813	1400550	HDS1	R	16.250	.875	1419600	HDS1	R
16.000	.813	<b>1400553</b>	HDS2	R	16.500	.875	1419700	HDS1	R
16.000	.813	1400554	HDS1	V	16.742	.875	1419790	HDS1	R
16.000	.875	1400560	HDS1	R	16.750	.875	1419800	HDS1	R
16.000	1.000	1400580	HDS1	R	<b>14.250 SHAFT</b>				
16.000	1.000	<b>1400582</b>	HDS2	D	15.750	.687	<b>HDL-4118-R</b>	HDL	R
16.000	1.000	1400583	HDS1	V	15.750	.750	1425257	HS7	R
16.000	1.000	<b>1400585</b>	HDS2	R	15.750	.750	<b>1425258</b>	HS8	R
16.000	1.375	1400950	HDSA1	RD	W/HOOK & EYE SPRING CONNECTOR				
16.000	1.375	1400970	HDS1	RR	15.750	.750	1425250	HDS1	R
16.000	1.375	1400972	HDS1	RR	15.750	.750	<b>1425252</b>	HDS2	R
16.250	1.000	1400680	HDS1	R	15.750	1.000	1425920	HDSA1	RD
16.250	1.000	1400683	HDS1	V	16.000	.875	1425410	HDS1	R
16.250	1.000	1400965	HDSA2	RD	16.250	.812	<b>HDL-4140-R</b>	HDL	R
16.250	1.000	528307	HDSA2	VD	16.250	.813	1425557	HS7	R
16.375	1.000	1400730	HDS1	R	16.250	.813	<b>1425558</b>	HS8	R
16.500	.813	1400750	HDS1	R	W/HOOK & EYE SPRING CONNECTOR				
16.500	.813	1400753	HDS1	V	16.250	1.000	1425587	HS7	R
16.500	1.000	1400780	HDS1	R	16.250	.625	1425520	HDS1	R
16.625	.625	1400800	HDS1	R	16.250	.813	1425550	HDS1	R
16.750	.930	140080	† HMSA22	D	16.250	.813	<b>1425552</b>	HDS2	R
		P.F. WIDTH .700			16.250	.813	1425559	HDS3	D
16.750	.968	1400981	† HDSB2	RD	W/4 EA .500 ADJ. LUGS				
16.875	.750	1400840	HDS1	R	16.250	.875	1425560	HDS1	R
18.000	.750	1400905	HDS1	R	16.250	1.000	1425580	HDS1	R
<b>14.013 SHAFT</b>					16.250	1.000	<b>1425585</b>	HDS2	R
15.513	.750	1401257	HS7	R	16.250	1.000	1425950	HDSB1	RD
<b>14.016 SHAFT</b>					16.500	.875	1425660	HDS1	R
15.500	.688	<b>1402170</b>	HDS2	D	16.750	.875	1425760	HDS1	R
<b>14.063 SHAFT</b>					17.000	.875	1425820	HDS1	R
16.063	.813	1406557	HS7	R	<b>14.312 SHAFT</b>				
<b>14.125 SHAFT</b>					1.000	90334	LDSL4		
15.625	.750	1413257	HS7	R	FOR SEAL SH SIZE 14.500				
16.712	.875	<b>1413762</b>	HDS2	D	<b>14.313 SHAFT</b>				
16.745	.875	<b>1413805</b>	HDS2	D	1.375	87580	LDSL4		
16.745	1.703	1413975	HDS2	DD	FOR SEAL SH SIZE 14.500				
<b>14.173 SHAFT</b>					1.500	86429	LDSL4		
1.000	87445	LDSL4			FOR SEAL SH SIZE 14.500 (368.30MM)				
		FOR SEAL SH SIZE 14.361			2.000	84661	LDSL3		
	.196	<b>403603</b>	VR4	R	FOR SEAL SH SIZE 14.500 (368.30MM)				
		SHAFT RANGE 14.173-14.370			<b>14.325 SHAFT</b>				
15.354	.625	1417047	HS7	R	16.000	.688	<b>1432343</b>	HDS2	D
15.433	.787	<b>1417102</b>	HDS2	D	<b>14.361 SHAFT</b>				
15.673	.750	1417257	HS7	R	15.748	.709	595175	HS4	R
15.673	.750	<b>1417258</b>	HS8	R	<b>14.370 SHAFT</b>				
		W/HOOK & EYE SPRING CONNECTOR			15.938	.709	1437240	HDS1	R
16.712	.875	<b>1417760</b>	HDS2	D	<b>14.375 SHAFT</b>				
16.712	1.703	1417973	HDS2	DD	15.875	.750	<b>1438215</b>	HS8	V
16.734	.844	1417740	HDS1	R	15.875	.750	<b>1438258</b>	HS8	R
16.734	.844	1417743	HDS1	R	15.875	.750	1438250	HDS1	R
		W/6 EA .063 LUGS			16.000	.688	1438320	HDS1	R
<b>14.188 SHAFT</b>					16.000	.688	<b>1438321</b>	HDS2	D
15.438	.625	<b>1418118</b>	HS8	R	16.000	.688	<b>1438322</b>	HDS2	R
15.500	.688	1418120	HDS1	D	16.000	.688	<b>1438323</b>	HDS2	R
15.500	.688	1419140	HDS1	R	W/4 EA .125 LUGS				
15.750	.750	1419300	HDS1	R	16.000	.688	<b>1438324</b>	HDS2	D
16.000	.875	1419440	HDS1	R	W/4 EA .125 LUGS				

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## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>14.375 SHAFT (Cont.)</b>					<b>14.563 SHAFT</b>				
16.000	.688	1438329	HDS3	D	16.000	.625	1456200	HDS1	R
		W/4 EA .500 ADJ. LUGS							
16.375	.750	1438547	HS7	R	<b>14.593 SHAFT</b>				
<b>14.400 SHAFT</b>					17.000	.875	<b>1459743</b>	HDS2	R
15.587	.875	1440901	HDSB1	RD	<b>14.625 SHAFT</b>				
<b>14.438 SHAFT</b>					15.625	.500	<b>1462018</b>	HS8	R
2.500		86403	LDSL3		16.125	.750	1463257	HS7	R
		FOR SEAL SH SIZE 14.625	(371.48MM)		16.125	.750	1463250	HDS1	R
15.938	.625	1444230	HDS1	R	16.125	.750	<b>1463252</b>	HDS2	R
<b>14.500 SHAFT</b>					16.133	.500	<b>1462208</b>	HS8	R
1.000		85914	LDSL4		16.133	1.250	1462912	HDSE2	RR
		FOR SEAL SH SIZE 14.688	(373.08MM)				W/8 EA .125 LUBE HOLES on O.D.		
15.500	.500	<b>1450018</b>	HS8	R	16.133	1.250	1462918	HDSE1	RR
15.500	.625	1450027	HS7	R			W/8 EA .125 LUBE HOLES ON O.D.		
15.750	.750	1450140	†HDS1	R	16.250	.750	1462330	HDS1	V
15.906	.770	<b>593624</b>	HS8	R	16.250	.750	1463330	HDS1	R
		W/HOOK & EYE SPRING CONNECTOR			16.500	.875	1463480	HDS1	R
15.984	.688	<b>1450212</b>	HDS2	R	16.625	.875	<b>1463565</b>	HDS2	R
15.984	.688	<b>1450214</b>	HDS2	R	16.742	1.000	1463600	HDS1	R
		W/4 EA .125 LUGS			16.750	1.000	1463630	HDS1	R
16.000	.625	<b>1450228</b>	HS8	V	17.000	.875	1463710	HDS1	R
		W/HOOK & EYE SPRING CONNECTOR			17.250	.875	1463800	HDS1	R
16.000	.687	<b>HDL-4142-R</b>	HDL	R	<b>14.688 SHAFT</b>				
16.000	.750	1450257	HS7	R	16.000	.688	<b>1468129</b>	HDS2	D
16.000	.870	1450922	HDSC2	DD	16.188	.750	1469257	HS7	R
16.000	.625	1450230	HDS1	V	16.188	.625	1469230	HDS1	R
16.000	.688	1450240	HDS1	R	16.688	.813	1469557	HS7	R
16.000	.688	1450241	HDS1	R	<b>14.750 SHAFT</b>				
		W/4 EA .125 LUGS			16.108	.703	515883	HS9	R
16.000	.688	<b>1450242</b>	HDS2	R	16.250	.625	<b>1475228</b>	HS8	V
16.000	.688	<b>1450244</b>	HDS2	R	16.250	.625	1475237	HS7	R
		W/4 EA .125 LUGS			16.250	.625	<b>1475238</b>	HS8	R
16.000	.688	1450249	HDS3	D			W/HOOK & EYE SPRING CONNECTOR		
		W/4 EA .500 ADJ. LUGS			16.250	.687	<b>HDL-4147-R</b>	HDL	R
16.000	.688	1450757	HDS1	V	16.250	.750	<b>1475218</b>	HS8	V
16.000	.750	1450250	†HDS1	R			W/HOOK & EYE SPRING CONNECTOR		
		W/BORE-TITE			16.250	.750	1475257	HS7	R
16.000	.750	<b>1450252</b>	HDS2	R	16.250	.750	<b>1475258</b>	HS8	R
16.000	.750	1450253	HDS1	D	16.250	.625	1475230	HDS1	R
16.000	1.000	1450290	HDS1	R	16.250	.625	1475232	HDS1	R
16.000	.688	1450220	HDS7	R			W/4 EA .125 LUGS		
16.250	.625	1450360	HDS1	R	16.250	.625	1475239	HDS3	D
16.250	.750	1450380	HDS1	R			W/4 EA .500 ADJ. LUGS		
16.250	.813	1450390	HDS1	R	16.250	.688	1475240	HDS1	R
16.250	.875	1450410	HDS1	R	16.250	.688	1475242	HDS1	R
16.250	1.000	1450420	HDS1	R			W/4 EA .125 LUGS		
16.500	.812	<b>HDL-4145-R</b>	HDL	R	16.250	.688	<b>1475243</b>	HDS2	D
16.500	.813	1450557	HS7	R	16.250	.688	<b>1475245</b>	HDS2	D
16.500	.750	1450540	HDS1	R			W/4 EA .313 LUGS		
16.500	.750	<b>1450542</b>	HDS2	R	16.250	.750	1475250	HDS1	R
16.500	.750	1450549	HDS3	D	16.250	.750	<b>1475252</b>	HDS2	R
		W/4 EA .500 ADJ. LUGS			16.250	.750	<b>1475253</b>	HDS2	V
16.500	.813	1450550	HDS1	R	16.250	.688	1475244	HDS1	V
16.500	.813	<b>1450553</b>	HDS2	D			W/4 EA .125 LUGS		
16.500	.938	1450570	HDS1	R	16.252	.750	<b>1475302</b>	HDS2	R
16.500	1.000	1450580	HDS1	R	16.500	.687	<b>HDL-5990-R</b>	HDL	R
16.500	1.000	1450583	HDS1	V	16.500	.688	1475377	HS7	R
16.500	1.750	1450951	HDSE1	RR	16.500	.688	<b>1475378</b>	HS8	R
16.500	.813	1450559	HDS7	R			W/HOOK & EYE SPRING CONNECTOR		
16.750	.875	1450660	HDS1	R	16.500	.688	1475370	HDS1	R
17.000	.875	1450760	HDS1	R	16.500	.688	1475371	HDS1	R
18.250	.875	1450900	HDS1	R			W/4 EA .375 LUGS		

Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>14.750 SHAFT (Cont.)</b>					<b>15.000 SHAFT (Cont.)</b>				
16.500	.688	<b>1475372</b>	HDS2	R	.688	1.125	594025	CT1	R
16.500	.688	<b>1475374</b>	HDS2	R	BORE DIA. IS SHOULDER WIDTH				
		W/4 EA .375 LUGS			16.000	.500	1500017	HS7	R
16.500	.688	1475379	HDS3	D	16.000	.500	<b>1500018</b>	HS8	R
		W/4 EA .500 ADJ. LUGS			16.000	.350	511201	HD1	D
16.500	.688	<b>1475383</b>	HDS2	V	QUILL WIPER				
16.500	.875	1475410	HDS1	R	16.000	.350	594740	HD1	D
16.500	.875	<b>1475411</b>	HDS2	R	QUILL WIPER				
16.500	1.000	1475420	HDS1	R	16.188	1.250	1500902	HDSE2	RR
16.500	1.250	1475942	HDS2	RR	16.420	.500	1500157	HS7	R
16.500	.688	1475430	HDS7	R	16.500	.687	<b>HDL-4151-R</b>	HDL	R
16.750	.813	1475557	HS7	R	16.500	.734	511156	HS9	R
16.750	.875	1475560	HDS1	R	16.500	.750	<b>HDL-3067-R</b>	HDL	R
16.750	.875	1475561	HDS1	R	16.500	.750	1500257	HS7	R
		W/4 EA .125 LUGS			16.500	.750	<b>1500258</b>	HS8	R
17.000	.875	1475660	HDS1	R	W/HOOK & EYE SPRING CONNECTOR				
17.250	.875	1475760	HDS1	R	16.500	.688	1500240	HDS1	R
17.500	.875	1475820	HDS1	R	16.500	.688	<b>1500243</b>	HDS2	V
<b>14.764 SHAFT</b>					16.500	.688	<b>1500244</b>	HDS2	D
	.196	<b>403753</b>	VR4	R	16.500	.688	<b>1500245</b>	HDS2	R
		SHAFT RANGE 14.764-14.961			16.500	.688	1500248	HDS3	D
<b>14.813 SHAFT</b>					16.500	.688	W/4 EA .500 ADJ. LUGS		
	1.500	87723	LDSLV4		16.500	.688	1500249	HDS3	D
		FOR SEAL SH SIZE 15.000			W/4 EA .500 ADJ. LUGS				
	2.125	81391	LDSLV3		16.500	.750	<b>1500283</b>	HDS2	V
		FOR SEAL SH SIZE 15.000	(381.00MM)		16.500	.750	<b>1500222</b>	HDS2	R
<b>14.875 SHAFT</b>					16.500	.750	1500250	HDS1	R
	.310	403752	VR3	R	16.500	.750	1500252	HDS1	D
		SHAFT RANGE 14.370 - 15.150			16.500	.750	1500253	HDS1	V
	.310	403756	VR3	V	16.500	.750	<b>1500254</b>	HDS2	V
		SHAFT RANGE 14.370 - 15.150			16.500	1.000	1500290	HDS1	R
	.790	<b>403750</b>	VR1	R	16.500	1.000	<b>1500292</b>	HDS2	R
		SHAFT RANGE 14.370 - 15.350			16.500	1.250	1500920	HDS2	RR
	.790	<b>403754</b>	VR1	V	16.500	1.250	593315	HDS2	RR
		SHAFT RANGE 14.370 - 15.350			16.750	.750	1500380	HDS1	R
16.375	.750	1488257	HS7	R	16.750	.750	1500383	HDS1	V
16.375	.750	<b>1488252</b>	HDS2	R	16.750	.875	1500410	HDS1	R
16.500	.687	<b>HDL-3858-R</b>	HDL	R	16.750	1.125	<b>1500432</b>	HDS2	R
16.500	.750	1488330	HDS1	R	16.875	.750	1500470	HDS1	R
16.500	.750	<b>1488332</b>	HDS2	R	16.875	.875	1500480	HDS1	R
16.500	1.250	1488935	HDS2	RR	17.000	.625	<b>1500528</b>	HS8	R
16.500	.750	1487337	HDS1	V	17.000	.625	<b>594197</b>	HS8	R
16.750	.875	1488480	HDS1	R	W/HOOK & EYE SPRING CONNECTOR				
16.875	.813	1488557	HS7	R	17.000	.812	<b>HDL-4156-R</b>	HDL	R
16.875	1.000	1488587	HS7	R	17.000	.813	1500557	HS7	R
16.875	.875	1488560	HDS1	R	17.000	.813	<b>1500558</b>	HS8	R
16.875	1.000	1488580	HDS1	R	17.000	.875	<b>1500568</b>	HS8	R
17.000	.875	1488620	HDS1	R	17.000	.750	1500540	HDS1	R
17.250	.875	1488710	HDS1	R	17.000	.750	<b>1500542</b>	HDS2	D
17.500	.875	1488800	HDS1	R	17.000	.750	<b>1500543</b>	HDS2	R
<b>14.906 SHAFT</b>					17.000	.750	1500549	HDS3	D
17.000	.875	1491600	HDS1	R	W/4 EA .500 ADJ. LUGS				
17.000	.875	<b>1491603</b>	HDS2	R	17.000	.813	1500550	HDS1	R
<b>14.938 SHAFT</b>					17.000	.813	<b>1500552</b>	HDS2	R
16.438	.750	1494257	HS7	R	17.000	.813	<b>1500553</b>	HDS2	V
<b>15.000 SHAFT</b>					17.000	.813	1500555	HDS1	R
	1.000	87247	LDSLV4		W/4 EA .125 LUGS				
		FOR SEAL SH SIZE 15.188	(385.78MM)		17.000	.813	1500556	HDS1	R
					W/4 EA .063 LUGS				
					17.000	.875	1500560	HDS1	R
					17.000	.875	<b>1500563</b>	HDS2	R
					17.000	.875	1500564	HDS1	V
					17.000	.875	1500951	HDSA1	RD
					17.000	.875	1500956	HDSC1	RD
					W/4 EA .125 LUGS				

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## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>15.000 SHAFT (Cont.)</b>					<b>15.250 SHAFT (Cont.)</b>				
17.000	1.000	1500580	HDS1	R	16.750	.750	<b>1525252</b>	HDS2	R
17.000	1.250	1500590	HDS1	R	16.750	.750	<b>1525253</b>	HDS2	V
17.000	1.250	1500950	HDSA1	RD	16.752	.688	<b>1525302</b>	HDS2	R
17.000	.812	1500510	HDS7	R	16.754	.750	1525220	HDS1	R
17.000	1.000	<b>1500522</b>	HDS2	R	17.000	.750	1525380	HDS1	R
		WITH SPRING KOVER			17.000	.875	1525410	HDS1	R
17.250	.875	1500660	HDS1	R	17.250	.812	<b>HDL-4476-R</b>	HDL	R
17.250	1.000	1500680	HDS1	R	17.250	.813	1525557	HS7	R
17.375	1.750	1500972	HDS1	RR	17.250	.875	<b>HDL-3030-R</b>	HDL	R
17.500	.875	1500760	HDS1	R	17.250	.625	<b>1525525</b>	HDS2	R
17.500	.938	1500770	HDS1	R			W/4 EA .500 ADJ. LUGS		
17.500	.938	<b>1500772</b>	HDS2	R	17.250	.750	1525540	HDS1	R
17.500	.938	1500774	HDS1	R	17.250	.750	<b>1525542</b>	HDS2	R
		W/4 EA .125 LUGS			17.250	.750	1525549	HDS3	D
17.500	.938	1500779	HDS3	D			W/4 EA .500 ADJ. LUGS		
		W/4 EA .500 ADJ. LUGS			17.250	.813	1525550	HDS1	R
17.500	1.000	1500780	HDS1	R	17.250	.813	<b>1525554</b>	HDS2	R
17.500	1.000	1500973	HDSA1	RD	17.250	.875	1525560	HDS1	R
17.500	1.125	1500790	HDS1	R	17.250	.875	1525562	HDS1	R
17.500	1.250	1500800	HDS1	R			W/4 EA .250 LUGS		
17.500	1.250	1500974	HDSE2	RR	17.250	1.000	1525580	HDS1	R
17.750	.875	1500820	HDS1	R	17.250	1.125	1525590	HDS1	R
17.750	.875	<b>1500822</b>	HDS2	R	17.250	1.500	1525952	HDS2	RR
<b>15.062 SHAFT</b>					17.250	.625	1525511	HDS7	R
	.750	90272	LDSL4		17.500	.875	1525660	HDS1	R
		FOR SEAL SH SIZE 15.250			17.750	.750	1525740	HDS1	R
<b>15.066 SHAFT</b>					17.750	.875	1525760	HDS1	R
	1.000	87871	LDSL3		18.000	.875	1525820	HDS1	R
		FOR SEAL SH SIZE 15.254			<b>15.312 SHAFT</b>				
<b>15.125 SHAFT</b>					17.312	.687	<b>HDL-5992-R</b>	HDL	R
16.375	.875	1512912	HDSA2	RD	17.312	.688	<b>1531532</b>	HDS2	V
16.750	.750	1513330	HDS1	R	<b>15.313 SHAFT</b>				
<b>15.188 SHAFT</b>					.688	.875	593526	CT3	R
	2.500	87569	LDSL4				BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT		
		FOR SEAL SH SIZE 15.375			.688	.875	524382	CT3	R
16.500	.625	1519110	HDS1	R			BORE DIA. IS SHOULDER WIDTH		
17.000	.625	<b>1518448</b>	HS8	R	.750	.938	524383	CT3	R
<b>15.250 SHAFT</b>							BORE DIA. IS SHOULDER WIDTH		
	.750	84964	LDSL3		.750	.938	594653	CT3	R
		FOR SEAL SH SIZE 15.438 (392.13MM)					BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT		
.688	1.125	594250	CT1	R	16.875	.688	1531300	HDS1	R
		BORE DIA. IS SHOULDER WIDTH			16.875	.750	1531310	HDS1	R
.688	1.125	594954	CT1	R	17.000	.750	1531400	HDS1	R
		BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT			17.250	.875	1531500	HDS1	R
16.625	.500	<b>1525158</b>	HS8	R	17.313	.813	592865	HDSA2	RD
16.625	.593	<b>1525168</b>	HS8	R	17.313	.688	1531530	HDS1	R
16.625	.625	<b>1525162</b>	HS8	R	17.313	.688	1531534	HDS1	R
16.750	.687	<b>HDL-4615-R</b>	HDL	R			W/4 EA .125 LUGS		
16.750	.734	514649	HS9	R	17.313	.688	1531537	HDS1	V
16.750	.750	1525257	HS7	R	17.313	.750	1531540	HDS1	R
16.750	.875	<b>1525278</b>	HS8	R	17.313	.750	1531541	HDS1	R
		W/HOOK & EYE SPRING CONNECTOR					W/4 EA .125 LUGS		
16.750	.688	1525228	HDS1	H	17.313	.813	1531550	HDS1	R
16.750	.688	1525240	HDS1	R	17.313	.875	1531950	HDSA1	RD
16.750	.688	1525241	HDS1	R	17.500	.875	1531640	HDS1	R
		W/4 EA .375 LUGS			17.750	.875	1531740	HDS1	R
16.750	.688	<b>1525242</b>	HDS2	R	18.000	.875	1531800	HDS1	R
16.750	.688	1525249	HDS3	D	<b>15.335 SHAFT</b>				
		W/4 EA .500 ADJ. LUGS			18.875	.875	1534900	HDS1	R
16.750	.750	1525250	HDS1	R	<b>15.344 SHAFT</b>				
					16.875	.750	<b>1534258</b>	HS8	R



Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>15.350 SHAFT</b>					<b>15.500 SHAFT (Cont.)</b>				
16.850	.750	1535257	HS7	R	17.375	.813	<b>1550488</b>	HS8	R
<b>15.354 SHAFT</b>					17.496	.812	<b>HDL-4163-R</b>	HDL	R
	.196	<b>403903</b>	VR4	R	17.496	.812	<b>HDL-4163-V</b>	HDL	V
		SHAFT RANGE 15.354-15.551			17.500	.813	1550557	HS7	R
<b>15.359 SHAFT</b>					17.500	1.000	<b>1550528</b>	HS8	R
17.709	.906	1536690	HDS1	R	17.500	1.000	1550587	HS7	R
17.709	.906	1536691	HDS7	R	17.500	.688	1550530	HDS1	R
<b>15.375 SHAFT</b>					17.500	.750	1550540	HDS1	R
16.625	.875	1537142	HDSA2	R	17.500	.750	1550541	HDS1	R
16.875	.750	1538257	HS7	R	W/4 EA .125 LUGS				
17.250	.750	1538470	HDS1	R	17.500	.750	<b>1550542</b>	HDS2	R
17.375	.813	1538557	HS7	R	17.500	.750	<b>1550543</b>	HDS2	V
17.375	1.000	1538587	HS7	R	17.500	.750	1550549	HDS3	D
17.375	.688	1538530	HDS1	R	W/4 EA .500 ADJ. LUGS				
17.375	.750	1538540	HDS1	R	17.500	.813	<b>1550544</b>	HDS2	V
17.375	.813	1538550	HDS1	R	17.500	.813	1550550	HDS1	R
17.375	.813	<b>1538552</b>	HDS2	R	17.500	.813	1550552	HDS1	R
17.375	.813	<b>1538554</b>	HDS2	R	W/4 EA .375 LUGS				
		W/4 EA .375 LUGS			17.500	.813	<b>1550553</b>	HDS2	R
17.375	1.000	1538580	HDS1	R	17.500	.813	1550554	HDS1	V
17.375	1.000	1538581	HDS1	R	17.500	.813	<b>1550555</b>	HDS2	R
		W/4 EA .125 LUGS			W/4 EA .125 LUGS				
17.500	1.000	1538630	HDS1	R	17.500	.813	<b>1550558</b>	HDS2	D
17.728	.875	1538700	HDS1	R	17.500	.813	<b>1550575</b>	HDS2	R
17.750	.875	1538710	HDS1	R	W/4 EA .375 LUGS				
<b>15.438 SHAFT</b>					17.500	.875	1550560	HDS1	R
16.938	.750	<b>1544219</b>	HS8	D	17.500	.950	1550570	HDS1	R
<b>15.472 SHAFT</b>					17.500	1.000	1550580	HDS1	R
17.502	.709	1547530	HDS1	R	17.500	1.031	529858	HDSA2	VD
<b>15.500 SHAFT</b>					17.500	.813	1550551	HDS7	R
.688	.875	594432	CT3	R	W/4 EA .250 LUGS				
		BORE DIA. IS SHOULDER WIDTH			17.500	.813	1550559	HDS7	R
16.500	.500	<b>1550018</b>	HS8	R	17.500	.813	<b>1550565</b>	HDS2	R
16.500	.500	<b>1550028</b>	HS8	D	W/4 EA .250 LUGS				
16.750	.750	1550137	HS7	R	17.550	1.000	1550600	HDS1	R
16.750	.750	1550130	HDS1	R	17.750	.875	1550660	HDS1	R
16.875	.625	<b>1550458</b>	HS8	R	17.750	1.000	1550680	HDS1	R
16.875	.625	1550160	HDS1	R	18.000	.875	1550760	HDS1	R
16.875	.625	<b>1550162</b>	HDS2	R	18.000	1.000	1550780	HDS1	R
16.875	.625	<b>1550163</b>	HDS2	V	18.000	1.000	<b>1550782</b>	HDS2	R
16.875	.625	1550169	HDS3	D	18.000	1.000	1550789	HDS3	D
		W/4 EA .500 ADJ. LUGS			W/4 EA .500 ADJ. LUGS				
17.000	.750	1550257	HS7	R	18.000	1.000	<b>1550792</b>	HDS2	D
17.000	.750	<b>1550258</b>	HS8	R	<b>15.515 SHAFT</b>				
17.000	.750	1550250	HDS1	R	17.515	.813	<b>1551568</b>	HS8	R
17.000	.750	1550252	HDS1	R	<b>15.560 SHAFT</b>				
		W/4 EA .125 LUGS				.906	85582	LDSL4	
17.000	.750	1550253	HDS1	V	FOR SEAL SH SIZE 15.750				(400.00MM)
		W/8 EA .375 LUGS			<b>15.563 SHAFT</b>				
17.000	.750	1550254	HDS1	V	16.929	.709	1556190	HDS1	R
		W/4 EA .188 LUGS			17.625	.875	1556560	HDS1	R
17.000	.750	<b>1550255</b>	HDS2	R	<b>15.604 SHAFT</b>				
		W/4 EA .125 LUGS			16.974	.625	1560146	HDS1	R
17.000	.750	<b>1550283</b>	HDS2	V	<b>15.625 SHAFT</b>				
		W/4 EA .188 LUGS			16.875	1.250	1562118	HDS2	D
17.000	1.000	1550290	HDS1	R	17.125	.750	1563257	HS7	R
17.000	1.000	<b>1550292</b>	HDS2	R	17.125	.750	1563250	HDS1	R
17.000	1.375	1550920	HDS1	RR	17.500	.875	1563480	HDS1	R
17.000	.750	<b>1550284</b>	HDS2	V	17.625	1.000	<b>1563588</b>	HS8	R
					17.625	.875	1563560	HDS1	R

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## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>15.625 SHAFT (Cont.)</b>					<b>15.813 SHAFT (Cont.)</b>				
17.727	.875	1563600	HDS1	R	2.500		86407	LDSL4	
17.750	.875	1563620	HDS1	R			FOR SEAL SH SIZE 16.000		
18.000	.875	1563710	HDS1	R	2.500		87813	LDSL3	
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<b>15.740 SHAFT</b>					<hr/>				
17.250	.688	1574240	HDS1	R	17.312	.813	1581200	HDS1	R
17.250	.688	<b>1574243</b>	HDS2	D	<hr/>				
17.250	.688	<b>1574245</b>	HDS2	R	<b>15.820 SHAFT</b>				
<hr/>					<hr/>				
<b>15.748 SHAFT</b>					<b>15.875 SHAFT</b>				
	.196	<b>404003</b>	VR4	R	17.375	.750	1588257	HS7	R
		SHAFT RANGE 15.748-15.945			17.500	.750	1587331	HDS7	R
17.717	.890	1574443	HS4	R	17.500	.750	<b>1588332</b>	HDS2	D
18.110	.984	<b>1574722</b>	HDS2	R	17.500	.750	1587330	HDS7	H
<hr/>					<hr/>				
<b>15.750 SHAFT</b>					<b>15.938 SHAFT</b>				
17.000	.625	1575110	HDS1	R	17.313	.625	1594160	HDS1	R
17.165	.687	<b>HDL-9986-R</b>	HDL	R	17.313	.625	1594161	HDS1	R
17.250	.685	<b>1575248</b>	HS8	R			W/4 EA .125 LUGS		
17.250	.687	<b>HDL-4170-R</b>	HDL	R	17.313	.625	1594162	HDS1	R
17.250	.750	1575257	HS7	R			W/4 EA .063 LUGS		
17.250	.688	1575240	HDS1	R	<hr/>				
17.250	.688	1575242	HDS1	R	<b>15.998 SHAFT</b>				
		W/4 EA .250 LUGS			2.250		85908	LDSL3	
17.250	.688	<b>1575243</b>	HDS2	D			FOR SEAL SH SIZE 16.188	(411.18MM)	
17.250	.688	1575244	HDS1	V	<hr/>				
17.250	.688	<b>1575245</b>	HDS2	R	<b>16.000 SHAFT</b>				
17.250	.688	<b>1575246</b>	HDS2	R	2.000		81354	LDSL3	
		W/4 EA .250 LUGS					FOR SEAL SH SIZE 16.188	(411.18MM)	
17.250	.688	1575249	HDS3	D	2.000		85900	LDSL4	
		W/4 EA .500 ADJ. LUGS					FOR SEAL SH SIZE 16.188	(411.18MM)	
17.250	.688	<b>1575283</b>	HDS2	V	.310		404002	VR3	R
17.250	.750	1575252	HDS1	R			SHAFT RANGE 15.150 - 16.730		
		W/4 EA .188 LUGS			.310		404006	VR3	V
17.250	.750	<b>1575253</b>	HDS2	R			SHAFT RANGE 15.150 - 16.930		
17.250	.787	<b>1575254</b>	HDS2	R	.790		<b>404000</b>	VR1	R
17.250	.750	1575210	HDS7	H			SHAFT RANGE 15.350 - 16.930		
17.500	.688	1575370	HDS1	R	.790		<b>404004</b>	VR1	V
17.500	.688	1575377	HDS1	V			SHAFT RANGE 15.350 - 16.930		
17.750	.687	<b>HDL-6874-R</b>	HDL	R	.688	.875	529760	CT3	R
17.750	1.000	1575587	HS7	R			BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT		
17.750	.688	<b>1575532</b>	HDS2	R	17.000	.500	1600014	HS4	R
17.750	.875	1575560	HDS1	R	17.000	.500	1600017	HS7	R
17.750	1.000	1575580	HDS1	R	17.000	.500	<b>1600018</b>	HS8	R
17.750	1.250	1575910	HDSA1	RD	17.000	.500	<b>1600019</b>	HS8	D
17.875	.875	1575620	HDS1	R	17.000	.500	<b>595873</b>	HS5	D
18.000	.875	1575660	HDS1	R	17.000	.350	511202	HD1	D
18.000	1.000	1575680	HDS1	R			QUILL WIPER		
18.250	.875	1575760	HDS1	R	17.500	.625	<b>1600234</b>	HS8	R
18.500	.875	1575820	HDS1	R			W/HOOK & EYE SPRING CONNECTOR		
18.625	.875	1575843	HDS1	V	17.500	.625	<b>1600238</b>	HS8	R
18.625	.875	1575870	HDS1	R	17.500	.687	<b>HDL-4177-R</b>	HDL	R
<hr/>					<hr/>				
<b>15.785 SHAFT</b>					<b>16.000 SHAFT</b>				
17.785	.813	1579557	HS7	R	17.500	.687	<b>HDLA-4177-R</b>	HDLA	R
<hr/>					<hr/>				
<b>15.812 SHAFT</b>					<b>16.000 SHAFT</b>				
	2.500	87634	LDSL3		17.500	.734	510871	HS9	R
		FOR SEAL SHAFT SIZE 16.000			17.500	.750	1600256	HS6	D
<hr/>					<hr/>				
<b>15.813 SHAFT</b>					<b>16.000 SHAFT</b>				
	2.000	85181	LDSL4		17.500	.750	1600257	HS7	R
		FOR SEAL SH SIZE 16.000 (406.40MM)			17.500	.750	<b>1600258</b>	HS8	R
	2.000	87446	LDSL3		17.500	.750	<b>1600259</b>	HS8	D
		FOR SEAL SH SIZE 16.000 (406.40MM)			<hr/>				

Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>16.000 SHAFT (Cont.)</b>					<b>16.000 SHAFT (Cont.)</b>				
17.500	.750	<b>1600288</b>	HS8	R	18.000	1.125	1600940	HDSB1	RD
			W/HOOK & EYE SPRING CONNECTOR		18.000	1.125	1600941	HDSA1	RD
17.500	.688	1600240	HDS1	R	18.000	1.250	1600950	HDSA1	RD
17.500	.688	1600241	HDS1	R	18.000	1.250	1600958	HDSE1	HH
			W/4 EA .063 LUGS		18.000	1.750	1600954	HDSE1	RR
17.500	.688	<b>1600242</b>	HDS2	R				W/LUBE HOLES ON O.D.	
17.500	.688	1600243	HDS1	R	18.000	.812	1600561	HDS7	R
			W/4 EA .375 LUGS					W/4 EA .125 LUGS	
17.500	.688	<b>1600244</b>	HDS2	D	18.000	.813	1600519	HDS7	H
17.500	.688	<b>1600245</b>	HDS2	R	18.000	.813	1600520	HDS7	H
			W/4 EA .063 LUGS					W/4 EA .250 LUGS	
17.500	.688	1600249	HDS3	D	18.000	1.250	1600963	HDSE1	DD
			W/4 EA .500 ADJ. LUGS					W/LUBE HOLES ON O.D.	
17.500	.688	1600283	HDS1	V	18.000	.813	<b>1600500</b>	HDS4	R
17.500	.750	1600250	HDS1	R				W/8 EA .500 MOLDED ADJ. LUGS	
17.500	.750	<b>1600255</b>	HDS2	R	18.000	.813	1600505	HDS6	R
17.500	.875	1600926	HDSA2	RD				W/8 EA .500 MOLDED ADJ. LUGS	
			W/4 EA .063 LUGS		18.125	.875	1600620	HDS1	R
17.500	1.000	1600290	HDS1	R	18.125	.875	1600623	†HDS1	V
17.500	1.000	1600293	HDS1	V	18.250	.750	1600650	HDS1	R
17.500	1.250	1600924	HDSE1	RR	18.250	.875	1600660	HDS1	R
17.500	1.250	1600925	HDSE2	RR	18.311	1.000	1600690	HDS1	R
17.500	.625	1600211	HDS7	H	18.500	.812	<b>HDL-5995-R</b>	HDL	R
17.625	.750	1600330	HDS1	R	18.500	.813	1600750	HDS1	R
17.625	1.000	1600340	HDS1	R	18.500	1.000	1600780	HDS1	R
17.625	1.000	<b>1600342</b>	HDS2	R	18.500	1.000	1600782	HDS1	D
17.996	.813	1600545	HDS1	R	19.000	.750	1600860	HDS1	R
17.996	.813	1600546	HDS1	R					
			W/4 EA .125 LUGS		<b>16.063 SHAFT</b>				
18.000	.750	<b>1600578</b>	HS8	R	.500	87613	LDSLV4		
18.000	.812	<b>HDL-4180-R</b>	HDL	R			FOR SEAL SH SIZE 16.250		
18.000	.813	1600557	HS7	R	1.250	86175	LDSLV4		
18.000	.813	<b>1600558</b>	HS8	R			FOR SEAL SH SIZE 16.250 (411.18MM)		
18.000	.813	1600577	HS7	V	1.300	86426	LDSLV4		
18.000	.938	1600567	HS7	R			FOR SEAL SH SIZE 16.250		
18.000	1.000	1600587	HS7	R	2.000	86575	LDSLV4		
18.000	.750	1600544	HDS3	D			FOR SEAL SH SIZE 16.250 (412.75MM)		
			W/4 EA .500 ADJ. LUGS		<b>16.125 SHAFT</b>				
18.000	.750	1600548	HDS1	R	17.375	.930	161550	†HMSA11	D
18.000	.750	<b>1600549</b>	HDS2	R			P.F. WIDTH .700		
18.000	.813	1600550	HDS1	R	18.000	.750	1612473	HDS1	V
18.000	.813	1600551	HDS1	R	18.125	.813	1613557	HS7	R
			W/4 EA .125 LUGS		<b>16.141 SHAFT</b>				
18.000	.813	1600552	HDS1	R	18.141	.813	1614557	HS7	R
			W/4 EA .250 LUGS		<b>16.142 SHAFT</b>				
18.000	.813	1600553	HDS1	R	.196	<b>404103</b>	VR4	R	
			W/4 EA .500 LUGS				SHAFT RANGE 16.142-16.339		
18.000	.813	1600554	HDS1	R	<b>16.188 SHAFT</b>				
			W/4 EA .188 LUGS		18.188	.813	1619557	HS7	R
18.000	.813	<b>1600555</b>	HDS2	R	<b>16.225 SHAFT</b>				
18.000	.813	<b>1600556</b>	HDS2	R	17.725	.750	1623257	HS7	R
			W/4 EA .250 LUGS		<b>16.250 SHAFT</b>				
18.000	.813	<b>1600559</b>	HDS2	D	.813	1.250	595322	CT1	R
18.000	.813	<b>1600574</b>	HDS2	V			BORE DIA. IS SHOULDER WIDTH		
18.000	.875	1600560	HDS1	R	3.063	3.500	592934	CT4	R
18.000	.875	1600951	HDSA1	RD			BORE DIA. IS SHOULDER WIDTH		
18.000	.938	1600570	HDS1	R	17.750	.625	<b>1625228</b>	HS8	R
18.000	.938	<b>1600572</b>	HDS2	R	17.750	.625	1625237	HS7	R
18.000	.938	<b>1600575</b>	HDS2	R	17.750	.625	<b>1625238</b>	HS8	R
			W/4 EA .250 LUGS				W/HOOK & EYE SPRING CONNECTOR		
18.000	1.000	1600580	HDS1	R					
18.000	1.000	1600583	HDS1	V					
18.000	1.000	<b>1600584</b>	HDS2	V					
18.000	1.000	<b>1600585</b>	HDS2	R					
18.000	1.000	1600955	HDSA2	RD					

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**Bold numbers** are preferred designs

† Includes Bore-Tite on O.D.  
 ▲ WasteWatcher numbers

## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>16.250 SHAFT (Cont.)</b>					<b>16.500 SHAFT</b>				
17.750	.687	<b>HDL-4181-R</b>	HDL	R	17.500	.500	1650017	HS7	R
17.750	.750	<b>1625258</b>	HS8	R	17.500	.350	511203	HD1	D
17.750	.625	1625230	HDS1	R				QUILL WIPER	
17.750	.625	1625239	HDS3	D	17.750	.750	<b>1650138</b>	HS8	R
		W/4 EA .500 ADJ. LUGS						W/HOOK & EYE SPRING CONNECTOR	
17.750	.688	1625210	HDS7	R	17.750	.625	1650132	HDS1	R
17.750	.688	1625211	HDS7	R	17.750	.750	1650130	HDS1	R
		W/4 EA .125 LUGS			18.000	.734	513680	HS9	R
17.750	.688	1625240	HDS1	R	18.000	.750	1650257	HS7	R
17.750	.688	1625242	HDS1	R	18.000	.750	<b>1650258</b>	HS8	R
		W/4 EA .125 LUGS						W/HOOK & EYE SPRING CONNECTOR	
17.750	.688	<b>1625243</b>	HDS2	R	18.000	.750	1650200	HDS1	D
17.750	.688	<b>1625245</b>	HDS2	R	18.000	.750	1650220	HDS1	D
		W/4 EA .125 LUGS			18.000	.750	1650250	HDS1	R
17.750	.750	1625250	HDS1	R	18.000	.750	<b>1650252</b>	HDS2	R
17.875	.750	1625330	HDS1	R	18.000	.750	1650253	HDS1	V
18.000	1.000	<b>HDL-3057-R</b>	HDL	R	18.000	.750	1650254	HDS1	R
18.000	.625	<b>1625362</b>	HDS2	R				W/6 EA .125 LUGS	
18.000	.625	<b>1625364</b>	HDS2	R	18.000	.750	<b>1650255</b>	HDS2	R
		W/4 EA .063 LUGS						W/4 EA .375 LUGS	
18.000	.625	1625369	HDS3	D	18.000	.750	1650259	HDS3	D
		W/4 EA .500 ADJ. LUGS						W/4 EA .500 ADJ. LUGS	
18.000	.750	1625380	HDS1	R	18.000	1.000	1650290	HDS1	R
18.000	.750	1625383	HDS1	V	18.000	.750	1650280	HDS7	R
18.000	.813	1625390	HDS1	R	18.250	.750	1650380	HDS1	R
18.000	.938	1625410	HDS1	R	18.250	.813	1650390	HDS1	R
18.000	.938	1625412	HDS1	R	18.500	.687	<b>HDL-4187-R</b>	HDL	R
		W/4 EA .125 LUGS			18.500	.812	<b>HDL-4186-R</b>	HDL	R
18.000	1.000	1625420	HDS1	R	18.500	.813	1650557	HS7	R
18.000	1.000	<b>1625422</b>	HDS2	R	18.500	1.000	<b>1650579</b>	HS8	D
18.000	1.000	1625425	HDS1	R	18.500	1.000	1650587	HS7	R
		W/4 EA .500 LUGS			18.500	.750	1650540	HDS1	R
18.242	1.000	1625510	HDS1	R	18.500	.750	1650549	HDS3	D
18.250	.813	1625557	HS7	R				W/4 EA .500 ADJ. LUGS	
18.250	1.000	1625587	HS7	R	18.500	.813	1650550	HDS1	R
18.250	1.000	<b>1625588</b>	HS8	R	18.500	.813	<b>1650552</b>	HDS2	V
18.250	.688	1625530	HDS1	R	18.500	.813	<b>1650553</b>	HDS2	R
18.250	.750	1625540	HDS1	R	18.500	.813	<b>1650555</b>	HDS2	R
18.250	1.000	1625580	HDS1	R				W/4 EA .250 LUGS	
18.500	1.250	1625690	HDS1	R	18.500	.813	1650573	HDS1	V
<b>16.310 SHAFT</b>					18.500	1.000	1650580	HDS1	R
17.686	.688	1631190	HDS1	R	18.500	1.000	<b>1650582</b>	HDS2	R
<b>16.313 SHAFT</b>					18.500	.813	<b>1650590</b>	HDS4	R
	2.000	84697	LD SLV4					W/8 EA .500 MOLDED ADJ. LUGS	
		FOR SEAL SH SIZE 16.500	(419.10MM)		18.500	.813	1650595	HDS6	R
.688	.875	524386	CT3	R				W/8 EA .500 MOLDED ADJ. LUGS	
		BORE DIA. IS SHOULDER WIDTH			19.000	.875	1650660	HDS1	R
<b>16.350 SHAFT</b>					19.000	.875	1650769	HDS3	D
17.350	.500	1635017	HS7	R				W/4 EA .500 ADJ. LUGS	
<b>16.375 SHAFT</b>					19.000	1.000	1650780	HDS1	R
17.562	1.000	1637901	HDSA1	RD	19.000	1.000	526651	HDS1	R
17.875	.687	<b>HDL-4179-R</b>	HDL	R				W/LIGHT SPRING	
17.875	.750	1638257	HS7	R	<b>16.531 SHAFT</b>				
17.875	.750	1638250	HDS1	R	18.031	.750	1653257	HS7	R
18.375	.813	1638557	HS7	R	<b>16.535 SHAFT</b>				
18.375	1.000	1638580	HDS1	R	18.102	.787	<b>1650342</b>	HDS2	D
<b>16.400 SHAFT</b>					18.110	.787	<b>1653282</b>	HDS2	D
18.500	.813	<b>1640554</b>	HDS2	R	<b>16.625 SHAFT</b>				
		W/4 EA .250 LUGS			17.625	.500	1663017	HS7	R
18.500	1.625	1640932	HSDS2	RR					

Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>16.750 SHAFT</b>					<b>17.000 SHAFT (Cont.)</b>				
	1.500	87585	LDSL4		18.250	.625	1700110	HDS1	R
		FOR SEAL SH SIZE 16.938			18.250	.875	1700142	HDSA2	R
.813	1.250	523826	CT1	R	18.500	.625	<b>1700228</b>	HS8	V
		BORE DIA. IS SHOULDER WIDTH			18.500	.625	1700237	HS7	R
.875	1.313	524815	CT1	R	18.500	.625	<b>1700238</b>	HS8	R
		BORE DIA. IS SHOULDER WIDTH			18.500	.625	W/HOOK & EYE SPRING CONNECTOR		
18.000	.875	<b>1675148</b>	HS8	R	18.500	.625	<b>1700249</b>	HS8	D
18.250	.750	1675257	HS7	R	18.500	.687	<b>HDL-4188-R</b>	HDL	R
18.250	.750	<b>1675258</b>	HS8	R	18.500	.750	1700257	HS7	R
18.250	.688	1675240	HDS1	R	18.500	.625	1700230	HDS1	R
18.250	.688	<b>1675242</b>	HDS2	R	18.500	.625	<b>1700232</b>	HDS2	R
18.250	.750	1675250	HDS1	R	18.500	.625	1700239	HDS3	D
18.484	.703	518039	HS9	R			W/4 EA .500 ADJ. LUGS		
18.500	.875	1675410	HDS1	R	18.500	.625	★596179	HDS7	R
18.500	.875	1675413	HDS1	V	18.500	.688	1700240	HDS1	R
18.500	1.000	1675420	HDS1	R	18.500	.688	1700242	HDS1	R
18.750	.813	1675557	HS7	R			W/6 EA .125 LUGS		
18.750	1.000	<b>1675588</b>	HS8	R	18.500	.688	<b>1700243</b>	HDS2	V
		W/HOOK & EYE SPRING CONNECTOR			18.500	.688	<b>1700244</b>	HDS2	R
18.750	.875	1675560	HDS1	R			W/4 EA .125 LUGS		
18.750	.875	<b>1675510</b>	HDS2	R	18.500	.688	<b>1700245</b>	HDS2	R
19.000	.875	1675660	HDS1	R	18.500	.688	1700283	HDS1	V
19.250	1.000	1675780	HDS1	R	18.500	.750	<b>1700212</b>	HDS2	V
19.250	1.000	526650	HDS1	R			W/4 EA .500 ADJ. LUGS		
		W/LIGHT SPRING			18.500	.750	1700250	HDS1	R
<b>16.812 SHAFT</b>					18.500	.750	<b>1700251</b>	HDS2	D
	1.000	86737	LDSL4		18.500	.750	1700253	HDS1	V
		FOR SEAL SH SIZE 17.000 (431.80MM)			18.500	1.375	1700920	HSDS1	RR
	2.500	86738	LDSL4		18.500	1.375	1700922	HSDS2	RR
		FOR SEAL SH SIZE 17.000 (431.80MM)			18.500	.625	1700280	HDS7	R
<b>16.813 SHAFT</b>					19.000	.812	<b>HDL-4190-R</b>	HDL	R
	2.250	84616	LDSL4		19.000	.813	1700557	HS7	R
		FOR SEAL SH SIZE 17.000 (431.80MM)			19.000	.813	<b>1700558</b>	HS8	R
.813	1.000	594681	CT3	R			W/HOOK & EYE SPRING CONNECTOR		
		BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT			19.000	.813	<b>1700559</b>	HS8	D
<b>16.875 SHAFT</b>							W/HOOK & EYE SPRING CONNECTOR		
18.375	.500	1688217	HS7	R	19.000	.813	1700576	HS6	D
18.875	.813	1688557	HS7	R			W/HOOK & EYE SPRING CONNECTOR		
<b>16.929 SHAFT</b>					19.000	1.000	1700587	HS7	R
	.196	<b>404303</b>	VR4	R	19.000	.625	1700523	HDS3	D
		SHAFT RANGE 16.929-17.126					W/4 EA .500 ADJ. LUGS		
18.429	.750	1693257	HS7	R	19.000	.625	<b>1700528</b>	HDS2	D
18.898	.629	1693460	HDS1	R	19.000	.687	<b>1700534</b>	HDS2	V
<b>16.938 SHAFT</b>					19.000	.687	1700537	HDS1	V
18.311	1.250	1694193	HDS1	R	19.000	.688	<b>1700532</b>	HDS2	R
19.283	.906	1694696	HDS1	R	19.000	.750	1700540	HDS1	R
		W/6 EA .063 LUGS			19.000	.750	<b>1700541</b>	HDS2	R
19.291	.906	<b>1694692</b>	HDS2	R	19.000	.750	1700542	HDS1	R
19.291	.906	1694697	HDS1	R			W/4 EA .375 LUGS		
19.291	1.063	1694700	HDS1	R	19.000	.750	1700549	HDS3	D
19.291	.906	<b>1694725</b>	HDS2	R			W/4 EA .500 ADJ. LUGS		
		W/6 EA .063 LUGS			19.000	.813	1700550	HDS1	R
<b>17.000 SHAFT</b>					19.000	.813	<b>1700552</b>	HDS2	R
.813	1.000	524360	CT3	R	19.000	.813	1700553	HDS1	V
		BORE DIA. IS SHOULDER WIDTH			19.000	.813	1700554	HDS1	R
1.063	1.500	528535	CT1	R			W/4 EA .188 LUGS		
		BORE DIA. IS SHOULDER WIDTH			19.000	.813	<b>1700573</b>	HDS2	V
18.000	.500	<b>1700018</b>	HS8	D	19.000	.875	1700560	HDS1	R
18.250	.625	<b>1700118</b>	HS8	R	19.000	.875	1700562	HDS1	R
							W/6 EA .063 LUGS		
					19.000	.906	<b>1700565</b>	HDS2	D
							W/6 EA .063 LUGS		
					19.000	.906	1700567	HDS1	R
							W/6 EA .219 LUGS		
					19.000	.938	1700570	HDS1	R

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## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>17.000 SHAFT (Cont.)</b>					<b>17.438 SHAFT</b>				
19.000	1.000	1700580	HDS1	R	18.750	.750	<b>1743182</b>	HDS2	R
19.000	1.000	<b>1700584</b>	HDS2	D	19.250	.875	1743410	HDS1	R
19.000	1.000	1700585	HDS1	D	<b>17.449 SHAFT</b>				
19.000	1.250	1700950	HDSA1	RD	2.000	85762	LDSL4		
19.000	1.250	1700952	HDSE2	DD	FOR SEAL SH SIZE 17.637				(447.98MM)
19.000	2.000	1700953	HDSE2	RR	<b>17.500 SHAFT</b>				
19.000	2.000	1700958	HDSE2	RR	1.250	90770	LDSL4		
		W/ LUBE HOLES ON O.D.			FOR SEAL SH SIZE 17.688				
19.000	.813	1700579	HDS7	R	.813	1.250	522679	CT1	R
19.250	1.000	1700680	HDS1	R	BORE DIA. IS SHOULDER WIDTH				
19.291	.875	1700700	HDS1	R	.938	1.375	523547	CT1	R
19.500	.812	<b>HDL-3750-R</b>	HDL	R	BORE DIA. IS SHOULDER WIDTH				
19.500	.875	1700760	HDS1	R	.938	1.375	525737	CT1	R
<b>17.125 SHAFT</b>					BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT				
		171026	HDDFBV1	R	18.500	.500	1750017	HS7	R
		BELLEVILLE WASHERS (2 EA/KIT)			18.500	.350	516226	HD1	D
18.125	.500	1713017	HS7	R	QUILL WIPER				
18.625	.750	1713257	HS7	R	19.000	.687	<b>HDL-4194-R</b>	HDL	R
19.125	.813	1713557	HS7	R	19.000	.750	1750257	HS7	R
19.240	1.531	171025	HDDF1	R	19.000	.750	<b>1750259</b>	HS8	D
<b>17.172 SHAFT</b>					19.000	.625	1750230	HDS1	R
19.250	.750	1717600	HDS1	R	19.000	.688	1750240	HDS1	R
<b>17.188 SHAFT</b>					19.000	.688	<b>1750244</b>	HDS2	V
18.562	.688	1719170	HDS1	R	19.000	.688	<b>1750245</b>	HDS2	R
<b>17.250 SHAFT</b>					19.000	.688	1750249	HDS3	D
1.000	90779	LDSL4			W/4 EA .500 ADJ. LUGS				
	FOR SEAL SH SIZE 17.438				19.000	.750	1750250	HDS1	R
2.000	84576	LDSL4			19.000	.750	1750251	HDS1	D
	FOR SEAL SH SIZE 17.438 (442.93MM)				19.000	.750	1750253	HDS1	V
18.750	.687	<b>HDL-3751-R</b>	HDL	R	19.000	.750	<b>1750254</b>	HDS2	V
18.750	.750	1725257	HS7	R	19.000	1.000	1750290	HDS1	R
18.750	.750	<b>1725258</b>	HS8	R	19.000	1.250	1750920	HDSA1	RD
	W/HOOK & EYE SPRING CONNECTOR				19.000	.688	1750220	HDS7	H
18.750	.625	1725230	†HDS1	R	19.000	.688	1750221	HDS7	R
18.750	.750	1725250	HDS1	R	19.250	.625	<b>1750368</b>	HS8	V
18.750	.750	<b>1725255</b>	HDS2	R	19.250	.687	<b>HDL-5054-R</b>	HDL	R
18.750	.750	1725259	HDS3	D	19.250	1.000	<b>HDL-3005-R</b>	HDL	R
	W/4 EA .500 ADJ. LUGS				19.250	.688	1750370	HDS1	R
19.000	.875	1725410	HDS1	R	19.250	.688	<b>1750372</b>	HDS2	R
19.250	.813	1725557	HS7	R	19.250	.688	1750379	HDS3	D
19.250	1.000	1725587	HS7	R	W/4 EA .500 ADJ. LUGS				
19.250	.875	1725560	HDS1	R	19.250	.750	1750380	HDS1	R
19.250	.938	1725570	HDS1	R	19.250	.750	<b>1750385</b>	HDS2	R
19.250	.938	1725571	HDS1	D	19.250	.938	1750433	HDS1	D
19.250	1.000	1725580	HDS1	R	19.250	1.000	1750420	HDS1	R
19.250	1.000	1725583	HDS1	V	19.250	1.000	<b>1750425</b>	HDS2	R
19.500	.875	1725660	HDS1	R	W/4 EA .125 LUGS				
<b>17.313 SHAFT</b>					19.250	1.000	<b>1750426</b>	HDS2	R
1.500	86430	LDSL4			W/4 EA .500 ADJ. LUGS				
	FOR SEAL SH SIZE 17.500 (444.50MM)				19.500	.687	<b>HDL-4198-R</b>	HDL	R
.688	.875	524388	CT3	R	19.500	.688	<b>1750538</b>	HS8	R
BORE DIA. IS SHOULDER WIDTH					W/HOOK & EYE SPRING CONNECTOR				
<b>17.332 SHAFT</b>					19.500	.750	1750516	HS6	R
18.832	.750	1733257	HS7	R	19.500	.813	1750557	HS7	R
<b>17.375 SHAFT</b>					19.500	1.000	1750587	HS7	R
18.625	1.250	1737118	HDSH2	D	19.500	.688	1750530	HDS1	R
18.875	.750	1738257	HS7	R	19.500	.688	1750532	HDS1	R
18.875	.750	1737219	HDS7	R	W/4 EA .125 LUGS				
19.500	1.000	1737630	HDS1	R	19.500	.688	<b>1750533</b>	HDS2	D
					19.500	.688	<b>1750534</b>	HDS2	R
					W/4 EA .125 LUGS				
					19.500	.688	1750539	HDS3	D
					W/4 EA .500 ADJ. LUGS				

Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>17.500 SHAFT (Cont.)</b>					<b>17.750 SHAFT (Cont.)</b>				
19.500	.750	1750540	HDS1	R	2.500		86631	LDSL4	
19.500	.875	1750560	HDS1	R	FOR SEAL SH SIZE 17.938 (455.63MM)				
19.500	1.000	1750580	HDS1	R	18.750	.500	1775017	HS7	R
19.500	1.000	1750585	HDS1	R	19.250	.750	1775257	HS7	R
		W/4 EA .125 LUGS			19.750	.813	<b>1775518</b>	HS8	R
19.500	1.000	1750958	HDSA2	RD	19.750	.813	1775557	HS7	R
19.500	1.250	1750952	HDSA1	RD	19.750	.750	1775540	HDS1	R
19.750	.750	1750659	HDS3	D	19.750	.750	1775543	HDS1	R
		W/4 EA .500 ADJ. LUGS			W/4 EA .250 LUGS				
20.000	1.000	1750780	HDS1	R	19.750	.813	1775550	HDS1	R
20.500	1.000	1750890	HDS1	R	19.750	1.000	1775570	HDS1	D
20.522	1.500	1750900	HDS1	R	19.750	1.000	1775580	HDS1	R
20.522	1.500	<b>1750901</b>	HDS2	R	20.089	.875	1775690	HDS1	R
<b>17.531 SHAFT</b>					<b>17.812 SHAFT</b>				
19.125	.719	1753230	HDS1	V	2.125		87271	LDSL4	
<b>17.543 SHAFT</b>					FOR SEAL SH SIZE 18.000 (457.20MM)				
	2.362	86799	LDSL4		<b>17.813 SHAFT</b>				
	FOR SEAL SH SIZE 17.731 (450.37MM)				FOR SEAL SH SIZE 18.000 (457.20MM)				
<b>17.558 SHAFT</b>					<b>17.818 SHAFT</b>				
19.063	.750	1755250	HDS1	R	2.500		86405	LDSL4	
<b>17.563 SHAFT</b>					FOR SEAL SH SIZE 18.000 (457.20MM)				
19.063	.750	1756257	HS7	R	19.125	.625	<b>1781145</b>	HDS2	R
<b>17.625 SHAFT</b>					<b>17.875 SHAFT</b>				
19.125	.750	1763210	HDS1	D	19.137	.930	178750	†HMSA11	D
19.125	.750	1763217	HDS1	V	P.F. WIDTH .930				
19.125	.750	1763250	HDS1	R	19.137	.930	1787068	HDS1	D
19.250	.687	<b>HDL-4199-R</b>	HDL	R	19.500	.688	<b>1788322</b>	HDS2	D
19.250	.688	1763320	HDS1	R	19.875	.812	<b>HDL-4204-R</b>	HDL	R
19.375	.750	1763380	HDS1	R	19.875	.813	<b>1788558</b>	HS8	R
19.375	.875	1763410	HDS1	R	19.875	.750	1788540	HDS1	R
19.375	.875	<b>1763412</b>	HDS2	R	19.875	.750	1788541	HDS1	R
19.500	.750	1763470	HDS1	R	W/4 EA .125 LUGS				
19.625	.813	1763557	HS7	R	19.875	.813	1788550	HDS1	R
19.625	.688	1763530	HDS1	R	19.875	.813	<b>1788552</b>	HDS2	R
19.625	.813	1763550	HDS1	R	20.000	.875	<b>1787622</b>	HDS2	R
20.500	1.000	1763840	HDS1	R	W/4 EA .250 LUGS				
<b>17.688 SHAFT</b>					<b>17.900 SHAFT</b>				
.750	.938	524389	CT3	R	19.400	.750	1790257	HS7	R
BORE DIA. IS SHOULDER WIDTH					<b>17.913 SHAFT</b>				
.750	.938	594654	CT3	R	.196		<b>404553</b>	VR4	R
BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT					SHAFT RANGE 17.913-18.110				
3.313	3.750	528070	CT4	R	<b>17.938 SHAFT</b>				
BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT					19.750 1.000 <b>1793442</b> HDS2 R				
<b>17.716 SHAFT</b>					19.750 1.000 1793490 HDS1 R				
19.716	.813	1771557	HS7	R	<b>18.000 SHAFT</b>				
<b>17.717 SHAFT</b>					.310 404502 VR3 R				
1.969		<b>404503</b>	VR4	R	SHAFT RANGE 16.730 - 18.700				
SHAFT RANGE 17.717-17.913					.310 404506 VR3 V				
<b>17.718 SHAFT</b>					SHAFT RANGE 16.730 - 18.700				
20.079	.719	1771690	HDS1	R	.790 <b>404500</b> VR1 R	SHAFT RANGE 16.930 - 18.900			
<b>17.719 SHAFT</b>									
19.219	.750	1772257	HS7	R					
<b>17.750 SHAFT</b>									
	1.250	90774	LDSL4						
FOR SEAL SHAFT SIZE 17.938									

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## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>18.000 SHAFT (Cont.)</b>					<b>18.000 SHAFT (Cont.)</b>				
	.790	<b>404504</b>	VR1	V	20.000	1.500	1800956	HDS1	RR
	SHAFT RANGE 16.930 - 18.900				20.000	1.813	1800593	HDS1	R
19.000	.500	1800017	HS7	R	20.000	.875	<b>1800510</b>	HDS4	R
19.000	.500	<b>1800018</b>	HS8	R		W/8 EA .500 MOLDED ADJ. LUGS			
19.000	.625	1800027	HS7	R	20.000	.875	1800515	HDS6	R
19.500	.687	<b>HDL-4206-R</b>	HDL	R		W/8 EA .500 MOLDED ADJ. LUGS			
19.500	.688	<b>1800218</b>	HS8	R	20.250	1.000	1800680	HDS1	R
	W/HOOK & EYE SPRING CONNECTOR				20.250	1.000	1800683	HDS1	V
19.500	.750	1800257	HS7	R	20.250	1.000	1800965	HDSA2	RD
19.500	.687	<b>1800224</b>	HDS2	V	20.250	1.000	528308	HDSA2	VD
19.500	.688	1800240	HDS1	R	20.250	1.250	1800966	HDSE2	RR
19.500	.688	<b>1800244</b>	HDS2	D	20.500	1.125	1800790	HDS1	R
	W/4 EA .125 LUGS				20.500	1.250	1800800	HDS1	R
19.500	.688	<b>1800245</b>	HDS2	R	21.000	.688	1800850	HDS1	R
19.500	.688	<b>1800246</b>	HDS2	D	21.000	1.125	<b>1800896</b>	HDS2	R
19.500	.688	1800249	HDS3	D		W/4 EA .375 LUGS			
	W/4 EA .500 ADJ. LUGS				21.000	1.500	1800890	HDS1	R
19.500	.750	1800250	HDS1	R	<b>18.031 SHAFT</b>				
19.500	1.000	1800290	HDS1	R	20.031	.813	1803557	HS7	R
19.500	1.250	1800912	HDSE2	RR	<b>18.063 SHAFT</b>				
	W/8 EA .125 LUBE HOLES ON O.D.				20.063	.813	1806557	HS7	R
19.500	1.250	1800918	HDSE1	RR	<b>18.110 SHAFT</b>				
	W/8 EA .125 LUBE HOLES ON O.D.				1.969		<b>404603</b>	VR4	R
19.500	1.438	1800922	HDSE2	RR		SHAFT RANGE 18.110-18.307			
19.515	.875	1800300	HDS1	R	20.110	.813	1811557	HS7	R
19.750	.750	1800387	HS7	R	20.115	.813	1811550	HDS1	R
19.750	.750	1800380	HDS1	R	20.276	1.102	<b>1811632</b>	HDS2	R
19.750	.750	<b>1800382</b>	HDS2	R	<b>18.120 SHAFT</b>				
19.750	.750	1800389	HDS3	D	20.500	1.000	1813720	HDS1	R
	W/4 EA .500 ADJ. LUGS				<b>18.125 SHAFT</b>				
19.750	.875	1800410	HDS1	R	20.125	.813	<b>1813558</b>	HS8	R
19.750	.938	1800430	HDS1	R	20.500	1.000	1813730	HDS1	R
19.750	1.000	1800423	HDS1	V	<b>18.163 SHAFT</b>				
19.875	.750	1800470	HDS1	R	2.000	86343	LDLVL4		
20.000	.813	1800557	HS7	R	FOR SEAL SH SIZE 18.350				(466.09MM)
20.000	.813	<b>1800558</b>	HS8	R	<b>18.175 SHAFT</b>				
20.000	.813	<b>1800559</b>	HS8	D	19.500	.750	<b>1817138</b>	HS8	R
20.000	.875	<b>HDL-4210-R</b>	HDL	R		W/HOOK & EYE SPRING CONNECTOR			
20.000	1.000	1800587	HS7	R	19.750	.750	<b>1817258</b>	HS8	R
20.000	.625	<b>1800520</b>	HDS2	R		W/HOOK & EYE SPRING CONNECTOR			
20.000	.750	1800540	HDS1	R	<b>18.188 SHAFT</b>				
20.000	.750	<b>1800542</b>	HDS2	D	20.500	1.000	1819690	HDS1	R
20.000	.750	1800543	HDS1	R	<b>18.250 SHAFT</b>				
	W/4 EA .375 LUGS				19.750	.750	1825257	HS7	R
20.000	.750	1800549	HDS3	D	19.750	.750	<b>1825258</b>	HS8	R
	W/4 EA .500 ADJ. LUGS				19.750	.750	<b>1825338</b>	HS8	H
20.000	.813	1800550	HDS1	R	19.750	.750	1825250	HDS1	R
20.000	.875	1800560	HDS1	R	19.750	.750	<b>1825252</b>	HDS2	R
20.000	.875	<b>1800563</b>	HDS2	R	19.750	.750	1825253	HDS1	V
20.000	.875	1800564	HDS1	R	19.750	.750	1825255	HDS1	R
	W/4 EA .125 LUGS					W/4 EA .375 LUGS			
20.000	.875	<b>1800565</b>	HDS2	R	19.781	.750	<b>1825268</b>	HS8	R
	W/4 EA .125 LUGS				19.867	1.000	1825300	HDS1	R
20.000	.875	<b>1800573</b>	HDS2	V	19.875	.875	1825340	HDS1	R
20.000	.875	1800583	HDS3	D	19.875	1.000	1825350	HDS1	R
	W/4 EA .500 ADJ. LUGS				19.875	1.000	<b>1825352</b>	HDS2	R
20.000	1.000	1800580	HDS1	R	20.000	.875	1825410	HDS1	R
20.000	1.000	1800581	HDS1	R					
	W/4 EA .375 LUGS								
20.000	1.000	<b>1800582</b>	HDS2	R					
20.000	1.250	1800570	HDS2	RR					
20.000	1.250	1800591	HDS1	R					
20.000	1.250	1800592	HDS1	R					
	W/4 EA .125 LUGS								
20.000	1.500	1800950	HDSA1	RD					

Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>18.250 SHAFT (Cont.)</b>					<b>18.500 SHAFT (Cont.)</b>				
20.125	.938	1825486	HDS1	R	20.500	.813	<b>1850554</b>	HDS2	V
20.250	.813	1825557	HS7	R	20.500	.813	1850555	HDS1	D
20.250	.750	1825540	HDS1	R	20.500	.875	<b>1850553</b>	HDS2	V
20.250	.813	1825550	HDS1	R	20.500	.875	1850560	HDS1	R
20.500	1.000	1825680	HDS1	R	20.500	.875	<b>1850561</b>	HDS2	R
20.500	1.188	1825674	HDS1	V	20.500	.875	1850562	HDS1	R
21.250	1.500	1825900	HDS1	R	20.500	.875	W/4 EA .250 LUGS		
<b>18.313 SHAFT</b>					20.500	.875	1850563	HDS1	R
19.492	.750	1831070	HDS1	R	20.500	.875	W/4 EA .438 LUGS		
<b>18.375 SHAFT</b>					20.500	.875	1850564	HDS1	R
19.875	.687	<b>HDL-4213-R</b>	HDL	R	20.500	.875	W/4 EA .375 LUGS		
19.875	.750	1838257	HS7	R	20.500	.875	1850565	HDS1	R
19.875	.688	1838240	HDS1	R	20.500	.875	<b>1850567</b>	HDS2	R
19.875	.688	<b>1838241</b>	HDS2	R	20.500	.875	W/4 EA .375 LUGS		
19.875	.688	<b>1838244</b>	HDS2	R	20.500	.906	<b>592939</b>	HDS2	D
19.875	.688	W/4 EA .250 LUGS			20.500	.906	1850570	HDS1	R
19.875	.688	<b>1838245</b>	HDS2	R	20.500	.906	1850572	HDS1	R
19.875	.688	W/4 EA .125 LUGS			20.500	.906	W/4 EA .250 LUGS		
19.875	.688	1838249	HDS3	D	20.500	.906	<b>1850576</b>	HDS2	R
19.938	.625	W/4 EA .500 ADJ. LUGS			20.500	.968	1850952	HDSA2	V
19.938	.625	1838300	HDS1	R	20.500	1.000	1850580	HDS1	R
19.938	.625	1838301	HDS1	R	20.500	1.000	<b>1850584</b>	HDS2	D
20.000	.750	W/4 EA .063 LUGS			20.500	1.000	1850585	HDS1	D
20.000	.750	<b>HDL-4215-R</b>	HDL	R	20.500	1.000	1850585	HDS1	D
20.375	.813	1838330	HDS1	R	21.248	1.000	1850790	HDS1	R
20.375	.813	1838557	HS7	R	22.750	1.000	1850905	HDS1	R
20.375	.813	<b>1838558</b>	HS8	R	<b>18.504 SHAFT</b>				
20.375	.813	1837570	HDS1	R	.196		<b>404703</b>	VR4	R
20.375	.875	1838560	HDS1	R	SHAFT RANGE 18.504-18.701				
20.500	.875	<b>1837608</b>	HS8	R	20.079	.787	1850306	HDS3	V
20.500	.875	1838620	HDS1	R	W/4 EA .500 ADJ LUGS				
20.750	.875	1838710	HDS1	R	<b>18.560 SHAFT</b>				
<b>18.500 SHAFT</b>					20.000	.750	1856193	HDS1	R
.688	1.125	525708	CT1	R	<b>18.625 SHAFT</b>				
		BORE DIA. IS SHOULDER WIDTH			20.625	.813	1863557	HS7	R
.813	1.250	526192	CT1	R	<b>18.730 SHAFT</b>				
		BORE DIA. IS SHOULDER WIDTH			20.500	.750	1873440	HDS1	R
19.500	.500	1850017	HS7	R	<b>18.750 SHAFT</b>				
20.000	.750	<b>1850248</b>	HS8	D	.813	1.250	595637	CT1	R
20.000	.750	1850257	HS7	R	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT				
20.000	.750	<b>1850212</b>	HDS2	V	19.750	.500	1875017	HS7	R
20.000	.750	1850250	HDS1	R	20.250	.750	1875257	HS7	R
20.000	1.250	1850922	HDS02	RR	20.250	.750	<b>1875258</b>	HS8	R
20.250	.750	1850380	HDS1	R	20.250	.750	1875250	HDS1	R
20.500	.812	HDLA-3068-R	HDLA	R	20.250	.750	<b>1875253</b>	HDS2	R
20.500	.813	1850557	HS7	R	20.250	.750	1875259	HDS3	D
20.500	.875	<b>HDL-4216-R</b>	HDL	R	W/4 EA .500 ADJ. LUGS				
20.500	1.000	1850587	HS7	R	20.500	.750	1875380	HDS1	R
20.500	.750	1850540	HDS1	R	20.500	.750	1875381	HDS1	V
20.500	.750	<b>1850542</b>	HDS2	R	20.500	.875	1875410	HDS1	R
20.500	.750	1850543	HDS1	R	20.500	.875	<b>1875412</b>	HDS2	R
		W/4 EA .125 LUGS			20.563	.813	<b>1875433</b>	HDS2	R
20.500	.750	<b>1850545</b>	HDS2	R	W/4 EA .063 LUGS				
		W/4 EA .125 LUGS			20.750	.813	1875557	HS7	R
20.500	.750	1850548	HDS3	V	20.750	1.000	1875580	HDS1	R
		W/4 EA .500 ADJ LUGS			20.750	.750	1875540	HDS1	R
20.500	.750	1850549	HDS3	D	20.750	.813	1875513	HDS1	D
		W/4 EA .500 ADJ. LUGS			20.750	.813	1875550	HDS1	R
20.500	.813	1850550	HDS1	R	20.750	.813	<b>1875553</b>	HDS2	R
20.500	.813	1850551	HDS1	R					
		W/4 EA .188 LUGS							
20.500	.813	<b>1850552</b>	HDS2	R					

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## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>18.812 SHAFT</b>					<b>19.000 SHAFT (Cont.)</b>				
	1.575	87924	LDSL4		21.000	.875	1900560	HDS1	R
		FOR SEAL SH SIZE 19.000			21.000	.875	<b>1900562</b>	HDS2	V
<b>18.813 SHAFT</b>					21.000	.875	<b>1900563</b>	HDS2	R
	1.500	85104	LDSL3		21.000	.875	<b>1900564</b>	HDS2	R
		FOR SEAL SH SIZE 19.000 (482.60MM)					W/4 EA .188 LUGS		
	1.750	86563	LDSL4		21.000	.875	<b>1900565</b>	HDS2	R
		FOR SEAL SH SIZE 19.000 (482.60MM)					W/4 EA .125 LUGS		
	2.250	87015	LDSL4		21.000	.875	<b>1900566</b>	HDS2	V
		FOR SEAL SH SIZE 19.000 (482.60MM)					W/4 EA .125 LUGS		
	2.500	86716	LDSL4		21.000	.875	1900569	HDS3	D
		FOR SEAL SH SIZE 19.000 (482.60MM)					W/4 EA .500 ADJ. LUGS		
<b>18.818 SHAFT</b>					21.000	1.000	1900580	HDS1	R
20.818	.813	1882557	HS7	R	21.000	1.250	1900950	HDSC1	RD
<b>18.875 SHAFT</b>					21.000	1.313	1900592	HDS1	R
.750	.938	595943	CT3	R	21.000	1.000	<b>1900512</b>	HDS2	R
		BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT			21.125	.813	<b>1900616</b>	HDS2	R
20.625	.875	1888391	HDS1	R			W/4 EA .063 LUGS		
20.875	.813	1888557	HS7	R	21.250	.875	1900660	HDS1	R
					21.500	.750	1900740	HDS1	R
<b>18.898 SHAFT</b>					21.500	.750	<b>1900741</b>	HDS2	R
	.196	<b>404803</b>	VR4	R	21.500	1.250	1900800	HDS1	R
		SHAFT RANGE 18.898-19.094			21.750	1.000	1900830	HDS1	R
20.861	.866	<b>1889572</b>	HDS2	D	<b>19.094 SHAFT</b>				
						.196	<b>404853</b>	VR4	R
							SHAFT RANGE 19.094-19.291		
<b>18.937 SHAFT</b>					<b>19.125 SHAFT</b>				
20.937	.813	1894557	HS7	R			191021	HDDFBV1	R
<b>19.000 SHAFT</b>					20.125	.500	1913017	HS7	R
20.000	.500	1900017	HS7	R	21.125	.813	1913557	HS7	R
20.500	.750	<b>HDL-4218-R</b>	HDL	R	21.250	1.750	1913960	HSDS1	RR
20.500	.750	1900257	HS7	R	21.500	1.640	191022	HDDF1	R
20.500	.750	<b>1900258</b>	HS8	R	<b>19.188 SHAFT</b>				
20.500	.750	1901257	HS7	D	20.563	.688	1919170	HDS1	R
20.500	.625	<b>1900232</b>	HDS2	H	21.188	.813	1919557	HS7	R
20.500	.750	1900250	HDS1	R	<b>19.250 SHAFT</b>				
20.500	.750	<b>1900251</b>	HDS2	R	20.750	.750	<b>HDL-4617-R</b>	HDL	R
		W/6 EA .375 LUGS			20.750	.625	596180	HDS7	R
20.500	.750	1900252	HDS1	R	20.750	.750	1925250	HDS1	R
		W/4 EA .250 LUGS			20.750	.750	<b>1925252</b>	HDS2	R
20.500	.750	1900253	HDS1	R	20.750	.750	1925253	HDS1	R
		W/6 EA .250 LUGS					W/6 EA .125 LUGS		
20.500	.750	<b>1900254</b>	HDS2	R	20.750	.750	1925254	HDS1	D
20.500	.750	<b>1900255</b>	HDS2	R			W/4 EA .125 LUGS		
		W/4 EA .125 LUGS			20.750	.750	<b>1925255</b>	HDS2	R
20.500	.750	<b>1900256</b>	HDS2	R			W/6 EA .125 LUGS		
		W/6 EA .250 LUGS			20.750	.875	1925920	HDSA1	RD
20.500	.750	1900259	HDS3	D	21.000	.750	1925380	HDS1	R
		W/4 EA .500 ADJ. LUGS			21.250	.813	1925557	HS7	R
20.500	.750	<b>1900265</b>	HDS2	V	21.250	.750	1925540	HDS1	R
		W/6 EA .375 LUGS			21.250	.938	1925570	HDS1	R
20.500	.750	<b>1901254</b>	HDS2	D	21.250	1.000	1925580	HDS1	R
20.500	.875	<b>1900274</b>	HDS2	D	21.500	.875	1925660	HDS1	R
20.500	.875	<b>1900275</b>	HDS2	D	<b>19.291 SHAFT</b>				
		W/4 EA .125 LUGS				.196	<b>404903</b>	VR4	R
20.500	.938	1900282	HDS1	R			SHAFT RANGE 19.291-19.488		
		W/4 EA .125 LUGS			<b>19.375 SHAFT</b>				
20.500	.750	<b>1900260</b>	HDS2	V	21.000	.813	1938340	HDS1	R
20.500	.750	1900211	HDS7	R					
21.000	.750	<b>1900548</b>	HS8	R					
21.000	.813	1900557	HS7	R					
21.000	.875	<b>HDL-4219-R</b>	HDL	R					
21.000	.750	1900540	HDS1	R					

Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>19.375 SHAFT (Cont.)</b>					<b>19.750 SHAFT</b>				
21.000	.813	<b>1938345</b>	HDS2	D	20.750	.500	<b>1975018</b>	HS8	R
		W/4 EA .188 LUGS			20.750	.625	1975526	HS6	R
21.375	.813	1938557	HS7	R	21.125	.875	1975150	HDS1	R
<b>19.496 SHAFT</b>					<b>19.813 SHAFT</b>				
2.360		★ 87632	LDLSLV4		1.250		84781	LDLSLV4	
		FOR SEAL SH SIZE 19.685			FOR SEAL SH SIZE 20.000 (508.00MM)				
2.362		87631	LDLSLV4		<b>19.875 SHAFT</b>				
		FOR SEAL SH SIZE 19.684			.310		405002	VR3	R
<b>19.497 SHAFT</b>					SHAFT RANGE 18.900 - 20.870				
1.575		87785	LDLSLV4		.310		405006	VR3	V
		FOR SEAL SH SIZE 19.497			SHAFT RANGE 18.700 - 20.080				
<b>19.500 SHAFT</b>					<b>19.881 SHAFT</b>				
1.250		90769	LDLSLV4		21.881	.813	1989557	HS7	R
		FOR SEAL SH SIZE 19.688			<b>19.937 SHAFT</b>				
.688	1.125	594181	CT1	R	21.687	.625	<b>HDL-4233-R</b>	HDL	R
		BORE DIA. IS SHOULDER WIDTH			<b>19.938 SHAFT</b>				
20.500	.500	1950017	HS7	R	21.500	.750	1994300	HDS1	R
21.000	.750	1950250	HDS1	R	21.688	.625	1994360	HDS1	R
21.500	.813	<b>1950518</b>	HS8	R	21.688	.625	1994361	HDS1	R
21.500	.813	1950557	HS7	R			W/4 EA .063 LUGS		
21.500	.875	<b>HDL-4221-R</b>	HDL	R	21.688	.625	1994363	HDS1	R
21.500	1.000	<b>1950588</b>	HS8	R			W/4 EA .125 LUGS		
21.500	.750	1950540	HDS1	R	21.750	.750	1994430	HDS1	R
21.500	.750	<b>1950542</b>	HDS2	R	<b>19.983 SHAFT</b>				
21.500	.750	<b>1950544</b>	HDS2	R	22.000	.625	1998523	HDS3	D
		W/4 EA .375 LUGS			W/4 EA .500 ADJ. LUGS				
21.500	.750	1950549	HDS3	D	22.000	.875	1998603	HDS3	D
		W/4 EA .500 ADJ. LUGS			W/4 EA .500 ADJ. LUGS				
21.500	.875	1950560	HDS1	R	<b>20.000 SHAFT</b>				
21.500	.875	<b>1950563</b>	HDS2	V	.813	1.250	524587	CT1	R
21.500	.938	1950570	HDS1	R	BORE DIA. IS SHOULDER WIDTH				
21.500	.938	1950571	HDS1	R					
		W/4 EA .125 LUGS							
21.500	1.000	1950580	HDS1	R					
21.500	1.000	1950583	HDS1	V					
21.500	1.250	1950950	HDSA1	RD					
21.500	.750	1950211	HDS7	R					
21.688	.750	1950640	HDS1	R					
21.750	.875	1950660	HDS1	R					
22.000	.875	1950760	HDS1	R					
22.125	.875	1950800	HDS1	R					
22.250	.875	1950820	HDS1	R					
<b>19.563 SHAFT</b>									
2.750		85654	LDLSLV4						
		FOR SEAL SH SIZE 19.750							
			(501.60MM)						
<b>19.625 SHAFT</b>									
21.260	.787	1963341	HDS1	R					
21.260	1.563	1963340	HDS1	R					
21.625	.813	1963557	HS7	R					
21.625	.813	1963550	HDS1	R					
21.625	.938	1963570	HDS1	R					
<b>19.685 SHAFT</b>									
.196		<b>405003</b>	VR4	R					
		SHAFT RANGE 19.685-19.882							
22.047	.984	1968710	HDS1	R					
<b>19.688 SHAFT</b>									
21.250	.787	1969300	HDS1	R					

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## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>20.000 SHAFT (Cont.)</b>					<b>20.000 SHAFT (Cont.)</b>				
21.000	.500	2000017	HS7	R	22.625	.750	<b>2000803</b>	HDS2	R
21.000	.500	<b>2000018</b>	HS8	D	<b>20.079 SHAFT</b>				
21.250	1.375	2000913	HDSA1	RD		.196	<b>405103</b>	VR4	R
21.500	.625	2000237	HS7	R	SHAFT RANGE 20.079-20.276				
21.500	.625	<b>2000238</b>	HS8	R	<b>20.188 SHAFT</b>				
21.500	.750	<b>HDL-4235-R</b>	HDL	R	22.500	1.000	2019690	HDS1	R
21.500	.750	<b>2000258</b>	HS8	R	<b>20.250 SHAFT</b>				
21.500	.625	2000230	HDS1	R	21.250	.500	2025017	HS7	R
21.500	.625	2000239	HDS3	D	21.750	.750	<b>HDL-4239-R</b>	HDL	R
		W/4 EA .500 ADJ. LUGS			21.750	.750	<b>2025214</b>	HDS2	V
21.500	.750	2000250	HDS1	R	21.750	.750	2025250	HDS1	R
21.500	.750	2000253	HDS1	R	21.750	.750	2025251	HDS1	R
		W/8 EA .125 LUGS					W/4 EA .125 LUGS		
21.500	.750	2000254	HDS1	R	21.750	.750	<b>2025252</b>	HDS2	R
		W/4 EA .250 LUGS			21.750	.750	<b>2025254</b>	HDS2	R
21.500	.750	<b>2000262</b>	HDS2	V			W/4 EA .125 LUGS		
21.500	.750	2000283	HDS1	V	21.750	.750	<b>2025252</b>	HDS2	R
21.500	.875	2000920	HDSA1	V	21.750	.750	<b>2025254</b>	HDS2	R
21.500	.875	593789	HDSA1	VD			W/4 EA .125 LUGS		
21.500	.750	<b>2000232</b>	HDS2	R	21.750	1.500	<b>2025284</b>	†HDS2	R
21.500	.750	2000240	HDS7	R	21.875	.875	2025340	HDS1	R
					22.000	.750	2025380	HDS1	R
21.750	.750	<b>HDL-4236-R</b>	HDL	R	22.250	.625	<b>2025528</b>	HS8	R
21.750	.750	<b>2000388</b>	HS8	R	22.250	.813	2025557	HS7	R
21.750	.750	2000380	HDS1	R	22.250	.750	2025543	HDS1	V
22.000	.500	<b>595044</b>	HS5	R	22.250	.875	2025560	HDS1	R
22.000	.625	2000527	HS7	R	22.250	.875	<b>2025562</b>	HDS2	R
22.000	.625	<b>2000528</b>	HS8	R	22.250	.875	2025564	HDS1	R
22.000	.625	2000557	HS7	R			W/4 EA .125 LUGS		
22.000	.813	<b>2000558</b>	HS8	R	22.250	.875	2025569	HDS3	D
22.000	.875	<b>HDL-4237-R</b>	HDL	R			W/4 EA .500 ADJ. LUGS		
22.000	.875	<b>2000568</b>	HS8	R	22.250	.875	2025570	HDS1	D
22.000	1.000	2000587	HS7	R	22.250	1.000	2025568	HDS3	D
22.000	.625	2000520	HDS1	R			W/4 EA .500 ADJ. LUGS		
22.000	.625	<b>2000522</b>	HDS2	V	22.250	1.000	2025580	HDS1	R
22.000	.625	2000529	HDS3	D	22.375	1.000	2025630	HDS1	R
		W/4 EA .500 ADJ. LUGS			22.500	.875	2025660	HDS1	R
22.000	.750	2000543	HDS1	V	22.500	.875	<b>2025662</b>	HDS2	R
22.000	.875	2000560	HDS1	R	22.500	.875	<b>2025664</b>	HDS2	R
22.000	.875	2000561	HDS1	R			W/4 EA .375 LUGS		
		W/4 EA .125 LUGS			22.500	.875	<b>2025665</b>	HDS2	R
22.000	.875	2000563	HDS1	R			W/4 EA .500 ADJ. LUGS		
		W/8 EA .125 LUGS			24.000	1.000	2025901	HDS1	R
22.000	.875	2000564	HDS1	V	<b>20.275 SHAFT</b>				
22.000	.875	<b>2000565</b>	HDS2	R	21.535	.630	<b>2027118</b>	HS8	R
22.000	.875	<b>2000566</b>	HDS2	R	<b>20.312 SHAFT</b>				
		W/4 EA .250 LUGS				1.000	86739	LD5LV4	
22.000	.906	2000500	HDS1	R	FOR SEAL SH SIZE 20.500 (520.70MM)				
22.000	.906	2000570	HDS1	R	<b>20.313 SHAFT</b>				
22.000	1.000	2000580	HDS1	R	.750	.938	525030	CT3	R
22.000	1.000	2000582	HDS1	R			BORE DIA. IS SHOULDER WIDTH		
		W/6 EA .250 LUGS			.750	.938	595455	CT3	R
22.000	1.000	<b>2000584</b>	HDS2	R	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT				
		W/6 EA .250 LUGS			<b>20.438 SHAFT</b>				
22.000	1.000	<b>2000585</b>	HDS2	R	22.500	.750	2044600	HDS1	R
22.000	1.250	<b>2000592</b>	HDS2	R	22.500	.750	<b>2044602</b>	HDS2	R
22.000	1.812	2000590	HDS1	R	22.500	.750	<b>2044603</b>	HDS2	R
22.000	1.813	2000951	HDSE1	RR			W/4 EA .250 LUGS		
22.125	.916	<b>2000638</b>	HS8	V	22.500	.750	2044604	HDS1	R
22.125	.916	<b>2000648</b>	HS8	R			W/4 EA .250 LUGS		
22.125	.916	<b>2000649</b>	HS8	D	22.500	1.000	2044580	HDSA1	R
22.125	.916	<b>2000649</b>	HS8	D	23.000	.875	2044790	HDS1	R
22.125	1.000	2000630	HDS1	R					
22.250	.875	2000660	HDS1	R					
22.500	.875	2000760	HDS1	R					
22.500	1.250	2000795	HDS1	R					

Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>20.438 SHAFT (Cont.)</b>					<b>20.625 SHAFT</b>				
23.000	1.250	2044793	HDS1	R	22.265	1.000	2063300	HDS1	R
23.125	.875	2044800	HDS1	R	22.625	.813	2063557	HS7	R
<b>20.472 SHAFT</b>					<b>20.700 SHAFT</b>				
	.196	<b>405203</b>	VR4	R	.310	405252	VR3	R	
		SHAFT RANGE 20.472-20.669			SHAFT RANGE 20.080 - 21.260				
22.834	.984	2047673	HDS3	D					
W/4 EA .500 ADJ. LUGS									
<b>20.500 SHAFT</b>					<b>20.719 SHAFT</b>				
.813	1.000	530468	CT3	R	22.125	.875	2072200	HDS1	R
		BORE DIA. IS SHOULDER WIDTH			22.500	.875	2072440	HDS1	R
.813	1.000	596571	CT3	R	22.625	.875	2072500	HDS1	R
		BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT			22.750	.875	2072600	HDS1	R
22.000	.750	<b>HDL-4619-R</b>	HDL	R	22.750	1.250	<b>2072954</b>	HDS2	D
22.000	.750	<b>2050258</b>	HS8	R	<b>20.750 SHAFT</b>				
22.000	.750	<b>2050212</b>	HDS2	R	22.375	.875	2075340	HDS1	R
		W/4 EA .188 LUGS			22.750	.625	<b>2075238</b>	HS8	R
22.000	.750	2050250	HDS1	R	22.750	.813	2075557	HS7	R
22.000	.750	<b>2050252</b>	HDS2	R	22.750	.875	<b>HDL-4248-R</b>	HDL	R
22.000	.750	<b>2050254</b>	HDS2	V	22.750	1.000	<b>2075588</b>	HS8	R
22.000	1.500	2050282	HDSA2	RD	22.750	.750	2075540	HDS1	R
22.500	.625	2050527	HS7	R	22.750	.750	2075543	HDS3	V
22.500	.625	<b>2050528</b>	HS8	R			W/4 EA .500 ADJ. LUGS		
22.500	.812	<b>2050558</b>	HS8	R	22.750	.750	2075549	HDS3	D
22.500	.813	2050557	HS7	R			W/4 EA .500 ADJ. LUGS		
22.500	.875	<b>HDL-4246-R</b>	HDL	R	22.750	.875	2075560	HDS1	R
22.500	.875	2050565	HDS1	R	22.750	.875	2075561	HDS1	D
		W/4 EA .125 LUGS			22.750	.875	<b>2075562</b>	HDS2	D
22.500	.875	<b>2050568</b>	HS8	R	22.750	.875	<b>2075563</b>	HDS2	R
22.500	.625	2050520	HDS1	R	22.750	1.000	2075580	HDS1	R
22.500	.625	<b>2050523</b>	HDS2	D	22.750	1.250	2075950	HDSA1	RD
22.500	.625	2050529	HDS3	D	22.750	.875	2075569	HDS7	D
		W/4 EA .500 ADJ. LUGS			22.752	.875	<b>2075602</b>	HDS2	R
22.500	.750	2050540	HDS1	R	23.000	.875	2075660	HDS1	R
22.500	.750	<b>2050542</b>	HDS2	R	23.000	.875	2075662	HDS1	R
22.500	.813	<b>2050552</b>	HDS2	R			W/4 EA .188 LUGS		
22.500	.813	<b>2050553</b>	HDS2	V	23.750	1.188	2075907	HDS1	R
22.500	.844	2050550	HDS1	R			W/4 EA .313 LUGS		
22.500	.875	2050560	HDS1	R	23.750	1.500	2075908	HDS1	R
22.500	.875	2050562	HDS1	R	<b>20.813 SHAFT</b>				
		W/4 EA .250 LUGS			1.250	85800	LDLVL3		
22.500	.875	<b>2050563</b>	HDS2	R	FOR SEAL SH SIZE 21.000 (533.40MM)				
22.500	.875	2050954	HDSA2	V	2.000	86805	LDLVL4		
22.500	.906	2050573	HDS1	R	FOR SEAL SH SIZE 21.000 (533.40MM)				
		W/4 EA .188 LUGS			2.125	85367	LDLVL4		
22.500	.906	<b>2050575</b>	HDS2	R	FOR SEAL SH SIZE 21.000 (533.40MM)				
		W/4 EA .250 LUGS			2.250	87241	LDLVL4		
22.500	1.000	2050580	HDS1	R	FOR SEAL SH SIZE 21.000 (533.40MM)				
22.500	1.000	2050586	HDS1	R	2.500	87298	LDLVL4		
		W/4 EA .500 LUGS			FOR SEAL SH SIZE 21.000				
22.500	1.500	2050596	HDS1	R	<b>20.827 SHAFT</b>				
22.500	1.500	2050953	HDSE2	RR	22.827	.813	2083557	HS7	R
		W/LUBE HOLES ON O.D.			<b>20.861 SHAFT</b>				
22.750	.875	2050660	HDS1	R	22.835	.860	<b>2086502</b>	HDS2	D
22.999	1.125	2050740	HDS1	R	<b>20.866 SHAFT</b>				
22.999	1.250	2050750	HDS1	R	.196	<b>405303</b>	VR4	R	
23.000	.875	2050760	HDS1	R	SHAFT RANGE 20.866-21.063				
23.000	1.250	2050791	HDS1	R	22.866	.813	2087557	HS7	R
23.000	1.250	2050793	HDS1	R	22.866	.812	2068710	HDS1	R
		W/4 EA .250 LUGS			22.866	.812	2086710	HDS1	R
<b>20.515 SHAFT</b>									
22.515	.813	2052557	HS7	R					

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## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>20.875 SHAFT</b>					<b>21.000 SHAFT (Cont.)</b>				
.688	.875	528536	CT3	R	23.000	.875	2100563	HDS1	R
			BORE DIA. IS SHOULDER WIDTH				W/4 EA .500 LUGS		
22.750	1.000	2087490	HDS1	R	23.000	.875	<b>2100564</b>	HDS2	R
22.875	.813	2088557	HS7	R	23.000	.875	<b>2100565</b>	HDS2	D
22.875	.750	2088540	HDS1	R	23.000	.875	<b>2100566</b>	HDS2	D
23.000	.750	<b>2088648</b>	HS8	R			W/4 EA .250 LUGS		
23.000	.750	2088610	HDS1	R	23.000	.875	2100567	HDS1	V
23.228	.875	2088700	HDS1	R			W/4 EA .375 LUGS		
23.228	.906	2088702	HDS1	R	23.000	.875	2100568	HDS3	D
23.500	.875	2088800	HDS1	R			W/4 EA .125 LUGS		
<b>20.990 SHAFT</b>					23.000	.875	<b>2100575</b>	HDS2	R
	2.250	84579	LDSL3				W/6 EA .500 ADJ. LUGS		
		FOR SEAL SH SIZE 21.178	(537.92MM)		23.000	.875	2100951	HDSA1	RD
<b>21.000 SHAFT</b>					23.000	.875	2100952	HDS2	RD
	2.250	87090	LDSL4				W/6 EA .500 LUGS		
		FOR SEAL SH SIZE 21.188	(538.18MM)		23.000	.875	2100955	HDSC2	RD
22.000	.500	2100017	HS7	R	23.000	.875	2100957	HDSA2	V
22.250	1.375	2100913	HDSA1	RD	23.000	1.000	2100580	HDS1	R
22.500	.750	<b>HDL-5259-R</b>	HDL	R	23.000	1.000	2100583	HDS1	V
22.500	.750	2100257	HS7	R	23.000	1.000	<b>2100584</b>	HDS2	R
22.500	.750	<b>2100258</b>	HS8	R			W/4 EA .250 LUGS		
22.500	.750	2100250	HDS1	R	23.000	.750	2100539	HDS7	R
22.580	.578	<b>2100228</b>	HS8	R			W/4 EA .125 LUGS		
22.750	.750	<b>HDL-5312-R</b>	HDL	R	23.000	.750	<b>2100330</b>	HDS4	R
22.750	.688	2100370	HDS1	R			W/8 EA .500 MOLDED ADJ. LUGS		
22.750	.750	2100380	HDS1	R	23.000	.750	2100335	HDS6	R
22.750	.813	2100390	HDS1	R			W/8 EA .500 MOLDED ADJ. LUGS		
22.750	.813	2100391	HDS1	R	23.012	.750	2100543	HDS1	R
		W/4 EA .125 LUGS			23.250	.875	2100660	HDS1	R
22.750	.813	2100393	HDS1	V	23.500	.875	2100760	HDS1	R
22.751	.813	2100430	HDS1	R	23.500	1.000	2100780	HDS1	R
22.751	.813	2100432	HDS1	R	23.500	1.125	2100790	HDS1	R
		W/4 EA .125 LUGS			23.500	1.125	2100791	HDS1	R
22.938	1.000	2100490	HDS1	R			W/4 EA .125 LUGS		
23.000	.625	2100527	HS7	R	23.500	1.250	2100800	HDS1	R
23.000	.625	<b>2100528</b>	HS8	R	24.000	.875	2100870	HDS1	R
23.000	.813	2100517	HS7	V	<b>21.125 SHAFT</b>				
23.000	.813	2100557	HS7	R	23.125	1.000	2112570	HDS1	V
23.000	.813	<b>2100558</b>	HS8	R	<b>21.204 SHAFT</b>				
23.000	.813	<b>594201</b>	HS8	V	23.204	.813	2120550	HDS1	R
23.000	.875	<b>HDL-4253-R</b>	HDL	R	<b>21.210 SHAFT</b>				
23.000	1.000	<b>2100588</b>	HS8	V	24.500	1.000	2121900	HDS1	R
23.000	.625	<b>2100516</b>	HDS2	V	<b>21.250 SHAFT</b>				
		W/4 EA .500 ADJ. LUGS			22.750	.750	2125257	HS7	R
23.000	.625	2100520	HDS1	R	23.000	.750	<b>HDL-4255-R</b>	HDL	R
23.000	.625	2100521	HDS1	R	23.000	.750	2125380	HDS1	R
		W/4 EA .125 LUGS			23.000	.875	2125940	HDSA1	RD
23.000	.625	<b>2100522</b>	HDS2	R	23.250	.625	2125527	HS7	R
23.000	.625	2100529	HDS3	D	23.250	.813	2125557	HS7	R
		W/4 EA .500 ADJ. LUGS			23.250	.875	<b>HDL-4254-R</b>	HDL	R
23.000	.708	<b>2100532</b>	HDS2	R	23.250	.625	2125520	HDS1	R
23.000	.750	2100540	HDS1	R	23.250	.750	2125540	HDS1	R
23.000	.750	<b>2100544</b>	HDS2	R	23.250	.813	<b>2125555</b>	HDS2	D
		W/4 EA .125 LUGS			23.250	.875	2125560	HDS1	R
23.000	.750	<b>2100545</b>	HDS2	R	23.250	.875	2125562	HDS1	R
23.000	.813	2100550	HDS1	R			W/4 EA .313 LUGS		
23.000	.813	<b>2100553</b>	HDS2	V	23.250	.875	<b>2125563</b>	HDS2	R
23.000	.875	2100560	HDS1	R	23.250	.875	<b>2125564</b>	HDS2	V
23.000	.875	2100561	HDS1	R	23.500	.875	2125660	HDS1	R
		W/4 EA .125 LUGS			24.250	1.000	2125890	HDS1	R
23.000	.875	<b>2100562</b>	HDS2	R	24.250	1.000	2125895	HDS1	D
		W/6 EA .125 LUGS							

Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>21.260 SHAFT</b>					<b>21.500 SHAFT (Cont.)</b>				
23.228	.984	2126510	HDS7	R	23.500	1.000	2150580	HDS1	R
23.260	.813	2126557	HS7	R	23.500	1.000	594356	HDSA1	RD
<b>21.313 SHAFT</b>					23.563	.875	2150600	HDS1	R
23.125	.750	2131440	HDS1	R	23.750	.875	2150660	HDS1	R
23.312	.875	2131560	HDS1	R	24.000	.875	2150760	HDS1	R
23.312	.875	2131561	HDS1	R	24.000	1.000	2150780	HDS1	R
		W/4 EA .063 LUGS			24.000	1.250	2150800	HDS1	R
23.312	1.000	2131580	HDS1	R	<b>21.625 SHAFT</b>				
23.500	.875	2131640	HDS1	R	23.375	.750	2163380	HDS1	R
<b>21.375 SHAFT</b>					23.625	.813	2163557	HS7	R
23.250	.875	2138480	HDS1	R	23.625	.875	<b>HDL-4263-R</b>	HDL	R
23.375	.813	2138557	HS7	R	23.625	.875	2163560	HDS1	R
23.375	.875	2138560	HDS1	R	23.625	1.000	2163580	HDS1	R
23.500	.875	2138620	HDS1	R	23.750	.875	2163620	HDS1	R
<b>21.438 SHAFT</b>					<b>21.653 SHAFT</b>				
23.000	.750	2144300	HDS1	R	23.153	.750	2165257	HS7	R
23.188	.625	2144360	HDS1	R	<b>21.654 SHAFT</b>				
23.188	.625	2144361	HDS1	R	.196	<b>405503</b>	VR4	R	
		W/4 EA .125 LUGS			SHAFT RANGE 21.654-21.850				
23.188	.625	2144362	HDS1	R	<b>21.688 SHAFT</b>				
		W/4 EA .031 LUGS			23.188	.750	2169257	HS7	R
23.188	.625	2144363	HDS1	R	<b>21.691 SHAFT</b>				
		W/4 EA .063 LUGS			23.691	.813	2169557	HS7	R
23.188	.750	2144380	HDS1	R	<b>21.750 SHAFT</b>				
23.250	.875	2144440	HDS1	R	23.250	.625	2175237	HS7	R
23.500	.875	2144600	HDS1	R	23.250	.625	<b>2175238</b>	HS8	R
<b>21.456 SHAFT</b>					23.250	.625	<b>594360</b>	HS8	R
23.456	.813	2146557	HS7	R	23.250	.750	<b>HDL-4621-R</b>	HDL	R
<b>21.500 SHAFT</b>					23.250	.750	2175257	HS7	R
.813	1.250	524599	CT1	R	23.250	.750	2175257	HS7	R
		BORE DIA. IS SHOULDER WIDTH			23.250	.625	2175230	HDS1	R
.813	1.000	524362	CT3	R	23.250	.625	<b>2175232</b>	HDS2	R
		BORE DIA. IS SHOULDER WIDTH			23.250	.750	2175250	HDS1	R
3.313	3.750	526741	CT4	R	23.250	.750	<b>2175252</b>	HDS2	R
		BORE DIA. IS SHOULDER WIDTH			23.250	.750	2175253	HDS1	R
22.688	.625	2150070	HDS1	R	23.250	.750	2175253	HDS1	R
23.000	.625	<b>2150238</b>	HS8	R			W/4 EA .125 LUGS		
23.000	.750	2150257	HS7	R	23.750	.813	2175557	HS7	R
23.000	.750	<b>2150258</b>	HS8	R	23.750	.875	<b>HDL-4265-R</b>	HDL	R
23.250	.750	2150380	HDS1	R	23.750	.750	2175540	HDS1	R
23.250	.750	<b>2150384</b>	HDS2	V	23.750	.750	<b>2175542</b>	HDS2	R
23.250	.750	2150387	HDS1	V	23.750	.750	<b>2175545</b>	HDS2	R
23.250	.750	2150388	HDS1	D			W/4 EA .500 LUGS		
23.500	.625	2150527	HS7	R	23.750	1.000	2175580	HDS1	R
23.500	.813	2150557	HS7	R	23.750	1.000	2175581	HDS1	R
23.500	.875	<b>HDL-4259-R</b>	HDL	R			W/4 EA .063 LUGS		
23.500	.625	2150520	HDS1	R	23.750	1.000	<b>2175585</b>	HDS2	R
23.500	.750	2150540	HDS1	R			W/4 EA .500 LUGS		
23.500	.750	<b>2150542</b>	HDS2	R	23.750	.875	2175569	HDS7	R
23.500	.750	2150549	HDS3	D	24.000	.875	2175660	HDS1	R
		W/4 EA .500 ADJ. LUGS			24.000	.875	<b>2175664</b>	HDS2	R
23.500	.800	<b>2150574</b>	HDS2	V			W/4 EA .125 LUGS		
23.500	.813	2150550	HDS1	R	24.000	1.000	2175680	HDS1	R
23.500	.813	2150554	HDS1	R	24.250	.875	2175760	HDS1	R
		W/6 EA .375 LUGS			24.500	1.000	2175830	HDS1	R
23.500	.813	<b>2150555</b>	HDS2	R	24.750	1.000	2175899	HDS3	D
		W/6 EA .375 LUGS					W/4 EA .500 ADJ. LUGS		
23.500	.875	2150560	HDS1	R	24.750	1.500	2175895	HDS1	R
23.500	.875	<b>2150562</b>	HDS2	V	24.750	1.500	2175920	HDS1	RR
23.500	.875	<b>2150565</b>	HDS2	D	24.750	1.500	2175992	HDS2	VV
					24.750	1.500	2175997	HDS1	VV

★Contact manufacturer for availability  
**Bold numbers** are preferred designs

† Includes Bore-Tite on O.D.  
 ▲ WasteWatcher numbers

## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>21.750 SHAFT (Cont.)</b>					<b>22.000 SHAFT (Cont.)</b>				
24.750	1.500	2175998	HDSE1	VV	24.000	.750	2200513	HDS3	V
<b>21.803 SHAFT</b>					W/4 EA .500 ADJ. LUGS				
	2.362	87069	LDSL4		24.000	.750	2200540	HDS1	R
	FOR SEAL SH SIZE 21.991		(558.57MM)		24.000	.750	<b>2200542</b>	HDS2	R
<b>21.813 SHAFT</b>					2200549 HDS3 D				
	2.250	84590	LDSL4		W/4 EA .500 ADJ. LUGS				
	FOR SEAL SH SIZE 22.000		(558.80MM)		24.000	.813	2200550	HDS1	R
.813	1.250	524210	CT1	R	24.000	.875	2200140	HDS1	R
	BORE DIA. IS SHOULDER WIDTH				W/4 EA .188 LUGS				
<b>21.875 SHAFT</b>					2200560 HDS1 R				
	.310	405502	VR3	R	24.000	.875	2200561	HDS1	R
	SHAFT RANGE 20.870 - 22.830				W/4 EA .125 LUGS				
	.790	<b>405500</b>	VR1	R	24.000	.875	2200562	HDS1	R
	SHAFT RANGE 20.870 - 22.830				W/4 EA .250 LUGS				
	.790	<b>405504</b>	VR1	V	24.000	.875	<b>2200563</b>	HDS2	R
	SHAFT RANGE 20.870 - 22.830				W/4 EA .125 LUGS				
23.875	.813	2188557	HS7	R	24.000	.875	<b>2200564</b>	HDS2	D
<b>21.938 SHAFT</b>					<b>2200565</b> HDS2 R				
.688	1.125	524211	CT1	R	24.000	.875	<b>2200566</b>	HDS2	R
	BORE DIA. IS SHOULDER WIDTH				W/4 EA .250 LUGS				
<b>22.000 SHAFT</b>					2200955 HDSEA2 RL				
.813	1.250	524347	CT1	R	24.000	.875	<b>2201560</b>	HDS2	D
	BORE DIA. IS SHOULDER WIDTH				W/4 EA .125 LUGS				
.813	1.000	524363	CT3	R	24.000	.875	2201564	HDS1	D
	BORE DIA. IS SHOULDER WIDTH				24.000	.875	2201565	HDS1	R
23.000	.500	2200017	HS7	R	W/6 EA .125 LUGS				
23.000	.500	2200027	HS7	V	24.000	1.000	2200580	HDS1	R
23.000	.350	511204	G1	L	24.000	1.000	2200585	HDS1	R
	QUILL WIPER				W/4 EA .125 LUGS				
23.500	.625	2200237	HS7	R	24.000	1.250	2200590	HDS1	R
23.500	.625	<b>2200238</b>	HS8	R	24.000	1.250	<b>2200592</b>	HDS2	D
23.500	.750	<b>HDL-4269-R</b>	HDL	R	24.000	1.250	2200953	HDSD1	RR
23.500	.750	<b>2200218</b>	HS8	R	24.000	1.250	2200958	HDSE2	DD
23.500	.750	2200257	HS7	R	24.000	1.250	2200962	HDSD2	DD
23.500	.625	2200230	HDS1	R	24.000	1.250	526339	HDS1	D
23.500	.625	2200239	HDS3	D	24.000	1.250	<b>593880</b>	HDS2	D
	W/4 EA .500 ADJ. LUGS				24.000	1.281	2200591	HDS1	R
23.500	.750	<b>2200212</b>	HDS2	D	24.000	1.875	2200961	HDSE2	RR
23.500	.750	<b>2200213</b>	HDS2	V	W/LUBE HOLES ON O.D.				
23.500	.750	2200250	HDS1	R	24.000	.875	<b>2200600</b>	HDS4	R
23.500	.750	<b>2200252</b>	HDS2	R	W/8 EA .500 MOLDED ADJ. LUGS				
23.500	.750	2200253	HDS1	D	24.000	.875	2200605	HDS6	R
23.500	.750	<b>2200255</b>	HDS2	R	W/8 EA .500 MOLDED ADJ. LUGS				
	W/4 EA .250 LUGS				24.250	1.000	2200680	HDS1	R
23.500	.750	2200256	HDS1	R	24.500	.875	2200760	HDS1	R
	W/6 EA .125 LUGS				24.500	.875	2200762	HDS1	R
23.500	.875	2200920	HDSEA1	RD	W/4 EA .250 LUGS				
23.750	.813	<b>2200398</b>	HS8	D	24.500	1.000	2200780	HDS1	R
23.750	.813	2200390	HDS1	R	24.500	1.250	2200800	HDS1	R
23.750	.813	2200393	HDS1	D	24.500	1.250	2200804	HDS1	D
24.000	.625	<b>2200529</b>	HS8	D	24.750	.875	2200820	HDS1	R
24.000	.812	<b>2200555</b>	HS8	V	25.750	1.250	<b>593959</b>	HDS2	R
24.000	.813	2200557	HS7	R	26.000	1.250	2200900	HDS1	R
24.000	.813	<b>2200558</b>	HS8	D	26.000	1.750	<b>593960</b>	HDS2	R
24.000	.875	<b>HDL-4270-R</b>	HDL	R	<b>22.047 SHAFT</b>				
24.000	1.000	2200587	HS7	R	.196	<b>405603</b>	VR4	R	
24.000	.875	2200954	HDSEA1	RL	SHAFT RANGE 22.047-22.244				
24.000	.625	<b>2200522</b>	HDS2	D	<b>22.063 SHAFT</b>				
	W/4 EA .375 LUGS				24.063	.813	2206557	HS7	R

Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>22.125 SHAFT</b>					<b>22.437 SHAFT</b>				
24.000	1.000	2213490	HDS1	R	24.000	.750	<b>HDL-4275-R</b>	HDL	R
24.125	.813	2213557	HS7	R	24.437	.750	<b>HDL-6480-R</b>	HDL	R
24.125	.813	2213550	HDS1	R	<hr/>				
<b>22.250 SHAFT</b>					<b>22.438 SHAFT</b>				
1.000		85691	LDSL V3		24.000	.750	2243303	HDS1	V
	FOR SEAL SH SIZE 22.438		(569.93MM)		24.000	.750	2244300	HDS1	R
23.750	.625	2225230	HDS1	R	24.250	.688	<b>2243468</b>	HS8	R
24.000	.750	2225350	HDS1	V	24.250	.750	2244440	HDS1	R
24.000	.750	2225380	HDS1	R	24.376	.875	2244453	HDS1	R
24.250	.813	2225557	HS7	R			W/4 EA .375 LUGS		
24.250	.875	<b>HDL-3764-R</b>	HDL	R	24.438	.750	2244540	HDS1	R
24.250	1.000	<b>2225588</b>	HS8	R	24.438	.875	2244560	HDS1	R
24.250	.813	2225550	HDS1	R	24.438	.906	<b>2244542</b>	HDS2	R
24.250	.813	<b>2225553</b>	HDS2	V	<hr/>				
24.250	.875	2225560	HDS1	R	<b>22.441 SHAFT</b>				
24.250	.875	2225561	HDS7	R		.196	<b>405703</b>	VR4	R
24.250	.875	W/4 EA .250 LUGS					SHAFT RANGE 22.441-22.638		
24.250	.875	<b>2225562</b>	HDS2	R	24.803	.787	<b>HDL-3061-R</b>	HDL	R
24.250	.875	<b>2225563</b>	HDS2	R	<hr/>				
24.250	.875	W/4 EA .125 LUGS			<b>22.500 SHAFT</b>				
24.250	.875	2225564	HDS1	R	.813	1.250	524212	CT1	R
24.250	.875	W/4 EA .250 LUGS					BORE DIA. IS SHOULDER WIDTH		
24.250	.875	<b>2225565</b>	HDS2	R	23.688	.625	2250100	HDS1	R
24.250	.875	W/4 EA .250 LUGS			23.688	.625	2250105	HDS1	D
24.250	.875	2225568	HDS3	H	24.000	.750	<b>HDL-4271-R</b>	HDL	R
24.250	.875	W/4 EA .500 ADJ. LUGS			24.000	.625	2250230	HDS1	R
24.250	.875	2225569	HDS3	D	24.250	.750	2250380	HDS1	R
24.250	1.000	W/4 EA .500 ADJ. LUGS			24.250	.750	2250381	HDS1	R
24.250	.875	2225580	HDS1	R	24.250	.750	W/4 EA .063 LUGS		
24.250	.875	2225511	HDS7	H	24.250	.750	2250388	HDS3	R
24.500	.875	2225660	HDS1	R	24.250	.813	2250390	HDS1	R
24.500	1.000	2225680	HDS1	R	24.250	.813	2250391	HDS1	R
<hr/>					<b>22.638 SHAFT</b>				
<b>22.303 SHAFT</b>									
2.362		87070	LDSL V4			.196	<b>405753</b>	VR4	R
	FOR SEAL SH SIZE 22.491		(571.27MM)				SHAFT RANGE 22.638-22.835		
<hr/>					24.638	.750	<b>2263548</b>	HS8	D
<b>22.313 SHAFT</b>					<hr/>				
1.250		85907	LDSL V4		<b>22.673 SHAFT</b>				
	FOR SEAL SH SIZE 22.500		(571.50MM)		24.173	.750	2267257	HS7	R
<hr/>					<hr/>				
<b>22.375 SHAFT</b>					<b>22.750 SHAFT</b>				
24.250	.750	2238470	HDS1	R	.938	1.375	524657	CT1	R
24.368	.875	2238500	HDS1	R			BORE DIA. IS SHOULDER WIDTH		
24.368	.875	2238505	HDS1	R	<hr/>				
24.368	.875	W/4 EA .375 LUGS			<b>22.638 SHAFT</b>				
24.368	.875	2238509	HDS3	D		.196	<b>405753</b>	VR4	R
24.368	.875	W/4 EA .500 ADJ. LUGS					SHAFT RANGE 22.638-22.835		
24.368	.875	<b>2238565</b>	HDS2	D	24.638	.750	<b>2263548</b>	HS8	D
24.368	.875	W/4 EA .375 LUGS			<hr/>				
24.373	.875	2238550	HDS1	R	<b>22.673 SHAFT</b>				
24.375	.750	2237515	HDS1	R	24.173	.750	2267257	HS7	R
24.375	.750	W/4 EA .125 LUGS			<hr/>				
24.375	.750	2237541	HDS1	R	<b>22.750 SHAFT</b>				
24.375	.750	W/4 EA .125 LUGS			.938	1.375	524657	CT1	R
24.375	.750	2238540	HDS1	R			BORE DIA. IS SHOULDER WIDTH		
24.375	.875	2238560	HDS1	R	<hr/>				
24.375	.875	2238563	HDS1	R	<b>22.750 SHAFT</b>				
24.375	.875	W/4 EA .375 LUGS			.938	1.375	524657	CT1	R
24.500	.750	2238610	HDS1	R			BORE DIA. IS SHOULDER WIDTH		
24.500	.875	2238620	HDS1	R	<hr/>				
24.750	.875	2238710	HDS1	R	<hr/>				

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 ▲ WasteWatcher numbers

## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>22.750 SHAFT (Cont.)</b>					<b>23.000 SHAFT (Cont.)</b>				
.938	1.375	596570	CT1	R	25.000	.750	2300540	HDS1	R
BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT					25.000	.875	2300560	HDS1	R
24.500	.750	2275380	HDS1	R	25.000	.875	<b>2300561</b>	HDS2	R
24.750	.813	2275557	HS7	R	25.000	.875	2300563	HDS1	R
24.750	.813	<b>2275558</b>	HS8	R	W/6 EA .250 LUGS				
24.750	.875	<b>HDL-4281-R</b>	HDL	R	25.000	.875	2300565	HDS1	R
24.750	.875	2275560	HDS1	R	W/8 EA .125 LUGS				
24.750	.875	<b>2275562</b>	HDS2	R	25.000	.875	2300569	HDS3	D
24.750	1.000	2275580	HDS1	R	W/4 EA .500 ADJ. LUGS				
25.000	.875	2275660	HDS1	R	25.000	.938	2300570	HDS1	R
25.500	.875	2275820	HDS1	R	25.000	1.000	2300580	HDS1	R
<b>22.812 SHAFT</b>					25.000	1.000	<b>2300582</b>	HDS2	R
23.000	2.000	90163	LDSL4		25.000	1.000	2300952	HDSA2	RL
FOR SEAL SH SIZE 23.000					25.000	1.281	2300591	HDS1	R
<b>22.814 SHAFT</b>					25.250	.875	2300660	HDS1	R
24.814	.813	<b>2281558</b>	HS8	R	25.375	.875	2300710	HDS1	R
<b>22.834 SHAFT</b>					25.375	.875	2300717	HDS1	V
24.834	.813	2283557	HS7	R	25.500	.875	<b>HDL-4285-R</b>	HDL	R
<b>22.835 SHAFT</b>					25.500	.875	2300760	HDS1	R
.196		<b>405803</b>	VR4	R	25.500	.875	2350567	HDS1	V
SHAFT RANGE 22.835-23.031					25.500	1.250	2300800	HDS1	R
<b>22.875 SHAFT</b>					25.500	1.000	2300780	HDS1	R
24.875	.813	2288557	HS7	R	<b>23.074 SHAFT</b>				
<b>23.000 SHAFT</b>					24.954	.813	<b>2307558</b>	HS8	R
2.000		90146	LDSL4		<b>23.208 SHAFT</b>				
FOR SEAL SH SIZE 23.188					25.208	.813	<b>2320558</b>	HS8	R
24.000	.500	2300017	HS7	R	<b>23.228 SHAFT</b>				
24.500	.750	<b>HDL-4283-R</b>	HDL	R	.196		<b>405903</b>	VR4	R
24.500	.750	2300257	HS7	R	SHAFT RANGE 23.228-23.622				
24.500	.750	<b>2300258</b>	HS8	R	<b>23.250 SHAFT</b>				
W/HOOK & EYE SPRING CONNECTOR					.813	1.250	595635	CT1	R
24.500	.750	<b>2300214</b>	HDS2	V	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT				
24.500	.750	2300220	HDS1	R	25.000	.750	2325380	HDS1	R
W/4 EA .500 ADJ. LUGS					25.000	.750	2325381	HDS1	R
24.500	.750	2300250	HDS1	R	W/4 EA .125 LUGS				
24.500	.750	<b>2300252</b>	HDS2	R	25.000	.750	2325382	HDS1	R
24.500	.750	<b>2300254</b>	HDS2	R	W/4 EA .250 LUGS				
W/4 EA .125 LUGS					25.000	.750	2325383	HDS1	R
24.500	.750	2300255	HDS1	D	W/6 EA .250 LUGS				
24.500	.750	2300259	HDS3	D	25.000	.750	<b>2325385</b>	HDS2	R
W/4 EA .500 ADJ. LUGS					25.000	.750	<b>2325386</b>	HDS2	R
24.500	.875	2300921	HDSB1	RD	W/4 EA .250 LUGS				
24.500	.875	593810	HDSC1	DD	25.250	.813	2325557	HS7	R
24.750	.688	<b>2300370</b>	HS8	R	25.250	.750	2325540	HDS1	R
24.750	.750	2300380	HDS1	R	25.250	.813	2325550	HDS1	R
24.750	.750	2300381	HDS1	R	25.250	.875	2325560	HDS1	R
W/6 EA .063 LUGS					25.250	.875	2325562	HDS1	R
24.750	.750	<b>2300382</b>	HDS2	R	W/6 EA .250 LUGS				
24.750	.750	<b>2300383</b>	HDS2	D	25.500	.875	2325660	HDS1	R
24.750	.750	<b>2300384</b>	HDS2	V	25.750	1.000	2325780	HDS1	R
24.750	.750	2300388	HDS1	D	<b>23.300 SHAFT</b>				
24.750	.938	2300412	HDS1	R	24.300	.500	2330017	HS7	R
W/8 EA .125 LUGS					<b>23.310 SHAFT</b>				
24.750	1.250	2300983	HDSE1	VV	25.310	.875	<b>2331568</b>	HS8	R
25.000	.813	<b>2300551</b>	HS8	D	<b>23.313 SHAFT</b>				
25.000	.813	2300557	HS7	R	25.313	1.000	2331580	HDS1	R
25.000	.813	<b>2300558</b>	HS8	R					
25.000	.813	<b>2300559</b>	HS8	D					
25.000	.875	<b>HDL-4284-R</b>	HDL	R					

Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>23.375 SHAFT</b>					<b>23.625 SHAFT (Cont.)</b>				
.938	1.375	525627	CT1	R	26.250	.875	2363800	HDS1	R
BORE DIA. IS SHOULDER WIDTH					<b>23.687 SHAFT</b>				
24.875	.750	2338250	HDS1	R	1.950	87907	LDSL4		
25.375	.813	2338557	HS7	R	FOR SEAL SH SIZE 23.875				
25.375	1.000	2338580	HDS1	R	<b>23.750 SHAFT</b>				
<b>23.434 SHAFT</b>					.310	406002	VR3		R
.689	87861	LDSL4			SHAFT RANGE 22.830 - 24.800				
FOR SEAL SH SIZE 23.622					.790	<b>406000</b>	VR1		R
.984	87777	LDSL4			SHAFT RANGE 22.830 - 24.800				
FOR SEAL SH SIZE 23.434					.790	<b>406004</b>	VR1		V
<b>23.438 SHAFT</b>					SHAFT RANGE 22.830 - 24.800				
.688	1.125	525031	CT1	R	.813	1.250	524365	CT1	R
BORE DIA. IS SHOULDER WIDTH					.813	1.000	530589	CT3	R
<b>23.500 SHAFT</b>					.938	1.375	523184	CT1	R
.938	1.375	524364	CT1	R	BORE DIA. IS SHOULDER WIDTH				
BORE DIA. IS SHOULDER WIDTH					.938	1.375	525637	CT1	R
24.500	.500	2350017	HS7	R	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT				
24.681	.591	<b>HDL-3033-R</b>	HDL	R	1.375	1.813	528267	CT4	R
25.000	.625	<b>2350238</b>	HS8	R	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT				
25.250	.750	2350380	HDS1	R	1.375	1.813	528651	CT4	R
25.250	.750	<b>2350382</b>	HDS2	R	BORE DIA. IS SHOULDER WIDTH				
25.250	.750	<b>2350652</b>	HDS2	V	25.250	1.000	<b>HDL-6239-R</b>	HDL	R
25.500	.813	2350557	HS7	R	25.750	.813	2375557	HS7	R
25.500	.875	<b>HDL-4288-R</b>	HDL	R	25.750	.813	<b>2575558</b>	HS8	R
25.500	.750	2350540	HDS1	R	25.750	1.000	2375580	HDS1	R
25.500	.813	2350550	HDS1	R	26.000	.875	2375660	HDS1	R
25.500	.875	2350560	HDS1	R	26.242	.750	2375746	HDS1	R
25.500	.875	2350562	HDS1	R	26.750	1.125	2375900	HDS1	R
W/6 EA .250 LUGS					26.750	1.500	2375902	HDS1	R
25.500	.875	2350570	HDS1	V	26.750	1.500	2375903	HDS1	V
25.500	1.000	2350580	HDS1	R	<b>23.812 SHAFT</b>				
25.500	1.250	2350955	HDS2	RR	.750	87922	LDSL4		
25.750	.875	2350660	HDS1	R	FOR SEAL SH SIZE 24.000				
26.375	1.000	2350840	HDS1	R	2.500	87960	LDSL4		
<b>23.562 SHAFT</b>					FOR SEAL SHAFT SIZE 24.000				
25.312	.750	2356380	HDS1	R	<b>23.875 SHAFT</b>				
25.312	.750	2356383	HDS3	R	24.875	.500	238021	HDDFBV1	R
W/4 EA .375 LUGS					25.750	.875	2388480	HDS1	R
25.375	.750	<b>HDL-4291-R</b>	HDL	R	26.000	.875	<b>HDL-4293-R</b>	HDL	R
<b>23.563 SHAFT</b>					26.000	.875	2387960	HDSA1	RL
25.250	.750	2356340	HDS1	R	26.000	.875	2387962	HDSA2	RL
25.250	.750	<b>2356343</b>	HDS2	D	26.000	.875	2387967	HDSA2	V
25.375	.750	2356440	HDS1	R	26.000	.875	2388620	HDS1	R
25.500	.750	2356500	HDS1	R	26.250	.875	2388710	HDS1	R
<b>23.570 SHAFT</b>					26.875	2.125	238020	HDDF1	R
25.070	.750	2357257	HS7	R	<b>23.938 SHAFT</b>				
<b>23.595 SHAFT</b>					26.010	1.000	2394590	HDS1	R
25.095	.750	2360557	HS7	R	<b>24.000 SHAFT</b>				
<b>23.622 SHAFT</b>					.813	1.000	594059	CT3	R
.196	<b>406003</b>	VR4		R	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT				
SHAFT RANGE 23.622-24.016					25.500	.750	<b>HDL-4623-R</b>	HDL	R
<b>23.625 SHAFT</b>					25.500	.750	2400257	HS7	R
25.375	.812	<b>2362418</b>	HDS2	D	25.500	.750	<b>2400258</b>	HS8	R
25.625	.813	2363557	HS7	R	25.500	.750	<b>594361</b>	HS8	R
25.750	.875	2363620	HDS1	R					
26.000	.875	<b>HDL-4292-R</b>	HDL	R					
26.000	.875	2363710	HDS1	R					

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## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>24.000 SHAFT (Cont.)</b>					<b>24.093 SHAFT</b>				
25.500	.750	2400220	HDS1	D	26.093	.813	<b>2409557</b>	HS8	R
		W/4 EA .500 ADJ. LUGS			<b>24.250 SHAFT</b>				
25.500	.750	2400250	HDS1	R	.813	1.000	526277	CT3	R
25.500	.750	2400251	HDS1	R			BORE DIA. IS SHOULDER WIDTH		
		W/4 EA .125 LUGS			1.438	1.875	529276	CT4	R
25.500	.750	<b>2400255</b>	HDS2	R			BORE DIA. IS SHOULDER WIDTH		
		W/4 EA .250 LUGS			26.000	.875	2425410	HDS1	R
25.500	.750	2400259	HDS3	D	26.000	1.000	2425420	HDS1	R
		W/4 EA .500 ADJ. LUGS			26.000	1.000	<b>2425422</b>	HDS2	R
25.580	.578	511822	HS9	R	26.063	.844	2425440	HDS1	R
25.875	.813	<b>2400488</b>	HS8	R	26.250	.875	<b>HDL-4301-R</b>	HDL	R
26.000	.750	<b>HDL-9988-R</b>	HDL	R	26.250	1.000	<b>2425588</b>	HS8	R
26.000	.812	<b>HDL-4295-R</b>	HDL	R	26.250	.875	2425560	HDS1	R
26.000	.813	<b>2400554</b>	HS8	R	26.250	.875	<b>2425562</b>	HDS2	V
		W/TREADED SPRING CONNECTOR			26.250	1.000	2425580	HDS1	R
26.000	.813	2400557	HS7	R	26.500	.875	2425660	HDS1	R
26.000	.813	<b>2400558</b>	HS8	R	26.750	1.000	2425780	HDS1	R
26.000	.875	<b>HDL-4294-R</b>	HDL	R	<b>24.375 SHAFT</b>				
26.000	1.000	2400587	HS7	R	26.375	.750	2438540	HDS1	R
26.000	1.000	<b>2400588</b>	HS8	R	26.375	.750	<b>2438542</b>	HDS2	R
26.000	1.000	<b>2400598</b>	HS8	D	27.250	1.375	2438843	HDS1	R
26.000	.813	2400550	HDS1	R	<b>24.409 SHAFT</b>				
26.000	.813	2400552	HDS1	R		.196	<b>406203</b>	VR4	R
		W/4 EA .375 LUGS					SHAFT RANGE 24.409-24.803		
26.000	.813	2400556	HDS3	D	26.929	.787	2440660	HDS1	R
		W/4 EA .500 ADJ. LUGS			<b>24.437 SHAFT</b>				
26.000	.875	<b>2400559</b>	HDS2	R	26.000	.750	<b>HDL-4302-R</b>	HDL	R
26.000	.875	2400560	HDS1	R	26.437	.750	<b>2443544</b>	HDS2	V
26.000	.875	2400561	HDS1	R	26.935	1.000	<b>HDL-9990-R</b>	HDL	R
		W/4 EA .125 LUGS			<b>24.438 SHAFT</b>				
26.000	.875	2400562	HDS1	R	26.000	.750	2444300	HDS1	R
		W/4 EA .375 LUGS			26.000	.750	2444301	HDS1	R
26.000	.875	2400563	HDS1	R			W/4 EA .125 LUGS		
		W/4 EA .250 LUGS			26.000	.750	2444302	HDS1	R
26.000	.875	2400565	HDS1	R			W/4 EA .250 LUGS		
		W/4 EA .063 LUGS			26.000	.750	<b>2444304</b>	HDS2	R
26.000	.875	<b>2400567</b>	HDS2	V	26.000	.750	2444305	HDS1	R
26.000	.875	2400568	HDS1	H			W/6 EA .500 LUGS		
26.000	1.000	2400580	HDS1	R	26.000	.750	<b>2444306</b>	HDS2	R
26.250	.688	<b>2400718</b>	HS8	R			W/4 EA .250 LUGS		
26.250	.870	2400962	HDSA2	RL	26.250	.750	2444430	HDS1	R
26.250	.875	2400660	HDS1	R	26.438	1.500	2448950	HDS1	RR
26.250	.875	2400661	HDS1	R			W/LUBE HOLES ON O.D.		
		W/4 EA .125 LUGS			26.438	.625	2444520	HDS1	R
26.250	.875	2400663	HDS3	D	26.438	.625	2444521	HDS1	R
		W/4 EA .500 ADJ. LUGS					W/4 EA .063 LUGS		
26.250	1.000	2400680	HDS1	R	26.438	.719	<b>2444536</b>	HDS2	R
26.250	1.000	2400682	HDS1	R			W/4 EA .063 LUGS		
		W/6 EA .250 LUGS			26.438	.750	2444540	HDS1	R
26.250	1.000	2400683	HDS1	R	26.438	.750	2444541	HDS1	R
		W/4 EA .375 LUGS					W/4 EA .063 LUGS		
26.250	1.000	<b>2400684</b>	HDS2	R	26.438	.750	<b>2444542</b>	HDS2	R
		W/6 EA .250 LUGS			26.438	.813	2444550	HDS1	R
26.250	1.000	<b>2400685</b>	HDS2	R	26.438	.875	2444560	HDS1	R
26.500	.875	2400760	HDS1	R	<b>24.500 SHAFT</b>				
26.500	.875	2400761	HDS1	R	25.500	.500	2450017	HS7	R
		W/4 EA .125 LUGS			25.500	.500	<b>2450018</b>	HS8	R
26.500	1.000	<b>2400784</b>	HDS2	R	25.625	.625	<b>2450068</b>	HS8	R
26.500	1.125	2400790	HDS1	R	26.000	.750	2450257	HS7	R
26.500	1.250	2400800	HDS1	R					
26.750	.875	2400820	HDS1	R					
<b>24.016 SHAFT</b>									
	.196	<b>406103</b>	VR4	R					
		SHAFT RANGE 24.016-24.409							

Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>24.500 SHAFT (Cont.)</b>					<b>25.000 SHAFT (Cont.)</b>				
26.500	.813	2450557	HS7	R	27.000	.813	<b>2500558</b>	HS8	D
26.500	.875	<b>HDL-4305-R</b>	HDL	R	W/HOOK & EYE CONNECTOR				
26.500	1.000	2450587	HS7	R	27.000	.875	<b>594362</b>	HS8	R
26.500	.875	2450560	HDS1	R	27.000	.916	<b>2500559</b>	HS8	D
26.500	.875	<b>2450563</b>	HDS2	R	27.000	1.000	2500587	HS7	R
26.500	.875	2450564	HDS1	V	27.000	1.000	<b>2500588</b>	HS8	R
26.500	.875	<b>2450565</b>	HDS2	R	27.000	.750	2500540	HDS1	R
W/6 EA .250 LUGS					27.000	.750	2500544	HDS1	R
26.500	.875	<b>2450567</b>	HDS2	V	W/4 EA .125 LUGS				
26.500	.875	2450569	HDS3	D	27.000	.750	2500545	HDS3	D
W/4 EA .500 ADJ. LUGS					27.000	.813	<b>2500553</b>	HDS2	V
26.500	1.000	2450580	HDS1	R	27.000	.875	2500560	HDS1	R
26.875	.875	2450710	HDS1	R	27.000	.875	2500562	HDS1	R
27.000	1.125	2450790	HDS1	R	W/4 EA .125 LUGS				
27.000	1.250	2450800	HDS1	R	27.000	.875	<b>2500563</b>	HDS2	V
27.250	.875	2450820	HDS1	R	27.000	.875	<b>2500564</b>	HDS2	R
<b>24.750 SHAFT</b>					W/4 EA .125 LUGS				
.813	1.250	524213	CT1	R	27.000	.875	<b>2500565</b>	HDS2	R
BORE DIA. IS SHOULDER WIDTH					27.000	.875	2500569	HDS3	D
26.750	.813	2475557	HS7	R	W/4 EA .500 ADJ. LUGS				
26.750	.813	<b>2475558</b>	HS8	R	27.000	.875	2500952	HDSA2	DL
26.750	1.000	2475587	HS7	R	W/4 EA .500 ADJ. LUGS				
26.750	.625	2475520	HDS1	R	27.000	.906	2500570	HDS1	R
26.750	.750	2475540	HDS1	R	27.000	1.000	2500580	HDS1	R
<b>24.803 SHAFT</b>					27.000	1.000	<b>2500582</b>	HDS2	R
.196		<b>406303</b>	VR4	R	27.250	.875	2500660	HDS1	R
SHAFT RANGE 24.803-25.197					27.250	1.000	2500680	HDS1	R
26.303	.750	2480257	HS7	R	27.250	1.000	2500682	HDS1	R
<b>24.813 SHAFT</b>					W/4 EA .188 LUGS				
26.813	.813	2481557	HS7	R	27.250	1.188	2500691	HDS1	R
<b>24.875 SHAFT</b>					27.250	1.188	2500692	HDS1	R
26.126	.813	2487101	HDS1	R	W/4 EA .188 LUGS				
26.875	.813	2488557	HS7	R	27.375	.875	2500740	HDS1	R
<b>25.000 SHAFT</b>					27.500	.875	2500760	HDS1	R
2.500		86567	LDLVL4		27.500	.875	<b>2500762</b>	HDS2	R
FOR SEAL SH SIZE 25.188 (639.78MM)					27.500	.875	<b>2500764</b>	HDS2	D
26.000	.500	2500017	HS7	R	W/4 EA .250 LUGS				
26.500	.750	<b>HDL-4308-R</b>	HDL	R	27.500	.875	2500769	HDS3	D
26.500	.750	2500247	HS7	D	W/4 EA .500 ADJ. LUGS				
26.500	.750	<b>2500249</b>	HS8	D	27.500	1.000	<b>2500772</b>	HDS2	D
26.500	.750	2500257	HS7	R	27.500	1.000	2500780	HDS1	R
26.500	.750	<b>2500258</b>	HS8	R	27.500	1.000	<b>2500783</b>	HDS2	R
26.500	.750	<b>594375</b>	HS8	D	27.500	1.000	2500970	HDSA1	RL
26.500	.750	2500217	HDS1	V	27.500	1.000	2500971	HDSB1	RL
26.500	.750	2500250	HDS1	R	27.500	1.000	2500972	HDSA2	D
26.500	.750	2500251	HDS1	R	27.500	1.250	2500793	HDS1	R
W/6 EA .125 LUGS					28.375	.875	2500990	HDS1	R
26.500	.750	2500252	HDS1	R	<b>25.125 SHAFT</b>				
W/6 EA .375 LUGS					.938	1.375	524214	CT1	R
26.500	.750	<b>2500253</b>	HDS2	R	BORE DIA. IS SHOULDER WIDTH				
26.500	.750	<b>2500254</b>	HDS2	R	26.125	.500	2513017	HS7	R
W/6 EA .125 LUGS					26.750	.750	2513330	HDS1	R
26.500	.750	2500255	HDS1	D	<b>25.187 SHAFT</b>				
26.500	.750	2500256	HDS1	D	26.875	.750	<b>HDL-4311-R</b>	HDL	R
W/6 EA .125 LUGS					<b>25.188 SHAFT</b>				
26.500	.750	2500259	HDS3	D	26.875	.750	<b>2518332</b>	HDS2	H
W/4 EA .500 ADJ. LUGS					26.875	.750	<b>2518344</b>	HDS2	V
26.500	1.125	2500920	HDSA1	RL	26.875	.750	2518346	HDS3	V
27.000	.813	2500557	HS7	R	W/4 EA .500 ADJ. LUGS				
					26.875	.750	2519340	HDS1	R

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 ▲ WasteWatcher numbers

## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>25.188 SHAFT (Cont.)</b>					<b>25.500 SHAFT (Cont.)</b>				
26.875	.750	<b>2519344</b>	HDS2	R	28.500	1.125	2550900	HDS1	R
		W/4 EA .188 LUGS			28.500	1.250	2550912	HDS2	RR
26.938	.750	2519380	HDS1	R	<b>25.531 SHAFT</b>				
27.000	.875	2519440	HDS1	R	27.031	.750	2553257	HS7	R
27.188	.813	2519557	HS7	R	<b>25.590 SHAFT</b>				
<b>25.197 SHAFT</b>					26.590	.500	2559017	HS7	R
	.196	<b>406403</b>	VR4	R	27.090	.750	2559257	HS7	R
		SHAFT RANGE 25.197-25.591			<b>25.591 SHAFT</b>				
<b>25.219 SHAFT</b>						.196	<b>406503</b>	VR4	R
27.219	.813	2522557	HS7	R			SHAFT RANGE 25.591-25.984		
<b>25.250 SHAFT</b>					27.591	.875	2559567	HS7	R
26.750	.750	2525250	HDS1	R	<b>25.625 SHAFT</b>				
27.250	.750	<b>HDL-4299-R</b>	HDL	R	26.625	.500	2563017	HS7	R
27.250	.813	2525557	HS7	R	27.750	1.000	2562630	HDSA1	RL
27.250	1.000	<b>2525588</b>	HS8	R	27.750	1.000	2563630	HDS1	R
27.250	.875	2525560	HDS1	R	27.750	1.000	594084	HDSA1	VL
27.250	.875	<b>2525562</b>	HDS2	R	28.000	1.000	2563730	HDS1	R
27.500	.875	2525660	HDS1	R	28.250	1.000	2563800	HDS1	R
28.000	.875	2525820	HDS1	R	<b>25.750 SHAFT</b>				
28.125	1.500	2525844	HDS1	R	26.750	.500	2575017	HS7	R
28.250	1.000	2525890	HDS1	R	26.875	.500	2575057	HS7	R
28.250	1.000	<b>2525893</b>	HDS2	D	26.875	.500	<b>528623</b>	HS8	R
<b>25.312 SHAFT</b>							2 PKGS REQ'D - 1 CUT EACH		
	2.500	87802	LDLVL4		27.250	.750	<b>2575258</b>	HS8	R
		FOR SEAL SHAFT SIZE 25.500			27.250	.750	2575250	HDS1	R
<b>25.313 SHAFT</b>					27.250	.750	<b>2575252</b>	HDS2	R
	2.000	86091	LDLVL4		27.750	.813	2575557	HS7	R
		FOR SEAL SH SIZE 25.500	(647.70MM)		27.750	1.000	<b>2575588</b>	HS8	R
<b>25.375 SHAFT</b>					27.750	1.000	<b>2575572</b>	HDS2	R
27.375	1.000	2537583	HDS1	V	28.755	1.250	2575903	HDS1	R
27.391	1.000	515259	HS9	R			W/6 EA .250 LUGS		
28.500	1.500	2537900	HDS1	R	28.755	1.500	2575904	HDS1	R
<b>25.500 SHAFT</b>					<b>25.813 SHAFT</b>				
	.790	<b>406500</b>	VR1	R	27.063	.625	<b>2581113</b>	HDS2	R
		SHAFT RANGE 24.800 - 26.180			<b>25.875 SHAFT</b>				
26.750	.750	<b>HDL-3022-R</b>	HDL	R	26.875	.500	2588017	HS7	R
27.000	.750	<b>2550258</b>	HS8	R	27.875	.813	2588557	HS7	R
27.000	.875	<b>HDL-4300-R</b>	HDL	R	28.000	.875	2588620	HDS1	R
27.000	.750	2550250	HDS1	R	28.250	.875	2588710	HDS1	R
27.500	.813	2550557	HS7	R	28.500	.875	2588800	HDS1	R
27.500	.875	<b>HDL-4318-R</b>	HDL	R	<b>25.980 SHAFT</b>				
27.500	1.000	2550587	HS7	R	27.625	1.500	<b>592773</b>	HDS2	R
27.500	1.000	<b>2550588</b>	HS8	V			W/4EA .500 LUGS		
27.500	1.000	<b>595687</b>	HS5	R	<b>25.988 SHAFT</b>				
27.500	.750	2550540	HDS1	R	27.625	.750	2598330	HDS1	R
27.500	.750	2550549	HDS3	D	27.625	.750	<b>2598332</b>	HDS2	R
		W/4 EA .500 ADJ. LUGS			27.625	1.000	<b>2598342</b>	HDS2	R
27.500	.875	2550560	HDS1	R	<b>26.000 SHAFT</b>				
27.500	.875	2550561	HDS1	R		2.250	86640	LDLVL3	
		W/4 EA .125 LUGS					FOR SEAL SHAFT SIZE 26.188		
27.500	.875	<b>2550564</b>	HDS2	D		.938	524591	CT1	R
		W/4 EA .250 LUGS					BORE DIA. IS SHOULDER WIDTH		
27.500	.875	<b>2550565</b>	HDS2	R	27.000	.500	2600017	HS7	R
27.500	1.000	2550580	HDS1	R	27.620	.750	<b>2600344</b>	HDS2	V
27.500	1.000	2550584	HDS1	R	27.625	.750	<b>HDL-5921-R</b>	HDL	R
		W/4 EA .250 LUGS			27.625	.750	2600330	HDS1	R
27.500	1.000	<b>2550585</b>	HDS2	R					
28.000	1.250	2550792	HDS1	R					
28.250	1.500	2525903	HDS1	R					

Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>26.000 SHAFT (Cont.)</b>					<b>26.378 SHAFT</b>				
27.625	.750	<b>2600332</b>	HDS2	R	28.378	.812	<b>2637558</b>	HS8	R
27.625	.750	<b>2600334</b>	HDS2	V	W/HOOK & EYE SPRING CONNECTOR				
27.625	.750	2600339	HDS3	D	<hr/>				
W/4 EA .500 ADJ. LUGS					<b>26.500 SHAFT</b>				
27.625	1.000	2598932	HDSB1	RL	28.000	.750	<b>HDL-4533-R</b>	HDL	R
27.730	.730	2600347	HS7	R	28.000	.750	2650257	HS7	R
28.000	.813	2600557	HS7	R	28.000	.750	<b>2650258</b>	HS8	R
28.000	.875	<b>HDL-4325-R</b>	HDL	R	28.000	.750	2650240	HDS7	R
28.000	1.000	2600587	HS7	R	28.000	.750	2650241	HDS7	R
28.000	.813	2600550	HDS1	R	W/4 EA .125 LUGS				
28.000	.875	2600560	HDS1	R	28.000	.750	2650250	HDS1	R
28.000	.875	2600562	HDS1	R	28.000	.750	<b>2650253</b>	HDS2	D
W/4 EA .250 LUGS					28.000	.750	2650254	HDS1	V
28.000	.875	<b>2600563</b>	HDS2	R	28.000	.750	2650259	HDS3	D
28.000	.875	2600564	HDS1	V	W/4 EA .500 ADJ. LUGS				
28.000	.875	2600953	HDSA3	D	28.000	.750	<b>2650283</b>	HDS2	V
W/4 EA .500 ADJ. LUGS					28.000	1.000	2650290	HDS1	R
28.000	1.000	2600580	HDS1	R	28.000	1.000	2650295	HDS1	R
28.125	.916	<b>2600648</b>	HS8	R	W/4 EA .250 LUGS				
28.125	1.000	2600630	HDS1	R	28.000	1.000	2650920	HDSB1	RL
28.250	1.000	2600680	HDS1	R	28.500	.813	2650557	HS7	R
28.500	.875	2600760	HDS1	R	28.500	.875	<b>HDL-4313-R</b>	HDL	R
28.500	.875	2600761	HDS1	R	28.500	.875	<b>2650512</b>	HDS2	R
W/4 EA .125 LUGS					28.500	.875	2650560	HDS1	R
28.500	.938	2600770	HDS1	R	28.750	.875	2650660	HDS1	R
28.500	1.000	2600780	HDS1	R	29.500	1.125	2650900	HDS1	R
29.000	1.500	2600903	HDS1	R	29.500	1.500	2650902	HDS1	R
<hr/>					<hr/>				
<b>26.125 SHAFT</b>					<b>26.625 SHAFT</b>				
27.625	.750	<b>HDL-4329-R</b>	HDL	R	28.625	.813	<b>2662558</b>	HS8	R
27.625	.750	2613250	HDS1	R	<hr/>				
28.000	.875	2613480	HDS1	R	<b>26.688 SHAFT</b>				
28.125	.813	2613557	HS7	R	28.688	.813	2669557	HS7	R
28.125	.875	<b>HDL-4330-R</b>	HDL	R	<hr/>				
28.125	.813	2613550	HDS1	R	<b>26.750 SHAFT</b>				
28.125	.813	2613551	HDS1	R	28.750	.813	2675557	HS7	R
W/6 EA .063 LUGS					<hr/>				
28.125	.875	2612563	HDS1	V	<b>26.771 SHAFT</b>				
28.125	.875	<b>2612564</b>	HDS2	V	27.771	.500	2677017	HS7	R
28.125	.875	2613560	HDS1	R	<hr/>				
28.125	.875	<b>2613562</b>	HDS2	R	<b>26.772 SHAFT</b>				
28.250	.875	2613620	HDS1	R	.196		<b>406803</b>	VR4	R
28.250	.875	<b>2613622</b>	HDS2	R	SHAFT RANGE 26.772-27.165				
<hr/>					<hr/>				
<b>26.188 SHAFT</b>					<b>26.781 SHAFT</b>				
28.188	.750	2619540	HDS1	R	28.781	.813	2678557	HS7	R
<hr/>					<hr/>				
<b>26.250 SHAFT</b>					<b>26.813 SHAFT</b>				
28.250	.813	2625557	HS7	R	1.250	85384	LDSL4		
28.750	1.000	2625780	HDS1	R	FOR SEAL SH SIZE 27.000 (685.80MM)				
<hr/>					2.000	86974	LDSL4		
<b>26.375 SHAFT</b>					FOR SEAL SH SIZE 27.000 (685.80MM)				
27.627	.625	<b>2637118</b>	HS8	R	2.250	85531	LDSL4		
27.875	.750	2638250	HDS1	R	FOR SEAL SH SIZE 27.000 (685.80MM)				
28.188	.750	2638350	HDS1	R	29.000	.750	<b>2681612</b>	HDS2	R
28.188	.750	2638351	HDS1	R	<hr/>				
W/4 EA .125 LUGS					<b>26.815 SHAFT</b>				
28.250	.875	2637942	HDSA2	RL	28.815	.813	2682557	HS7	R
28.250	.875	2638480	HDS1	R	<hr/>				
28.250	.875	<b>2638482</b>	HDS2	R	<b>26.875 SHAFT</b>				
28.375	.813	2638557	HS7	R	.813	1.000	529823	CT3	R
28.375	1.000	2637510	HDS1	R	BORE DIA. IS SHOULDER WIDTH				
W/4 EA .125 LUGS					28.875	.813	2688557	HS7	R
28.375	1.000	2638580	HDS1	R	<hr/>				

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## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>26.911 SHAFT</b>					<b>27.188 SHAFT</b>				
2.438	2.875	593604	CT4	R	29.250	.875	2719600	HDS1	R
		BORE DIA. IS SHOULDER WIDTH			29.500	.875	2719700	HDS1	R
<b>26.938 SHAFT</b>					<b>27.250 SHAFT</b>				
.688	1.125	524215	CT1	R	.938	1.375	524592	CT1	R
		BORE DIA. IS SHOULDER WIDTH					BORE DIA. IS SHOULDER WIDTH		
29.000	.750	<b>2693612</b>	HDS2	R	29.250	.813	2725557	HS7	R
<b>27.000 SHAFT</b>					29.250	.875	<b>HDL-4626-R</b>	HDL	R
2.000		86841	LDSL4		29.250	.813	2725550	HDS1	R
FOR SEAL SH SIZE 27.188 (690.58MM)					29.250	.813	2725552	HDS1	R
.790		<b>407000</b>	VR1	R	W/6 EA .125 LUGS				
SHAFT RANGE 26.180 - 27.760					29.250	.813	<b>2725553</b>	HDS2	R
.813	1.000	528926	CT3	R	29.250	.813	<b>2725554</b>	HDS2	R
BORE DIA. IS SHOULDER WIDTH					W/6 EA .125 LUGS				
28.500	.625	<b>2700218</b>	HS8	R	29.250	.875	<b>2725563</b>	HDS2	R
28.500	.625	2700237	HS7	R	29.250	.875	2725566	HDS1	R
29.000	.813	<b>2700555</b>	HS5	R	W/6 EA .625 LUGS				
29.000	.813	2700557	HS7	R	<b>27.313 SHAFT</b>				
29.000	.813	<b>2700558</b>	HS8	R	2.250		85011	LDSL4	
29.000	.813	<b>2700559</b>	HS8	D	FOR SEAL SH SIZE 27.500 (698.50MM)				
29.000	.875	<b>HDL-4333-R</b>	HDL	R	<b>27.375 SHAFT</b>				
29.000	.750	2700540	HDS1	R	29.375	.813	2738557	HS7	R
29.000	.750	<b>2700542</b>	HDS2	R	<b>27.402 SHAFT</b>				
29.000	.750	2700549	HDS3	D	29.500	.750	2740590	HDS1	R
W/4 EA .500 ADJ. LUGS					<b>27.433 SHAFT</b>				
29.000	.866	2700568	HDS1	R	1.500		85122	LDSL4	
W/4 EA 9.50MM LUGS					FOR SEAL SH SIZE 27.625 (701.68MM)				
29.000	.875	2700560	HDS1	R	<b>27.440 SHAFT</b>				
29.000	.875	<b>2700564</b>	HDS2	R	29.815	.875	2744710	HDS1	R
29.000	.875	<b>2700574</b>	HDS2	V	<b>27.500 SHAFT</b>				
29.000	1.000	2700580	HDS1	R	2.000		84472	LDSL4	
29.000	1.000	2700583	HDS1	V	FOR SEAL SH SIZE 27.688 (703.28MM)				
29.000	1.000	<b>2700584</b>	HDS2	R	2.250		84711	LDSL4	
W/4 EA .250 LUGS					FOR SEAL SH SIZE 27.688 (703.28MM)				
29.000	1.875	2700953	HDSE2	DD	28.750	.625	2750117	HS7	R
29.500	1.000	2700780	HDS1	R	29.000	.750	<b>HDL-4315-R</b>	HDL	R
29.500	1.000	2700783	HDS1	R	29.000	.750	<b>2750218</b>	HS8	R
W/4 EA .250 LUGS					W/HOOK & EYE SPRING CONNECTOR				
29.500	1.250	2700790	HDS1	R	29.000	.750	2750250	HDS1	R
29.500	1.250	2700792	HDS1	R	29.000	.750	2750257	HDS1	V
W/4 EA .125 LUGS					29.500	.813	2750557	HS7	R
29.625	1.000	2700800	HDS1	R	29.500	.875	<b>HDL-4339-R</b>	HDL	R
29.813	1.500	2700844	HDS1	R	29.500	.875	2750560	HDS1	R
30.000	.875	<b>HDL-9984-R</b>	HDL	R	29.500	.875	2750562	HDS1	R
30.000	.875	2700870	HDS1	R	W/6 EA .250 LUGS				
30.000	1.125	2700900	HDS1	R	29.500	.875	<b>2750564</b>	HDS2	R
30.000	1.125	2700901	HDS1	R	29.500	.875	<b>2750565</b>	HDS2	R
W/6 EA .500 LUGS					W/6 EA .250 LUGS				
30.000	1.500	2700902	HDS1	R	29.500	.875	2750569	HDS3	D
30.000	1.500	2700903	HDS1	R	W/4 EA .500 ADJ. LUGS				
W/6 EA .125 LUGS					29.500	.875	<b>2750574</b>	HDS2	V
30.000	1.625	2700990	HDSB1	RL	29.500	1.000	2750580	HDS1	R
<b>27.063 SHAFT</b>					29.500	.875	<b>2750570</b>	HDS4	R
2.250		84764	LDSL4		W/8 EA .500 MOLDED ADJ. LUGS				
FOR SEAL SH SIZE 27.250 (692.15MM)					29.500	.875	2750575	HDS6	R
<b>27.125 SHAFT</b>					W/8 EA .500 MOLDED ADJ. LUGS				
29.000	.875	2713480	HDS1	R	29.520	.984	<b>2755502</b>	HDS2	R
29.250	1.000	2713630	HDS1	R	30.000	.875	2750760	HDS1	R
<b>27.165 SHAFT</b>					30.688	.813	2750900	HDS1	R
.196		<b>406903</b>	VR4	R	SHAFT RANGE 27.165-27.559				



Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>27.559 SHAFT</b>					<b>28.000 SHAFT (Cont.)</b>				
	.196	<b>407003</b>	VR4	R	29.812	.750	2800425	HDS1	R
		SHAFT RANGE 27.559-27.953					W/4 EA .250 LUGS		
29.750	1.370	2755962	HDSA2	RL	30.000	.813	<b>2800551</b>	HS8	D
<b>27.625 SHAFT</b>					30.000	.813	2800557	HS7	R
29.125	.750	2763250	HDS1	R	30.000	.813	<b>2800558</b>	HS8	R
29.500	.750	2763470	HDS1	R	30.000	.875	<b>HDL-4344-R</b>	HDL	R
29.625	.750	2763540	HDS1	R	30.000	.875	2800560	HDS1	R
29.625	.750	2763543	HDS1	R	30.000	.875	2800562	HDS1	R
		W/4 EA .250 LUGS			30.000	.875	2800563	HDS1	R
30.000	1.000	2763730	HDS1	R			W/6 EA .125 LUGS		
<b>27.626 SHAFT</b>					30.000	.875	<b>2800564</b>	HDS2	D
29.500	.750	<b>HDL-4336-R</b>	HDL	R			W/4 EA .125 LUGS		
<b>27.688 SHAFT</b>					30.000	.875	<b>2800565</b>	HDS2	R
29.812	.875	<b>2769622</b>	HDS2	R	30.000	.875	<b>2800566</b>	HDS2	R
29.812	1.250	2769915	HDSE2	RR			W/4 EA .125 LUGS		
<b>27.750 SHAFT</b>					30.000	.875	2800567	HDS1	V
.938	1.375	524216	CT1	R	30.000	.875	2800573	HDS1	V
		BORE DIA. IS SHOULDER WIDTH			30.000	.875	<b>2800585</b>	HDS2	R
1.938	2.375	528268	CT4	R			W/6 EA .250 LUGS		
		BORE DIA. IS SHOULDER WIDTH			30.250	1.250	2800700	HDS1	R
29.812	.875	<b>2775562</b>	HDS2	R	30.250	1.250	<b>2800702</b>	HDS2	R
<b>27.812 SHAFT</b>					30.500	.875	<b>HDL-3878-R</b>	HDL	R
2.500		87421	LDSL4		30.500	.875	2800762	HDS1	R
		FOR SEAL SH SIZE 28.000 (711.20MM)					W/6 EA .250 LUGS		
29.812	.875	<b>2781562</b>	HDS2	R	30.500	.875	<b>2800764</b>	HDS2	R
<b>27.875 SHAFT</b>					30.500	.875	<b>2800766</b>	HDS2	R
29.812	.875	2788500	HDS1	R			W/6 EA .250 LUGS		
29.812	.875	<b>2788502</b>	HDS2	R	30.500	1.000	<b>2800752</b>	HDS2	D
29.815	.875	2788510	HDS1	R	30.500	1.000	2800780	HDS1	R
29.815	.875	<b>2788512</b>	HDS2	D	30.500	1.000	<b>2800782</b>	HDS2	R
29.815	.875	2788600	HDS7	R	30.500	1.000	2800972	HDSA2	D
29.875	.813	2788557	HS7	R	30.500	.875	2800760	HDS1	R
30.000	1.000	2788630	HDS1	R	30.535	.875	2800800	HDS1	R
<b>27.953 SHAFT</b>					30.535	.875	<b>2800802</b>	HDS2	R
29.921	.787	<b>596047</b>	HS8	D	31.000	.875	<b>HDL-5998-R</b>	HDL	R
29.953	.813	2795557	HS7	R	31.000	.875	2800870	HDS1	R
<b>28.000 SHAFT</b>					31.000	.875	<b>2800872</b>	HDS2	R
.813	1.250	527232	CT1	R	31.000	1.125	2800900	HDS1	R
		BORE DIA. IS SHOULDER WIDTH			31.000	1.500	2800902	HDS1	R
.813	1.000	524366	CT3	R	31.000	1.250	2800998	HDS2	DD
		BORE DIA. IS SHOULDER WIDTH			<b>28.038 SHAFT</b>				
29.500	.750	<b>HDL-4343-R</b>	HDL	R	31.038	1.000	2803998	HDSB2	VL
29.500	.750	2800257	HS7	R	<b>28.125 SHAFT</b>				
29.500	.750	2800217	HDS1	V	29.250	.500	<b>2813058</b>	HS8	R
29.500	.750	2800250	HDS1	R	29.250	.625	2813100	HDS1	R
29.500	.750	2800255	HDS1	R	29.250	.625	<b>2813102</b>	HDS2	R
		W/4 EA .250 LUGS			<b>28.188 SHAFT</b>				
29.500	.750	<b>592845</b>	HDS2	R	.688	.875	531719	CT3	R
29.500	.875	<b>2800272</b>	HDS2	R			BORE DIA. IS SHOULDER WIDTH		
29.500	.875	2800920	HDSC1	RL	<b>28.250 SHAFT</b>				
29.500	.750	2800240	HDS7	R	30.250	.813	2825557	HS7	R
29.500	.750	2800241	HDS7	R	<b>28.312 SHAFT</b>				
		W/4 EA .125 LUGS					2.313	87623	LDSL3
29.625	.750	<b>HDL-7828-R</b>	HDL	R			FOR SEAL SH SIZE 28.500		
29.625	.750	2800330	HDS1	R					
29.625	.750	<b>2800331</b>	HDS2	R					
29.625	.750	2800332	HDS1	R					
		W/4 EA .125 LUGS							

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## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>28.313 SHAFT</b>					<b>29.000 SHAFT</b>				
	2.000	81587	LDSL3		.688	.875	594856	CT3	R
	FOR SEAL SH SIZE 28.500		(723.90MM)		1.063	1.500	524940	CT1	R
<b>28.438 SHAFT</b>					BORE DIA. IS SHOULDER WIDTH				
31.000	1.125	2844800	HDS1	R	1.313	1.750	528269	CT4	R
31.000	1.188	2844801	HDS1	R	BORE DIA. IS SHOULDER WIDTH				
<b>28.500 SHAFT</b>					30.500	.750	<b>HDL-4347-R</b>	HDL	R
	.790	<b>407250</b>	VR1	R	30.500	.750	<b>2900218</b>	HS8	R
	SHAFT RANGE 27.760 - 29.330				30.500	.750	2900257	HS7	R
29.500	.500	2850017	HS7	R	30.500	.750	2900250	HDS1	R
30.218	.750	2850386	HS6	R	30.500	.875	2900270	HDSA1	RL
30.500	.625	2850527	HS7	R	31.000	.813	2900557	HS7	R
30.500	.625	<b>2850528</b>	HS8	R	31.000	.875	<b>HDL-4348-R</b>	HDL	R
30.500	.813	2850557	HS7	R	31.000	.875	2900560	HDS1	R
30.500	.875	<b>HDL-4346-R</b>	HDL	R	31.000	.875	2900561	HDS1	R
30.500	.625	2850520	HDS1	R	W/4 EA .125 LUGS				
30.500	.625	2850529	HDS3	D	31.000	.875	2900562	HDS1	R
W/6 EA .500 ADJ. LUGS					W/4 EA .250 LUGS				
30.500	.750	2850540	HDS1	R	31.000	.875	<b>2900563</b>	HDS2	R
30.500	.750	<b>2850542</b>	HDS2	R	31.000	.875	<b>2900564</b>	HDS2	R
30.500	.750	<b>2850543</b>	HDS2	V	W/4 EA .125 LUGS				
30.500	.875	2850560	HDS1	R	31.000	.875	<b>2900565</b>	HDS2	R
30.500	.875	2850562	HDS1	R	W/4 EA .250 LUGS				
W/4 EA .250 LUGS					31.000	.875	2900569	HDS3	D
30.500	.875	<b>2850563</b>	HDS2	D	W/6 EA .500 ADJ. LUGS				
30.500	.875	2850564	HDS1	V	31.000	1.000	2900580	HDS1	R
W/6 EA .250 LUGS					31.000	1.125	2900590	HDS1	R
30.500	.875	<b>2850565</b>	HDS2	R	31.000	1.750	2900954	HDS1	RR
30.500	1.000	2850580	HDS1	R	31.500	.875	2900760	HDS1	R
30.500	.875	2850211	HDS7	H	31.500	.875	2900960	HDSA1	RL
31.000	.875	2850760	HDS1	R	32.000	.875	2900870	HDS1	R
31.000	.875	2850765	HDS1	R	32.000	.875	2900872	HDS1	R
W/6 EA .250 LUGS					W/4 EA .125 LUGS				
31.000	1.000	2850780	HDS1	R	32.000	1.500	2900903	HDS1	R
31.250	1.000	<b>2850832</b>	HDS2	R	<b>29.125 SHAFT</b>				
31.500	1.500	2850903	HDS1	R	31.125	.813	2913550	HDS1	R
<b>28.540 SHAFT</b>					32.000	1.500	2913844	HDS1	R
	.790	<b>407254</b>	VR1	V	32.125	1.500	2913903	HDS1	R
	SHAFT RANGE 27.760 - 29.330				32.250	1.500	2913904	HDS1	R
<b>28.740 SHAFT</b>					<b>29.134 SHAFT</b>				
	.196	<b>407303</b>	VR4	R		.196	<b>407403</b>	VR4	R
	SHAFT RANGE 28.740-29.134				SHAFT RANGE 29.134-29.528				
<b>28.750 SHAFT</b>					<b>29.250 SHAFT</b>				
30.750	.813	2875557	HS7	R	30.250	.500	2925017	HS7	R
30.750	.875	<b>HDL-4628-R</b>	HDL	R	31.250	.813	2925557	HS7	R
30.750	.875	2875560	HDS1	R	<b>29.375 SHAFT</b>				
30.750	.875	2875561	HDS1	R	1.063	1.500	524853	CT1	R
W/4 EA .125 LUGS					BORE DIA. IS SHOULDER WIDTH				
30.750	.875	<b>2875562</b>	HDS2	R	1.125	1.563	528270	CT4	R
30.750	.875	2875563	HDS1	R	BORE DIA. IS SHOULDER WIDTH				
W/8 EA .250 LUGS					<b>29.500 SHAFT</b>				
30.750	.875	2875567	HDS1	V	31.000	.750	<b>2950258</b>	HS8	R
<b>28.813 SHAFT</b>					31.219	.734	<b>2950348</b>	HS8	R
	2.250	84641	LDSL4		31.219	.734	<b>2950438</b>	HS8	D
	FOR SEAL SH SIZE 29.000		(736.60MM)		W/HOOK & EYE SPRING CONNECTOR				
	.688	1.125	525032	CT1	31.500	.813	2950557	HS7	R
	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT				31.500	.875	<b>HDL-4352-R</b>	HDL	R
<b>28.875 SHAFT</b>					31.500	1.000	<b>HDL-3791-R</b>	HDL	R
30.875	.813	2888557	HS7	R	31.500	.750	2950540	HDS1	R

Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>29.500 SHAFT (Cont.)</b>					<b>29.823 SHAFT</b>				
31.500	.750	2950549	HDS3	D		.315	407502	VR3	R
		W/4 EA .500 ADJ. LUGS					SHAFT RANGE 29.130 -30.510		
31.500	.875	<b>2950552</b>	HDS2	V	<b>29.875 SHAFT</b>				
31.500	.875	2950560	HDS1	R	31.875	.813	2988557	HS7	R
31.500	.875	<b>2950564</b>	HDS2	D	<b>29.921 SHAFT</b>				
31.500	.875	<b>2950565</b>	HDS2	R		.196	<b>407603</b>	VR4	R
		W/4 EA .500 ADJ. LUGS					SHAFT RANGE 29.843-30.157		
31.500	.875	2950580	HDS1	R	<b>29.990 SHAFT</b>				
		W/4 EA .500 ADJ. LUGS			31.613	.750	<b>2999332</b>	HDS2	R
32.000	.875	2950760	HDS1	R	<b>30.000 SHAFT</b>				
32.000	.875	2950762	HDS1	R		2.500	86641	LDSL3	
		W/8 EA .250 LUGS					FOR SEAL SH SIZE 30.188 (766.78MM)		
32.000	.875	<b>2950765</b>	HDS2	R	31.000	.500	3000017	HS7	R
32.000	.875	2950769	HDS3	D	31.250	.625	<b>3000118</b>	HS8	R
		W/4 EA .500 ADJ. LUGS			31.250	.625	<b>3000111</b>	HDS2	R
32.000	.938	2950770	HDS1	R	31.500	.750	3000257	HS7	R
32.000	.938	<b>2950772</b>	HDS2	R	31.500	.750	3000250	HDS1	R
32.000	1.000	2950780	HDS1	R	31.500	.750	3000251	HDS1	R
32.000	1.000	<b>2950783</b>	HDS2	R			W/6 EA .125 LUGS		
32.000	1.250	2950758	HDS1	RR	31.500	.750	3000253	HDS1	V
		OUTER LIP IS SPRINGLESS			31.600	.775	3000300	HDS1	R
32.250	1.000	2950830	HDS1	R	31.606	.750	3000302	HDS1	R
32.250	1.000	<b>2950835</b>	HDS2	R	31.606	.750	<b>3000303</b>	HDS2	R
32.250	1.000	<b>2950836</b>	HDS2	D	31.616	.750	3000280	HDS1	R
32.250	1.250	2950850	HDS1	R	31.625	.625	<b>3000312</b>	HDS2	R
32.250	1.375	2950841	HDS1	R	31.625	.625	<b>3000313</b>	HDS2	D
32.500	.875	2950870	HDS1	R	31.625	.750	3000330	HDS1	R
32.500	.938	2950880	HDS1	R	31.630	.750	3000340	HDS1	R
32.500	.938	<b>2950882</b>	HDS2	R	31.655	.750	3000350	HDS1	R
32.500	1.500	2950903	HDS1	R	32.000	.813	<b>3000556</b>	HS8	R
<b>29.527 SHAFT</b>					32.000	.813	3000557	HS7	R
30.527	.500	2953017	HS7	R	32.000	.813	<b>3000558</b>	HS8	D
<b>29.528 SHAFT</b>					32.000	.813	<b>3000558</b>	HS8	D
	.196	<b>407503</b>	VR4	R	32.000	.875	<b>HDL-4357-R</b>	HDL	R
		SHAFT RANGE 29.528-29.843			32.000	.916	3000577	HS7	R
32.047	.984	2952585	HDS1	R	32.000	1.000	<b>3000518</b>	HS8	R
<b>29.563 SHAFT</b>					32.000	1.000	<b>3000519</b>	HS8	H
31.563	.813	2956557	HS7	R	32.000	1.000	<b>3000578</b>	HS8	D
<b>29.625 SHAFT</b>					32.000	1.000	<b>3000588</b>	HS8	R
31.125	.770	<b>2962258</b>	HS8	R	32.000	.813	3000550	HDS1	R
31.625	.813	2963557	HS7	R	32.000	.813	3000552	HDS1	R
31.625	1.000	2963580	HDS1	R			W/6 EA .125 LUGS		
32.000	1.000	2963680	HDS1	R	32.000	.813	3000553	HDS1	D
32.500	1.500	2963844	HDS1	R	32.000	.813	<b>3000555</b>	HDS2	D
32.750	1.500	2963904	HDS1	R	32.000	.813	3000559	HDS3	D
<b>29.688 SHAFT</b>							W/6 EA .500 ADJ. LUGS		
31.688	.813	2969557	HS7	R	32.000	.875	3000560	HDS1	R
<b>29.750 SHAFT</b>					32.000	.875	3000562	HDS1	D
.938	1.375	524217	CT1	R	32.000	1.000	3000580	HDS1	R
		BORE DIA. IS SHOULDER WIDTH			32.250	1.125	3000690	HDS1	R
1.063	1.500	524218	CT1	R	32.250	1.156	3000700	HDS1	R
		BORE DIA. IS SHOULDER WIDTH			32.250	1.156	<b>3000702</b>	HDS2	R
1.063	1.500	524973	CT1	R	32.500	.875	<b>HDL-4358-R</b>	HDL	R
		BORE DIA. IS SHOULDER WIDTH			32.500	.875	3000760	HDS1	R
31.250	.770	<b>2975258</b>	HS8	R	32.500	.875	3000761	HDS1	V
31.750	.813	<b>2975558</b>	HS8	R	32.500	.875	3000780	HDS1	R
<b>29.813 SHAFT</b>					32.750	.875	3000820	HDS1	R
	2.250	84642	LDSL4		32.750	1.500	3000834	HDS1	R
		FOR SEAL SH SIZE 30.000 (762.00MM)			33.000	.875	3000870	HDS1	R
					33.000	1.125	3000900	HDS1	R
					33.000	1.750	3000995	HDSB1	RL

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## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>30.063 SHAFT</b>					<b>30.500 SHAFT (Cont.)</b>				
.688	1.125	525033	CT1	R	32.500	.875	3050561	HDS1	R
		BORE DIA. IS SHOULDER WIDTH					W/6 EA .063 LUGS		
<b>30.125 SHAFT</b>					32.500	.875	3050562	HDS1	R
	.790	<b>407500</b>	VR1	R			W/8 EA .125 LUGS		
		SHAFT RANGE 29.330 - 30.910			32.500	.875	3050563	HDS1	R
31.125	.500	3013017	HS7	R			W/8 EA .250 LUGS		
<b>30.250 SHAFT</b>					32.500	.875	<b>3050565</b>	HDS2	R
32.250	.750	3025540	HDS1	R	32.500	1.000	<b>3050582</b>	HDS2	R
32.250	.875	3025561	HDS1	R	32.500	.875	3050511	HDS7	H
		W/4 EA .125 LUGS			32.750	1.000	3050680	HDS1	R
32.250	.750	<b>3025542</b>	HDS2	V	33.000	.875	<b>HDL-8577-R</b>	HDL	R
32.500	.875	3025660	HDS1	R	33.000	.750	3050791	HDS1	R
32.500	.875	3025661	HDS1	R	33.000	.750	<b>3050793</b>	HDS2	R
		W/4 EA .125 LUGS			33.000	.750	3050799	HDS3	D
32.750	1.000	<b>3025782</b>	HDS2	V			W/6 EA .500 ADJ. LUGS		
<b>30.309 SHAFT</b>					33.000	1.000	3050780	HDS1	R
	1.375	87530	LDSL4		33.000	1.000	<b>3050785</b>	HDS2	R
		FOR SEAL SH SIZE 30.497			33.032	1.000	<b>3050790</b>	HDS2	R
<b>30.310 SHAFT</b>					33.492	1.000	3050840	HDS1	R
32.314	1.000	3031590	HDS1	R	33.500	.875	3050870	HDS1	R
<b>30.312 SHAFT</b>					33.500	.875	<b>3050872</b>	HDS2	R
	2.500	87842	LDSL3		33.500	.875	3050890	HDS1	R
		FOR SEAL SH SIZE 30.500			33.500	1.000	<b>3050892</b>	HDS2	R
<b>30.313 SHAFT</b>					33.500	1.500	3050903	HDS1	R
31.813	.750	3031257	HS7	R	<b>30.563 SHAFT</b>				
32.375	.875	3031600	HDS1	R	32.563	.813	3056557	HS7	R
32.500	.875	3031640	HDS1	R	<b>30.615 SHAFT</b>				
32.500	1.000	3031650	HDS1	R	33.268	1.094	<b>3061715</b>	HDS2	R
32.750	1.000	3031740	HDS1	R	33.268	1.094	3061721	HDS7	R
33.000	1.000	3031800	HDS1	R	<b>30.625 SHAFT</b>				
33.250	1.500	3031830	HDS1	R	32.125	.750	3063257	HS7	R
33.260	.906	3031840	HDS1	R	<b>30.709 SHAFT</b>				
33.260	.906	3031845	HDS1	R	.196	<b>407803</b>	VR4		R
		W/8 EA .563 LUGS					SHAFT RANGE 30.472-30.827		
33.277	1.500	3031846	HDS1	R	<b>30.750 SHAFT</b>				
<b>30.315 SHAFT</b>					31.750	.500	3075017	HS7	R
	.196	<b>407703</b>	VR4	R	32.742	.875	3075510	HDS1	R
		SHAFT RANGE 30.157-30.472			32.742	.875	3075513	HDS1	R
<b>30.320 SHAFT</b>							W/4 EA .375 LUGS		
	1.375	87605	LDSL4		<b>30.813 SHAFT</b>				
		FOR SEAL SH SIZE 30.508			2.000	85039	LDSL4		
<b>30.375 SHAFT</b>							FOR SEAL SH SIZE 31.000 (787.40MM)		
32.375	.813	3038557	HS7	R	<b>30.900 SHAFT</b>				
32.375	.813	3038550	HDS1	R	31.900	.500	3090017	HS7	R
<b>30.500 SHAFT</b>					<b>31.000 SHAFT</b>				
32.500	.813	3050557	HS7	R	.813	1.250	525212	CT1	R
32.500	.875	<b>HDL-4365-R</b>	HDL	R			BORE DIA. IS SHOULDER WIDTH		
32.500	.750	<b>3050546</b>	HDS2	V	32.000	.500	3100017	HS7	R
		W/8 EA .250 LUGS			32.000	.500	<b>3100018</b>	HS8	R
32.500	.750	3050540	HDS1	R			W/HOOK & EYE SPRING CONNECTOR		
32.500	.750	<b>3050542</b>	HDS2	R	32.500	.750	3100257	HS7	R
32.500	.750	<b>3050544</b>	HDS2	V	32.500	.750	3100250	HDS1	R
32.500	.750	3050549	HDS3	D	32.500	.750	3100255	HDS1	D
		W/6 EA .500 ADJ. LUGS			32.500	.750	522342	HDS1	D
32.500	.875	3050560	HDS1	R	32.500	1.000	3100290	HDS1	R
					33.000	.813	3100557	HS7	R
					33.000	.875	<b>HDL-4367-R</b>	HDL	R
					33.000	.875	3100567	HS7	R

Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>31.000 SHAFT (Cont.)</b>					<b>31.750 SHAFT (Cont.)</b>				
33.000	.813	3100550	HDS1	R	.813	1.250	526715	CT1	R
33.000	.813	3100551	HDS1	R	BORE DIA. IS SHOULDER WIDTH				
		W/4 EA .063 LUGS			33.750	.813	3175557	HS7	R
33.000	.813	3100552	HDS1	R	33.750	.875	3175560	HDS1	R
		W/6 EA .125 LUGS			33.750	.875	<b>3175562</b>	HDS2	R
33.000	.875	3100560	HDS1	R	33.750	.875	3175565	HDS1	R
33.000	.875	3100561	HDS1	R			W/4 EA .125 LUGS		
		W/4 EA .125 LUGS			33.750	.875	3175569	HDS3	D
33.000	.875	<b>3100562</b>	HDS2	D			W/6 EA .500 ADJ. LUGS		
33.000	.875	<b>3100563</b>	HDS2	R	35.250	.875	3175900	HDS1	R
33.000	.875	3100951	HDSA1	RL	<b>31.900 SHAFT</b>				
33.000	.875	3100952	HDSA2	RL	33.900	.813	<b>3190558</b>	HS8	D
33.188	.953	513184	HS9	R	<b>32.000 SHAFT</b>				
33.500	.875	3100757	HDS1	V	33.500	.750	<b>HDL-3023-R</b>	HDL	R
33.500	.875	3100760	HDS1	R	33.500	.750	<b>3200239</b>	HS8	D
33.500	.875	3100778	HDS1	R			W/THREADED SPRING CONNECTOR		
		W/8 EA .125 LUGS			34.000	.813	3200557	HS7	R
34.000	.813	3100840	HDS1	R	34.000	.875	<b>HDL-4632-R</b>	HDL	R
34.000	.813	3100849	HDS3	D	34.000	.875	<b>3200563</b>	HDS2	R
		W/6 EA .500 ADJ. LUGS			34.000	.750	3200540	HDS1	R
34.000	.875	3100870	HDS1	R	34.000	.750	3200541	HDS1	V
34.000	.875	<b>3100872</b>	HDS2	R	34.000	.813	3200550	HDS1	R
34.000	1.000	3100890	HDS1	R	34.000	.875	3200560	HDS1	R
34.000	1.000	<b>3100895</b>	HDS2	RR	34.000	.875	<b>3200562</b>	HDS2	D
34.000	1.250	3100992	HDS2	RR	34.000	.875	3200564	HDS1	R
<b>31.250 SHAFT</b>							W/8 EA .250 LUGS		
32.750	.750	3125250	HDS1	R	34.000	.875	3200569	HDS3	D
32.750	.750	<b>3125252</b>	HDS2	R			W/6 EA .500 ADJ. LUGS		
32.750	1.000	3125290	HDS1	R	34.000	.875	3200954	HDSA2	V
33.250	.750	<b>HDL-5033-R</b>	HDL	R	34.000	1.000	3200580	HDS1	R
33.250	.750	3125540	HDS1	R	34.250	1.000	3200680	HDS1	R
33.250	.750	3125543	HDS1	R	34.500	.875	3200760	HDS1	R
		W/6 EA .125 LUGS			34.500	1.000	3200782	HDS1	R
33.250	.750	<b>3125544</b>	HDS2	R			W/6 EA .063 LUGS		
		W/4 EA .250 LUGS			34.500	1.250	3200790	HDS1	R
33.250	.750	<b>3125548</b>	HDS2	D	<b>32.125 SHAFT</b>				
<b>31.340 SHAFT</b>					33.625	.625	3213237	HS7	R
33.340	.813	<b>3134558</b>	HS8	R	34.125	.750	<b>HDL-3002-R</b>	HDL	R
<b>31.491 SHAFT</b>					34.125	.813	3213557	HS7	R
34.020	.980	<b>3149798</b>	HDS2	D	34.125	.875	3212563	HDS1	V
<b>31.496 SHAFT</b>					34.125	.875	3213560	HDS1	R
	.196	<b>408003</b>	VR4	R	34.125	.875	<b>3213562</b>	HDS2	D
		SHAFT RANGE 31.181-31.535			34.125	.875	<b>3213564</b>	HDS2	R
33.465	.984	3149470	HDS7	R			W/6 EA .250 LUGS		
<b>31.500 SHAFT</b>					34.125	.875	3213569	HDS3	D
.813	1.250	528210	CT1	R			W/6 EA .500 ADJ. LUGS		
		BORE DIA. IS SHOULDER WIDTH			34.250	.875	3213620	HDS1	R
32.500	.500	3150017	HS7	R	34.375	.875	3231600	HDS1	R
33.000	.750	3150210	HDS1	R	34.500	.875	3213710	HDS1	R
33.500	.813	3150557	HS7	R	34.625	.750	3213740	HDS1	R
34.500	.875	3150875	HDS1	R	34.625	.750	3213742	HDS1	R
		W/4 EA .250 LUGS					W/6 EA .313 LUGS		
<b>31.625 SHAFT</b>					34.625	.875	3213760	HDS1	R
33.625	1.000	3162580	HDS1	R	35.000	.875	3231800	HDS1	R
<b>31.750 SHAFT</b>					35.125	.875	3231840	HDS1	R
	.790	<b>408000</b>	VR1	R	35.125	1.500	3231844	HDS1	R
		SHAFT RANGE 30.910 - 32.680			<b>32.188 SHAFT</b>				
.688	.875	526244	CT3	R	.813	1.250	525034	CT1	R
		BORE DIA. IS SHOULDER WIDTH					BORE DIA. IS SHOULDER WIDTH		

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## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>32.250 SHAFT</b>					<b>32.750 SHAFT (Cont.)</b>				
.813	1.250	524294	CT1	R	35.000	1.000	3275680	HDS1	R
			BORE DIA. IS SHOULDER WIDTH		35.250	1.000	3275780	HDS1	R
34.250	.813	3225557	HS7	R	35.375	.938	3275805	HDS1	R
34.250	1.000	<b>3225512</b>	HDS2	R			W/4 EA .063 LUGS		
<b>32.312 SHAFT</b>					35.375	1.000	3275802	HDS1	R
34.500	.875	<b>HDL-4373-R</b>	HDL	R	35.375	1.000	3275803	HDS1	R
<b>32.313 SHAFT</b>							W/4 EA .063 LUGS		
	2.000	86090	LDLSLV4		35.375	2.000	3275806	HDS1	R
			FOR SEAL SH SIZE 32.500 (825.50MM)				W/4 EA .063 LUGS		
34.500	.906	<b>3231648</b>	HS8	R	35.500	1.000	3275830	HDS1	R
			W/HOOK & EYE SPRING CONNECTOR		35.750	1.000	3275890	HDS1	R
34.500	.875	<b>3231622</b>	HDS2	H	35.750	1.500	3275903	HDS1	R
34.500	.875	3231640	HDS1	R	<b>32.812 SHAFT</b>				
34.500	.875	<b>3231642</b>	HDS2	R		2.220	87850	LDLSLV4	
<b>32.375 SHAFT</b>							FOR SEAL SH SIZE 33.000		
.813	1.250	593949	CT1	R	<b>32.950 SHAFT</b>				
			BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT		34.688	.750	<b>3295343</b>	HDS2	R
33.625	.625	3238117	HS7	R	<b>32.972 SHAFT</b>				
34.375	1.000	<b>3237518</b>	HS8	R	34.683	.750	3297300	HDS1	R
34.375	1.000	<b>3237519</b>	HS8	H	<b>32.980 SHAFT</b>				
34.875	1.250	3238790	HDS1	R	34.688	.750	<b>3298342</b>	HDS2	R
<b>32.500 SHAFT</b>					<b>32.996 SHAFT</b>				
.500	.688	594799	CT3	R	34.685	.787	<b>HDL-4380-R</b>	HDL	R
			BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT		<b>33.000 SHAFT</b>				
.813	1.250	524367	CT1	R	34.000	.500	3300017	HS7	R
			BORE DIA. IS SHOULDER WIDTH		34.250	.625	<b>530414</b>	HS5	D
33.625	.563	3250117	HS7	R	34.500	.625	3300237	HS7	R
34.250	.625	<b>3250365</b>	HDS2	R	34.500	.750	<b>HDL-4381-R</b>	HDL	R
34.250	.875	3250410	HDS1	R	34.500	.750	<b>3300212</b>	HDS2	H
34.250	1.250	3250440	HDS1	R	34.500	.750	<b>3300222</b>	HDS2	D
34.500	.813	3250557	HS7	R	34.500	.750	3300250	HDS1	R
34.500	.875	<b>HDL-4377-R</b>	HDL	R	34.500	1.250	3300920	HDS01	RR
34.500	.916	3250577	HS7	R	34.500	1.250	3300921	HDSE1	RR
34.500	1.000	<b>3250588</b>	HS8	R	34.502	.750	3300260	HDS1	R
34.500	.813	3250550	HDS1	R	34.554	.775	3300280	HDS1	R
34.500	.875	3250560	HDS1	R	34.609	.750	3300290	HDS1	R
34.500	.875	3250561	HDS1	R	34.613	.750	3300300	HDS1	R
		W/6 EA .063 LUGS			34.625	.750	<b>HDL-6787-R</b>	HDL	R
34.500	.875	3250562	HDS1	R	34.625	.750	3300330	HDS1	R
		W/4 EA .125 LUGS			34.625	.750	<b>3300331</b>	HDS2	R
34.500	.875	<b>3250566</b>	HDS2	R	34.625	.750	<b>3300334</b>	HDS2	D
34.500	.875	<b>3250567</b>	HDS2	R	34.630	.750	3300340	HDS1	R
		W/4 EA .250 LUGS			34.630	.750	<b>3300342</b>	HDS2	R
34.500	.875	3250569	HDS3	D	34.630	.750	3300345	HDS1	D
		W/6 EA .500 ADJ. LUGS			34.650	.787	<b>HDL-4634-R</b>	HDL	R
34.500	.938	3250570	HDS1	R	34.688	.750	3300332	HDSA2	DL
34.500	.938	<b>3250574</b>	HDS2	R	34.688	.750	3300350	HDS1	R
34.750	.875	3250660	HDS1	R	34.688	.750	<b>3300351</b>	HDS2	R
<b>32.688 SHAFT</b>					34.688	.750	<b>3300353</b>	HDS2	D
34.688	.813	3269557	HS7	R	35.000	.813	3300557	HS7	R
<b>32.700 SHAFT</b>					35.000	.813	592817	HS7	D
34.680	.750	<b>3270542</b>	HDS2	R	35.000	.875	<b>HDL-4382-R</b>	HDL	R
<b>32.750 SHAFT</b>					35.000	.750	3300540	HDS1	R
34.250	.750	3275250	HDS1	R	35.000	.750	3300547	HDS1	V
34.500	.875	3275410	HDS1	R	35.000	.750	3300549	HDS3	D
34.500	1.000	3275420	HDS1	R			W/6 EA .500 ADJ. LUGS		
34.750	.813	3275557	HS7	R	35.000	.875	3300560	HDS1	R
34.750	1.000	3275580	HDS1	R	35.000	.875	3300561	HDS1	R
34.750	1.250	3275592	HDS1	R			W/4 EA .125 LUGS		

Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>33.000 SHAFT (Cont.)</b>					<b>33.500 SHAFT (Cont.)</b>				
35.000	.875	<b>3300562</b>	HDS2	R	35.500	.875	3350562	HDS1	R
		W/4 EA .125 LUGS					W/6 EA .250 LUGS		
35.000	.875	<b>3300565</b>	HDS2	R	35.500	1.750	3350950	HDSE1	RR
35.000	.875	3300568	HDS3	H	35.625	.875	3350620	HDS1	R
		W/4 EA .500 ADJ. LUGS			35.625	1.000	3350630	HDS1	R
35.000	1.000	3300958	HDSC2	RL	35.750	.875	3350660	HDS1	R
35.125	.770	3300611	HDS1	R	35.995	.938	3350740	HDS1	R
35.250	.875	<b>HDL-4326-R</b>	HDL	R	36.000	.875	<b>HDL-4550-R</b>	HDL	R
35.250	.875	3300660	HDS1	R	36.000	.875	3350760	HDS1	R
35.250	.875	3300951	HDSA1	RL	36.000	.875	3350762	HDS1	R
35.500	.875	<b>HDL-4544-R</b>	HDL	R			W/6 EA .250 LUGS		
35.500	.750	3300790	HDS1	R	36.000	.875	<b>3350765</b>	HDS2	R
35.500	.750	<b>3300792</b>	HDS2	R	36.000	.875	3350769	HDS3	D
35.500	.875	3300760	HDS1	R			W/6 EA .500 ADJ. LUGS		
35.500	.875	<b>3300765</b>	HDS2	R	36.000	.906	3350766	HDS1	R
35.500	.875	3300769	HDS3	D			W/8 EA .188 LUGS		
		W/6 EA .500 ADJ. LUGS			36.000	.938	3350770	HDS1	R
35.500	.938	3300770	HDS1	R	36.002	.938	3350790	HDS1	R
35.500	.938	<b>3300772</b>	HDS2	R	36.002	.938	3350791	HDS1	R
35.500	1.000	3300780	HDS1	R			W/6 EA .125 LUGS		
35.500	1.000	<b>3300782</b>	HDS2	V	36.250	.875	3350820	HDS1	R
35.500	1.000	<b>3300785</b>	HDS2	R	36.250	.875	3350824	HDS1	R
35.625	.875	3300800	HDS1	R			W/6 EA .063 LUGS		
35.750	.875	3300820	HDS1	R	36.417	.875	3350840	HDS1	R
36.000	.875	3300870	HDS1	R	36.417	1.500	3350844	HDS1	R
36.000	1.000	<b>3300852</b>	HDS2	V	36.500	1.500	3350902	HDS1	R
36.000	1.000	3300890	HDS1	R					
36.000	1.000	3300990	HDSB2	V					
		LIGHT INTERFERENCE DUST-LIP							
36.000	1.500	3300903	HDS1	R					
<b>33.063 SHAFT</b>					<b>33.625 SHAFT</b>				
.813	1.250	526867	CT1	R	35.625	.875	3363560	HDS1	R
		BORE DIA. IS SHOULDER WIDTH			35.625	.875	3363562	HDS1	R
							W/6 EA .125 LUGS		
					36.625	.875	3363870	HDS1	R
<b>33.250 SHAFT</b>					<b>33.688 SHAFT</b>				
.813	1.250	595636	CT1	R	.813	1.250	524219	CT1	R
		BORE DIA. IS SHOULDER WIDTH					BORE DIA. IS SHOULDER WIDTH		
35.250	1.000	<b>3325588</b>	HS8	R					
<b>33.313 SHAFT</b>					<b>33.750 SHAFT</b>				
	2.625	84730	LDSL4		35.750	.813	3375557	HS7	R
		FOR SEAL SH SIZE 33.500	(850.90MM)		35.750	1.000	<b>3375588</b>	HS8	R
					35.750	1.000	3375950	HDSA1	RL
<b>33.465 SHAFT</b>					<b>33.875 SHAFT</b>				
	.196	<b>408503</b>	VR4	R	35.875	.875	3388560	HDS1	R
		SHAFT RANGE 33.110-33.504			36.000	.875	3388620	HDS1	R
					36.375	1.000	3388780	HDS1	R
					36.500	.875	3388800	HDS1	R
<b>33.469 SHAFT</b>					<b>34.000 SHAFT</b>				
35.469	.875	3347560	† HDS1	R	35.000	.500	3400017	HS7	R
36.409	.906	3347850	HDS1	R	36.000	.813	3400557	HS7	R
36.409	.906	3347854	HDS1	R	36.000	.875	<b>HDL-4399-R</b>	HDL	R
		W/8 EA .219 LUGS			36.000	1.000	3400587	HS7	R
36.409	.906	3347855	HDS1	R	36.000	.813	3400550	HDS1	R
		W/8 EA .531 LUGS			36.000	.875	<b>3400534</b>	HDS2	R
					36.000	.875	3400539	HDS3	D
<b>33.500 SHAFT</b>							W/6 EA .500 ADJ. LUGS		
	.790	<b>408500</b>	VR1	R	36.000	.875	3400560	HDS1	R
		SHAFT RANGE 32.680 - 34.450			36.000	.875	3400561	HDS1	R
35.500	.813	3350557	HS7	R			W/4 EA .250 LUGS		
35.500	.875	<b>HDL-4389-R</b>	HDL	R	36.000	.875	<b>3400564</b>	HDS2	R
35.500	1.000	<b>3350588</b>	HS8	R	36.000	.875	<b>3400565</b>	HDS2	R
35.500	.875	3350560	HDS1	R			W/4 EA .250 LUGS		
35.500	.875	3350561	HDS1	R	36.000	.875	<b>3400566</b>	HDS2	R
		W/6 EA .125 LUGS					W/4 EA .125 LUGS		

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## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>34.000 SHAFT (Cont.)</b>					<b>34.750 SHAFT (Cont.)</b>				
36.000	1.000	3400580	HDS1	R	36.750	.875	<b>3475562</b>	HDS2	R
36.250	1.125	3400690	HDS1	R	36.750	.875	3475564	HDS1	R
36.250	1.250	3400700	HDS1	R			W/8 EA .375 LUGS		
36.250	1.250	<b>3400702</b>	HDS2	R	36.750	.875	3475565	HDS1	R
36.500	.750	<b>HDL-3056-R</b>	HDL	R			W/8 EA .250 LUGS		
36.500	.875	3400760	HDS1	R	37.000	.875	3475660	HDS1	R
37.000	1.000	3400890	HDS1	R	37.375	.875	3475800	HDS1	R
37.000	1.500	3400903	HDS1	R	37.500	.875	3475820	HDS1	R
<b>34.032 SHAFT</b>					<b>34.813 SHAFT</b>				
36.032	.813	3403557	HS7	R	1.313		86029	LDSLV4	
<b>34.250 SHAFT</b>					FOR SEAL SH SIZE 35.000 (899.00MM)				
36.000	.750	<b>HDL-3017-R</b>	HDL	R	<b>35.000 SHAFT</b>				
36.062	.688	★ 3425455	HS4	R	36.000	.500	3500017	HS7	R
36.250	.813	3425557	HS7	R	36.500	.625	3500237	HS7	R
36.250	.875	3425560	HDS1	R	36.500	.750	3500257	HS7	R
36.500	.875	3425660	HDS1	R	37.000	.813	3500557	HS7	R
36.750	.875	3425760	HDS1	R	37.000	.875	<b>HDL-3835-R</b>	HDL	R
36.750	.875	3425761	HDS1	R	37.000	.875	<b>3500568</b>	HS8	R
		W/6 EA .375 LUGS			37.000	.813	3500550	HDS1	R
<b>34.312 SHAFT</b>					37.000	.875	3500560	HDS1	R
1.750		87529	LDSLV4		37.000	.875	3500561	HDS1	R
		FOR SEAL SH SIZE 34.500					W/4 EA .063 LUGS		
<b>34.375 SHAFT</b>					37.000	.875	3500562	HDS1	R
36.875	1.250	3438790	HDS1	R			W/4 EA .188 LUGS		
<b>34.500 SHAFT</b>					37.000	.875	<b>3500563</b>	HDS2	R
1.063	1.500	523063	CT1	R			W/6 EA .500 LUGS		
		BORE DIA. IS SHOULDER WIDTH			37.000	.875	3500564	HDS3	R
36.000	.750	<b>3450258</b>	HS8	R			W/4 EA .500 ADJ. LUGS		
36.000	.750	3450250	HDS1	R	37.000	.875	<b>3500565</b>	HDS2	R
36.000	.750	3450252	HDS1	R	37.000	.875	<b>3500566</b>	HDS2	R
		W/6 EA .250 LUGS					W/6 EA .188 LUGS		
36.000	.750	<b>3450253</b>	HDS2	R	37.000	.875	3500567	HDS1	V
36.000	.750	3450255	HDS1	R	37.000	.875	3500569	HDS3	D
		W/6 EA .125 LUGS					W/6 EA .500 ADJ. LUGS		
36.000	1.000	3450290	HDS1	R	37.000	.875	3500579	HDS3	D
36.500	.813	3450557	HS7	R			W/6 EA .500 ADJ. LUGS		
36.500	.875	<b>HDL-4405-R</b>	HDL	R	37.000	.875	3500952	HDSA2	RL
36.500	1.000	<b>HDL-3021-R</b>	HDL	R	37.000	.875	3500958	HDSA2	VL
36.500	.875	3450560	HDS1	R	37.000	1.000	3500584	HDS1	R
36.500	.875	<b>3450564</b>	HDS2	R			W/6 EA .125 LUGS		
		W/6 EA .156 LUGS			37.000	1.000	3501952	HDSA2	RL
36.500	.875	3450565	HDS1	R	37.375	1.000	3500730	HDS1	R
		W/6 EA .250 LUGS			37.500	.875	<b>HDL-3836-R</b>	HDL	R
36.500	.875	<b>3450566</b>	† HDS2	V	37.500	.750	3500740	HDS1	R
36.500	.875	3450569	HDS3	D	37.500	.875	3500760	HDS1	R
		W/6 EA .500 ADJ. LUGS			37.500	.875	<b>3500762</b>	HDS2	R
36.500	1.000	<b>3450574</b>	HDS2	V	37.500	.875	3500765	HDS1	R
36.500	1.000	3450580	HDS1	R			W/6 EA .500 LUGS		
36.500	1.000	<b>3450582</b>	HDS2	R	37.500	.875	3500769	HDS3	D
36.500	1.000	3450950	HDSA1	RL			W/6 EA .500 ADJ. LUGS		
36.500	.875	<b>3450518</b>	HDS2	H	37.500	.938	3500770	HDS1	R
36.500	.875	<b>3450563</b>	HDS2	D	37.500	.938	3500772	HDS1	R
36.750	.875	3450660	HDS1	R			W/6 EA .125 LUGS		
37.000	.875	3450760	HDS1	R	37.500	.938	3500773	HDS1	R
37.500	.750	3450860	HDS1	R			W/6 EA .063 LUGS		
37.500	.750	<b>3450862</b>	HDS2	R	37.500	1.000	3500780	HDS1	R
<b>34.750 SHAFT</b>					37.750	.875	3500820	HDS1	R
36.625	.750	<b>3475470</b>	HDS2	R	38.000	.875	<b>HDL-3837-R</b>	HDL	R
36.750	.875	3475560	HDS1	R	38.000	1.500	3500903	HDS1	R

Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code	
<b>35.039 SHAFT</b>					<b>35.500 SHAFT (Cont.)</b>					
	.196	<b>408903</b>	VR4	R	38.000	1.250	3550974	HDSE2	VV	
		SHAFT RANGE 34.724-35.118			38.250	1.000	3550830	HDS1	R	
<b>35.125 SHAFT</b>					<b>35.630 SHAFT</b>					
	.688	.875	531069	CT3	R	37.598	.866	<b>HDL-3065-R</b>	HDL	R
		BORE DIA. IS SHOULDER WIDTH			<b>35.750 SHAFT</b>					
<b>35.250 SHAFT</b>					37.750	.813	3575557	HS7	R	
37.250	.813	<b>3525558</b>	HS8	R	37.750	.813	<b>3575558</b>	HS8	R	
37.250	.875	<b>HDL-4416-R</b>	HDL	R	<b>35.812 SHAFT</b>					
37.250	.875	3525560	HDS1	R	1.500	90332	LDSL4			
37.250	.875	3525567	HDS1	V			FOR SEAL SHAFT SIZE 36.000			
37.500	.875	3525660	HDS1	R	2.000	87451	LDSL4			
38.250	.688	3525850	HDS1	R			FOR SEAL SH SIZE 36.000	(914.40MM)		
38.250	.688	<b>3525852</b>	HDS2	R	<b>35.826 SHAFT</b>					
38.250	.813	<b>3525862</b>	HDS2	R	38.076	.703	<b>3583658</b>	HDS2	D	
38.250	1.125	3525900	HDS1	R	<b>35.827 SHAFT</b>					
38.250	1.500	3525902	HDS1	R	38.076	.688	<b>3583659</b>	HS8	D	
<b>35.313 SHAFT</b>					38.076	.703	<b>3582742</b>	HDS2	H	
	2.500	85814	LDSL4		38.077	.687	<b>HDL-3003-R</b>	HDL	R	
		FOR SEAL SH SIZE 35.500	(901.70MM)		<b>35.875 SHAFT</b>					
	.790	<b>409000</b>	VR1	R	37.875	.875	3588560	HDS1	R	
		SHAFT RANGE 34.450 - 36.220			38.000	.875	3588620	HDS1	R	
<b>35.375 SHAFT</b>					<b>36.000 SHAFT</b>					
37.375	.813	3538557	HS7	R	.688	1.125	528416	CT1	R	
37.375	.875	<b>HDL-4417-R</b>	HDL	R			BORE DIA. IS SHOULDER WIDTH			
37.375	.875	3538560	HDS1	R	.688	1.125	593606	CT1	R	
37.375	1.000	3538580	HDS1	R			BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT			
37.375	.875	3537587	HDS1	V	.750	1.188	524223	CT1	R	
37.500	.875	3538620	HDS1	R			BORE DIA. IS SHOULDER WIDTH			
<b>35.433 SHAFT</b>					.813	1.250	530466	CT1	R	
	.196	<b>409003</b>	VR4	R			BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT			
		SHAFT RANGE 35.315-36.102			1.063	1.500	524224	CT1	R	
<b>35.438 SHAFT</b>					<b>35.875 SHAFT</b>					
	.813	1.250	524221	CT1	R	37.500	.750	3600257	HS7	R
		BORE DIA. IS SHOULDER WIDTH			37.620	.750	3600300	HDS1	R	
36.938	.750	3543257	HS7	R	37.998	.875	3600500	HDS1	R	
37.500	1.000	3544590	HDS1	R	37.998	.875	3600501	HDS1	R	
38.583	.906	3548900	HDS1	R			W/4 EA .125 LUGS			
38.583	.906	3548905	HDS1	R	37.998	.875	3600505	HDS1	R	
		W/8 EA .563 LUGS					W/8 EA .469 LUGS			
<b>35.496 SHAFT</b>					<b>35.875 SHAFT</b>					
37.996	.984	<b>HDL-3001-R</b>	HDL	R	38.000	.813	3600557	HS7	R	
<b>35.500 SHAFT</b>					38.000	.813	<b>3600558</b>	HS8	R	
	1.063	1.500	524222	CT1	R	38.000	.875	<b>HDL-4421-R</b>	HDL	R
		BORE DIA. IS SHOULDER WIDTH			38.000	.875	3600560	HDS1	R	
37.500	.813	3550557	HS7	R	38.000	.875	<b>3600562</b>	HDS2	R	
37.500	.875	<b>HDL-4553-R</b>	HDL	R	38.000	.875	<b>3600565</b>	HDS2	R	
37.500	.875	3550560	HDS1	R			W/6 EA .250 LUGS			
37.500	.875	3550562	HDS1	R	38.000	.875	3600569	HDS3	D	
		W/6 EA .125 LUGS					W/6 EA .500 ADJ. LUGS			
37.500	.875	<b>3550566</b>	HDS2	D	38.000	.875	<b>3600572</b>	HDS2	D	
		W/6 EA .125 LUGS			38.000	1.500	3600954	HDSE2	RR	
37.500	.875	3550569	HDS3	D	38.109	.953	512289	HS9	R	
		W/6 EA .500 ADJ. LUGS			38.228	.875	<b>3600522</b>	HDS2	H	
37.500	1.000	3550580	HDS1	R	38.228	.875	3600523	HDS3	H	
37.750	1.000	3550680	HDS1	R			W/6 EA .500 ADJ. LUGS			
38.000	1.000	3550770	HDS1	V	38.250	1.000	3600680	HDS1	R	
38.000	1.000	3550780	HDS1	R	38.500	1.000	<b>HDL-9993-R</b>	HDL	R	
38.000	1.000	<b>3550794</b>	HDS2	V	38.500	.875	3600760	HDS1	R	
					38.500	.875	<b>3600762</b>	HDS2	R	

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## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>36.000 SHAFT (Cont.)</b>					<b>36.750 SHAFT (Cont.)</b>				
38.500	.875	3600769	HDS3	D	38.750	.875	3675564	HDS1	R
		W/6 EA .500 ADJ. LUGS					3675580	HDS1	R
38.500	1.000	3600780	HDS1	R	38.750	1.000	3675660	HDS1	R
38.500	1.000	<b>3600783</b>	HDS2	R	39.000	.875	<b>HDL-7428-R</b>	HDL	R
38.750	1.000	3600830	HDS1	R	39.250	.875	3675760	HDS1	R
39.000	1.500	3600903	HDS1	R	39.250	.875	3675764	HDS1	R
39.500	1.500	3600904	HDS1	R			W/6 EA .125 LUGS		
<b>36.220 SHAFT</b>					39.250	.875	<b>3675765</b>	HDS2	R
	.196	<b>409203</b>	VR4	R	39.250	1.000	3675780	HDS1	R
		SHAFT RANGE 35.906-36.299			<b>36.813 SHAFT</b>				
<b>36.250 SHAFT</b>					2.500		86458	LDSLV4	
38.250	1.000	<b>3625588</b>	HS8	R			FOR SEAL SH SIZE 37.000	(939.80MM)	
38.250	1.000	3625580	† HDS1	R	<b>36.875 SHAFT</b>				
38.500	1.000	3625680	HDS1	R	.938	1.375	523154	CT1	R
38.750	1.000	3625780	HDS1	R			BORE DIA. IS SHOULDER WIDTH		
39.000	1.000	3625830	HDS1	R	39.000	.875	3688960	HDSA1	RL
<b>36.375 SHAFT</b>					<b>37.000 SHAFT</b>				
	2.500	86111	LDSLV4		.813	1.250	526246	CT1	R
	FOR SEAL SH SIZE 36.555		(928.50MM)				BORE DIA. IS SHOULDER WIDTH		
<b>36.460 SHAFT</b>					.813	1.000	526245	CT3	R
38.460	1.000	<b>3646588</b>	HS8	R			BORE DIA. IS SHOULDER WIDTH		
<b>36.500 SHAFT</b>					1.063	1.500	525320	CT1	R
38.000	1.000	3650297	HS7	R			BORE DIA. IS SHOULDER WIDTH		
38.000	.750	3650250	HDS1	R	38.000	.500	3700017	HS7	R
38.000	1.000	3650290	HDS1	R	39.000	.813	3700557	HS7	R
38.250	.813	<b>3650398</b>	HS8	R	39.000	.875	<b>HDL-4434-R</b>	HDL	R
38.500	.625	<b>3650525</b>	HS8	V	39.000	1.000	3700576	HS6	R
38.500	.813	3650557	HS7	R	39.000	1.000	<b>3700588</b>	HS8	R
38.500	.875	<b>HDL-4430-R</b>	HDL	R	39.000	.875	3700560	HDS1	R
38.500	1.000	<b>3650588</b>	HS8	R	39.000	.875	3700562	HDS1	R
38.500	.750	3650545	HDS1	R			W/4 EA .375 LUGS		
		W/8 EA .079 LUGS			39.000	.875	<b>3700563</b>	HDS2	R
38.500	.875	3650560	HDS1	R	39.000	.875	<b>3700564</b>	HDS2	R
38.500	.875	3650565	HDS1	R			W/6 EA .375 LUGS		
		W/12 EA .125 LUGS			39.000	.875	3700569	HDS3	D
38.750	1.000	3650680	HDS1	R			W/6 EA .500 ADJ. LUGS		
39.000	.625	3650750	HDS1	R	39.000	1.000	3700580	HDS1	R
39.000	.625	<b>3650752</b>	HDS2	R	39.250	.875	3700660	HDS1	R
39.000	.625	<b>3650753</b>	HDS2	D	40.000	1.500	3700895	HDS1	R
39.000	1.000	3650780	HDS1	R	<b>37.125 SHAFT</b>				
39.000	1.000	3650781	HDS1	R	.790		<b>409500</b>	VR1	R
		W/6 EA .250 LUGS					SHAFT RANGE 36.220 - 37.990		
<b>36.563 SHAFT</b>					.813	1.250	524768	CT1	R
.688	1.125	593285	CT1	R			BORE DIA. IS SHOULDER WIDTH		
		BORE DIA. IS SHOULDER WIDTH			<b>37.250 SHAFT</b>				
.815	.875	595670	CT1	R	.813	1.250	524368	CT1	R
		BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT					BORE DIA. IS SHOULDER WIDTH		
2.523	2.960	594202	CT4	R	39.250	.875	<b>HDL-4436-R</b>	HDL	R
		BORE DIA. IS SHOULDER WIDTH			39.250	1.000	<b>3725588</b>	HS8	R
<b>36.625 SHAFT</b>					39.250	.875	3725560	HDS1	R
38.625	.813	3663557	HS7	R	39.250	.875	<b>3725563</b>	HDS2	R
<b>36.750 SHAFT</b>					39.250	.938	3725570	HDS1	R
1.063	1.500	595016	CT1	R	39.250	1.000	3725580	HDS1	R
		BORE DIA. IS SHOULDER WIDTH			39.500	.875	3725660	HDS1	R
38.750	.813	3675557	HS7	R	<b>37.375 SHAFT</b>				
38.750	.813	<b>3675558</b>	HS8	R	38.625	.688	3738120	HDS1	R
38.750	1.000	3675587	HS7	R	39.375	.813	3738557	HS7	R
38.750	.875	3675560	HDS1	R					

Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>37.402 SHAFT</b>					<b>38.000 SHAFT (Cont.)</b>				
	.196	<b>409503</b>	VR4	R	39.500	.750	<b>3800222</b>	HDS2	H
		SHAFT RANGE 37.165-37.598			39.500	.750	<b>3800252</b>	HDS2	D
<b>37.438 SHAFT</b>					39.500	.750	<b>3800254</b>	HDS2	V
39.500	.875	3744600	HDS1	R	39.500	.750	<b>3800258</b>	HDS2	D
40.000	.875	3744800	HDS1	R	39.625	.750	<b>3800338</b>	HS8	R
40.500	1.500	3744904	HDS1	R	40.000	.813	3800557	HS7	R
<b>37.500 SHAFT</b>					40.000	.875	<b>HDL-4448-R</b>	HDL	R
.813	1.250	526582	CT1	R	40.000	.875	3800560	HDS1	R
		BORE DIA. IS SHOULDER WIDTH			40.000	.875	3800563	HDS1	R
39.000	.875	3750270	HDS1	R			W/6 EA .250 LUGS		
39.000	.875	<b>3750272</b>	HDS2	R	40.000	.875	<b>3800565</b>	HDS2	R
39.000	.875	<b>3750274</b>	HDS2	R	40.000	.875	<b>3800566</b>	HDS2	R
		W/6 EA .125 LUGS					W/6 EA .250 LUGS		
39.000	.875	3750276	HDS1	R	40.000	.875	3800569	HDS3	D
		W/4 EA .250 LUGS					W/6 EA .500 ADJ. LUGS		
39.500	.813	3750557	HS7	R	40.000	1.312	3800950	HDSE1	RR
39.500	.875	<b>HDL-4438-R</b>	HDL	R	40.500	.875	3800760	HDS1	R
39.500	1.000	3750587	HS7	R	40.500	1.000	3800780	HDS1	D
39.500	.750	3750540	HDS1	R	40.500	1.000	<b>3800784</b>	HDS2	R
39.500	.750	<b>3750542</b>	HDS2	R	40.500	1.000	<b>3800785</b>	HDS2	R
39.500	.875	3750560	HDS1	R	40.750	.875	3800820	HDS1	R
39.500	.875	3750561	HDS1	D	41.000	.750	3800860	HDS1	R
39.500	.875	3750562	HDS1	R	41.000	.750	<b>3800862</b>	HDS2	R
		W/6 EA .125 LUGS			41.000	1.125	3800900	HDS1	R
39.500	.875	<b>3750563</b>	HDS2	D	41.000	1.188	3800902	HDS1	R
39.500	.875	<b>3750564</b>	HDS2	R			W/6 EA .313 LUGS		
		W/6 EA .125 LUGS			41.000	1.500	3800903	HDS1	R
39.500	.875	<b>3750565</b>	HDS2	R	41.250	1.500	3800904	HDS1	R
39.500	.875	<b>3750572</b>	HDS2	V	<b>38.125 SHAFT</b>				
39.750	.875	3750660	HDS1	R	40.125	1.000	3812580	HDS1	R
40.250	1.000	3750830	HDS1	R	<b>38.189 SHAFT</b>				
40.250	1.250	3750980	HDSC1	RL	.196	<b>409703</b>	VR4	R	
		SHAFT RANGE 38.031-38.465			<b>38.250 SHAFT</b>				
<b>37.813 SHAFT</b>					40.250	.875	<b>HDL-4454-R</b>	HDL	R
1.500		86973	LDSL4		40.250	.875	3825560	HDS1	R
		FOR SEAL SH SIZE 38.000 (965.20MM)			40.250	.875	<b>3825562</b>	HDS2	R
2.250		86545	LDSL4		40.500	.875	3825660	HDS1	R
		FOR SEAL SHAFT SIZE 38.000			40.500	1.000	3825680	HDS1	R
2.500		86972	LDSL4		40.750	.750	3825750	HDS1	R
		FOR SEAL SH SIZE 38.000 (965.20MM)			40.750	.750	<b>3825752</b>	HDS2	R
39.813	.813	3781557	HS7	R	40.750	.875	3825760	HDS1	R
40.000	.875	3781640	HDS1	R	40.750	.875	3825761	HDS1	R
40.500	1.000	3781800	HDS1	R			W/6 EA .063 LUGS		
40.750	1.500	3781844	HDS1	R	40.750	.875	<b>3825765</b>	HDS2	R
40.945	.875	3781900	HDS1	R	41.000	1.500	3825844	HDS1	R
40.954	1.500	3781904	HDS1	R	41.250	.875	3825870	HDS1	R
<b>37.875 SHAFT</b>					41.250	1.000	3825894	HDS1	R
.813	1.250	524225	CT1	R			W/6 EA .125 LUGS		
		BORE DIA. IS SHOULDER WIDTH			41.250	1.500	3825903	HDS1	R
39.875	1.000	3788580	HDS1	R	<b>38.258 SHAFT</b>				
40.000	1.000	3788630	HDS1	R	40.750	.875	3825763	HDS1	R
40.500	1.000	3788800	HDS1	R			W/6 EA .125 LUGS		
40.750	1.500	3788844	HDS1	R	<b>38.500 SHAFT</b>				
<b>38.000 SHAFT</b>					1.250		83978	LDSL4	
1.500		86840	LDSL4				FOR SEAL SH SIZE 38.688 (982.68MM)		
		FOR SEAL SH SIZE 38.188 (969.98MM)			1.500		81753	LDSL4	
.813	1.250	524226	CT1	R			FOR SEAL SH SIZE 38.688 (982.68MM)		
		BORE DIA. IS SHOULDER WIDTH			40.375	.750	3850477	HS7	R
39.500	.750	<b>HDL-3004-R</b>	HDL	R	40.500	.813	3850557	HS7	R
39.500	.750	<b>3800288</b>	HS8	D			W/THREADED SPRING CONNECTOR		

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## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>38.500 SHAFT (Cont.)</b>					<b>39.250 SHAFT (Cont.)</b>				
40.750	.750	<b>3850652</b>	HDS2	R	41.250	.813	3925557	HS7	R
41.000	1.000	3850780	HDS1	R	<b>39.370 SHAFT</b>				
41.000	1.000	<b>3850782</b>	HDS2	R	.196	<b>410003</b>	VR4	R	
41.000	1.625	3850978	HDS2	V	SHAFT RANGE 39.331-39.764				
41.500	1.500	3850895	HDS1	R	<b>39.500 SHAFT</b>				
<b>38.583 SHAFT</b>					.790	<b>410000</b>	VR1	R	
	.196	<b>409808</b>	VR4	R	SHAFT RANGE 37.990 - 39.960				
SHAFT RANGE 38.465-38.898					.688	1.125	529452	CT1	R
<b>38.750 SHAFT</b>					.813	1.250	526806	CT1	R
40.750	.813	3875557	HS7	R	BORE DIA. IS SHOULDER WIDTH				
40.750	.875	3875560	HDS1	R	40.500	.500	3950017	HS7	R
40.750	.875	3875562	HDS1	R	41.500	.813	3950557	HS7	R
		W/6 EA .125 LUGS			42.500	1.125	3950900	HDS1	R
40.750	.875	<b>3875563</b>	HDS2	R	42.500	1.250	3950901	HDS1	R
40.750	.875	<b>3875564</b>	HDS2	R	42.500	1.250	3950902	HDS1	R
		W/6 EA .125 LUGS			W/6 EA .125 LUGS				
40.750	1.000	3875580	HDS1	R	<b>39.750 SHAFT</b>				
40.750	1.000	<b>3875585</b>	HDS2	R	41.688	.969	3975500	HDS1	R
40.750	1.000	3875950	HDSA1	RL	41.750	.813	3975557	HS7	R
41.000	.875	<b>HDL-4570-R</b>	HDL	R	42.250	.875	<b>HDL-7538-R</b>	HDL	R
41.000	.875	3875660	HDS1	R	42.250	.813	3975750	HDS1	R
41.250	.875	3875760	HDS1	R	42.250	.875	3975760	HDS1	R
42.000	1.500	3875904	HDS1	R	42.250	.875	3975764	HDS1	R
<b>38.813 SHAFT</b>							W/6 EA .125 LUGS		
	2.125	85123	LDSL4		42.250	.875	3975766	HDS1	R
FOR SEAL SH SIZE 39.000 (990.60MM)							W/8 EA .063 LUGS		
<b>38.875 SHAFT</b>					<b>39.813 SHAFT</b>				
41.375	1.250	3888790	HDS1	R	2.125	81826	LDSL4		
<b>38.938 SHAFT</b>					FOR SEAL SH SIZE 40.000 (1016.00MM)				
41.000	.875	3894600	HDS1	R	<b>39.875 SHAFT</b>				
41.500	.875	3894800	HDS1	R	.938	1.375	523584	CT1	R
42.000	1.500	3894904	HDS1	R	BORE DIA. IS SHOULDER WIDTH				
<b>39.000 SHAFT</b>					1.063	1.500	529379	CT1	R
40.000	.500	3900017	HS7	R	BORE DIA. IS SHOULDER WIDTH				
40.500	.750	<b>3900258</b>	HS8	R	<b>39.979 SHAFT</b>				
41.000	.813	3900557	HS7	R	41.500	1.000	3997300	HDS1	R
41.000	.875	<b>HDL-4465-R</b>	HDL	R	<b>40.000 SHAFT</b>				
41.000	.700	3900535	HDS1	R	41.500	.750	4000257	HS7	R
41.000	.750	3900540	HDS1	R	41.500	1.000	4000290	HDS1	R
41.000	.750	<b>3900542</b>	HDS2	R	41.500	1.000	4000920	HDSB1	RL
41.000	.875	3900560	HDS1	R	42.000	.813	4000557	HS7	R
41.000	.875	<b>3900561</b>	HDS2	R	42.000	.813	4000550	HDS1	R
41.000	.875	<b>3900562</b>	HDS2	R	42.000	.813	4000559	HDS1	V
41.000	.875	<b>3900563</b>	HDS2	D	42.000	.875	4000560	HDS1	R
41.000	.875	<b>3900564</b>	HDS2	R	42.000	.875	4000561	HDS1	R
		W/6 EA .250 LUGS			W/4 EA .125 LUGS				
41.000	.875	3900565	HDS1	R	42.000	.875	<b>4000562</b>	HDS2	R
		W/6 EA .250 LUGS			42.000	.875	4000563	HDS1	D
41.000	.875	<b>3900566</b>	HDS2	R	42.000	.875	<b>4000564</b>	HDS2	R
		W/6 EA .375 LUGS			W/6 EA .125 LUGS				
41.000	.875	<b>3900572</b>	HDS2	D	42.000	.875	<b>4000565</b>	HDS2	R
41.000	.875	<b>3900574</b>	HDS2	V	W/6 EA .250 LUGS				
41.250	.875	3900660	HDS1	R	42.000	.875	4000566	HDS1	R
41.500	.875	3900760	HDS1	R	W/8 EA .250 LUGS				
42.000	1.500	3900903	HDS1	R	42.000	.875	4000569	HDS1	R
42.250	.875	3900905	HDS1	R	W/6 EA .375 LUGS				
42.250	1.500	3900907	HDS1	R	42.000	.875	<b>4000574</b>	HDS2	R
<b>39.250 SHAFT</b>					W/6 EA .500 LUGS				
40.750	.750	3925257	HS7	R					

Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>40.000 SHAFT (Cont.)</b>					<b>40.750 SHAFT (Cont.)</b>				
42.000	.875	4000576	HDS1	V	43.750	1.500	4075905	HDS1	R
42.000	1.000	4000580	HDS1	R	<b>40.875 SHAFT</b>				
42.000	1.000	<b>4000582</b>	HDS2	R	1.063	1.500	525633	CT1	R
42.000	1.000	4000583	HDS1	R	BORE DIA. IS SHOULDER WIDTH				
W/6 EA .125 LUGS					<b>41.000 SHAFT</b>				
42.000	1.000	<b>4000584</b>	HDS2	R	.790		<b>410500</b>	VR1	R
W/6 EA .125 LUGS					SHAFT RANGE 39.960 - 41.930				
42.000	1.000	<b>4000585</b>	HDS2	R	2.000		<b>410503</b>	VR4	R
W/6 EA .250 LUGS					SHAFT RANGE 40.550 - 41.350				
42.000	1.000	4000586	HDS1	R	1.063	1.500	524227	CT1	R
W/6 EA .250 LUGS					BORE DIA. IS SHOULDER WIDTH				
42.000	1.375	4000590	HDS1	R	42.500	.750	<b>4100258</b>	HS8	R
42.000	1.375	<b>4000592</b>	HDS2	R	43.000	.813	4100557	HS7	R
42.000	1.375	4000593	HDS1	R	43.000	.813	<b>4100558</b>	HS8	R
W/6 EA .250 LUGS					<b>41.125 SHAFT</b>				
42.000	1.375	<b>4000594</b>	HDS2	R	1.063	1.500	525036	CT1	R
W/6 EA .250 LUGS					BORE DIA. IS SHOULDER WIDTH				
42.250	.875	4000660	HDS1	R	<b>41.250 SHAFT</b>				
<b>40.063 SHAFT</b>					.688	.875	594395	CT3	R
1.718	2.156	530396	CT4	R	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT				
BORE DIA. IS SHOULDER WIDTH					42.750	.750	<b>4125258</b>	HS8	R
<b>40.250 SHAFT</b>					43.250	.750	4125557	HS7	R
.813	1.250	525426	CT1	R	<b>41.312 SHAFT</b>				
BORE DIA. IS SHOULDER WIDTH					1.968		89948	LDSL4	
41.750	.750	<b>4025258</b>	HS8	R	FOR SEAL SH SIZE 41.500				
<b>40.495 SHAFT</b>					<b>41.375 SHAFT</b>				
43.007	1.000	4049790	HDS1	R	.875	1.313	530448	CT1	R
<b>40.500 SHAFT</b>					BORE DIA. IS SHOULDER WIDTH				
1.063	1.500	528532	CT1	R	<b>41.500 SHAFT</b>				
BORE DIA. IS SHOULDER WIDTH					.813	1.250	527474	CT1	R
41.500	.500	4050017	HS7	R	BORE DIA. IS SHOULDER WIDTH				
41.500	.500	<b>4050018</b>	HS8	R	1.063	1.500	524228	CT1	R
41.750	.750	4050061	HDS7	H	BORE DIA. IS SHOULDER WIDTH				
42.000	.750	4050257	HS7	R	43.000	.750	<b>4150258</b>	HS8	R
42.500	.813	4050557	HS7	R	43.500	.813	<b>4150558</b>	HS8	R
42.500	.875	4050560	HDS1	R	43.500	.875	<b>HDL-4635-R</b>	HDL	R
42.500	.875	4050561	HDS1	R	43.500	.875	4150560	HDS1	R
W/4 EA .250 LUGS					43.500	.875	<b>4150563</b>	HDS2	R
42.500	.875	4050562	HDS1	R	43.500	.875	<b>4150564</b>	HDS2	R
W/4 EA .375 LUGS					W/6 EA .250 LUGS				
42.500	.875	<b>4050563</b>	HDS2	R	43.500	.875	4150566	HDS1	R
42.500	.875	4050564	HDS1	R	W/8 EA .375 LUGS				
W/12 EA .125 LUGS					43.500	.875	<b>4150575</b>	HDS2	R
42.500	.875	4050565	HDS1	D	W/8 EA .375 LUGS				
42.500	.875	<b>4050574</b>	HDS2	R	<b>41.625 SHAFT</b>				
W/6 EA .375 LUGS					43.625	.813	4163557	HS7	R
42.750	.875	4050660	HDS1	R	43.625	.688	4162530	HDS1	R
42.750	1.000	4050680	HDS1	R	43.875	1.000	4162680	HDS1	R
42.750	1.000	4050683	HDS1	D	43.875	1.000	<b>4162685</b>	HDS2	R
43.000	.875	<b>4050762</b>	HDS2	R	44.000	1.000	4162730	HDS1	R
43.000	.875	4050760	HDS1	R	44.500	1.500	4162842	HDS1	R
43.000	.875	4050765	HDS1	R	<b>41.732 SHAFT</b>				
W/12 EA .250 LUGS					.196		<b>410603</b>	VR4	R
43.000	.875	<b>4050774</b>	HDS2	V	SHAFT RANGE 41.142-41.929				
43.000	.875	<b>4050776</b>	HDS2	V	<b>41.750 SHAFT</b>				
W/6 EA .250 LUGS					43.250	.750	<b>4175258</b>	HS8	R
<b>40.750 SHAFT</b>					<b>41.750 SHAFT</b>				
42.250	.750	<b>4075258</b>	HS8	D	<b>41.750 SHAFT</b>				
43.750	1.125	4075900	HDS1	R	<b>41.750 SHAFT</b>				
43.750	1.438	4075902	HDS1	R	<b>41.750 SHAFT</b>				

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## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>41.813 SHAFT</b>					<b>42.500 SHAFT (Cont.)</b>				
44.000	1.000	4181640	HDS1	R	45.000	.875	<b>HDL-4473-R</b>	HDL	R
44.500	1.000	4181800	HDS1	R	45.000	.875	4250760	HDS1	R
45.000	1.000	4181900	HDS1	R	45.000	.875	<b>4250762</b>	HDS2	R
45.000	1.500	4181904	HDS1	R	45.000	.875	4250765	HDS1	R
<b>41.875 SHAFT</b>					W/12 EA .250 LUGS				
1.188	1.625	528272	CT4	R	45.000	.875	4250766	HDS1	V
BORE DIA. IS SHOULDER WIDTH					W/6 EA .500 ADJ. LUGS				
43.500	1.000	4189932	HDSB2	DL	45.250	.875	4250820	HDS1	R
<b>41.929 SHAFT</b>					45.250	1.125	4250900	HDS1	R
43.929	.813	4193557	HS7	R	45.250	1.375	4250843	HDS1	R
<b>41.938 SHAFT</b>					45.500	1.500	4250905	HDS1	R
43.500	.750	4194300	HDS1	R	45.507	1.250	4250901	HDS1	R
43.500	.750	4194305	HDS1	R	<b>42.563 SHAFT</b>				
W/6 EA .375 LUGS					.813	1.000	593564	CT3	R
43.750	.875	4194440	HDS1	R	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT				
<b>41.969 SHAFT</b>					<b>42.750 SHAFT</b>				
2.063	2.500	528271	CT4	R	43.750	.500	4275017	HS7	R
BORE DIA. IS SHOULDER WIDTH					44.250	.750	<b>4275258</b>	HS8	R
<b>42.000 SHAFT</b>					<b>42.913 SHAFT</b>				
1.063	1.500	594494	CT4	R	44.913	.813	4291557	HS7	R
BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT					<b>43.000 SHAFT</b>				
3.313	3.750	596400	CT4	R	.790 <b>411000</b> VR1 R				
BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT					SHAFT RANGE 41.930 - 43.900				
43.500	.750	<b>4200258</b>	HS8	R	45.000	.813	4300557	HS7	R
43.912	.750	<b>4200478</b>	HS8	R	45.000	.813	<b>4300558</b>	HS8	R
44.000	.813	4200557	HS7	R	45.000	.875	4300560	HDS1	R
44.188	.953	511855	HS9	R	45.000	1.000	4300580	HDS1	R
44.250	1.000	4200680	HDS1	R	45.250	1.000	4300680	HDS1	R
44.250	1.000	4200690	HDS1	D	45.500	1.000	<b>HDL-9994-R</b>	HDL	R
44.500	1.000	4200780	HDS1	R	45.500	.875	4300760	HDS1	R
<b>42.063 SHAFT</b>					45.500	.875	<b>4300763</b>	HDS2	R
2.125 85038 LDSLV4					45.500	1.000	4300780	HDS1	R
FOR SEAL SH SIZE 42.250 (1073.15MM)					<b>43.125 SHAFT</b>				
44.063	.813	4206557	HS7	R	44.625	.750	4313250	HDS1	R
<b>42.125 SHAFT</b>					<b>43.307 SHAFT</b>				
2.125 87054 LDSLV4					.790 <b>411004</b> VR1 V				
FOR SEAL SH SIZE 42.313 (1074.75MM)					SHAFT RANGE 41.929-43.897				
<b>42.248 SHAFT</b>					.196 <b>411003</b> VR4 R				
44.248	1.000	<b>HDL-4470-R</b>	HDL	R	SHAFT RANGE 42.717-43.504				
<b>42.250 SHAFT</b>					<b>43.375 SHAFT</b>				
43.750	.750	<b>4225258</b>	HS8	R	.813 1.250 524909 CT1 R				
44.250	.813	4225557	HS7	R	BORE DIA. IS SHOULDER WIDTH				
44.250	1.000	4225580	HDS1	R	<b>43.500 SHAFT</b>				
<b>42.312 SHAFT</b>					1.063 1.500 524369 CT1 R				
1.250 87379 LDSLV4					BORE DIA. IS SHOULDER WIDTH				
FOR SEAL SH SIZE 42.500 (1079.50MM)					45.000	.875	4350270	HDS1	R
<b>42.500 SHAFT</b>					45.500	.813	<b>4350558</b>	HS8	R
1.250 87392 LDSLV4					45.500	.875	<b>HDL-4637-R</b>	HDL	R
FOR SEAL SH SIZE 42.688 (1084.28MM)					45.500	.750	4350540	HDS1	R
.688	1.125	523133	CT3	R	45.500	.750	<b>4350542</b>	HDS2	R
BORE DIA. IS SHOULDER WIDTH					45.500	.875	4350560	HDS1	R
43.500	.500	4250017	HS7	R	45.500	.875	<b>4350562</b>	HDS2	V
44.000	.750	<b>4250258</b>	HS8	R	45.500	.875	4350564	HDS1	R
44.250	.750	<b>4250382</b>	HDS2	R	W/6 EA .250 LUGS				
44.500	.813	4250557	HS7	R	45.500	.875	<b>4350565</b>	HDS2	R
					45.500	.875	593047	HDS1	R
					W/6 EA .125 LUGS				

Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>43.546 SHAFT</b>					<b>44.500 SHAFT (Cont.)</b>				
45.546	.813	4354557	HS7	R	47.000	.875	4450767	HDS1	V
<b>43.625 SHAFT</b>					<b>44.750 SHAFT</b>				
45.250	1.000	4363932	HDSA1	RL	46.250	.750	<b>4475258</b>	HS8	R
<b>43.750 SHAFT</b>					<b>44.875 SHAFT</b>				
45.750	.875	<b>HDL-4638-R</b>	HDL	R	.790		<b>411500</b>	VR1	R
45.750	.875	4375560	HDS1	R	SHAFT RANGE 43.900 - 45.870				
45.750	.875	<b>4375569</b>	HDS2	D	1.063	1.500	522676	CT1	R
<b>44.000 SHAFT</b>					BORE DIA. IS SHOULDER WIDTH				
.813	1.250	524370	CT1	R	<b>45.000 SHAFT</b>				
.938	1.375	528415	CT1	R	46.500	.750	4500257	HS7	R
1.063	1.500	524229	CT1	R	46.625	1.000	<b>HDL-8903-R</b>	HDL	R
1.063	1.500	593180	CT1	R	46.627	1.000	4500930	HDSB2	RL
1.313	1.750	528002	CT4	R	46.750	.875	4500410	HDS1	R
1.313	1.750	528273	CT4	R	47.000	.812	<b>4500518</b>	HS8	H
45.500	.750	4400257	HS7	R	47.000	.813	4500557	HS7	R
46.000	.813	4400557	HS7	R	47.000	.813	592879	HDS1	R
46.000	.875	<b>4400562</b>	HDS2	R	47.000	.875	4500560	HDS1	R
46.000	.875	4400563	HDS1	R	47.000	.875	4500567	HDS1	V
		W/8 EA .125 LUGS			47.188	.688	<b>4500538</b>	HS8	R
46.000	1.000	4400580	HDS1	R	<b>45.125 SHAFT</b>				
46.000	1.000	4400584	HDS1	R	47.125	.813	4513557	HS7	R
		W/8 EA .125 LUGS			<b>45.250 SHAFT</b>				
46.500	.875	<b>HDL-4475-R</b>	HDL	R	46.750	.750	<b>4525258</b>	HS8	R
46.500	1.000	<b>HDL-3024-R</b>	HDL	R	47.000	1.000	<b>4525422</b>	HDS2	R
46.500	.875	4400760	HDS1	R	47.000	1.000	<b>4525424</b>	HDS2	V
46.500	.875	<b>4400761</b>	HDS2	R	<b>45.500 SHAFT</b>				
46.500	.875	4400763	HDS1	R	47.000	.750	<b>4550258</b>	HS8	R
		W/6 EA .250 LUGS			47.000	.625	<b>4550235</b>	HDS2	R
46.500	.875	<b>4400766</b>	HDS2	R	47.000	.750	4550250	HDS1	R
		W/6 EA .250 LUGS			<b>45.669 SHAFT</b>				
46.500	1.000	4400780	HDS1	R	.196		<b>411603</b>	VR4	R
46.500	1.000	4400785	HDS3	R	SHAFT RANGE 45.079-45.866				
		W/8 EA .500 ADJ. LUGS			<b>45.750 SHAFT</b>				
46.500	1.000	<b>4400792</b>	HDS2	V	47.250	.750	<b>4575258</b>	HS8	R
46.500	1.000	<b>4400793</b>	HDS2	V	47.768	.875	4575570	HDS1	R
		W/8 EA .500 ADJ. LUGS			<b>46.000 SHAFT</b>				
46.750	.875	4400820	HDS1	R	47.500	.750	<b>4600258</b>	HS8	R
47.000	1.125	4400900	HDS1	R	47.500	.750	<b>4600259</b>	HS8	D
47.000	1.250	4400902	HDS1	R	47.500	.750	<b>4600222</b>	HDS2	D
47.000	1.250	4400905	HDS1	R	47.500	.750	<b>4600252</b>	HDS2	H
		W/8 EA .125 LUGS			47.500	.750	<b>4600254</b>	HDS2	V
<b>44.094 SHAFT</b>					47.750	1.000	4600420	HDS1	R
46.000	1.000	4409500	HDS1	R	47.750	1.000	<b>4600422</b>	HDS2	R
<b>44.250 SHAFT</b>					47.984	.950	513112	HS9	R
45.750	.750	<b>4425258</b>	HS8	R	48.000	.813	4600557	HS7	R
<b>44.500 SHAFT</b>					48.000	.875	4600560	HDS1	R
46.000	.750	<b>HDL-4563-R</b>	HDL	R	48.000	1.000	4600580	HDS1	R
46.000	.750	<b>4450258</b>	HS8	R	49.000	1.250	<b>4600842</b>	HDS2	D
46.000	.875	4450270	HDS1	R	<b>46.004 SHAFT</b>				
46.000	.875	<b>4450272</b>	HDS2	R	47.500	.750	<b>HDL-3006-R</b>	HDL	R
46.500	.813	4450557	HS7	R	<b>46.250 SHAFT</b>				
46.500	.813	4450550	HDS1	R	47.750	.750	<b>4625258</b>	HS8	R
47.000	.875	4450760	HDS1	R	48.250	.813	4625557	HS7	R

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Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>46.500 SHAFT</b>					<b>47.500 SHAFT (Cont.)</b>				
.813	1.250	529086	CT1	R	49.500	.875	4750560	HDS1	R
		BORE DIA. IS SHOULDER WIDTH			49.500	.875	<b>4750562</b>	HDS2	R
48.000	.750	<b>4650258</b>	HS8	R	49.500	.875	4750565	HDS1	R
48.500	.875	4650560	HDS1	R			W/8 EA .250 LUGS		
48.500	.875	4650563	HDS1	V	49.500	1.500	4750590	HDS1	R
48.750	1.125	4650690	HDS1	R	<b>47.625 SHAFT</b>				
<b>46.750 SHAFT</b>					1.063	1.500	522677	CT1	R
48.250	.750	<b>4675258</b>	HS8	R			BORE DIA. IS SHOULDER WIDTH		
<b>47.000 SHAFT</b>					49.125	.770	<b>4762258</b>	HS8	R
1.063	1.500	527211	CT1	R	<b>47.750 SHAFT</b>				
		BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT			50.500	1.125	4775840	HDS1	R
48.500	.750	<b>4700258</b>	HS8	R	50.500	1.250	4775850	HDS1	R
48.500	.750	<b>4700259</b>	HS8	D	<b>47.875 SHAFT</b>				
48.750	1.000	4700420	HDS1	R	49.875	.813	4788557	HS7	R
48.750	1.000	<b>4700422</b>	HDS2	R	<b>48.000 SHAFT</b>				
48.875	.875	4700480	HDS1	R	.812	1.000	596327	CT3	R
48.875	.875	<b>4700482</b>	HDS2	R			BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT		
49.000	.813	4700557	HS7	R	.813	1.000	530441	CT3	R
49.000	.875	4700560	HDS1	R			BORE DIA. IS SHOULDER WIDTH		
49.000	.875	4700562	HDS1	R	49.500	.750	4800257	HS7	R
		W/8 EA .125 LUGS			49.500	.750	<b>4800252</b>	HDS2	D
49.000	.875	<b>4700564</b>	HDS2	R	49.500	.750	<b>4800254</b>	HDS2	V
		W/8 EA .125 LUGS			49.750	1.000	4800420	HDS1	R
49.000	.875	4700565	HDS1	R	50.000	.813	4800557	HS7	R
		W/6 EA .250 LUGS			50.000	1.000	4800580	HDS1	R
49.000	.875	4700566	HDS1	V	50.000	1.000	<b>4800582</b>	HDS2	R
		W/6 EA .250 LUGS			<b>48.125 SHAFT</b>				
49.000	.875	4700567	HDS1	V	50.000	.813	4812487	HS7	R
49.000	1.000	4700583	HDS1	R	50.000	.813	4813440	HDS1	R
		W/6 EA .125 LUGS			<b>48.250 SHAFT</b>				
49.000	1.000	<b>4700584</b>	HDS2	R	1.063	1.500	524231	CT1	R
		W/6 EA .125 LUGS					BORE DIA. IS SHOULDER WIDTH		
49.000	.875	4700510	HDS7	H	50.250	.875	<b>HDL-4639-R</b>	HDL	R
		W/6 EA .375 LUGS			50.250	.875	4825527	HDS1	V
49.000	.875	4700511	HDS7	H	50.250	.875	4825550	HDS1	R
49.000	.875	<b>4700574</b>	HDS2	V			W/8 EA .250 LUGS		
49.000	.875	<b>4700576</b>	HDS2	V	50.250	.875	4825560	HDS1	R
		W/8 EA .250 LUGS			50.250	.875	4825561	HDS1	R
49.500	.875	4700760	HDS1	R			W/8 EA .500 LUGS		
<b>47.244 SHAFT</b>					50.250	.875	<b>4825562</b>	HDS2	R
	.787	<b>412000</b>	VR1	R			W/ 6 EA .375 LUGS		
		SHAFT RANGE 45.870 - 47.840			50.250	.875	<b>4825563</b>	HDS2	R
	.196	<b>412003</b>	VR4	R	50.250	.875	4825565	HDS1	R
		SHAFT RANGE 46.654-47.441					W/8 EA .125 LUGS		
<b>47.250 SHAFT</b>					50.250	.875	4825566	HDS1	R
49.250	.625	<b>4725528</b>	HS8	R			W/8 EA .500 LUGS		
<b>47.375 SHAFT</b>					50.250	.875	4825570	HDS1	D
48.875	.750	592796	HS7	R	50.250	.875	4825571	HDS1	D
48.875	.750	4738250	HDS1	R			W/8 EA .500 ADJ. LUGS		
<b>47.500 SHAFT</b>					50.252	.875	<b>4825564</b>	HDS2	D
.750	1.188	530606	CT1	R			W/8 EA .500 LUGS		
		BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT			<b>48.375 SHAFT</b>				
.813	1.250	525091	CT1	R	50.375	.812	<b>4837558</b>	HS8	R
		BORE DIA. IS SHOULDER WIDTH			<b>48.865 SHAFT</b>				
.938	1.375	526021	CT1	R	1.063	1.500	524371	CT1	R
		BORE DIA. IS SHOULDER WIDTH					BORE DIA. IS SHOULDER WIDTH		
1.063	1.500	524230	CT1	R					
		BORE DIA. IS SHOULDER WIDTH							
49.000	.770	<b>4750258</b>	HS8	R					

Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>49.000 SHAFT</b>					<b>51.500 SHAFT (Cont.)</b>				
	.790	<b>412500</b>	VR1	R	.938	1.375	530661	CT1	R
		SHAFT RANGE 47.840 - 50.000					BORE DIA. IS SHOULDER WIDTH		
	2.000	<b>412503</b>	VR4	R	1.063	1.500	524232	CT1	R
		SHAFT RANGE 48.520 - 49.320					BORE DIA. IS SHOULDER WIDTH		
	.813	1.250	522828	CT1	53.500	1.250	5150570	HDS1	R
		BORE DIA. IS SHOULDER WIDTH			53.500	1.500	5150590	HDS1	R
50.625	.813	4900340	HDS1	R	<b>52.000 SHAFT</b>				
50.750	1.000	4900420	HDS1	R	1.063	1.500	528927	CT1	R
50.750	1.000	<b>4900422</b>	HDS2	R			BORE DIA. IS SHOULDER WIDTH		
50.750	1.000	4900425	HDS1	R	53.000	.500	5200017	HS7	R
		W/8 EA .125 LUGS			54.000	.813	<b>5200558</b>	HS8	R
51.000	1.000	4900580	HDS1	R	<b>52.500 SHAFT</b>				
<b>49.250 SHAFT</b>					55.000	.875	5250760	HDS1	R
51.125	.813	526618	HS7	R	55.000	.875	5250777	HDS1	V
<b>49.500 SHAFT</b>					<b>53.000 SHAFT</b>				
52.240	1.000	<b>4950803</b>	HDS2	R		.790	<b>413500</b>	VR1	R
52.240	1.000	<b>4950805</b>	HDS2	D			SHAFT RANGE 51.970 - 53.940		
52.250	1.000	4950830	HDS1	R	.813	1.250	528526	CT1	R
52.250	1.000	<b>4950833</b>	HDS2	R			BORE DIA. IS SHOULDER WIDTH		
52.250	1.000	<b>4950835</b>	HDS2	D	.813	1.000	594396	CT3	R
<b>49.750 SHAFT</b>							BORE DIA. IS SHOULDER WIDTH		
52.500	1.000	4975830	HDS1	R	54.875	.813	5300486	HS6	R
52.500	1.000	<b>4975833</b>	HDS2	R	54.875	.813	<b>5300488</b>	HS8	R
52.500	1.000	<b>4975834</b>	HDS2	V	54.875	.813	595881	HS4	R
52.500	1.000	<b>4975835</b>	HDS2	D	54.875	.813	5300440	HDS1	R
<b>50.000 SHAFT</b>					54.875	.813	5300441	HDS1	R
51.750	1.000	5000420	HDS1	R			W/6 EA .063 LUGS		
52.000	.813	<b>5000558</b>	HS8	R	<b>53.150 SHAFT</b>				
52.000	.875	5000560	HDS1	R	.196	<b>413503</b>	VR4	R	
52.000	.875	<b>5000562</b>	HDS2	R			SHAFT RANGE 52.756-53.740		
52.000	.875	<b>5000564</b>	HDS2	R	<b>53.250 SHAFT</b>				
		W/6 EA .250 LUGS			54.250	.500	5325017	HS7	R
<b>50.125 SHAFT</b>					<b>53.625 SHAFT</b>				
52.125	.845	<b>5012578</b>	HS8	R	54.625	.500	5363017	HS7	R
<b>50.625 SHAFT</b>					<b>54.000 SHAFT</b>				
.813	1.250	525953	CT1	R	56.000	.813	5400557	HS7	R
		BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT			56.000	1.000	<b>5400582</b>	HDS2	R
<b>51.000 SHAFT</b>					<b>54.250 SHAFT</b>				
	.790	<b>413000</b>	VR1	R	56.250	1.000	5425580	HDS1	R
		SHAFT RANGE 50.000 - 51.970			56.250	1.000	<b>5425583</b>	HDS2	R
53.000	.812	<b>5100558</b>	HS8	R	<b>54.750 SHAFT</b>				
53.000	.813	592880	HDS1	R	56.375	.875	5475340	HDS1	R
<b>51.181 SHAFT</b>					56.375	.875	<b>5475345</b>	HDS2	D
.196	<b>413003</b>	VR4	R				W/6 EA .125 LUGS		
		SHAFT RANGE 50.984-51.772			<b>55.000 SHAFT</b>				
<b>51.248 SHAFT</b>					.790	<b>414000</b>	VR1	R	
53.289	.875	<b>HDL-6747-R</b>	HDL	R			SHAFT RANGE 53.940 - 55.910		
<b>51.250 SHAFT</b>					.813	1.250	526807	CT1	R
.938	1.375	529130	CT1	R			BORE DIA. IS SHOULDER WIDTH		
		BORE DIA. IS SHOULDER WIDTH			56.000	.500	5500017	HS7	R
53.250	.875	<b>5125562</b>	HDS2	V	<b>55.118 SHAFT</b>				
<b>51.500 SHAFT</b>					.196	<b>414003</b>	VR4	R	
.813	1.250	524372	CT1	R			SHAFT RANGE 54.724-55.709		
		BORE DIA. IS SHOULDER WIDTH							

★Contact manufacturer for availability  
**Bold numbers** are preferred designs

† Includes Bore-Tite on O.D.  
 ▲ WasteWatcher numbers

## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>55.150 SHAFT</b>					<b>60.875 SHAFT</b>				
56.250	.500	<b>5515028</b>	HS8	R	.790		<b>415500</b>	VR1	R
					SHAFT RANGE 59.840 - 61.810				
<b>55.500 SHAFT</b>					<b>61.000 SHAFT</b>				
57.500	.750	5550540	HDS1	R	63.000	1.000	6100580	HDS1	R
57.500	.750	<b>5550542</b>	HDS2	R	64.000	1.500	6100992	HDSE2	RL
<b>56.000 SHAFT</b>					<b>61.024 SHAFT</b>				
58.000	.813	5600550	HDS1	R	.196		<b>415503</b>	VR4	R
<b>56.875 SHAFT</b>					SHAFT RANGE 60.630-61.811				
.790		<b>414500</b>	VR1	R	<b>61.250 SHAFT</b>				
SHAFT RANGE 55.910 - 57.870					62.250	.500	6125017	HS7	R
<b>57.000 SHAFT</b>					63.250	1.000	6125582	HDS1	R
.813	1.250	528525	CT1	R	63.438	.953	527120	HS9	R
BORE DIA. IS SHOULDER WIDTH					<b>62.500 SHAFT</b>				
<b>57.087 SHAFT</b>					64.000	.719	6250271	HS7	R
.196		<b>414503</b>	VR4	R	64.000	.720	<b>6250752</b>	HDS2	R
SHAFT RANGE 56.693-57.677					64.000	.875	6250270	HDS1	R
<b>57.375 SHAFT</b>					64.000	.875	6250281	HDS1	V
60.375	1.500	5738900	HDS1	R	64.000	.625	<b>6250222</b>	HDS2	R
<b>57.500 SHAFT</b>					64.500	.875	6250560	HDS1	R
59.500	.813	<b>5750558</b>	HS8	R	<b>62.598 SHAFT</b>				
<b>57.515 SHAFT</b>					64.598	.813	6259557	HS7	R
59.515	.813	<b>5751558</b>	HS8	R	<b>62.750 SHAFT</b>				
<b>57.875 SHAFT</b>					.790		<b>416000</b>	VR1	R
.790		<b>415000</b>	VR1	R	SHAFT RANGE 61.810 - 63.780				
SHAFT RANGE 57.870 - 59.840					<b>62.992 SHAFT</b>				
58.875	.500	5788017	HS7	R	.196		<b>416003</b>	VR4	R
60.000	.938	5788620	HDS1	R	SHAFT RANGE 62.992-64.567				
<b>58.000 SHAFT</b>					<b>63.000 SHAFT</b>				
60.000	.813	<b>5800558</b>	HS8	R	65.000	.813	<b>6300558</b>	HS8	R
<b>58.500 SHAFT</b>					<b>63.250 SHAFT</b>				
60.500	.813	<b>5850518</b>	HS8	R	65.434	.953	527121	HS9	R
<b>59.000 SHAFT</b>					<b>63.327 SHAFT</b>				
1.188	1.625	594163	CT4	R	65.748	.787	<b>HDL-8557-R</b>	HDL	R
BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT					<b>63.375 SHAFT</b>				
60.500	.875	5900270	HDS1	R	65.375	.813	<b>6337558</b>	HS8	R
60.875	.813	5900474	HDS1	R	<b>63.500 SHAFT</b>				
60.875	.813	5900475	HDS1	R	.813	1.250	526808	CT1	R
W/6 EA .125 LUGS					BORE DIA. IS SHOULDER WIDTH				
61.000	.875	<b>HDL-5482-R</b>	HDL	R	<b>64.000 SHAFT</b>				
61.000	.875	5900560	HDS1	R	66.000	.813	<b>6400558</b>	HS8	R
<b>59.055 SHAFT</b>					<b>64.750 SHAFT</b>				
.196		<b>415003</b>	VR4	R	.790		<b>416500</b>	VR1	R
SHAFT RANGE 58.661-59.646					SHAFT RANGE 63.780 - 65.750				
<b>59.750 SHAFT</b>					<b>64.961 SHAFT</b>				
60.750	.500	5975017	HS7	R	.196		<b>416503</b>	VR4	R
<b>60.000 SHAFT</b>					SHAFT RANGE 64.567-66.142				
63.000	1.000	6000890	HDS1	R	<b>65.605 SHAFT</b>				
<b>60.250 SHAFT</b>					67.605	.813	6560557	HS7	R
62.313	.750	<b>531572</b>	HS8	R					
62.500	.715	<b>6025658</b>	HS8	R					

Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>66.750 SHAFT</b>					<b>74.803 SHAFT</b>				
	.790	<b>417000</b>	VR1	R		.196	<b>419003</b>	VR4	R
		SHAFT RANGE 65.750 - 67.720					SHAFT RANGE 73.031-75.000		
<b>66.929 SHAFT</b>					<b>75.750 SHAFT</b>				
	.196	<b>417003</b>	VR4	R		.813	525092	CT1	R
		SHAFT RANGE 66.142-67.717				1.250	BORE DIA. IS SHOULDER WIDTH		
<b>67.000 SHAFT</b>					<b>76.000 SHAFT</b>				
	.813	<b>6700557</b>	HS8	R		.813	<b>594316</b>	HS8	R
<b>67.750 SHAFT</b>					<b>76.500 SHAFT</b>				
	.813	528975	CT1	R		.790	<b>419500</b>	VR1	R
	1.250	BORE DIA. IS SHOULDER WIDTH					SHAFT RANGE 75.590 - 77.560		
<b>68.000 SHAFT</b>					<b>76.772 SHAFT</b>				
	.812	6800557	HS7	R		.196	<b>419503</b>	VR4	R
<b>68.750 SHAFT</b>					<b>77.500 SHAFT</b>				
	.790	<b>417500</b>	VR1	R		.813	529517	CT1	R
		SHAFT RANGE 67.720 - 69.690				1.250	BORE DIA. IS SHOULDER WIDTH		
<b>68.898 SHAFT</b>					<b>78.500 SHAFT</b>				
	.196	<b>417503</b>	VR4	R		.790	<b>419990</b>	VR1	R
		SHAFT RANGE 67.717-69.488					SHAFT RANGE 77.560 - 79.530		
<b>69.000 SHAFT</b>					<b>78.740 SHAFT</b>				
	.813	<b>6900558</b>	HS8	R		.196	<b>419993</b>	VR4	R
<b>70.000 SHAFT</b>					<b>80.000 SHAFT</b>				
	.813	526809	CT1	R		.813	<b>8000558</b>	HS8	R
	1.250	BORE DIA. IS SHOULDER WIDTH			<b>80.500 SHAFT</b>				
	.813	<b>7000558</b>	HS8	R		.813	<b>8050558</b>	HS8	R
<b>70.625 SHAFT</b>					<b>80.709 SHAFT</b>				
	.790	<b>418000</b>	VR1	R		.196	<b>420503</b>	VR4	R
		SHAFT RANGE 69.690 - 71.650			<b>81.000 SHAFT</b>				
<b>70.866 SHAFT</b>					<b>83.000 SHAFT</b>				
	.196	<b>418003</b>	VR4	R		.813	<b>8100558</b>	HS8	R
		SHAFT RANGE 69.488-71.260			<b>87.750 SHAFT</b>				
<b>71.000 SHAFT</b>					<b>94.750 SHAFT</b>				
	.813	524373	CT1	R		.970	<b>9475658</b>	HS8	R
	1.250	BORE DIA. IS SHOULDER WIDTH			<b>97.000 SHAFT</b>				
<b>72.500 SHAFT</b>					<b>98.625 SHAFT</b>				
	.813	<b>7250558</b>	HS8	R		100.625	<b>9862568</b>	HS8	R
<b>72.625 SHAFT</b>					<b>103.000 SHAFT</b>				
	.790	<b>418500</b>	VR1	R		.813	594083	CT1	R
		SHAFT RANGE 71.650 - 73.620			<b>106.000 SHAFT</b>				
<b>72.750 SHAFT</b>					<b>125.000 SHAFT</b>				
	.719	<b>7275135</b>	HS5	R		107.000	<b>594926</b>	HS8	R
<b>72.835 SHAFT</b>					<b>126.250 SHAFT</b>				
	.196	<b>418503</b>	VR4	R		.625	<b>595208</b>	HS8	R
		SHAFT RANGE 71.260-73.031			<b>103.000 SHAFT</b>				
<b>73.000 SHAFT</b>					<b>106.000 SHAFT</b>				
	1.063	531456	CT1	R		.500	<b>594926</b>	HS8	R
	1.500	BORE DIA. IS SHOULDER WIDTH			<b>125.000 SHAFT</b>				
<b>74.625 SHAFT</b>					<b>126.250 SHAFT</b>				
	.790	<b>419000</b>	VR1	R		.625	<b>595208</b>	HS8	R
		SHAFT RANGE 73.620 - 75.590			<b>126.250 SHAFT</b>				

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† Includes Bore-Tite on O.D.  
 ▲ WasteWatcher numbers



## Complete size listing — Inches

Bore dia.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Width of seal	Stock no.	Type and style	Lip code
<b>163.078</b>	<b>SHAFT</b>								
.813	1.250	594082	CT1	R					
BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT									
<b>171.900</b>	<b>SHAFT</b>								
173.876	.812	<b>595214</b>	HS8	R					

**NOTES**

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# Metric seals

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## We've made metric seals easy to find.

The worldwide *language of metrics* now used in SKF price sheets and catalogs has been slightly modified for easier use.

## We've made metric seals easy to order.

With the *language of metrics* in the SKF mainframe, you may now order metric seals by the metric designation, for example **"7X20X7"** or by the traditional stock number, for example **2770**.

If you want double lip, just tell us by adding "DL" to the number like this, **"7X20X7DL"**, and you get **2772**.

It couldn't be easier.

## We've made metric seals easy to get.

Hundreds of new sizes have been added to the SKF catalog and to our finished goods warehouse for off-the-shelf availability.

**Complete size  
listings**

**Metric Section**

**See next page**

Complete size listing — Metric

Metric size shaft x bore x width	Type and style	Lip code	Stock no.	Metric size shaft x bore x width	Type and style	Lip code	Stock no.
3 x x 2.5	VR1	R	<b>400030</b>	8 x x 3	VR1	R	<b>400080</b>
	SHAFT RANGE 2.70MM - 3.50MM				SHAFT RANGE 8.00MM - 9.50MM		
3 x x 2.5	VR1	V	<b>400034</b>	8 x x 3	VR1	V	<b>400084</b>
	SHAFT RANGE 2.70MM - 3.50MM				SHAFT RANGE 8.00MM - 9.50MM		
4 x x 3	VR1	R	<b>400040</b>	8 x x 4.5	VR2	R	400081
	SHAFT RANGE 3.50MM - 4.50MM				SHAFT RANGE 8.00MM - 9.50MM		
4 x x 3	VR1	V	<b>400044</b>	8 x x 4.5	VR2	V	400085
	SHAFT RANGE 3.50MM - 4.50MM				SHAFT RANGE 8.00MM - 9.50MM		
4 x 12 x 6	HMS46	R	1574	8 x 12 x 3	HM4	R	3030
5 x x 3	VR1	R	<b>400050</b>	8 x 14 x 4	HMS1	R	3036
	SHAFT RANGE 4.50MM - 5.50MM			8 x 16 x 7	HMS4	R	▲ <b>3145</b>
5 x x 3	VR1	V	<b>400054</b>	8 x 18 x 5	HMS4	R	<b>3078</b>
	SHAFT RANGE 4.50MM - 5.50MM			8 x 18 x 7	HMSA7	R	<b>3177</b>
5 x x 4.5	VR2	R	400051	8 x 18 x 5	HMSA7	R	▲ <b>3077</b>
	SHAFT RANGE 4.50MM - 5.50MM						
5 x x 4.5	VR2	V	400055	8 x 20 x 8	HMS46	R	3158
	SHAFT RANGE 4.50MM - 5.50MM			8 x 22 x 7	HMSA7	R	<b>3149</b>
5 x 15 x 6	HMS47	R	1972	8 x 22 x 7	HMS4	R	▲ <b>3150</b>
5 x 16 x 6	HMS4	R	▲ <b>1960</b>	8 x 22 x 8	HMS45	R	3161
5 x 19 x 5	HMS46	R	1975	8 x 22 x 7	HMS4	V	<b>3088</b>
5 x 22 x 8	HMS46	R	1976	8 x 22 x 7	HMSA7	V	<b>3092</b>
6 x x 3	VR1	R	<b>400060</b>		W/STAINLESS STEEL SPRING		
	SHAFT RANGE 5.50MM - 6.50MM			8 x 24 x 7	HMS4	R	<b>3155</b>
6 x x 3	VR1	V	<b>400064</b>	9 x 13 x 3	HM4	R	3526
	SHAFT RANGE 5.50MM - 6.50MM			9 x 17 x 4.5	CRS11	R	3541
6 x x 4.5	VR2	R	400061	9 x 18 x 7	HMSA7	R	<b>3543</b>
	SHAFT RANGE 5.50MM - 6.50MM						
6 x x 4.5	VR2	V	400065	9 x 19 x 5	CRS13	R	3544
	SHAFT RANGE 5.50MM - 6.50MM			9 x 22 x 7	HMS4	R	▲ <b>3540</b>
6 x 12 x 2	HM3	R	2340	9 x 22 x 7	HMS4	V	<b>3542</b>
6 x 16 x 7	HMS4	R	<b>2360</b>	9 x 22 x 7	HMSA7	V	<b>3545</b>
6 x 16 x 6	HMS43	V	2362		W/STAINLESS STEEL SPRING		
6 x 16 x 5	HMS4	R	▲ <b>2355</b>	9 x 24 x 7	HMS4	R	<b>3550</b>
6 x 16 x 7	HMS4	V	<b>2357</b>	9 x 26 x 7	HMS4	R	<b>3560</b>
6 x 16 x 7	HMSA7	V	<b>2359</b>	10 x x 4.5	VR1	R	<b>400100</b>
	W/STAINLESS STEEL SPRING				SHAFT RANGE 9.50MM - 11.50MM		
6 x 19 x 6	HMS47	R	2365	10 x x 4.5	VR1	V	<b>400104</b>
6 x 22 x 7	HMS4	R	<b>2380</b>		SHAFT RANGE 9.50MM - 11.50MM		
7 x x 3	VR1	R	<b>400070</b>	10 x x 6.7	VR2	R	400101
	SHAFT RANGE 6.50MM - 8.00MM				SHAFT RANGE 9.50MM - 11.50MM		
7 x x 3	VR1	V	<b>400074</b>	10 x x 6.7	VR2	V	400105
	SHAFT RANGE 6.50MM - 8.00MM				SHAFT RANGE 9.50MM - 11.50MM		
7 x x 4.5	VR2	R	400071	10 x 14 x 3	HM4	R	3930
	SHAFT RANGE 6.50MM - 8.00MM			10 x 16 x 4	HM102	R	3941
7 x x 4.5	VR2	V	400075	10 x 18 x 6	HMS4	R	<b>3970</b>
	SHAFT RANGE 6.50MM - 8.00MM			10 x 19 x 7	HMSA7	R	<b>3938</b>
7 x 16 x 7	HMS4	R	▲ <b>2760</b>	10 x 19 x 7	HMS4	R	▲ <b>3940</b>
7 x 16 x 7	HMSA7	R	<b>2759</b>	10 x 20 x 6	HMSA7	R	<b>3936</b>
7 x 16 x 7	HMSA7	V	<b>2765</b>	10 x 20 x 6	HMS4	R	<b>3937</b>
	W/STAINLESS STEEL SPRING			10 x 20 x 7	HMS4	R	<b>3983</b>
7 x 20 x 7	HMS4	R	▲ <b>2770</b>	10 x 20 x 7	HMSA7	R	<b>3939</b>
7 x 20 x 7	HMSA7	R	<b>2772</b>	10 x 22 x 7	HMS4	R	▲ <b>3945</b>
7 x 22 x 7	HMS4	R	<b>2780</b>	10 x 22 x 7	HMSA7	R	<b>3953</b>
				10 x 22 x 7	HMS4	V	<b>3942</b>
				10 x 22 x 7	HMSA7	V	<b>3947</b>
				10 x 24	MVR1	R	MVR1-10
				10 x 24 x 7	HMS4	R	▲ <b>3950</b>

**Bold numbers** are preferred designs  
▲ WasteWatcher numbers

† Includes Bore-Tite on O.D.

## Complete size listing — Metric

Metric size shaft x bore x width	Type and style	Lip code	Stock no.	Metric size shaft x bore x width	Type and style	Lip code	Stock no.
10 x 25 x 7	HMSA7	R	<b>3952</b>	12 x 28 x 7	HMS4	R	▲ <b>4752</b>
10 x 26 x 7	HMSA7	R	<b>3976</b>	12 x 28 x 7	HMS4	V	<b>4755</b>
10 x 26 x 7	HMS4	R	▲ <b>3960</b>	12 x 28 x 7	HMSA7	V	<b>4757</b>
10 x 28 x 7	HMS47	R	3967		W/STAINLESS STEEL SPRING		
10 x 28 x 8	HMS4	R	<b>3973</b>	12 x 30 x 10	HMS46	R	4759
				12 x 30 x 7	HMS4	R	<b>4763</b>
10 x 30 x 10	HMS4	R	<b>3972</b>	12 x 30 x 7	HMS4	V	<b>4765</b>
10 x 30 x 7	HMS4	R	<b>3975</b>	12 x 30 x 7	HMSA7	V	<b>4767</b>
10 x 40 x 7	HMS4	R	<b>3986</b>		W/STAINLESS STEEL SPRING		
10 x 40 x 7	HMSA7	R	<b>3992</b>	12 x 30 x 7	HMSA7	R	<b>4768</b>
11 x 17 x 4	HMS4	R	<b>4327</b>	12 x 32 x 7	HMSA7	R	<b>4754</b>
				12 x 32 x 5	CRS11	R	4753
11 x 22 x 7	HMS4	R	<b>4335</b>	12 x 32 x 7	† CRW1	R	<b>4770</b>
11 x 22 x 6	HMSA7	V	<b>4338</b>	12 x 32 x 7	† CRW1	V	<b>4771</b>
11 x 26 x 7	HMS4	R	<b>4345</b>	12 x 32 x 7	HMS4	R	▲ <b>4772</b>
11 x 30 x 7	HMS4	R	▲ <b>4348</b>	12 x 32 x 10	HMS46	R	4756
12 x x 4.5	VR1	R	<b>400120</b>	12 x 35 x 7	† CRW1	R	<b>4790</b>
	SHAFT RANGE 11.50MM - 12.50MM						
12 x x 4.5	VR1	V	<b>400124</b>	12 x 35 x 10	HMS47	R	4761
	SHAFT RANGE 11.50MM - 12.50MM			12.7 x 19.05	KIT	R	480050
12 x x 6.7	VR2	R	400121		SPEEDI-SLEEVE & SEAL KIT		
	SHAFT RANGE 11.50MM - 13.50MM			13 x x 4.5	VR1	R	<b>400130</b>
12 x x 6.7	VR2	V	400125		SHAFT RANGE 12.50MM - 13.50MM		
	SHAFT RANGE 11.50MM - 13.50MM			13 x x 4.5	VR1	V	<b>400134</b>
12 x x 6	SSLEEVE		<b>99049</b>		SHAFT RANGE 12.50MM - 13.50MM		
	SHAFT RANGE 11.91MM - 12.07MM			13 x 20 x 4	CRS11	R	5120
12 x 16 x 3	HM4	R	4695	13 x 22 x 5	CRS11	R	5119
12 x 18 x 3	HM4	R	4688	13 x 25 x 5	HMS46	R	5123
12 x 18 x 3	HMS4	R	<b>4692</b>	13 x 26 x 7	HMS4	R	▲ <b>5221</b>
12 x 18 x 3	HMSA7	R	<b>4694</b>	13 x 28 x 7	CRS1	R	5250
12 x 18 x 4.5	CRSA11	R	4723	13 x 28 x 7	HMS4	R	▲ <b>5254</b>
12 x 19 x 3	HM4	R	4690	13 x 30 x 7	HMSA7	R	<b>5285</b>
12 x 19 x 5	HMS4	R	▲ <b>4702</b>	13 x 30 x 8	HMS4	R	<b>5142</b>
12 x 20 x 5	CRSA1	R	4725	14 x x 4.5	VR1	R	<b>400140</b>
12 x 20 x 5	HMS4	R	▲ <b>4701</b>		SHAFT RANGE 13.50MM - 15.50MM		
12 x 22 x 7	† CRW1	V	<b>4709</b>	14 x x 4.5	VR1	V	<b>400144</b>
12 x 22 x 7	† CRW1	R	<b>4710</b>		SHAFT RANGE 13.50MM - 15.50MM		
12 x 22 x 8	CRSH11	R	4731	14 x x 6.7	VR2	R	400141
12 x 22 x 6	HMSA7P2	R	4729		SHAFT RANGE 13.50MM - 15.50MM		
12 x 22 x 7	HMSA7	R	<b>4707</b>	14 x x 6.7	VR2	V	400145
12 x 22 x 7	HMS4	R	▲ <b>4711</b>		SHAFT RANGE 13.50MM - 15.50MM		
12 x 22 x 7	HMSA7	V	<b>4717</b>	14 x x 6.35	SSLEEVE		<b>99055</b>
					SHAFT RANGE 13.89MM - 14.00MM		
12 x 22 x 4	HM4	R	4719	14 x 20 x 3	HM4	R	5402
12 x 24 x 7	HMSA7	R	<b>4773</b>	14 x 22 x 3	HM4	R	5405
12 x 24 x 7	HMS4	R	▲ <b>4715</b>	14 x 22 x 4	HMSA7	R	<b>5538</b>
12 x 24 x 6	HMSA7P2	R	4738	14 x 22 x 4	HMS4	R	<b>5535</b>
12 x 25 x 7	† CRW1	R	<b>4720</b>	14 x 24 x 7	HMSA7	R	<b>5421</b>
12 x 25 x 5	HMSA7	R	<b>4777</b>	14 x 24 x 6	HMSA7	R	<b>5410</b>
12 x 25 x 8	HMS45	R	4741	14 x 24 x 7	HMS4	R	▲ <b>5412</b>
12 x 25 x 4.5	HMS4	R	▲ <b>4718</b>	14 x 25 x 5	HMS4	R	▲ <b>5414</b>
12 x 25 x 7	HMS4	R	<b>4721</b>	14 x 25 x 7	HMSA7	P	<b>5413</b>
12 x 26	MVR1	R	MVR1-12	14 x 26 x 7	† CRW1	V	<b>5398</b>
12 x 26 x 7	† CRW1	R	▲ <b>4730</b>	14 x 26 x 7	HMS46	R	5521
12 x 26 x 8	HMS4	R	<b>4743</b>	14 x 27 x 7.1	SC	R	527345
12 x 28 x 7	HMSA7	R	<b>4776</b>	14 x 28 x 7	† CRW1	R	<b>5440</b>
12 x 28 x 7	† CRW1	R	<b>4750</b>				
12 x 28 x 7	† CRW1	P	<b>4751</b>				

Complete size listing — Metric

Metric size shaft x bore x width	Type and style	Lip code	Stock no.	Metric size shaft x bore x width	Type and style	Lip code	Stock no.
14 x 28 x 7	HMS4	R	▲ 5441	15 x 35 x 7	HMS4	R	▲ 5842
14 x 28 x 6	HMS4	R	5439	15 x 35 x 7	HMSA7	R	5845
14 x 30 x 7	HMSA7	R	5449	15 x 35 x 10	HMS4	R	5951
14 x 30 x 10	CRSH13	R	5529	15 x 35 x 7	HMSA7	V	5847
14 x 30 x 10	HMS45	R	5528	15 x 35 x 7	HMS4	V	5848
					W/STAINLESS STEEL SPRING		
14 x 30 x 7	HMS4	R	▲ 5452	15 x 40 x 10	HMS4	R	▲ 5883
14 x 30 x 7	HMS4	V	5454	15 x 42 x 10	HMS47	R	5964
14 x 30 x 7	HMSA7	V	5456	16 x x 4.5	VR1	R	400160
	W/STAINLESS STEEL SPRING				SHAFT RANGE 15.50MM - 17.00MM		
14 x 32 x 10	HMS46	R	5532	16 x x 4.5	VR1	V	400164
14 x 35 x 7	† CRW1	R	5480		SHAFT RANGE 15.50MM - 17.00MM		
14 x 35 x 7	HMS4	R	▲ 5481	16 x x 6.7	VR2	R	400161
14 x 35 x 10	HMS46	R	5533		SHAFT RANGE 15.50MM - 17.50MM		
15 x x 5.004	SSLEEVE		99059	16 x x 6.7	VR2	V	400165
	SHAFT RANGE 14.96MM - 15.06MM				SHAFT RANGE 15.50MM - 17.50MM		
15 x 21 x 3	HM4	R	5782	16 x x 7.95	SSLEEVE		99058
15 x 23 x 3	HM4	R	5786		SHAFT RANGE 15.89MM - 16.00MM		
15 x 24 x 5	HMSA7	R	5791	16 x 22 x 3	HM4	R	6398
15 x 24 x 7	HMS4	R	5912	16 x 22 x 4	HM4	R	6400
15 x 24 x 5	HMS4	R	▲ 5790	16 x 24 x 4	HM102	R	6302
15 x 24 x 7	HMSA7	R	5802	16 x 24 x 5	HMS4	R	▲ 6403
15 x 25 x 5	HMSA7	R	5809	16 x 24 x 7	HMS4	R	6405
15 x 25 x 5	HMS4	V	5801	16 x 24 x 5	HMSA7	R	6287
15 x 25 x 7	† CRW1	P	5803	16 x 26 x 7	HMS1	R	▲ 6408
15 x 25 x 5	HMS4	R	▲ 5808	16 x 27 x 6	HMS4	P	6404
15 x 25 x 5	HMA10	R	5804	16 x 28 x 7	† CRW1	R	6410
15 x 26 x 6	HMSA7	R	5817	16 x 28 x 7	HMS4	R	▲ 6411
15 x 26 x 6	HMS4	R	5816	16 x 28 x 7	HMSA7	R	6412
15 x 26 x 7	HMS4	R	▲ 5806	16 x 28 x 6	HMS4	R	6406
15 x 26 x 7	HMSA7	R	5807	16 x 28 x 7	HMSA7	V	6407
15 x 26 x 4.5	HM102	R	5919		W/STAINLESS STEEL SPRING		
15 x 28 x 7	HMS4	R	5922	16 x 28 x 7	HMS4	V	6409
15 x 28 x 7	† CRW1	R	▲ 5810	16 x 30 x 7	HMSA7	R	6428
15 x 28 x 7	HMS4	R	5890	16 x 30 x 7	† CRW1	R	6420
15 x 30	MVR1	R	MVR1-15	16 x 30 x 7	HMS4	V	6425
15 x 30 x 7	HMSA7	R	5940	16 x 30 x 10	HMS47	R	6345
15 x 30 x 10	HMSA7	R	5902	16 x 30 x 7	HMS4	R	▲ 6426
15 x 30 x 7	HMS4	R	▲ 5821	16 x 32	MVR1	R	MVR1-16
15 x 30 x 10	HMS4	R	5923	16 x 32 x 7	† CRW1	R	6430
15 x 30 x 4.5	HMS47	R	5924	16 x 32 x 7	HMS4	R	6435
15 x 32	MVR2	R	MVR2-15	16 x 32 x 7	HMSA7	R	6437
15 x 32 x 7	† CRW1	R	5830	16 x 35 x 7	HMSA7	R	6444
15 x 32 x 7	HMS4	R	▲ 5831	16 x 35 x 7	† CRW1	R	6440
15 x 32 x 7	† CRW1	V	5832	16 x 35 x 7	HMS4	R	▲ 6442
15 x 32 x 8	HMSA7	R	5836	16 x 35 x 10	HMS46	R	6340
15 x 32 x 7	HMS4	V	5835	16 x 38 x 7	HMSA7	R	6473
15 x 32 x 7	HMSA7	R	5837	16 x 40 x 7	† CRW1	R	▲ 6480
15 x 32 x 7	HMSA7	V	5839	16 x 40 x 7	† CRWA1	R	6481
	W/STAINLESS STEEL SPRING			16 x 40 x 10	HMS47	R	6342
15 x 32 x 10	HMS47	R	5942	17 x x 7.95	SSLEEVE		99068
15 x 32 x 9	HMS4	R	5969		SHAFT RANGE 16.94MM - 17.04MM		
15 x 35 x 7	† CRW1	R	5840	17 x 23 x 3	HM4	R	6603
15 x 35 x 7	† CRW1	P	5841				

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† Includes Bore-Tite on O.D.



## Complete size listing — Metric

Metric size shaft x bore x width	Type and style	Lip code	Stock no.	Metric size shaft x bore x width	Type and style	Lip code	Stock no.
17 x 25 x 4	HMS4	R	<b>6592</b>	18 x 28 x 6	HMS4	R	<b>7013</b>
17 x 25 x 4	HMSA7	R	<b>6594</b>	18 x 28 x 7	HMS4	R	▲ <b>7018</b>
17 x 26 x 6	HMS46	R	6690	18 x 28 x 7	HMS4	V	<b>7020</b>
17 x 27 x 7	HMSA7	R	<b>6608</b>	18 x 28 x 7	HMSA7	R	<b>7019</b>
17 x 27.03 x 6.35	† CRW1	R	<b>6609</b>	18 x 30 x 7	† CRW1	R	<b>7000</b>
17 x 28 x 7	HMSA7	R	<b>6695</b>	18 x 30 x 7	† CRW1	V	<b>7001</b>
17 x 28 x 7	† CRW1	R	<b>6610</b>	18 x 30 x 7	HMS4	R	▲ <b>7004</b>
	W/STAINLESS STEEL SPRING			18 x 30 x 6	HMSA7P2	R	7091
17 x 28 x 7	† CRW1	V	<b>6611</b>	18 x 30 x 7	HMSA7	R	<b>7012</b>
17 x 28 x 7	HMS4	R	▲ <b>6614</b>	18 x 32 x 7	† CRW1	R	<b>7005</b>
17 x 28 x 7	HMS4	V	<b>6612</b>				
17 x 28 x 6	HMSA7	R	<b>6689</b>	18 x 32 x 7	† CRW1	V	<b>7006</b>
17 x 29 x 5	HMS4	R	<b>6615</b>	18 x 32 x 7	HMS4	R	▲ <b>7009</b>
17 x 30 x 7	† CRW1	R	<b>6620</b>	18 x 32 x 7	HMSA7	R	<b>7007</b>
17 x 30 x 7	HMS4	R	▲ <b>6624</b>	18 x 32 x 8	HMS4	R	<b>7023</b>
17 x 30 x 7	HMSA7	R	<b>6622</b>	18 x 35 x 7	† CRW1	R	<b>7015</b>
17 x 30 x 7	HMSA7	V	<b>6625</b>				
	W/STAINLESS STEEL SPRING			18 x 35 x 7	HMS4	R	▲ <b>7016</b>
17 x 30 x 7	HMS4	V	<b>6626</b>	18 x 35 x 7	HMS4	V	<b>7028</b>
17 x 30 x 6	HMS4	R	<b>6627</b>	18 x 35 x 6	HMSA7P2	R	7100
17 x 30 x 8	HMS4	R	<b>6629</b>	18 x 35 x 10	HMS45	R	7109
17 x 32 x 7	HMSA7	R	<b>6634</b>	18 x 35 x 7	HMSA7	R	<b>7024</b>
17 x 32 x 7	† CRW1	R	<b>6630</b>	18 x 35 x 8	HMSA7	R	<b>7032</b>
17 x 32 x 7	HMS4	R	▲ <b>6633</b>	18 x 37 x 8	HMSA7	R	<b>7061</b>
17 x 32 x 10	HMS46	R	6699	18 x 38 x 7	HMSA7	R	<b>7071</b>
17 x 32 x 8	HMSA7	R	<b>6686</b>	18 x 40 x 7	† CRW1	R	<b>7080</b>
17 x 34	MVR2	R	MVR2-17	18 x 40 x 7	HMS4	V	<b>7081</b>
17 x 34 x 4	CRS11	R	6706	18 x 40 x 7	HMS4	R	▲ <b>7082</b>
17 x 35 x 7	† CRW1	R	<b>6640</b>	18 x 40 x 10	HMS46	R	7114
17 x 35 x 7	† CRW1	V	<b>6642</b>	19 x x 7.95	SSLEEVE		<b>99076</b>
17 x 35 x 7	HMS4	R	▲ <b>6644</b>		SHAFT RANGE 19.00MM - 19.10MM		
17 x 35 x 7	HMS4	V	<b>6646</b>	19 x x 7.95	GSLEEVE		99811
					SHAFT RANGE 18.99MM - 19.10MM		
17 x 35 x 10	HMS46	R	6714	19 x 27 x 4	HM4	R	7200
17 x 35 x 7	HMSA7	R	<b>6647</b>				
17 x 35 x 8	HMS4	R	<b>6643</b>	19 x 27 x 6	HMS4	R	▲ <b>7202</b>
17 x 37 x 7	HMSA7	R	▲ <b>6653</b>	19 x 30 x 7	HMS4	R	<b>7239</b>
17 x 40 x 7	HMSA7	R	<b>6663</b>	19 x 30 x 8	HMS4	R	<b>7205</b>
17 x 40 x 7	† CRW1	R	<b>6660</b>	19 x 32 x 6.35	† CRW1	R	<b>7210</b>
17 x 40 x 7	HMS4	R	▲ <b>6661</b>	19 x 32 x 7	HMS4	R	▲ <b>7800</b>
17 x 40 x 10	HMS4	R	<b>6662</b>				
17 x 40 x 8	HMS4	R	<b>6659</b>	19 x 32 x 8	HMSA7	R	<b>7803</b>
17 x 47 x 7	† CRW1	R	▲ <b>6680</b>	19 x 35 x 7	† CRW1	R	<b>7220</b>
				19 x 35 x 9	HMSA75	R	7492
17 x 47 x 8	HMSA7	R	<b>6685</b>	19 x 35 x 10	HMS4	R	▲ <b>7223</b>
17 x 47 x 10	HMS4	R	<b>6681</b>	19 x 35 x 10	HMSA7	R	<b>7225</b>
18 x x 4.5	VR1	R	<b>400180</b>				
	SHAFT RANGE 17.50MM - 19.00MM			19 x 35 x 8	HMS4	R	<b>7222</b>
18 x x 4.5	VR1	V	<b>400184</b>	19 x 40 x 10	HMS4	R	<b>7495</b>
	SHAFT RANGE 17.50MM - 19.00MM			19 x 40 x 10	HMS46	R	7497
18 x x 6.7	VR2	R	400181	19.05 x 25.37	KIT	R	480074
	SHAFT RANGE 19.50MM - 19.00MM				SPEEDI-SLEEVE & SEAL KIT		
18 x x 6.7	VR2	V	400185	20 x x 6	VR1	R	<b>400200</b>
	SHAFT RANGE 19.50MM - 19.00MM				SHAFT RANGE 19.00MM - 21.00MM		
18 x x 8.001	SSLEEVE		<b>99082</b>				
	SHAFT RANGE 17.87MM - 18.00MM						
18 x 24 x 3	HM4	R	6995				
18 x 26 x 4	HMA1	R	7003				
18 x 28 x 8	HMS4	R	<b>7002</b>				

Complete size listing — Metric

Metric size shaft x bore x width	Type and style	Lip code	Stock no.	Metric size shaft x bore x width	Type and style	Lip code	Stock no.
20 x x 6	VR1	V	<b>400204</b>	20 x 40 x 7	HMS4	V	<b>7944</b>
	SHAFT RANGE 19.00MM - 21.00MM			20 x 40 x 7	HMSA7	V	<b>7945</b>
20 x x 9	VR2	R	400201		W/STAINLESS STEEL SPRING		
	SHAFT RANGE 19.00MM - 21.00MM			20 x 40 x 7	HMSA7	R	<b>7956</b>
20 x x 9	VR2	V	400205	20 x 40 x 7	HMS4	R	<b>▲7942</b>
	SHAFT RANGE 19.00MM - 21.00MM			20 x 40 x 10	HMS4	R	<b>7943</b>
20 x x 8	SSLEEVE		<b>99078</b>	20 x 40 x 8	HMSA7	R	<b>8003</b>
	SHAFT RANGE 19.94MM - 20.04MM			20 x 42 x 10	HMS4	R	<b>8006</b>
20 x 26 x 4	HMS4	R	<b>7810</b>	20 x 42 x 7	† CRW1	R	<b>7950</b>
20 x 26 x 4	HMSA7	R	<b>7813</b>	20 x 42 x 7	CRS1	V	7953
20 x 26 x 4	HM4	R	7854	20 x 42 x 10	HMSA7	R	<b>7986</b>
20 x 28 x 4	HM4	R	7855	20 x 42 x 7	HMS4	R	<b>▲7952</b>
20 x 28 x 6	HMS4	R	<b>▲7902</b>	20 x 42 x 7	HMSA7	R	<b>7954</b>
20 x 30 x 5	HMSA7	R	<b>7867</b>	20 x 42 x 8	HMSA7	R	<b>8005</b>
20 x 30 x 5	HMS4	R	<b>▲7900</b>	20 x 45 x 12	HMS4	R	<b>8011</b>
20 x 30 x 5	CRS1	R	7906	20 x 47 x 8	HMSA7	R	<b>8031</b>
20 x 30 x 7	† CRW1	R	<b>7905</b>	20 x 47 x 7	† CRW1	R	<b>7965</b>
20 x 30 x 7	CRS1	V	7909	20 x 47 x 7	HMS4	R	<b>▲7966</b>
	W/STAINLESS STEEL SPRING			20 x 47 x 7	HMS4	V	<b>7967</b>
20 x 30 x 7	HMSA7	R	<b>7912</b>	20 x 47 x 7	HMSA7	V	<b>7968</b>
20 x 30 x 7	HMS4	R	<b>7914</b>		W/STAINLESS STEEL SPRING		
20 x 30 x 5	HMS4	V	<b>7904</b>	20 x 47 x 10	HMS4	R	<b>7993</b>
20 x 31 x 7	† CRW1	R	<b>7907</b>	20 x 47 x 7	HMSA7	R	<b>7987</b>
20 x 32 x 7	HMSA7	R	<b>7892</b>	20 x 52 x 7	HMSA7	R	<b>8032</b>
20 x 32 x 7	† CRW1	R	<b>7910</b>	20 x 52 x 10	HMSA7	R	<b>8037</b>
20 x 32 x 7	CRS1	V	7911	20 x 52 x 7	† CRW1	R	<b>7980</b>
20 x 32 x 7	HMS4	V	<b>7913</b>	20 x 52 x 7	† CRW1	P	<b>7981</b>
20 x 32 x 7	HMS4	R	<b>▲7918</b>	20 x 52 x 7	HMS4	R	<b>▲7983</b>
20 x 32 x 6	HMS4	R	<b>7869</b>	20 x 52 x 10	HMS4	R	<b>7982</b>
20 x 32 x 8	HMS4	R	<b>7868</b>	20 x 52 x 8	HMSA7	R	<b>8028</b>
20 x 33 x 10	HMS47	R	7896	21 x 30 x 6.5	CRS11	R	8271
20 x 34 x 7	HMSA7	P	<b>7745</b>	21 x 32 x 7	HMS47	R	8273
20 x 35	MVR1	R	MVR1-20	21 x 35 x 7	† CRW1	R	<b>▲8305</b>
20 x 35 x 10	HMSA7	R	<b>7936</b>	21 x 35 x 7	† CRW1	V	<b>8306</b>
20 x 35 x 7	† CRW1	R	<b>7915</b>	21 x 35 x 8	HMS46	R	8274
20 x 35 x 7	† CRW1	V	<b>7916</b>	21 x 40 x 8	† CRW1	R	<b>8380</b>
20 x 35 x 7	HMSA7	R	<b>7923</b>	21 x 40 x 10	HMS47	R	8276
20 x 35 x 10	HMS4	R	<b>7927</b>	21 x 40 x 7	HMSA7	R	<b>8378</b>
20 x 35 x 6	HMS4	R	<b>7917</b>	21.82 x 36.53 x 6.35	KIT	R	901
20 x 35 x 7	HMS4	R	<b>▲7922</b>		SPEEDI-SLEEVE & SEAL KIT		
20 x 35 x 7	HMS4	V	<b>7929</b>	22 x x 6	VR1	R	<b>400220</b>
20 x 35 x 8	HMSA7	R	<b>7926</b>		SHAFT RANGE 21.00MM - 24.00MM		
20 x 36 x 7	† CRW1	R	<b>▲7920</b>	22 x x 6	VR1	V	<b>400224</b>
20 x 36 x 7	† CRW1	V	<b>7921</b>		SHAFT RANGE 21.00MM - 24.00MM		
20 x 36 x 7	HMS4	R	<b>7919</b>	22 x x 9	VR2	R	400221
20 x 36 x 7	HMSA7	R	<b>7924</b>		SHAFT RANGE 21.00MM - 24.00MM		
20 x 37	MVR2	R	MVR2-20	22 x x 9	VR2	V	400225
20 x 37 x 7	† CRW1	R	<b>▲7925</b>		SHAFT RANGE 21.00MM - 24.00MM		
20 x 37 x 10	HMS47	R	7947	22 x x 8.001	SSLEEVE		<b>99085</b>
20 x 38 x 7	† CRW1	R	<b>7930</b>		SHAFT RANGE 21.87MM - 22.00MM		
20 x 38 x 7	HMS4	R	<b>▲7933</b>	22 x x 6.579	SSLEEVE		<b>99084</b>
20 x 38 x 8	HMS4	R	<b>8000</b>		SHAFT RANGE 21.87MM - 22.00MM		
20 x 40 x 10	HMSA7	R	<b>7951</b>	22 x 28 x 5	HM3	R	8500
20 x 40 x 7	† CRW1	R	<b>7940</b>	22 x 28 x 4	HM1	R	8499
20 x 40 x 7	† CRW1	V	<b>7941</b>				

**Bold numbers** are preferred designs  
 ▲ WasteWatcher numbers

† Includes Bore-Tite on O.D.

## Complete size listing — Metric

Metric size shaft x bore x width	Type and style	Lip code	Stock no.	Metric size shaft x bore x width	Type and style	Lip code	Stock no.
22 x 28 x 4	HMA10	R	8501	24 x 35 x 7	HMSA7	R	<b>9503</b>
22 x 30 x 4	HM4	R	8503	24 x 35 x 8	HMSA7	R	<b>9449</b>
22 x 31 x 7	† CRW1	P	<b>▲ 8505</b>	24 x 36 x 7	† CRW1	V	<b>9502</b>
22 x 32 x 7	CRS1	V	8508	24 x 36 x 6	CRS11	R	9458
22 x 32 x 7	† CRW1	R	<b>8510</b>	24 x 36 x 7	HMSA75	R	9456
22 x 32 x 7	HMS4	R	<b>▲ 8519</b>	24 x 36 x 9	HMS47	R	9455
22 x 32 x 7	HMSA7	R	<b>8512</b>	24 x 37 x 7	HMSA7	R	<b>9511</b>
22 x 33 x 7	HMS4	R	<b>8781</b>	24 x 37 x 7	HMS4	R	<b>9504</b>
22 x 35 x 7	† CRW1	R	<b>8515</b>	24 x 38 x 7	† CRW1	V	<b>9506</b>
22 x 35 x 7	† CRW1	V	<b>8516</b>	24 x 38 x 10	CRS1	R	9505
22 x 35 x 7	HMSA7	R	<b>8522</b>	24 x 38 x 8	HMS4	R	<b>9508</b>
22 x 35 x 6	HMS4	R	<b>8513</b>	24 x 40 x 7	HMSA7	R	<b>9516</b>
22 x 35 x 7	HMS4	R	<b>▲ 8517</b>	24 x 40 x 7	HMS4	R	<b>▲ 9514</b>
22 x 35 x 10	HMS4	R	<b>8518</b>	24 x 40 x 7	HMS4	V	<b>9517</b>
22 x 35 x 5	HM14	R	<b>8514</b>	24 x 40 x 7	HMSA7	V	<b>9521</b>
22 x 35 x 8	HMSA7	R	<b>8525</b>	24 x 40 x 10	HMS47	R	9466
22 x 36 x 7	HMSA7	R	<b>8511</b>	24 x 42 x 8	HMS4	R	<b>▲ 9533</b>
22 x 37 x 7	HMS46	R	8739	24 x 42 x 10	HMS4	R	<b>9479</b>
22 x 38 x 7	† CRW1	R	<b>▲ 8540</b>	24 x 47 x 8	† CRW1	R	<b>9560</b>
22 x 38 x 7	† CRW1	V	<b>8541</b>	24 x 47 x 10	HMS47	R	9471
22 x 38 x 8	HMSA7	R	<b>8545</b>	24 x 47 x 7	HMS4	R	<b>▲ 9558</b>
22 x 38 x 7	HMS4	R	<b>8743</b>	24 x 50 x 10	HMS47	R	9476
22 x 40 x 7	HMSA7	R	<b>8526</b>	24 x 52 x 7	HMSA7	R	<b>9480</b>
22 x 40 x 6.35	† CRW1	R	<b>8550</b>	25 x x 6	VR1	R	<b>400250</b>
22 x 40 x 6.35	† CRW1	V	<b>8552</b>	25 x x 6	SHAFT RANGE 24.00MM - 27.00MM VR1	V	<b>400254</b>
22 x 40 x 7	HMSA7	V	<b>8558</b>	25 x x 6	SHAFT RANGE 24.00MM - 27.00MM		
22 x 40 x 7	HMS4	R	<b>▲ 8551</b>	25 x x 9	VR2	R	400251
22 x 40 x 7	HMS4	V	<b>8557</b>	25 x x 9	SHAFT RANGE 24.00MM - 27.00MM VR2	V	400255
22 x 40 x 10	W/STAINLESS STEEL SPRING HMS4	R	<b>8553</b>	25 x x 9	SHAFT RANGE 24.00MM - 27.00MM		
22 x 40 x 12	HMSA7	R	<b>550284</b>	25 x x 7.95	SSLEEVE		<b>99098</b>
22 x 42 x 7	† CRW1	R	<b>8555</b>	25 x x 7.95	SHAFT RANGE 24.94MM - 25.04MM GSLEEVE		99813
22 x 42 x 10	HMSA7	R	<b>8556</b>	25 x x 7.95	SHAFT RANGE 24.94MM - 25.04MM		
22 x 42 x 10	HMS4	R	<b>▲ 8562</b>	25 x 32 x 4	HMS4	R	<b>10012</b>
22 x 42 x 11	HMS4	R	<b>8564</b>	25 x 32 x 4	HMSA7	R	<b>10015</b>
22 x 45 x 7	HMS4	R	<b>▲ 8563</b>	25 x 32 x 4	HM4	R	9691
22 x 47 x 8	† CRW1	R	<b>8570</b>	25 x 32 x 7	CRSA1	R	9696
22 x 47 x 10	HMS47	R	8776	25 x 33 x 4	HM4	R	9693
22 x 47 x 7	HMS4	R	<b>▲ 8568</b>	25 x 33 x 6	HMS4	R	<b>9875</b>
22 x 47 x 7	HMSA7	R	<b>8573</b>	25 x 35 x 4	HM4	R	9694
22 x 50 x 8	† CRW1	R	<b>▲ 8580</b>	25 x 35 x 7	† CRW1	R	<b>9705</b>
23 x 32 x 5.5	HM1	R	9005	25 x 35 x 7	† CRW1	V	<b>9706</b>
23 x 35 x 6	HMA10	R	9009	25 x 35 x 7	HMS4	R	<b>▲ 9708</b>
23 x 40 x 10	HMS4	R	<b>9060</b>	25 x 35 x 7	HMSA7	R	<b>9709</b>
23 x 40 x 8	HMS4	R	<b>9055</b>	25 x 35 x 7	HMS4	V	<b>9711</b>
23 x 40 x 10	HMSA7	R	<b>9058</b>	25 x 35 x 7	W/STAINLESS STEEL SPRING HMSA7	V	<b>9717</b>
23 x 42 x 11	HMS4	R	<b>9015</b>	25 x 35 x 7	W/STAINLESS STEEL SPRING		
24 x x 7.95	SSLEEVE		<b>99092</b>	25 x 35 x 6	HMSA7	R	<b>9695</b>
24 x 32 x 4	HM4	R	9445	25 x 36 x 7	† CRW1	R	<b>▲ 9710</b>
24 x 32 x 7	CRSA11	R	9451	25 x 36 x 8	HMSA7	R	<b>9768</b>
24 x 35 x 7	HMS4	R	<b>▲ 9500</b>				

Complete size listing — Metric

Metric size shaft x bore x width	Type and style	Lip code	Stock no.	Metric size shaft x bore x width	Type and style	Lip code	Stock no.
25 x 37 x 7	HMSA7	R	<b>9677</b>	25 x 47 x 8	HMS45	R	10039
25 x 37 x 7	† CRW1	R	<b>9715</b>	25 x 47 x 6	HMSA7P2	R	10032
25 x 37 x 7	† CRW1	V	<b>9716</b>	25 x 47 x 7	HMSA7	R	<b>9747</b>
25 x 37 x 7	HMS4	R	▲ <b>9718</b>	25 x 47 x 7	HMS4	R	▲ <b>9748</b>
25 x 37 x 5	HMS46	R	9915	25 x 47 x 10	HMS4	R	<b>9749</b>
25 x 37 x 6	HMSA7	R	<b>9714</b>	25 x 47 x 10	HMSA7	R	<b>9757</b>
25 x 37 x 8.5	HMS4	R	<b>9652</b>	25 x 48 x 8	† CRW1	R	<b>9750</b>
25 x 37 x 8.5	HMSA7	R	<b>9655</b>	25 x 48 x 8	† CRW1	V	<b>9751</b>
25 x 38 x 7	HMS4	R	▲ <b>9723</b>	25 x 50 x 8	† CRW1	R	<b>9755</b>
25 x 38 x 7	† CRW1	R	<b>9720</b>	25 x 50 x 10	HMS4	V	<b>9754</b>
25 x 38 x 7	† CRW1	V	<b>9721</b>	25 x 50 x 10	HMS4	R	▲ <b>9756</b>
25 x 38 x 8	HMSA7	R	<b>9722</b>	25 x 50 x 10	HMSA7	V	<b>9759</b>
25 x 38 x 7	HMSA7	R	<b>9668</b>		W/STAINLESS STEEL SPRING		
25 x 40	MVR1	R	MVR1-25	25 x 50 x 10	HMSA7	R	<b>9766</b>
25 x 40 x 7	HMSA7	R	<b>9776</b>	25 x 50 x 12	HMS4	R	<b>9771</b>
25 x 40 x 8	HMS4	R	<b>9777</b>	25 x 52 x 8	HMSA7	R	<b>10098</b>
25 x 40 x 10	HMSA7	R	<b>9778</b>	25 x 52 x 10	HMSA7	R	<b>9796</b>
25 x 40 x 7	† CRW1	R	<b>9725</b>	25 x 52 x 8	† CRW1	R	<b>9760</b>
25 x 40 x 7	CRW1	R	<b>9726</b>	25 x 52 x 8	† CRW1	V	<b>9761</b>
	W/SS CASE & SPRING			25 x 52 x 12	CRSA13	R	10085
25 x 40 x 7	† CRW1	V	<b>9727</b>	25 x 52 x 7	HMS4	R	▲ <b>9758</b>
25 x 40 x 8	HMSA7	R	<b>9733</b>	25 x 52 x 7	HMSA7	R	<b>9763</b>
25 x 40 x 7	HMS4	V	<b>9703</b>	25 x 52 x 8	HMS4	R	<b>9764</b>
25 x 40 x 7	HMS4	R	▲ <b>9732</b>	25 x 52 x 10	HMS4	R	<b>9762</b>
25 x 40 x 10	HMS4	R	<b>9737</b>	25 x 62 x 7	HMS4	R	<b>9799</b>
25 x 40 x 5	HMS4	R	<b>9699</b>	25 x 62 x 10	HMSA7	R	<b>9798</b>
25 x 42	MVR2	R	MVR2-25	25 x 62 x 7	† CRW1	R	<b>9790</b>
25 x 42 x 8	† CRW1	V	<b>9729</b>	25 x 62 x 7	† CRW1	V	<b>9791</b>
25 x 42 x 8	† CRW1	R	<b>9730</b>	25 x 62 x 10	HMS4	R	▲ <b>9795</b>
25 x 42 x 7	HMS4	V	<b>9992</b>	25 x 62 x 8	HMS4	R	<b>9792</b>
25 x 42 x 7	HMSA7	R	<b>9784</b>	25 x 62 x 7	HMSA7	R	<b>9787</b>
25 x 42 x 6	HMS4	R	<b>9738</b>	25.4 x 31.75 x 7.95	KIT	R	480097
25 x 42 x 7	HMS4	R	▲ <b>9728</b>		SPEEDI-SLEEVE & SEAL KIT		
25 x 42 x 8.5	HMS4	R	<b>9742</b>	25.4 x 38.07 x 7.95	KIT	R	480098
25 x 42 x 10	HMSA7	V	<b>9702</b>		SPEEDI-SLEEVE & SEAL KIT		
	W/STAINLESS STEEL SPRING			25.4 x 38.07 x 7.95	KIT	R	480099
25 x 42 x 10	HMS4	V	<b>9704</b>		SPEEDI-SLEEVE & SEAL KIT		
25 x 42 x 10	HMSA7	R	<b>9712</b>	26 x x 8.001	SSLEEVE		<b>99103</b>
25 x 42 x 10	HMS4	R	<b>9736</b>		SHAFT RANGE 25.88MM - 26.01MM		
25 x 43 x 10	HMS45	R	10009	26 x 34 x 4	HM4	R	10166
25 x 45 x 7	HMS4	R	<b>10091</b>	26 x 35 x 7	CRS1	R	10242
25 x 45 x 7	† CRW1	R	<b>9731</b>	26 x 36 x 7	HMS47	R	10243
25 x 45 x 7	HMSA7	R	<b>9734</b>	26 x 37 x 7	HMS4	R	▲ <b>10177</b>
25 x 45 x 8	HMS4	R	<b>9739</b>	26 x 38 x 7	HMS1	R	10173
25 x 45 x 10	HMSA7	V	<b>9741</b>	26 x 38 x 5	HMSA7	R	<b>10170</b>
25 x 45 x 10	HMS4	R	▲ <b>9743</b>	26 x 38 x 7	HMSA7	R	<b>10179</b>
25 x 45 x 10	HMSA7	R	<b>10094</b>	26 x 38 x 7	HMS4	R	<b>10182</b>
25 x 45 x 8	HMSA7	R	<b>9767</b>	26 x 38 x 8	HMS4	R	<b>10168</b>
25 x 45 x 11	HMSA7	R	<b>9769</b>	26 x 40 x 8	HMS4	R	<b>10278</b>
25 x 46 x 7	HMS4	R	<b>10028</b>	26 x 40 x 8	HMS1	R	▲ <b>10181</b>
25 x 47 x 6.35	† CRW1	R	<b>9745</b>	26 x 40 x 7	HMSA7	R	<b>10183</b>
25 x 47 x 10	CRSA1	V	9753	26 x 40 x 8	HMSA7	R	<b>10281</b>
	W/STAINLESS STEEL SPRING			26 x 42 x 8	CRS1	R	10191
				26 x 42 x 7	HMS4	R	▲ <b>10188</b>
				26 x 42 x 10	HMSA7	R	<b>10193</b>

**Bold numbers** are preferred designs  
▲ WasteWatcher numbers

† Includes Bore-Tite on O.D.

## Complete size listing — Metric

Metric size shaft x bore x width	Type and style	Lip code	Stock no.	Metric size shaft x bore x width	Type and style	Lip code	Stock no.
26 x 45 x 10	CRS12	R	10268	28 x 42 x 7	† CRW1	V	<b>10934</b>
26 x 47 x 7	HMS4	R	<b>▲ 10218</b>	28 x 42 x 10	HMS4	R	<b>▲ 10942</b>
26 x 52 x 8	HMS4	R	<b>▲ 10253</b>	28 x 42 x 10	HMSA7	R	<b>10952</b>
27 x x 7.95	SSLEEVE		<b>99106</b>	28 x 42 x 7	HMSA7	R	<b>10916</b>
	SHAFT RANGE 26.90MM - 27.02MM			28 x 42 x 7	HMS4	R	<b>10917</b>
27 x x 7.95	GSLEEVE		99815				
	SHAFT RANGE 26.92MM - 27.02MM			28 x 42 x 8	HMS4	R	<b>10921</b>
27 x 37 x 7	HMS4	R	<b>▲ 10579</b>	28 x 42 x 8	HMSA7	R	<b>10922</b>
27 x 41 x 10	CRSH1	R	10628	28 x 42.5 x 8	HMS4	R	<b>10936</b>
27 x 42 x 7	† CRW1	R	<b>▲ 10625</b>	28 x 43 x 10	HMS4	R	<b>11031</b>
27 x 42 x 7	† CRW1	V	<b>10627</b>	28 x 44 x 6	HMSA7	P	<b>10937</b>
27 x 42 x 10	HMS4	V	<b>10629</b>				
				28 x 45 x 7	† CRW1	V	<b>10946</b>
27 x 42 x 10	HMS4	R	<b>10630</b>	28 x 45 x 8	HMS4	R	<b>▲ 10943</b>
27 x 43 x 8	† CRW1	V	<b>▲ 10640</b>	28 x 47 x 7	† CRW1	V	<b>10957</b>
27 x 45 x 8	HMS4	R	<b>10663</b>	28 x 47 x 7	HMS4	R	<b>▲ 10959</b>
27 x 45 x 8	† CRW1	V	<b>10666</b>	28 x 47 x 8	† CRW1	R	<b>10958</b>
27 x 47 x 11	† HMS1	R	10685				
				28 x 47 x 10	CRSA11	R	11036
27 x 47 x 7	HMS4	R	<b>10644</b>	28 x 47 x 10	HMS4	R	<b>10969</b>
27 x 47 x 8	HMS4	R	<b>10683</b>	28 x 47 x 5	HMS46	R	11041
27 x 47 x 10	HMSA7	R	<b>10633</b>	28 x 47 x 7	HMSA7	R	<b>10961</b>
27 x 47 x 10	HMS4	R	<b>▲ 10689</b>	28 x 48 x 8	HMSA7	R	<b>10964</b>
27 x 52 x 8	† CRW1	R	<b>10758</b>				
				28 x 48 x 11	HMS4	R	<b>10967</b>
27 x 52 x 8	HMS46	R	10648	28 x 50 x 10	HMS47	R	11043
27 x 52 x 10	HMS46	R	10649	28 x 52 x 10	HMSA7	R	<b>10976</b>
28 x x 6	VR1	R	<b>400280</b>	28 x 52 x 8	† CRW1	R	<b>10975</b>
	SHAFT RANGE 27.00MM - 29.00MM			28 x 52 x 7	HMS4	R	<b>▲ 10973</b>
28 x x 6	VR1	V	<b>400284</b>				
	SHAFT RANGE 27.00MM - 29.00MM			28 x 52 x 7	HMS4	V	<b>10974</b>
28 x x 9	VR2	R	400281	28 x 52 x 7	HMSA7	V	<b>10977</b>
	SHAFT RANGE 27.00MM - 29.00MM			28 x 52 x 10	HMS4	R	<b>10979</b>
28 x x 9	VR2	V	400285	28 x 62 x 12	CRSH1	R	11054
	SHAFT RANGE 27.00MM - 29.00MM			29 x 37.44 x 5	HMS4	R	<b>11407</b>
28 x x 9.525	SSLEEVE		<b>99111</b>				
	SHAFT RANGE 27.94MM - 28.04MM			29 x 43 x 7	HMS47	R	11420
28 x x 9.525	GSLEEVE		99866	29 x 47 x 10	CRSH11	R	11421
	SHAFT RANGE 27.94 MM- 28.04 MM			29 x 50 x 10	CRSH11	R	11423
28 x 35 x 4	HM4	R	10915	29 x 52 x 10	CRSH11	R	11424
28 x 35 x 6	HM102	R	11020	30 x x 6	VR1	R	<b>400300</b>
					SHAFT RANGE 29.00MM - 31.00MM		
28 x 37 x 4	HM4	R	10918	30 x x 6	VR1	V	<b>400304</b>
28 x 38 x 7	HMSA7	R	<b>10920</b>		SHAFT RANGE 29.00MM - 31.00MM		
28 x 38 x 8	HMS4	R	<b>10984</b>	30 x x 9	VR2	R	400301
28 x 38 x 8	HMSA7	R	<b>10988</b>		SHAFT RANGE 29.00MM - 31.00MM		
28 x 38 x 7	HMS4	R	<b>▲ 10924</b>	30 x x 9	VR2	V	400305
					SHAFT RANGE 29.00MM - 31.00MM		
28 x 40 x 7	HMSA7	R	<b>10948</b>	30 x x 8.001	SSLEEVE		<b>99114</b>
28 x 40 x 8	HMS4	R	<b>10951</b>		SHAFT RANGE 29.95MM - 30.08MM		
28 x 40 x 10	CRS13	R	11026	30 x 37 x 4	HMS4	R	<b>11595</b>
28 x 40 x 7	† CRW1	R	<b>10930</b>				
28 x 40 x 7	† CRW1	V	<b>10932</b>	30 x 37 x 4	HM4	R	11594
				30 x 37 x 4	HMSA7	R	<b>11596</b>
28 x 40 x 7	HMS4	R	<b>▲ 10939</b>	30 x 40 x 4	HMS4	R	<b>11507</b>
28 x 40 x 7	HMSA7	V	<b>10923</b>	30 x 40 x 4	HMSA7	R	<b>11510</b>
28 x 40 x 7	HMS4	V	<b>10929</b>	30 x 40 x 4	HM4	R	11597
28 x 40 x 8	HMSA7	R	<b>10947</b>				
28 x 42 x 7	† CRW1	R	<b>10931</b>	30 x 40 x 7	† CRW1	R	<b>11605</b>
				30 x 40 x 7	† CRW1	V	<b>11606</b>
				30 x 40 x 7	HMS4	R	<b>▲ 11600</b>
				30 x 40 x 7	HMS4	V	<b>11601</b>
					W/STAINLESS STEEL SPRING		
				30 x 40 x 7	HMSA7	R	<b>11602</b>

Complete size listing — Metric

Metric size shaft x bore x width	Type and style	Lip code	Stock no.	Metric size shaft x bore x width	Type and style	Lip code	Stock no.
30 x 40 x 7	HMSA7	V	<b>11603</b>	30 x 52 x 8	† CRW1	R	<b>11640</b>
30 x 40 x 10	HMS4	R	<b>11607</b>	30 x 52 x 12	CRS12	R	11849
30 x 42 x 7.1	SC	R	525327	30 x 52 x 7	HMSA7	R	<b>11678</b>
30 x 42 x 7	HMS4	V	<b>11669</b>	30 x 52 x 10	HMSA7	R	<b>11694</b>
30 x 42 x 7	HMS4	R	▲ <b>11608</b>	30 x 52 x 7	HMS4	R	▲ <b>11638</b>
30 x 42 x 7	† CRW1	R	▲ <b>11610</b>	30 x 52 x 8	HMSA7	R	<b>11639</b>
30 x 42 x 7	† CRW1	V	<b>11611</b>	30 x 52 x 10	HMS4	V	<b>11641</b>
30 x 42 x 6	HMSA7P2	R	11817	30 x 52 x 10	HMS4	R	<b>11643</b>
30 x 42 x 7	HMSA7	R	<b>11599</b>	30 x 52 x 10	HMSA7	V	<b>11644</b>
30 x 42 x 8	HMSA7	R	<b>11823</b>	30 x 52 x 12	W/STAINLESS STEEL SPRING HMS4	R	<b>11889</b>
30 x 44 x 7	HMSA7	R	<b>11586</b>	30 x 55 x 7	† CRW1	R	<b>11652</b>
30 x 44 x 7	HMSA1	R	▲ 11614	30 x 55 x 7	HMS4	R	▲ <b>11656</b>
30 x 44 x 10	HMS4	R	<b>11616</b>	30 x 55 x 10	HMS4	R	<b>11658</b>
30 x 45 x 8	HMSA7	R	<b>11592</b>	30 x 55 x 7	HMSA7	R	<b>11697</b>
30 x 45 x 10	HMS4	R	<b>11692</b>	30 x 55 x 10	HMSA7	R	<b>11646</b>
30 x 45 x 8	CRS1	V	11609	30 x 55 x 10	HMSA7	V	<b>11647</b>
30 x 45 x 8	† CRW1	R	<b>11615</b>	30 x 55 x 12	W/STAINLESS STEEL SPRING HMS4	R	<b>11893</b>
30 x 45 x 8	† CRW1	P	<b>11617</b>	30 x 56 x 8	† CRW1	R	▲ <b>11654</b>
30 x 45 x 8	HMS4	R	▲ <b>11622</b>	30 x 56 x 10	HMS47	R	11867
30 x 45 x 5	HMSA7	R	<b>11591</b>	30 x 58 x 8	† CRWA1	R	<b>11655</b>
30 x 45 x 10	HMSA7	R	<b>11695</b>	30 x 60 x 10	HMS4	R	<b>11868</b>
30 x 46 x 7	HMSA7	R	▲ <b>11671</b>	30 x 60 x 8	† CRW1	R	▲ <b>11660</b>
	W/CW HELIX FROM AIR SIDE			30 x 60 x 10	HMSA7	R	<b>11902</b>
30 x 47	MVR1	R	MVR1-30	30 x 62 x 10	HMSA7	R	<b>11701</b>
30 x 47 x 10	HMSA7	R	<b>11807</b>	30 x 62 x 7	† CRW1	R	<b>11665</b>
30 x 47 x 7	† CRW1	R	<b>11625</b>	30 x 62 x 7	† CRW1	V	<b>11666</b>
30 x 47 x 8	† CRW1	V	<b>11626</b>	30 x 62 x 7	HMS4	R	▲ <b>11664</b>
30 x 47 x 8	HMS4	R	<b>11682</b>	30 x 62 x 7	HMSA7	R	<b>11668</b>
30 x 47 x 6	HMS4	R	<b>11659</b>	30 x 62 x 10	HMS4	R	<b>11667</b>
30 x 47 x 7	HMS4	R	▲ <b>11623</b>	30 x 62 x 8	HMS4	R	<b>11704</b>
30 x 47 x 7	HMSA7	R	<b>11624</b>	30 x 62 x 8	HMSA7	R	<b>11676</b>
30 x 47 x 7	HMS4	V	<b>11627</b>	30 x 72 x 10	HMSA7	R	<b>11689</b>
30 x 47 x 7	HMSA7	V	<b>11629</b>	30 x 72 x 12	† CRWA1	V	<b>11684</b>
	W/STAINLESS STEEL SPRING			30 x 72 x 8	† CRW1	R	▲ <b>11685</b>
30 x 47 x 8	HMSA7	R	<b>11632</b>	30 x 72 x 10	HMS4	R	<b>11686</b>
30 x 47 x 10	HMS4	R	<b>11628</b>	31 x x 7.95	SSLEEVE		<b>99123</b>
30 x 48	MVR2	R	MVR2-30		SHAFT RANGE 30.88MM - 31.04MM		
30 x 48 x 8	† CRW1	R	<b>11630</b>	31 x 42 x 8	HMS4	V	<b>12250</b>
30 x 48 x 10	HMS46	R	11677	31 x 44 x 6.5	HMS4	R	<b>12208</b>
30 x 48 x 8	HMS4	R	<b>11633</b>	31 x 44 x 6.5	HMS42	R	12011
30 x 48 x 8	HMSA7	R	<b>11688</b>	31 x 47 x 7	HMS44	R	12201
30 x 50 x 8	HMSA7	R	<b>11891</b>	31.5 x x 8.001	SSLEEVE		<b>99141</b>
30 x 50 x 8	† CRW1	R	<b>11635</b>		SHAFT RANGE 31.42MM - 31.58MM		
30 x 50 x 8	† CRW1	V	<b>11636</b>	31.75 x 50.8 x 7.95	KIT	R	480125
30 x 50 x 7	HMS4	R	▲ <b>11631</b>		SPEEDI-SLEEVE & SEAL KIT		
30 x 50 x 8	HMS4	R	<b>11634</b>	32 x x 6	VR1	R	<b>400320</b>
30 x 50 x 10	HMS4	R	<b>11637</b>		SHAFT RANGE 31.00MM - 33.00MM		
30 x 50 x 7	HMSA7	R	<b>11892</b>	32 x x 6	VR1	V	<b>400324</b>
30 x 50 x 10	HMSA7	R	<b>11662</b>		SHAFT RANGE 31.00MM - 33.00MM		
30 x 50 x 11	HMSA7	R	<b>11663</b>	32 x x 9	VR2	R	400321
30 x 52 x 8	HMS4	R	<b>11842</b>		SHAFT RANGE 31.00MM - 33.00MM		
30 x 52 x 9	CRSH1	R	11851				

**Bold numbers** are preferred designs  
▲ WasteWatcher numbers

† Includes Bore-Tite on O.D.



## Complete size listing — Metric

Metric size shaft x bore x width	Type and style	Lip code	Stock no.	Metric size shaft x bore x width	Type and style	Lip code	Stock no.
32 x x 9	VR2	V	400325	32 x 56 x 8	† CRW1	R	<b>12760</b>
	SHAFT RANGE 31.00MM - 33.00MM			32 x 56 x 10	HMS4	R	▲ <b>12763</b>
32 x x 8.001	SSLEEVE		<b>99128</b>	32 x 56 x 10	HMSA7	R	<b>12764</b>
	SHAFT RANGE 31.92MM - 32.08MM			32 x 58 x 8	HMS4	R	<b>12759</b>
32 x 40 x 7	HMS4	R	<b>12672</b>	32 x 58 x 8	HMSA7	R	<b>12766</b>
32 x 42 x 4	HM4	R	12691				
32 x 42 x 7	† CRW1	R	▲ <b>12700</b>	32 x 60 x 8	† HMSA27	R	12770
				32 x 60 x 8	HMSA7	R	<b>12773</b>
32 x 42 x 7	† CRW1	V	<b>12701</b>	32 x 62 x 6.35	† CRW1	R	<b>12780</b>
32 x 42 x 7	HMS4	R	<b>12602</b>	32 x 62 x 10	HMS4	R	▲ <b>12782</b>
32 x 42 x 8	HMSA7	R	<b>12671</b>	32 x 62 x 8	HMSA7	R	<b>12777</b>
32 x 42 x 7	HMSA7	R	<b>12697</b>				
32 x 43 x 7	HMSA7	R	<b>12695</b>	32 x 62 x 7	HMS46	R	12665
				32 x 65 x 12	HMSA1	P	12785
32 x 44 x 9	HMS4	R	<b>12705</b>	32 x 72 x 12	CRSH11	R	12667
	W/STAINLESS STEEL SPRING			32 x 72 x 9.53	HMSA7	R	<b>12790</b>
32 x 45 x 8	† CRW1	R	<b>12710</b>	33 x x 15.011	SSLEEVE		<b>99121</b>
32 x 45 x 7	HMS4	R	▲ <b>12709</b>		SHAFT RANGE 32.94MM - 33.05MM		
32 x 45 x 7	HMSA7	R	<b>12711</b>				
32 x 46 x 8	CRS1	R	12719	33 x 44 x 8	HMSA1	R	12810
				33 x 45 x 7	HMSA7	R	<b>12989</b>
32 x 47 x 10	HMS4	R	<b>12598</b>	33 x 45 x 7	HMS4	R	<b>12995</b>
32 x 47 x 8	† CRW1	R	<b>12730</b>	33 x 50 x 10	HMS4	R	▲ <b>12901</b>
32 x 47 x 8	† CRW1	V	<b>12731</b>	33 x 50 x 8	HMS46	R	12992
32 x 47 x 7	HMS4	R	▲ <b>12733</b>				
32 x 47 x 7	HMSA7	R	<b>12729</b>	33 x 50 x 6	HMSA7	R	<b>12883</b>
				33 x 52 x 6	HMS47	R	12998
32 x 48 x 8	† CRW1	R	<b>12735</b>	33 x 52 x 10	HMS46	R	12996
32 x 48 x 8	† CRW1	V	<b>12736</b>	34 x x 12.7	SSLEEVE		<b>99134</b>
32 x 48 x 8	HMS4	R	<b>12749</b>		SHAFT RANGE 33.86MM - 34.01MM		
32 x 48 x 8	HMSA7	R	▲ <b>12734</b>	34 x 44 x 8	HMSA7	R	<b>13423</b>
32 x 48 x 5	HMS4	R	<b>12723</b>				
				34 x 45 x 7	CRS15	R	13390
32 x 48 x 5	HMSA7	R	<b>12726</b>	34 x 45 x 8	HMSA7	R	<b>13386</b>
32 x 48 x 7	HMS4	R	<b>12713</b>	34 x 46 x 8	HMSA7	R	<b>13388</b>
32 x 50 x 8	† CRW1	R	<b>12740</b>	34 x 47 x 9	CRS11	R	13392
32 x 50 x 8	† CRW1	V	<b>12741</b>	34 x 48 x 8	† CRW1	R	<b>13425</b>
32 x 50 x 8	HMS4	R	▲ <b>12752</b>				
				34 x 48 x 8	† CRW1	V	<b>13426</b>
32 x 50 x 10	HMS4	R	<b>12738</b>	34 x 50 x 10	HMS46	R	13396
32 x 50 x 10	HMSA7	V	<b>12739</b>	34 x 50 x 7	HMS4	R	<b>13424</b>
	W/STAINLESS STEEL SPRING			34 x 52 x 10	CRS1	R	13398
32 x 50 x 8	HMSA7	R	<b>12715</b>	34 x 52 x 8	HMS4	R	<b>13433</b>
32 x 50 x 7	HMS43	V	12639				
32 x 52 x 8	HMSA7	R	<b>12675</b>	34 x 52 x 8	HMSA7	R	<b>13431</b>
				34 x 54 x 11	CRS1	R	13438
32 x 52 x 10	HMSA7	R	<b>12560</b>	34 x 54 x 9	HMSA7	R	<b>13440</b>
32 x 52 x 8	† CRW1	R	<b>12745</b>	34 x 55 x 8	† CRW1	R	▲ <b>13445</b>
32 x 52 x 8	† CRW1	V	<b>12746</b>	34 x 55 x 9	HMSA7	R	<b>13447</b>
32 x 52 x 9	CRSH12	R	12649				
32 x 52 x 8	HMSA7	S	<b>12601</b>	34 x 56 x 8	† CRW1	R	<b>13450</b>
	W/CW HELIX FROM AIR SIDE			34 x 56 x 8	† CRW1	V	<b>13452</b>
32 x 52 x 5	HMS46	R	12648	34 x 58 x 13	CRSH11	R	13403
32 x 52 x 10	HMS46	R	12643	34 x 62 x 8	† CRW1	R	<b>13475</b>
32 x 52 x 7	HMSA7	R	<b>12742</b>	34 x 62 x 10	HMS4	R	<b>13483</b>
32 x 52 x 7	HMS4	R	▲ <b>12744</b>				
32 x 52 x 10	HMS4	V	<b>12743</b>	34 x 72 x 12	CRSH11	R	13405
				35 x x 6	VR1	R	<b>400350</b>
					SHAFT RANGE 33.00MM - 36.00MM		
32 x 52 x 11	HMSA7	R	<b>12748</b>	35 x x 6	VR1	V	<b>400354</b>
32 x 52 x 8	HMS4	R	<b>12674</b>		SHAFT RANGE 33.00MM - 36.00MM		
32 x 54 x 10	HMSA7	R	<b>12753</b>	35 x x 9	VR2	R	400351
32 x 55 x 10	HMS4	R	<b>12757</b>		SHAFT RANGE 33.00MM - 36.00MM		
32 x 56 x 12	CRSH11	R	12662	35 x x 9	VR2	V	400355
					SHAFT RANGE 33.00MM - 36.00MM		

Complete size listing — Metric

Metric size shaft x bore x width	Type and style	Lip code	Stock no.	Metric size shaft x bore x width	Type and style	Lip code	Stock no.
35 x 13.005	SSLEEVE		<b>99139</b>	35 x 55 x 7	HMSA73	V	14034
	SHAFT RANGE 34.92MM - 35.08MM			35 x 55 x 8	HMS4	R	<b>▲13993</b>
35 x 13.005	GSLEEVE		99820	35 x 55 x 10	HMS4	V	<b>13890</b>
	SHAFT RANGE 34.92MM - 35.07MM			35 x 55 x 10	HMSA7	V	<b>13891</b>
35 x 42 x 4	HM4	R	13776		W/STAINLESS STEEL SPRING		
35 x 45 x 4	HM4	R	13779	35 x 55 x 10	HMSA7	R	<b>13893</b>
35 x 45 x 7	HMS4	R	<b>▲13927</b>	35 x 55 x 10	HMS4	R	<b>13960</b>
35 x 45 x 7	HMSA7	R	<b>14118</b>	35 x 55 x 11	HMS4	R	<b>13940</b>
35 x 46 x 8	HMSA7	R	<b>13908</b>	35 x 55 x 8	HMSA7	R	<b>13861</b>
35 x 47 x 7	† CRW1	R	<b>13938</b>	35 x 55 x 12	HMSA7	R	<b>14111</b>
35 x 47 x 7	† CRW1	V	<b>13939</b>	35 x 56 x 8	† CRW1	R	<b>▲13961</b>
	W/STAINLESS STEEL SPRING			35 x 56 x 8	† CRW1	V	<b>13962</b>
35 x 47 x 10	CRS13	R	13805	35 x 56 x 10	HMS4	R	<b>13994</b>
35 x 47 x 5	HMS4	R	<b>13715</b>	35 x 56 x 12	HMS46	R	14048
35 x 47 x 5	HMSA7	R	<b>13718</b>	35 x 58 x 10	HMSA7	R	<b>14121</b>
35 x 47 x 6	HMS4	R	<b>13723</b>	35 x 58 x 10	HMS4	R	<b>▲13894</b>
35 x 47 x 6	HMSA7	R	<b>13724</b>	35 x 60 x 10	HMS4	R	<b>▲13967</b>
35 x 47 x 7	HMS4	R	<b>▲13932</b>	35 x 60 x 14	HMSA7	R	<b>14001</b>
35 x 47 x 7	HMSA7	R	<b>13945</b>	35 x 60 x 10	HMSA7	R	<b>14114</b>
35 x 47 x 7	HMS4	V	<b>14003</b>	35 x 62 x 8	† CRW1	V	<b>13969</b>
35 x 47 x 5	HM4	R	13762	35 x 62 x 8	† CRW1	R	<b>13970</b>
35 x 48 x 8	† CRW1	R	<b>▲13941</b>	35 x 62 x 7	HMSA7	R	<b>14113</b>
35 x 48 x 8	† CRW1	V	<b>13942</b>	35 x 62 x 7	HMS4	R	<b>▲13966</b>
35 x 48 x 9	HMS4	R	<b>13909</b>	35 x 62 x 8	HMSA7	R	<b>13997</b>
35 x 48 x 8	HMSA7	R	<b>13884</b>	35 x 62 x 10	HMS4	R	<b>13996</b>
35 x 50 x 8	† CRW1	R	<b>13944</b>	35 x 62 x 10	HMSA7	R	<b>13998</b>
35 x 50 x 8	† CRW1	V	<b>13946</b>	35 x 62 x 12	HMSA77	R	14077
35 x 50 x 7	HMSA7	R	<b>13907</b>	35 x 64 x 8	† CRW1	R	<b>▲13972</b>
35 x 50 x 8	HMS4	R	<b>13887</b>	35 x 65 x 8	† CRW1	R	<b>▲13973</b>
35 x 50 x 10	HMS4	R	<b>13987</b>	35 x 65 x 10	HMS4	R	<b>13868</b>
35 x 50 x 7	HMS4	R	<b>▲13933</b>	35 x 65 x 12	CRSA1	R	13895
35 x 50 x 8	HMSA7	R	<b>13885</b>	35 x 68 x 10	HMS4	R	<b>13928</b>
35 x 50 x 10	HMSA7	R	<b>13860</b>	35 x 68 x 8	† CRW1	R	<b>▲13974</b>
35 x 52	MVR1	R	MVR1-35	35 x 68 x 8	† CRW1	V	<b>13976</b>
35 x 52 x 8	HMSA7	R	<b>14108</b>	35 x 69 x 8	† CRW1	R	<b>13975</b>
35 x 52 x 8	† CRWA1	P	<b>13947</b>	35 x 70 x 12	CRSH13	R	14093
35 x 52 x 8	† CRW1	R	<b>13949</b>	35 x 72 x 8	† CRW1	V	<b>13923</b>
35 x 52 x 8	† CRWA1	R	<b>13951</b>	35 x 72 x 10	HMS4	R	<b>▲13999</b>
35 x 52 x 9	CRSHA13	R	13854	35 x 72 x 12	HMS4	R	<b>14000</b>
35 x 52 x 10	HMSA7	R	<b>13903</b>	35 x 72 x 8	† CRW1	R	<b>13979</b>
35 x 52 x 6	HMSA7P2	R	13829	35 x 72 x 8	† CRWA1	R	<b>13980</b>
35 x 52 x 7	HMSA7	R	<b>13930</b>	35 x 72 x 7	HMS48	R	14096
35 x 52 x 7	HMS4	R	<b>▲13948</b>	35 x 72 x 10	HMSA7	R	<b>13896</b>
35 x 52 x 8	HMS4	R	<b>13888</b>	35 x 72 x 12	HMSA7	R	<b>14123</b>
35 x 52 x 10	HMS4	R	<b>13989</b>	35 x 78 x 8	† CRW1	R	<b>13984</b>
35 x 52 x 9	HMS4	R	<b>14047</b>	35 x 80 x 8	† CRW1	R	<b>▲13986</b>
35 x 52 x 12	HMS4	R	<b>14105</b>	35 x 80 x 12	HMSA7	R	<b>13863</b>
35 x 53	MVR2	R	MVR2-35	35 x 80 x 10	HMS4	R	<b>14133</b>
35 x 54 x 7	† CRW1	R	<b>13952</b>	35 x 80 x 10	HMSA7	R	<b>14135</b>
35 x 54 x 8	† CRW1	V	<b>13957</b>	36 x 13.005	SSLEEVE		<b>99146</b>
35 x 55 x 8	† CRW1	R	<b>13954</b>		SHAFT RANGE 35.85MM - 36.00MM		
35 x 55 x 8	CRW1	V	<b>13963</b>	36 x 46 x 9	CRS1	R	14004
35 x 55 x 11	HMSA7	R	<b>550231</b>				

**Bold numbers** are preferred designs  
**▲** WasteWatcher numbers

† Includes Bore-Tite on O.D.

## Complete size listing — Metric

Metric size shaft x bore x width	Type and style	Lip code	Stock no.	Metric size shaft x bore x width	Type and style	Lip code	Stock no.
36 x 47 x 7	HMS4	R	▲ <b>14005</b>	38 x x 13.005	SSLLEEVE		<b>99147</b>
36 x 47 x 7	HMSA7	R	<b>14157</b>	SHAFT RANGE 37.85MM - 38.00MM			
36 x 50 x 7	† CRW1	R	<b>14009</b>	38 x 47 x 7	HMSA1	R	14695
36 x 50 x 7	HMS4	R	▲ <b>14011</b>	38 x 48 x 4	HM4	R	14697
36 x 50 x 7	HMSHA1	R	14115	38 x 50 x 8	HMSA7	R	<b>14714</b>
				38 x 50 x 7	† CRW1	R	<b>14701</b>
36 x 50 x 7	HMSA7	R	<b>14166</b>	38 x 50 x 7	† CRW1	V	<b>14703</b>
36 x 50 x 8	† CRW1	R	<b>14010</b>	38 x 50 x 7	HMS4	R	▲ <b>14707</b>
36 x 50 x 10	HMS46	R	14173	38 x 50 x 10	CRS11	R	14984
36 x 52 x 8	† CRW1	R	<b>14016</b>	38 x 50 x 7	HMSA7	R	<b>14716</b>
36 x 52 x 8	† CRW1	V	<b>14017</b>	38 x 51 x 7.5	HMSA1	R	14702
36 x 52 x 9	CRSH11	R	14176	38 x 52 x 8	HMS4	R	<b>14711</b>
36 x 52 x 9.5	HMA10	R	550227	38 x 52 x 8	† CRW1	R	<b>14704</b>
36 x 52 x 7	HMS4	V	<b>14012</b>	38 x 52 x 8	† CRWA1	R	<b>14705</b>
36 x 52 x 7	HMS4	R	▲ <b>14013</b>	38 x 52 x 8	† CRW1	V	<b>14706</b>
36 x 52 x 7	HMSA7	R	<b>14163</b>	38 x 52 x 7	HMSA7	R	<b>14717</b>
36 x 54 x 8	† CRW1	R	<b>14024</b>	38 x 52 x 7	HMS4	R	▲ <b>14709</b>
36 x 54 x 8	† CRW1	V	<b>14027</b>	38 x 53 x 8	† CRW1	R	▲ <b>14708</b>
36 x 54 x 8	HMS4	R	▲ <b>14068</b>	38 x 54 x 7	CRW1	P	▲ <b>14710</b>
36 x 54 x 7	HMS47	R	14177	38 x 54 x 8	HMSA92	R	14691
36 x 54 x 7.5	HMS4	R	<b>14023</b>	38 x 54 x 6.5	HMS46	R	15053
36 x 55 x 8	† HMSA27	R	14030	38 x 54 x 10	HMS4	R	<b>14712</b>
36 x 56 x 10	HMS4	R	<b>14037</b>	38 x 55 x 7	HMSA7	R	<b>14718</b>
36 x 58 x 8	† CRW1	R	<b>14040</b>	38 x 55 x 8	† CRW1	R	<b>14720</b>
36 x 58 x 10	HMSA7	R	<b>14039</b>	38 x 55 x 8	† CRW1	V	<b>14721</b>
36 x 58 x 10	HMS4	R	▲ <b>14043</b>	38 x 55 x 8.5	HMSA1	R	14772
36 x 58 x 12	HMS4	R	<b>14044</b>	38 x 55 x 10	HMS47	R	15063
36 x 60 x 8	† CRW1	R	<b>14045</b>	38 x 55 x 7	HMS4	R	▲ <b>14719</b>
36 x 60 x 8	† CRW1	V	<b>14046</b>	38 x 56 x 12	CRS11	R	15067
36 x 62 x 10	CRSH11	R	14183	38 x 56 x 8	† CRW1	V	<b>14724</b>
36 x 62 x 8	† CRW1	R	<b>14050</b>	38 x 56 x 8	† CRW1	R	<b>14725</b>
36 x 62 x 7	HMS4	R	▲ <b>14052</b>	38 x 56 x 10	HMS4	R	<b>14727</b>
36 x 65 x 8	† CRW1	R	<b>14055</b>	38 x 58 x 11	HMSA3	R	14753
36 x 68 x 8	† CRW1	R	<b>14065</b>	38 x 58 x 8	† CRW1	R	▲ <b>14730</b>
36 x 68 x 10	HMS4	R	<b>14107</b>	38 x 58 x 8	† CRW1	V	<b>14732</b>
36 x 72 x 12	CRSH11	R	14184	38 x 58 x 8	HMSA3	R	14763
37 x 47 x 4	HMS4	R	<b>14469</b>	38 x 58 x 10	HMS46	R	15068
37 x 47 x 4	HMSA7	R	<b>14471</b>	38 x 60 x 8	† CRW1	R	▲ <b>14740</b>
37 x 47 x 4	HM4	R	14476	38 x 60 x 8	† CRW1	V	<b>14741</b>
37 x 50 x 6	HMSA7	P	<b>14671</b>	38 x 60 x 7	HMS43	V	15071
	CW HELIX FROM AIR SIDE			38 x 60 x 10	HMSA7	R	<b>14778</b>
37 x 52 x 10	CRSH13	R	14571	38 x 60 x 10	HMS4	R	<b>14746</b>
37 x 52 x 8	HMS4	R	<b>14489</b>	38 x 62 x 7	HMSA7	R	<b>14771</b>
37 x 55 x 10	CRSH1	R	14494	38 x 62 x 10	HMSA7	R	<b>14737</b>
37 x 58 x 13	CRSH11	R	14572	38 x 62 x 8	† CRW1	R	<b>14742</b>
37 x 62 x 9	CRSH13	R	14573	38 x 62 x 8	† CRWA1	R	<b>14743</b>
37 x 62 x 12	CRSH11	R	14575	38 x 62 x 8	† CRW1	V	<b>14744</b>
37 x 62 x 10	HMS46	R	14574	38 x 62 x 7	HMS4	R	▲ <b>14733</b>
38 x x 6	VR1	R	<b>400380</b>	38 x 62 x 10	HMS4	R	<b>14726</b>
	SHAFT RANGE 36.00MM - 38.00MM			38 x 62 x 10	HMS4	V	<b>14751</b>
38 x x 6	VR1	V	<b>400384</b>	38 x 62 x 10	HMSA7	V	<b>14752</b>
	SHAFT RANGE 36.00MM - 38.00MM			W/STAINLESS STEEL SPRING			
38 x x 9	VR2	R	400381				
	SHAFT RANGE 36.00MM - 38.00MM						
38 x x 9	VR2	V	400385				
	SHAFT RANGE 36.00MM - 38.00MM						

Complete size listing — Metric

Metric size shaft x bore x width	Type and style	Lip code	Stock no.	Metric size shaft x bore x width	Type and style	Lip code	Stock no.
38 x 65 x 8	† CRW1	R	▲ <b>14750</b>	40 x 52 x 7	† CRW1	R	<b>15805</b>
38 x 65 x 12	HMSA35	P	14748	40 x 52 x 5	HM4	R	15743
38 x 65 x 10	HMS4	R	<b>15121</b>	40 x 52 x 7	HMSA7	R	<b>15801</b>
38 x 68 x 8	† CRW1	R	▲ <b>14755</b>	40 x 52 x 7	HMS4	R	▲ <b>15804</b>
38 x 70 x 8	† CRW1	R	<b>14760</b>	40 x 52 x 8	HMSA7	R	<b>15808</b>
38 x 70 x 10	HMS4	R	<b>14776</b>	40 x 52 x 6	HMSA7	R	<b>15745</b>
38 x 72 x 8	† CRW1	R	<b>14764</b>	40 x 54 x 5.5	HMSA1	R	▲ 15807
38 x 72 x 12	HMS47	R	15112	40 x 54 x 7	† CRW1	R	▲ <b>15810</b>
38 x 72 x 10	HMS4	R	▲ <b>14761</b>	40 x 55 x 10	HMS4	R	<b>15672</b>
38 x 73 x 8	† CRW1	R	<b>14765</b>	40 x 55 x 10	CRS1	R	15937
38 x 74 x 11	† CRWA1	R	▲ <b>14767</b>	40 x 55 x 8	† CRW1	R	<b>15820</b>
38 x 74 x 11	† CRW1	V	<b>14768</b>	40 x 55 x 8	† CRW1	V	<b>15821</b>
38 x 74 x 10	HMSA77	R	15114	40 x 55 x 10	HMSA7	R	<b>15675</b>
38 x 80 x 8	† CRW1	R	<b>14774</b>	40 x 55 x 12	HMS46	R	15798
38 x 80 x 12	HMS46	R	15115	40 x 55 x 7	HMS4	R	▲ <b>15815</b>
38 x 90 x 8	† CRWA1	R	▲ <b>14785</b>	40 x 55 x 7	HMSA7	R	<b>15819</b>
38.1 x 57.25 x 14.3	† KIT	R	480149	40 x 55 x 8	HMSA7	R	<b>15822</b>
	SPEEDI-SLEEVE & SEAL KIT			40 x 55 x 8	HMS4	R	<b>15823</b>
38.1 x 60.25 x 14.3	† KIT	R	480148	40 x 56 x 7	† CRW1	V	<b>15826</b>
	SPEEDI-SLEEVE & SEAL KIT			40 x 56 x 8	† CRW1	R	<b>15825</b>
38.1 x 60.3 x 14.3	KIT	R	480152	40 x 56 x 8	HMS4	R	▲ <b>15828</b>
	SPEEDI-SLEEVE & SEAL KIT			40 x 56 x 8	HMSA7	R	<b>15829</b>
38.1 x 60.38 x 14.3	KIT	R	480150	40 x 57	MVR1	R	MVR1-40
	SPEEDI-SLEEVE & SEAL KIT			40 x 57 x 8	† CRW1	R	<b>15830</b>
38.1 x 63.55 x 14.3	KIT	R	480151	40 x 58	MVR2	R	MVR2-40
	SPEEDI-SLEEVE & SEAL KIT			40 x 58 x 8	HMS4	R	<b>15998</b>
38.5 x 58 x 11	HMSA7	R	<b>15292</b>	40 x 58 x 8	† CRW1	R	<b>15835</b>
39 x 62 x 12	CRSH11	R	15352	40 x 58 x 8	† CRW1	V	<b>15836</b>
39 x 65 x 9	HMS-SPL	P	15354	40 x 58 x 9	CRSA13	R	15879
	W/CCW HELIX FROM AIR SIDE			40 x 58 x 9	HMSA7	R	▲ <b>15838</b>
39 x 68 x 9	HMS-SPL	P	15356				
	W/CW HELIX FROM AIR SIDE			40 x 58 x 10	HMS4	R	<b>15876</b>
40 x x 7	VR1	R	<b>400400</b>	40 x 60 x 6	HMS4	V	<b>15712</b>
	SHAFT RANGE 38.00MM - 43.00MM			40 x 60 x 10	CRSA1	R	15893
40 x x 7	VR1	V	<b>400404</b>	40 x 60 x 8	† CRW1	R	<b>15840</b>
	SHAFT RANGE 38.00MM - 43.00MM			40 x 60 x 8	† CRW1	V	<b>15841</b>
40 x x 11	VR2	R	400401	40 x 60 x 10	HMS4	R	▲ <b>15839</b>
	SHAFT RANGE 38.00MM - 43.00MM			40 x 60 x 10	HMSA7	R	<b>15844</b>
40 x x 11	VR2	V	400405	40 x 60 x 12	HMS4	R	<b>15869</b>
	SHAFT RANGE 38.00MM - 43.00MM			40 x 62 x 8	HMSA7	R	<b>15961</b>
40 x x 9.906	SSLEEVE		<b>99153</b>	40 x 62 x 10	HMSA7	R	<b>15914</b>
	SHAFT RANGE 39.84MM - 40.00M			40 x 62 x 10	HMS4	V	<b>15907</b>
40 x x 13.005	SSLEEVE		<b>99157</b>	40 x 62 x 8	† CRW1	R	<b>15845</b>
	SHAFT RANGE 39.93MM - 40.09MM			40 x 62 x 8	† CRW1	V	<b>15846</b>
40 x x 13.005	GSLEEVE		99825	40 x 62 x 10	HMS4	R	<b>15848</b>
	SHAFT RANGE 39.929 - 40.081MM			40 x 62 x 10	HMA10	R	▲ 550230
40 x 46 x 8	HMSA7	R	<b>15715</b>	40 x 62 x 7	HMS4	R	▲ <b>15847</b>
40 x 46 x 8	HMS4	R	<b>15713</b>	40 x 62 x 7	HMSA7	R	<b>15851</b>
40 x 47 x 4	HM4	R	15738	40 x 62 x 7	HMSA92	P	15989
40 x 50 x 8	HMS4	R	<b>15747</b>		W/CW HELIX		
40 x 50 x 4	HM4	R	15740	40 x 62 x 10	HMSA7	V	<b>15856</b>
40 x 50 x 7	HMSA7	R	<b>15732</b>	40 x 62 x 11.5	W/STAINLESS STEEL SPRING		
40 x 52 x 7.1	SC	R	523171		HMS4	R	<b>550199</b>
40 x 52 x 7	† CRW1	V	<b>15803</b>				
	W/STAINLESS STEEL SPRING						

**Bold numbers** are preferred designs  
▲ WasteWatcher numbers

† Includes Bore-Tite on O.D.

## Complete size listing — Metric

Metric size shaft x bore x width	Type and style	Lip code	Stock no.	Metric size shaft x bore x width	Type and style	Lip code	Stock no.
40 x 62 x 6	HMSA7P2	R	15898	42 x 55 x 8	† CRW1	R	▲ 16503
40 x 62 x 12	HMS4	R	<b>16006</b>	42 x 55 x 8	† CRW1	V	<b>16507</b>
40 x 62 x 12	HMSA7	R	<b>16009</b>	42 x 55 x 8	HMS4	R	<b>16512</b>
40 x 62 x 8	HMS4	R	<b>15958</b>	42 x 55 x 7	HMSA7	R	<b>16495</b>
40 x 65 x 10	HMSA7	R	<b>15963</b>	42 x 55 x 7	HMS4	R	▲ <b>16513</b>
40 x 65 x 12	CRS13	R	15919	42 x 55 x 9	HMSA7	R	<b>16531</b>
40 x 65 x 8	† CRW1	R	<b>15850</b>	42 x 56 x 7	CRSA1	R	16466
40 x 65 x 10	HMS4	R	▲ <b>15852</b>	42 x 56 x 7	† CRW1	V	<b>16504</b>
40 x 65 x 14	HMSA7	R	<b>15874</b>	42 x 56 x 8	† CRW1	R	▲ <b>16505</b>
40 x 65 x 12	HMS4	R	<b>15950</b>	42 x 56 x 7	HMS4	R	▲ <b>16492</b>
40 x 68 x 10	HMSA7	R	<b>15964</b>	42 x 56 x 7	HMS4	V	<b>16493</b>
40 x 68 x 7	CRS13	R	15922	42 x 56 x 7	HMSA7	R	<b>16494</b>
40 x 68 x 8	† CRW1	R	<b>15854</b>	42 x 56 x 7	HMSA7	V	<b>16496</b>
40 x 68 x 8	HMS4	R	<b>16024</b>		W/STAINLESS STEEL SPRING		
40 x 68 x 8	HMSA7	R	▲ <b>15858</b>	42 x 58 x 7	HMS4	R	<b>16642</b>
40 x 68 x 10	HMS4	R	<b>15853</b>	42 x 58 x 8	† CRW1	R	<b>16509</b>
40 x 68 x 12	HMS4	R	<b>15878</b>	42 x 58 x 8	† CRW1	V	<b>16511</b>
40 x 70 x 8	† CRW1	R	<b>15855</b>	42 x 58 x 7	HMA1	R	▲ 16548
40 x 70 x 12	CRSH11	R	15930	42 x 58 x 10	HMS4	R	<b>16498</b>
40 x 72 x 7	HMSA7	V	<b>15934</b>	42 x 60 x 10	HMS4	R	<b>16579</b>
40 x 72 x 8	† CRW1	R	<b>15860</b>	42 x 60 x 8	† CRW1	R	<b>16515</b>
40 x 72 x 7	HMS4	R	▲ <b>15857</b>	42 x 60 x 8	† CRW1	V	<b>16517</b>
40 x 72 x 7	HMS4	V	<b>15861</b>	42 x 60 x 7	HMS4	R	<b>16543</b>
	W/STAINLESS STEEL SPRING			42 x 60 x 7	HMSA7	R	▲ <b>16514</b>
40 x 72 x 10	HMS4	R	<b>15859</b>	42 x 60 x 9	HMSA7	R	<b>16451</b>
40 x 72 x 10	HMSA7	R	<b>15868</b>	42 x 62 x 10	CRS1	R	16581
40 x 72 x 7	HMSA7	R	<b>15985</b>	42 x 62 x 8	† CRW1	R	<b>16519</b>
40 x 74 x 8	† CRW1	R	▲ <b>15863</b>	42 x 62 x 8	† CRW1	V	<b>16523</b>
40 x 75 x 8	† CRW1	V	<b>15862</b>	42 x 62 x 8	HMSA7	R	<b>16518</b>
40 x 78 x 10	HMSA7	R	<b>15948</b>	42 x 62 x 8	HMS4	R	▲ <b>16521</b>
40 x 80 x 8	† CRW1	R	<b>15870</b>	42 x 62 x 10	HMS4	R	<b>16529</b>
40 x 80 x 10	HMS4	R	▲ <b>15872</b>	42 x 62 x 7	HMSA7	R	<b>16616</b>
40 x 80 x 10	HMSA7	R	<b>15939</b>	42 x 62 x 7	HMS4	R	<b>16628</b>
40 x 80 x 10	HMS4	V	<b>15871</b>	42 x 64 x 6	HMA1	R	16522
40 x 80 x 10	HMSA7	V	<b>15873</b>	42 x 65 x 8	† CRW1	R	<b>16525</b>
40 x 80 x 12	HMSA7	R	<b>15877</b>	42 x 65 x 8	† CRW1	V	<b>16527</b>
40 x 90 x 8	† CRW1	R	▲ <b>15890</b>	42 x 65 x 10	HMS4	R	▲ <b>16537</b>
40 x 90 x 10	HMS48	R	15944	42 x 65 x 12	HMSA7	R	<b>16534</b>
40 x 90 x 12	HMSA79	R	15945	42 x 66 x 10	HMSA7	P	<b>16528</b>
41 x x 12.7	SSLEEVE		<b>99163</b>	42 x 67 x 10	HMSA7	P	<b>16565</b>
	SHAFT RANGE 40.84MM - 41.00MM				W/ENCAPSULATED SPRING		
41 x 53 x 7	† CRW1	R	▲ <b>16032</b>	42 x 68 x 10	HMS4	R	<b>16552</b>
41 x 55 x 8	† CRW1	R	▲ <b>16034</b>	42 x 70 x 12	CRSH11	R	16605
41 x 56 x 7	HMS4	R	▲ <b>550232</b>	42 x 70 x 10	HMSA7	R	<b>16615</b>
41 x 62 x 12	D8	P	16043	42 x 72 x 8	† CRW1	V	<b>16554</b>
41 x 62 x 8	† CRW1	R	<b>16041</b>	42 x 72 x 8	† CRW1	R	<b>16555</b>
42 x x 11.303	SSLEEVE		<b>99166</b>	42 x 72 x 8	HMS4	R	▲ <b>16558</b>
	SHAFT RANGE 41.84MM - 42.00MM						
42 x x 14.3	SSLEEVE		<b>99169</b>	42 x 72 x 12	CRS12	R	16609
	SHAFT RANGE 41.84MM - 42.00MM			42 x 72 x 8	HMSA7	R	<b>16553</b>
42 x 50 x 4	HMSA7	R	<b>16480</b>	42 x 72 x 10	HMS4	R	<b>16561</b>
42 x 52 x 4	HM4	R	16483	42 x 72 x 10	HMSA7	R	<b>16647</b>
42 x 55 x 7	HMSA3	R	550237	42 x 80 x 10	HMS4	R	<b>16617</b>
42 x 55 x 6	HM1	R	16502				

Complete size listing — Metric

Metric size shaft x bore x width	Type and style	Lip code	Stock no.	Metric size shaft x bore x width	Type and style	Lip code	Stock no.
42.88 x 63.55 x 21.209	† KIT	R	480168	45 x 58 x 9	CRSA1	R	17784
	SPEEDI-SLEEVE & SEAL KIT			45 x 58 x 7	HMS46	R	17812
43 x x 12.7	SSLEEVE		<b>99182</b>	45 x 58 x 7	HMS4	R	▲ <b>17728</b>
	SHAFT RANGE 42.84MM - 43.00MM			45 x 58 x 7	HMSA7	R	<b>17908</b>
43 x 54 x 7.5	CRSA1	R	▲ 16892	45 x 60 x 10	HMSA7	R	<b>17688</b>
43 x 55 x 8	HMA3	R	▲ 550228	45 x 60 x 8	† CRW1	R	<b>17750</b>
43 x 57 x 8	† CRW1	R	<b>16895</b>	45 x 60 x 8	† CRW1	V	<b>17752</b>
43 x 60 x 8	† CRW1	R	<b>16897</b>	45 x 60 x 7	HMSA7	R	<b>17729</b>
43 x 60 x 10	HMS4	R	<b>16937</b>	45 x 60 x 7	HMS4	R	▲ <b>17741</b>
43 x 60 x 10	HMSA7	R	<b>16942</b>	45 x 60 x 8	HMSA7	R	<b>17730</b>
43 x 60 x 9	HMSA7	R	<b>16984</b>	45 x 60 x 8	HMS4	R	▲ <b>17740</b>
	W/CW HELIX FROM AIR SIDE			45 x 60 x 10	HMS4	R	<b>17732</b>
43 x 62 x 8	HMSA7	P	<b>16898</b>	45 x 60 x 9	HMSA7	R	<b>17690</b>
43 x 62 x 10	CRSH1	R	16939	45 x 62	MVR1	R	MVR1-45
43 x 65 x 12	† HMSA2	R	▲ 550244	45 x 62 x 7	HMSA7	R	<b>17911</b>
43 x 69 x 8	† CRW1	R	<b>16905</b>	45 x 62 x 10	HMSA7	R	<b>17912</b>
43 x 72 x 10	CRSH11	R	16936	45 x 62 x 7	HMS4	R	<b>17742</b>
43 x 73 x 8	† CRW1	R	<b>16914</b>	45 x 62 x 8	HMSA7	R	<b>17738</b>
44 x 60 x 8	† CRW1	R	▲ <b>17139</b>	45 x 62 x 8	† CRWA1	V	<b>17753</b>
44 x 60 x 8	CRW1	V	<b>17142</b>	45 x 62 x 8	† CRW1	R	<b>17754</b>
44 x 60 x 10	HMS4	R	<b>17148</b>	45 x 62 x 10	HMS4	R	<b>17736</b>
44 x 60 x 9	HMSA7	R	<b>17143</b>	45 x 62 x 8	HMS4	R	▲ <b>17790</b>
44 x 62 x 10	HMS4	R	<b>17335</b>	45 x 62 x 9	HMS4	R	<b>17749</b>
44 x 62 x 8	† CRW1	R	▲ <b>17149</b>	45 x 62 x 12	HMS45	R	17845
44 x 62 x 10	HMSA7	R	<b>17324</b>	45 x 63	MVR2	R	MVR2-45
44 x 65 x 8	† CRW1	R	<b>17160</b>	45 x 63 x 7.7	HMS4	S	<b>17679</b>
44 x 65 x 10	HMS4	R	<b>17168</b>	45 x 65 x 10	HMSA7	R	<b>17868</b>
44 x 68 x 8	† CRW1	V	<b>17166</b>	45 x 65 x 5	HM1	R	▲ <b>17757</b>
44 x 70 x 8	† CRW1	R	<b>17179</b>	45 x 65 x 8	HMS4	R	▲ <b>17734</b>
44 x 72 x 8	† CRW1	R	<b>17184</b>	45 x 65 x 8	† CRW1	R	<b>17759</b>
44 x 72 x 12	CRSH11	R	17347	45 x 65 x 8	† CRW1	V	<b>17762</b>
44 x 72 x 10	HMS4	R	<b>17186</b>	45 x 65 x 7	HMSA7P2	R	17873
44.45 x 60.3 x 14.3	† KIT	R	480173	45 x 65 x 8	HMSA7	R	<b>17717</b>
	SPEEDI-SLEEVE & SEAL KIT			45 x 65 x 10	HMS4	R	<b>17764</b>
44.45 x 69.04 x 14.3	KIT	R	480176	45 x 66 x 6	HMS46	R	17874
	SPEEDI-SLEEVE & SEAL KIT			45 x 68 x 7	HMSA7	R	<b>17694</b>
44.86 x 61.26 x 14.3	† KIT	R	480177	45 x 68 x 8	† CRW1	R	▲ <b>17766</b>
	SPEEDI-SLEEVE & SEAL KIT			45 x 68 x 8	† CRW1	V	<b>17767</b>
45 x x 7	VR1	R	<b>400450</b>	45 x 68 x 8	† CRWA1	R	<b>550294</b>
	SHAFT RANGE 43.00MM - 48.00MM			45 x 68 x 12	† HMSA1	R	17255
45 x x 7	VR1	V	<b>400454</b>	45 x 68 x 10	HMS4	R	<b>17769</b>
	SHAFT RANGE 43.00MM - 48.00MM			45 x 68 x 12	HMS4	R	<b>17952</b>
45 x x 11	VR2	R	400451	45 x 68 x 12	HMSA7	R	<b>17954</b>
	SHAFT RANGE 43.00MM - 48.00MM			45 x 68 x 9	HMSA7	R	<b>17758</b>
45 x x 11	VR2	V	400455	45 x 68 x 10	HMSA7	R	<b>17925</b>
	SHAFT RANGE 43.00MM - 48.00MM			45 x 70 x 10	HMSA7	R	<b>16619</b>
45 x x 13.995	SSLEEVE		<b>99177</b>	45 x 70 x 12	HMSA7	R	<b>17785</b>
	SHAFT RANGE 44.93MM - 45.09MM			45 x 72 x 8	HMSA7	R	<b>17927</b>
45 x x 16.866	GSLEEVE		99830	45 x 72 x 8	HMA22	R	17818
	SHAFT RANGE 44.933 - 45.085MM			45 x 72 x 8	† CRW1	V	<b>17773</b>
45 x 52 x 4	HM4	R	17692	45 x 72 x 8	HMS4	R	▲ <b>17774</b>
45 x 55 x 4	HM4	R	17904	45 x 72 x 8	† CRW1	R	<b>17778</b>
45 x 55 x 4	HMS4	R	<b>17945</b>	45 x 72 x 10	HMS4	R	<b>17776</b>
45 x 55 x 4	HMSA7	R	<b>17948</b>	45 x 72 x 7	HMS4	R	<b>17703</b>
45 x 55 x 7	HMSA7	R	17809	45 x 72 x 10	HMSA7	R	<b>17795</b>
45 x 55 x 7	HMS4	R	<b>17937</b>				
45 x 55 x 7	HMSA7	R	<b>17939</b>				

**Bold numbers** are preferred designs  
▲ WasteWatcher numbers

† Includes Bore-Tite on O.D.



## Complete size listing — Metric

Metric size shaft x bore x width	Type and style	Lip code	Stock no.	Metric size shaft x bore x width	Type and style	Lip code	Stock no.
45 x 72 x 12	HMSA7	R	<b>17744</b>	48 x 65 x 8	† CRW1	R	<b>18965</b>
45 x 75 x 10	HMSA7	R	<b>17933</b>	48 x 65 x 8	† CRW1	V	<b>18966</b>
45 x 75 x 8	† CRW1	R	<b>▲ 17782</b>	48 x 65 x 7	HMA2	R	550225
45 x 75 x 8	† CRW1	V	<b>17783</b>	48 x 65 x 10	HMSA7	R	<b>18951</b>
45 x 75 x 7	HMSA7	R	<b>17906</b>	48 x 65 x 10	HMS4	R	<b>▲ 18967</b>
45 x 75 x 8	HMSA7	R	<b>17929</b>	48 x 68 x 8	† CRW1	R	<b>18968</b>
45 x 75 x 10	HMS4	R	<b>17713</b>	48 x 68 x 10	HMS4	R	<b>▲ 18952</b>
45 x 75 x 8	HMS4	R	<b>17928</b>	48 x 68 x 10	HMSA7	R	<b>18953</b>
45 x 78 x 10	HMS4	R	<b>17786</b>	48 x 70 x 9	CRSA1	R	18921
45 x 80 x 8	† CRW1	R	<b>17791</b>	48 x 70 x 8	† CRW1	R	<b>▲ 18970</b>
45 x 80 x 10	HMS4	R	<b>▲ 17794</b>	48 x 70 x 8	† CRW1	V	<b>18971</b>
45 x 80 x 13	HMS46	R	17898	48 x 70 x 10	HMS47	R	18919
45 x 80 x 10	HMSA7	R	<b>17798</b>	48 x 72 x 10	HMSA7	R	<b>19007</b>
45 x 85 x 10	HMSA7	R	<b>17935</b>	48 x 72 x 8	† CRW1	R	<b>18972</b>
45 x 85 x 13	CRSH11	R	17900	48 x 72 x 8	† CRW1	V	<b>18973</b>
45 x 85 x 8	† CRW1	R	<b>17796</b>	48 x 72 x 7	HMS4	R	<b>19028</b>
45 x 85 x 10	HMS4	R	<b>▲ 17797</b>	48 x 72 x 8	HMSA7	R	<b>19021</b>
45 x 100 x 10	HMS46	R	17901	48 x 72 x 12	HMS46	R	18935
45 x 100 x 10	HMSA7	R	<b>17941</b>	48 x 72 x 8	HMS4	R	<b>▲ 18976</b>
46 x 59 x 12	HMA10	R	<b>▲ 17909</b>	48 x 72 x 10	HMS4	R	<b>18977</b>
46 x 60 x 8	† CRW1	R	<b>17910</b>	48 x 72 x 7	HMSA7	R	<b>19002</b>
46 x 65 x 8	† CRW1	R	<b>17930</b>	48 x 74 x 10	HMSA7	R	<b>18974</b>
46 x 65 x 10	HMS47	R	18113	48 x 80 x 10	HMS48	R	18989
46 x 68 x 8	† CRW1	R	<b>17950</b>	48 x 80 x 8	† CRW1	R	<b>▲ 18981</b>
46 x 72 x 8	† CRW1	R	<b>17975</b>	48 x 80 x 13	CRSH11	R	18940
46 x 73 x 8	† CRW1	R	<b>17980</b>	48 x 90 x 10	HMS4	R	<b>19003</b>
46 x 80 x 10	CRSH11	R	18118	49 x 65 x 10	HMS46	R	19290
47 x 60 x 7	† CRW1	R	<b>18447</b>	49 x 68 x 10	CRSH13	R	19292
47 x 62 x 8	† CRW1	R	<b>18450</b>	49 x 68 x 7	HMSA7	V	<b>19092</b>
47 x 65 x 12	CRSH13	R	18500	50 x x 7	VR1	R	<b>400500</b>
47 x 65 x 10	HMS4	R	<b>▲ 18467</b>	SHAFT RANGE 48.00MM - 53.00MM			
47 x 70 x 12	CRSH11	R	18501	50 x x 7	VR1	V	<b>400504</b>
47 x 70 x 10	HMSA7	R	<b>18480</b>	SHAFT RANGE 48.00MM - 53.00MM			
47 x 72 x 6	HMA85	R	18727	50 x x 11	VR2	R	400501
47 x 72 x 8	† CRW1	R	<b>▲ 18485</b>	SHAFT RANGE 48.00MM - 53.00MM			
47 x 72 x 10	CRSH11	R	18502	50 x x 11	VR2	V	400505
47.45 x 63.96 x 22.581	† KIT	P	480184	SHAFT RANGE 48.00MM - 53.00MM			
SPEEDI-SLEEVE & SEAL KIT				50 x x 14	SSLEEVE		<b>99196</b>
47.63 x 65.05 x 14.3	† KIT	P	480185	SHAFT RANGE 49.91MM - 50.07MM			
SPEEDI-SLEEVE & SEAL KIT				50 x 58 x 4	HM4	R	19590
47.63 x 65.05 x 14.3	KIT	P	480186	50 x 60 x 7	HMSA7	R	<b>19584</b>
SPEEDI-SLEEVE & SEAL KIT				50 x 60 x 7	HMS4	R	<b>19581</b>
47.63 x 70.1 x 14.3	† KIT	S	480187	50 x 62 x 5	HMS4	R	<b>19589</b>
SPEEDI-SLEEVE & SEAL KIT				50 x 62 x 5	HM4	R	19595
47.904 x 72 x 11.43	HMSA21	V	18868	50 x 62 x 5	HMSA7	R	<b>19597</b>
W/CCW HELIX AND 270 DEG SPRING				50 x 62 x 10	HMS4	R	<b>19587</b>
48 x x 14	SSLEEVE		<b>99189</b>	50 x 62 x 10	HMSA7	R	<b>19592</b>
SHAFT RANGE 47.93MM - 48.09MM				50 x 62 x 7	CRS1	R	19602
48 x 58 x 4	HM4	R	18997	50 x 62 x 10	CRS1	R	19629
48 x 62 x 8	HMS4	R	<b>▲ 18958</b>	50 x 62 x 7	HMSA7	R	<b>19603</b>
48 x 62 x 8	† CRW1	R	<b>18962</b>	50 x 62 x 7	HMS4	R	<b>▲ 19622</b>
48 x 62 x 8	† CRW1	P	<b>18963</b>	50 x 64 x 6.5	HMSA7	R	<b>▲ 19604</b>
48 x 62 x 8	HMSA7	R	<b>18955</b>	50 x 64 x 10	HMSA7	R	<b>19688</b>
48 x 62 x 8	HMSA7	V	<b>18956</b>	50 x 65 x 7.1	SC	R	522374
48 x 62 x 8	HMS4	V	<b>18957</b>	50 x 65 x 10	HMS4	R	<b>19714</b>
48 x 63 x 11	HMSA7	R	<b>550280</b>				

Complete size listing — Metric

Metric size shaft x bore x width	Type and style	Lip code	Stock no.	Metric size shaft x bore x width	Type and style	Lip code	Stock no.
50 x 65 x 10	HMSA7	R	<b>19637</b>	50 x 85 x 8	† CRW1	R	<b>19674</b>
50 x 65 x 8	HMS4	R	▲ <b>19600</b>	50 x 85 x 13	CRSH1	R	19878
50 x 65 x 8	HMSA7	R	<b>19601</b>	50 x 85 x 10	HMS4	R	<b>19675</b>
50 x 65 x 8	† CRW1	R	<b>19605</b>	50 x 87 x 11	HMSA92	P	19650
50 x 65 x 8	† CRW1	V	<b>19606</b>	50 x 90 x 13	CRSH13	R	19894
50 x 65 x 9	HMSA7	R	<b>19681</b>	50 x 90 x 10	HMSA7	R	<b>19927</b>
50 x 68 x 8	† CRW1	R	<b>19608</b>	50 x 90 x 8	† CRW1	R	▲ <b>19684</b>
50 x 68 x 8	† CRW1	V	<b>19611</b>	50 x 90 x 8	† CRW1	V	<b>19686</b>
50 x 68 x 10	HMS4	R	<b>19618</b>	50 x 90 x 10	HMS4	R	<b>19687</b>
50 x 68 x 10	HMSA7	R	<b>19619</b>	50.29 x 85.62 x 14.3	† KIT	V	20146
50 x 68 x 7	HMSA7P2	R	19710	SEE KIT SECTION			
50 x 68 x 6.5	HMSA7	R	<b>19621</b>	50.8 x 69.72 x 14.3	KIT	S	480198
50 x 68 x 8	HMSA7	R	<b>19564</b>	SPEEDI-SLEEVE & SEAL KIT			
50 x 68 x 8	HMS4	V	<b>19614</b>	51 x 63 x 6	HMA2	R	▲ 20205
50 x 68 x 8	HMS4	R	▲ <b>19616</b>	51 x 65 x 7	† CRWA1	R	▲ <b>20210</b>
50 x 68 x 9	HMS4	R	<b>19598</b>	51 x 73 x 8	† CRWA1	R	<b>20255</b>
50 x 70	MVR1	R	MVR1-50	51 x 80 x 9.53	† CRW1	R	<b>20275</b>
50 x 70 x 8	† CRW1	R	▲ <b>19630</b>	51 x 81 x 9.53	† CRWH1	R	<b>20280</b>
50 x 70 x 8	† CRW1	V	<b>19631</b>	51 x 81 x 9.53	† CRWHA1	R	<b>20281</b>
50 x 70 x 10	HMSA7	R	<b>19723</b>	51 x 92 x 11.13	† CRWH1	R	<b>20292</b>
50 x 70 x 10	HMS4	R	▲ <b>19632</b>	52 x x 12.7	SSLEEVE		<b>99204</b>
50 x 70 x 10	HMSA7	V	<b>19634</b>	SHAFT RANGE 51.81MM - 52.00MM			
W/STAINLESS STEEL SPRING				52 x 62 x 7	HMSA7	R	<b>20400</b>
50 x 72	MVR2	R	MVR2-50	52 x 63 x 8	HMSA7	P	<b>20405</b>
50 x 72 x 8	† CRW1	R	<b>19640</b>	52 x 65 x 9	HMSA7	R	<b>20408</b>
50 x 72 x 8	† CRW1	V	<b>19641</b>	52 x 66 x 9	HMS4	R	<b>20434</b>
50 x 72 x 7	HMSA7P2	R	19728	52 x 68 x 10	HMSA7	R	<b>20478</b>
50 x 72 x 8	HMS4	V	<b>19636</b>	52 x 68 x 8	† CRW1	R	<b>20421</b>
W/STAINLESS STEEL SPRING				52 x 68 x 8	† CRW1	V	<b>20424</b>
50 x 72 x 8	HMS4	R	▲ <b>19638</b>	52 x 68 x 8	HMS4	R	▲ <b>20426</b>
50 x 72 x 10	HMS4	R	<b>19645</b>	52 x 68 x 8	HMSA7	R	<b>20466</b>
50 x 72 x 8	HMSA7	R	<b>19646</b>	52 x 69 x 10	HMS4	R	<b>20415</b>
50 x 72 x 10	HMSA7	R	<b>19649</b>	52 x 70 x 8	† CRW1	R	▲ <b>20430</b>
50 x 72 x 12	HMSA7	R	<b>19652</b>	52 x 72 x 10	HMSA7	R	<b>20507</b>
50 x 72 x 12	HMS4	R	<b>19715</b>	52 x 72 x 8	† CRWA1	V	<b>20435</b>
50 x 72 x 9	HMS4	R	<b>19648</b>	52 x 72 x 8	† CRW1	R	<b>20440</b>
50 x 75 x 8	† CRWA1	R	<b>19654</b>	52 x 72 x 8	† CRW1	V	<b>20441</b>
50 x 75 x 9	CRS11	R	19741	52 x 72 x 12	CRSA13	R	20479
50 x 75 x 10	HMS4	R	▲ <b>19655</b>	52 x 72 x 8	HMSA7	R	<b>20437</b>
50 x 75 x 10	HMSA7	R	<b>19657</b>	52 x 72 x 12	HMS45	R	20481
50 x 75 x 12	HMSA7	R	<b>19683</b>	52 x 72 x 8	HMS4	R	▲ <b>20444</b>
50 x 78 x 13	CRSH13	R	19791	52 x 72 x 10	HMS4	R	<b>20442</b>
50 x 78 x 10	HMS47	R	19903	52 x 72 x 10	HMSA7	V	<b>20443</b>
50 x 80 x 10	HMSA7	R	<b>19925</b>	W/STAINLESS STEEL SPRING			
50 x 80 x 8	HMSA7	R	<b>19662</b>	52 x 75 x 10	HMS46	R	20488
50 x 80 x 8	† CRW1	R	<b>19664</b>	52 x 75 x 12	HMS4	R	<b>20453</b>
50 x 80 x 8	† CRW1	V	<b>19666</b>	52 x 80 x 13	CRS15	R	20491
50 x 80 x 8	HMS4	R	▲ <b>19665</b>	52 x 80 x 10	HMS4	R	<b>20473</b>
50 x 80 x 10	HMS4	R	<b>19663</b>	52 x 85 x 8	† CRW1	R	<b>20490</b>
50 x 80 x 10	HMS4	V	<b>19669</b>	52 x 85 x 10	HMS4	R	▲ <b>20495</b>
W/STAINLESS STEEL SPRING				53 x 68 x 8	CRW1	V	<b>20904</b>
50 x 80 x 13	HMS4	R	<b>19667</b>	53 x 68 x 10	HMS4	R	<b>20905</b>
50 x 82 x 8	† CRWA1	R	<b>19668</b>	53 x 72 x 12	CRSH11	R	20872
				53 x 80 x 13	CRSH13	R	20873

**Bold numbers** are preferred designs  
▲ WasteWatcher numbers

† Includes Bore-Tite on O.D.

## Complete size listing — Metric

Metric size shaft x bore x width	Type and style	Lip code	Stock no.	Metric size shaft x bore x width	Type and style	Lip code	Stock no.
53.086 x 71.298 x 8.915	HMS4	P	<b>20902</b>	55 x 75 x 8	† CRW1	V	<b>21626</b>
54 x x 19.837	GSLEEVE		99836	55 x 75 x 10	HMS4	R	▲ <b>21627</b>
	SHAFT RANGE 53.95MM - 54.10MM			55 x 75 x 10	HMSA7	R	<b>21634</b>
54 x x 12.7	SSLEEVE		<b>99210</b>	55 x 77	MVR2	R	MVR2-55
	SHAFT RANGE 53.92MM - 54.06MM			55 x 78 x 9	HMS1	R	21630
54 x x 19.84	SSLEEVE		<b>99212</b>				
	SHAFT RANGE 53.95MM - 54.11MM			55 x 78 x 13	CRSH11	R	21717
54 x 65 x 8	† CRW1	R	▲ <b>21040</b>	55 x 78 x 8	HMSA7	R	<b>21747</b>
				55 x 78 x 10	HMS4	R	<b>21631</b>
54 x 65 x 8	† CRW1	V	<b>21041</b>	55 x 78 x 8	HMS4	R	<b>21744</b>
54 x 70 x 8	HMSA7	P	<b>21290</b>	55 x 78 x 12	HMSA7	R	<b>21632</b>
54 x 70 x 10	CRS13	R	21261				
54 x 70 x 12	CRSH13	R	21262	55 x 80 x 10	HMSA7	R	<b>21699</b>
54 x 72 x 10	HMSA7	R	<b>21318</b>	55 x 80 x 8	HMS4	R	▲ <b>21637</b>
				55 x 80 x 8	HMSA7	R	<b>21638</b>
54 x 73 x 11	† CRW1	R	▲ <b>21320</b>	55 x 80 x 8	† CRW1	R	<b>21640</b>
54 x 73 x 11.13	† CRWA1	R	<b>21324</b>	55 x 80 x 8	† CRW1	V	<b>21641</b>
54 x 80 x 13	CRSH13	R	21273				
54 x 80 x 10	CRSH1	R	21283	55 x 80 x 10	HMS4	R	<b>21642</b>
54 x 81 x 9.53	† CRWA1	R	▲ <b>21345</b>	55 x 80 x 13	HMS4	R	<b>21645</b>
				55 x 80 x 12	HMS4	R	<b>21644</b>
54 x 85 x 10	HMS4	R	<b>21361</b>	55 x 82 x 10	† HM3	R	550241
55 x x 7	VR1	R	<b>400550</b>	55 x 82 x 12	HMS4	R	<b>21651</b>
	SHAFT RANGE 53.00MM - 58.00MM						
55 x x 7	VR1	V	<b>400554</b>	55 x 85 x 10	HMSA7	R	<b>21732</b>
	SHAFT RANGE 53.00MM - 58.00MM			55 x 85 x 8	† CRW1	R	<b>21660</b>
55 x x 11	VR2	R	400551	55 x 85 x 13	HMS47	R	21709
	SHAFT RANGE 53.00MM - 58.00MM			55 x 85 x 8	HMS4	R	▲ <b>21661</b>
55 x x 11	VR2	V	400555	55 x 85 x 10	HMS4	R	<b>21668</b>
	SHAFT RANGE 53.00MM - 58.00MM						
55 x x 19.99	SSLEEVE		<b>99215</b>	55 x 85 x 14	HMS4	R	<b>21633</b>
	SHAFT RANGE 54.91MM - 55.07MM			55 x 90 x 8	† CRW1	R	▲ <b>21670</b>
55 x 68 x 8	HMS4	R	▲ <b>21603</b>	55 x 90 x 10	HMSA7	R	<b>21711</b>
55 x 68 x 8	HMSA7	R	<b>21648</b>	55 x 90 x 10	HMS4	R	▲ <b>21671</b>
55 x 70 x 10	HMS4	R	<b>21646</b>	55 x 90 x 13	HMS4	R	<b>21673</b>
55 x 70 x 10	HMSA7	R	<b>21643</b>				
				55 x 100 x 13	CRSH13	R	21716
55 x 70 x 8	† CRW1	R	<b>21610</b>	55 x 100 x 8	† CRW1	R	▲ <b>21685</b>
55 x 70 x 8	† CRW1	V	<b>21611</b>	55 x 100 x 12	HMS4	R	<b>21693</b>
55 x 70 x 8	HMS4	R	▲ <b>21612</b>	55.58 x 80.98 x 19.837	KIT	R	480219
55 x 70 x 8	HMSA7	R	<b>21656</b>		SPEEDI-SLEEVE & SEAL KIT		
55 x 70 x 8	HMSA7	V	<b>21613</b>	56 x x 12.7	SSLEEVE		<b>99220</b>
	W/STAINLESS STEEL SPRING				SHAFT RANGE 55.81MM - 56.00MM		
55 x 70 x 9	HMSA7	R	<b>21615</b>	56 x 69 x 7.1	SC	R	527664
55 x 72 x 8	HMSA7	R	<b>21723</b>	56 x 70 x 8	HMS4	R	▲ <b>22015</b>
55 x 72 x 10	HMSA7	R	<b>21727</b>	56 x 70 x 8	CRS11	R	22051
55 x 72 x 8	HMSA7	V	<b>21667</b>	56 x 72 x 9	† HMS1	R	22020
55 x 72 x 8	† CRW1	R	<b>21620</b>	56 x 72 x 10	CRSH11	R	22059
55 x 72 x 8	† CRW1	V	<b>21621</b>	56 x 72 x 8	HMS4	R	▲ <b>22018</b>
55 x 72 x 8	HMS4	R	▲ <b>21623</b>	56 x 72 x 8	HMSA7	R	<b>22038</b>
55 x 72 x 10	HMS4	R	<b>21624</b>	56 x 75 x 8	† CRW1	R	▲ <b>22030</b>
55 x 72 x 7	HMSA7P2	R	21664	56 x 78 x 10	HMS1	R	22040
55 x 72 x 8	HMS4	V	<b>21619</b>	56 x 80 x 13	CRSH11	R	22067
	W/STAINLESS STEEL SPRING						
55 x 72 x 9	HMSA7	R	<b>21629</b>	56 x 80 x 8	HMS4	R	▲ <b>22053</b>
55 x 73 x 8	† CRW1	V	<b>21622</b>	56 x 82 x 8	† HMSA27	R	22060
55 x 75	MVR1	R	MVR1-55	56 x 82 x 8	HMSA7	R	<b>22074</b>
55 x 75 x 12	HMS4	R	<b>21682</b>	56 x 85 x 8	HMS4	R	▲ <b>22071</b>
55 x 75 x 8	† CRW1	R	<b>21625</b>	57 x x 11.91	VR1	R	<b>400578</b>
					SHAFT RANGE 53.00MM - 58.00MM		

Complete size listing — Metric

Metric size shaft x bore x width	Type and style	Lip code	Stock no.	Metric size shaft x bore x width	Type and style	Lip code	Stock no.
57 x 72 x 10	CRSH1	R	22453	60 x 75 x 8	HMSA7	R	<b>23427</b>
57 x 80 x 12	CRSH11	R	22457	60 x 75 x 8	† CRW1	R	<b>23429</b>
57 x 81 x 11	† CRW1	R	<b>22240</b>	60 x 75 x 8	† CRW1	V	<b>23430</b>
57 x 81 x 11	† CRWA1	P	<b>22245</b>	60 x 75 x 8	HMSA7	V	<b>23428</b>
57 x 85 x 10	CRSH11	R	22458	60 x 75 x 9	W/STAINLESS STEEL SPRING HMS4	R	<b>23433</b>
57 x 85 x 13	HMSA7	R	<b>22469</b>	60 x 75 x 10	HMSA7	R	<b>23431</b>
57 x 90 x 13	CRS13	R	22463	60 x 78 x 9	† CRS1	R	23435
57 x 90 x 13	CRSH11	R	22467	60 x 78 x 9	HMSA7	R	<b>23436</b>
57 x 92 x 11	† CRWH1	R	<b>22260</b>	60 x 80	MVR1	R	MVR1-60
57 x 92 x 11	† CRWHA1	R	<b>22262</b>	60 x 80 x 8	HMSA7	R	<b>23697</b>
57.15 x 82.58 x 12.7	† KIT SEE KIT SECTION	V	22562	60 x 80 x 8	HMS4	V	<b>23715</b>
58 x x 19.837	SSLEEVE SHAFT RANGE 57.91MM - 58.06MM		<b>99219</b>	60 x 80 x 10	CRSHA1	R	23639
58 x 72 x 8	HMSA7	R	<b>22804</b>	60 x 80 x 8	† CRW1	R	<b>23440</b>
58 x 72 x 8	† CRW1	R	<b>22815</b>	60 x 80 x 8	† CRW1	V	<b>23441</b>
58 x 72 x 8	† CRW1	S	<b>22818</b>	60 x 80 x 7	HMSA71	R	23636
58 x 72 x 8	HMS4	V	<b>22813</b>	60 x 80 x 8	HMS4	R	▲ <b>23439</b>
58 x 72 x 8	HMS4	R	▲ <b>22816</b>	60 x 80 x 8	HMSA7	V	<b>23444</b>
58 x 75 x 8	† CRW1	R	▲ <b>22822</b>	60 x 80 x 10	W/STAINLESS STEEL SPRING HMSA7	R	<b>23438</b>
58 x 75 x 11	HMS4	R	<b>22824</b>	60 x 80 x 10	HMS4	R	<b>23442</b>
58 x 75 x 9	HMSA7	R	<b>22823</b>	60 x 80 x 13	HMS4	R	<b>23443</b>
58 x 78 x 8	HMSHA1	R	22811	60 x 80 x 12	HMS4	R	<b>23414</b>
58 x 80 x 8	† CRW1	R	<b>22832</b>	60 x 80 x 12	HMSA7	R	<b>23619</b>
58 x 80 x 8	† CRW1	V	<b>22833</b>	60 x 82	MVR2	R	MVR2-60
58 x 80 x 10	HMS4	R	<b>22831</b>	60 x 82 x 8	† CRWA1	R	▲ <b>23445</b>
58 x 80 x 8	HMS4	R	▲ <b>22827</b>	60 x 82 x 12	HMSA7	R	<b>23456</b>
58 x 80 x 10	HMSA7	R	<b>22834</b>	60 x 82 x 9	HMSA7	R	<b>24627</b>
58 x 80 x 12	HMSA7	R	<b>22828</b>	60 x 85 x 10	HMSA7	R	<b>23462</b>
58 x 85 x 8	† CRW1	R	<b>22849</b>	60 x 85 x 8	† CRW1	V	<b>23447</b>
58 x 85 x 13	CRSH1	R	22866	60 x 85 x 8	† CRW1	R	<b>23449</b>
58 x 85 x 10	HMS4	R	▲ <b>22851</b>	60 x 85 x 8	HMSA7	R	<b>23452</b>
58 x 90 x 13	CRSH13	R	22862	60 x 85 x 10	HMS4	R	<b>23453</b>
58 x 90 x 8	† CRW1	R	<b>22869</b>	60 x 85 x 13	HMS46	R	23818
58 x 90 x 10	HMSA7	R	<b>22875</b>	60 x 85 x 8	HMS4	R	▲ <b>23451</b>
59 x 75 x 9.11	HMSA29	R	▲ 23278	60 x 85 x 12	HMS4	R	<b>23454</b>
59.13 x 76.2 x 19.05	KIT SPEEDI-SLEEVE & SEAL KIT	P	480233	60 x 90 x 10	HMSA7	R	<b>23475</b>
60 x x 7	VR1	R	<b>400600</b>	60 x 90 x 8	HMSA7	R	<b>23747</b>
60 x x 7	SHAFT RANGE 58.00MM - 63.00MM VR1	V	<b>400604</b>	60 x 90 x 10	CRSH1	R	23789
60 x x 11	VR2	R	400601	60 x 90 x 8	† CRW1	R	<b>23465</b>
60 x x 11	SHAFT RANGE 58.00MM - 63.00MM VR2	V	400605	60 x 90 x 8	HMS4	R	▲ <b>23467</b>
60 x x 9.4	SSLEEVE SHAFT RANGE 59.92MM - 60.08MM		<b>99241</b>	60 x 90 x 13	HMS48	R	23787
60 x x 20	SSLEEVE SHAFT RANGE 59.91MM - 60.07MM		<b>99235</b>	60 x 90 x 10	HMS4	R	<b>23466</b>
60 x 70 x 7	CRS1	R	23618	60 x 90 x 14	HMS4	R	<b>23471</b>
60 x 72 x 8	HMS4	R	<b>23425</b>	60 x 95 x 13	CRSH13	R	23822
60 x 75 x 7.1	SC	R	522281	60 x 95 x 8	HMSA7	R	<b>23476</b>
60 x 75 x 8	OD IS 75MM / BORE IS 74.88MM HMS4	R	▲ <b>23426</b>	60 x 95 x 10	HMSA7	R	▲ <b>23468</b>
				60 x 100 x 10	HMS4	R	<b>23799</b>
				60 x 105 x 8	† CRW1	R	<b>23486</b>
				60 x 110 x 13	HMS46	R	23804
				60 x 110 x 8	† CRW1	R	▲ <b>23488</b>
				62 x x 12.7	SSLEEVE SHAFT RANGE 61.85MM - 62.01MM		<b>99242</b>

**Bold numbers** are preferred designs  
▲ WasteWatcher numbers

† Includes Bore-Tite on O.D.

## Complete size listing — Metric

Metric size shaft x bore x width	Type and style	Lip code	Stock no.	Metric size shaft x bore x width	Type and style	Lip code	Stock no.
62 x x 12.7	SSLEEVE		<b>99244</b>	65 x 85 x 10	CRSH12	R	25596
SHAFT RANGE 61.81MM - 62.00MM				65 x 85 x 8	† CRW1	R	▲ <b>25420</b>
62 x 75 x 10	CRS1	R	24600	65 x 85 x 8	† CRW1	V	<b>25421</b>
62 x 80 x 8	† CRW1	R	▲ <b>24620</b>	W/STAINLESS STEEL SPRING			
62 x 80 x 10	HMS4	R	<b>24626</b>	65 x 85 x 8	HMS4	R	<b>25396</b>
62 x 85 x 8	† CRW1	R	▲ <b>24635</b>	65 x 85 x 8	HMSA7	R	<b>25398</b>
62 x 85 x 10	HMSA7	R	<b>24639</b>	65 x 85 x 12	HMS4	R	<b>25400</b>
62 x 85 x 10	HMS4	R	▲ <b>24638</b>	65 x 85 x 13	HMSA7	R	<b>25581</b>
62 x 85 x 10	HMSA7	R	<b>24640</b>	65 x 85 x 10	HMS4	R	▲ <b>25422</b>
62 x 85 x 12	HMS4	R	<b>24645</b>	65 x 85 x 10	HMSA7	R	<b>25424</b>
62 x 90 x 13	CRS13	R	24432	65 x 85 x 12	HMSA7	R	<b>25588</b>
62 x 90 x 8	† CRW1	R	<b>24659</b>	65 x 87	MVR2	R	MVR2-65
62 x 90 x 11.13	† CRWH1	R	<b>24661</b>	65 x 88 x 8	† CRW1	R	▲ <b>25425</b>
62 x 90 x 10	HMS4	R	▲ <b>24662</b>	65 x 88 x 10	HMSA7	R	<b>25438</b>
62 x 90 x 10	HMSA7	V	<b>24665</b>	65 x 88 x 12	HMSA7	R	<b>25433</b>
W/STAINLESS STEEL SPRING				65 x 90 x 13	CRSA13	R	25605
62 x 95 x 13	CRS13	R	24433	65 x 90 x 12	HMS4	R	<b>25586</b>
62 x 100 x 12	HMS4	R	▲ <b>24678</b>	65 x 90 x 8	† CRW1	R	▲ <b>25430</b>
63 x 78 x 8	† CRW1	R	<b>24710</b>	65 x 90 x 8	† CRW1	V	<b>25431</b>
63 x 80 x 8	† CRW1	R	<b>24725</b>	65 x 90 x 13	HMSA7	R	<b>25573</b>
63 x 80 x 9	HMSA7	R	<b>24729</b>	65 x 90 x 10	HMSA7	V	<b>25426</b>
63 x 85 x 8	† CRW1	R	▲ <b>24755</b>	W/STAINLESS STEEL SPRING			
63 x 85 x 10	HMS4	R	<b>24758</b>	65 x 90 x 10	HMS4	V	<b>25427</b>
63 x 88 x 8	† CRW1	R	<b>24770</b>	65 x 90 x 10	HMS4	R	▲ <b>25428</b>
63 x 90 x 12	CRSH11	R	24808	65 x 90 x 10	HMSA7	R	<b>25429</b>
63 x 90 x 10	HMS4	R	<b>24788</b>	65 x 90 x 13	HMS4	R	<b>25434</b>
63.5 x 82.58 x 19.837	KIT	R	480250	65 x 92 x 11.13	† CRWH1	R	<b>25432</b>
SPEEDI-SLEEVE & SEAL KIT				65 x 95 x 10	HMS4	R	▲ <b>25436</b>
63.5 x 88.9 x 19.837	KIT	R	480249	65 x 95 x 14	HMSA7	R	<b>25437</b>
SPEEDI-SLEEVE & SEAL KIT				65 x 100 x 13	CRSA12	R	25633
64 x 80 x 13	CRSH11	R	25203	65 x 100 x 8	† CRW1	R	▲ <b>25440</b>
64 x 80 x 8	HMS4	R	▲ <b>25185</b>	65 x 100 x 8	† CRW1	V	<b>25441</b>
64 x 85 x 10	CRSH13	R	25204	65 x 100 x 10	HMS4	R	▲ <b>25442</b>
64 x 85 x 13	CRSH13	R	25205	65 x 100 x 10	HMSA7	R	<b>25443</b>
64 x 90 x 10	HMS46	R	25207	65 x 100 x 10	HMS4	V	<b>25446</b>
65 x x 7	VR1	R	<b>400650</b>	W/STAINLESS STEEL SPRING			
SHAFT RANGE 63.00MM - 68.00MM				65 x 110 x 10	† CRW1	R	<b>25455</b>
65 x x 7	VR1	V	<b>400654</b>	65 x 120 x 8	† CRW1	R	<b>25465</b>
SHAFT RANGE 63.00MM - 68.00MM				66 x x 19.84	SSLEEVE		<b>99259</b>
65 x x 10.414	VR1-SPL	R	400659	SHAFT RANGE 65.91MM - 66.07MM			
SHAFT RANGE 63.00MM - 68.00MM				66 x 80 x 8.9	CRSHA1	R	25965
65 x x 11	VR2	R	400651	66 x 85 x 10	CRSHA1	R	▲ <b>25968</b>
SHAFT RANGE 63.00MM - 68.00MM				66 x 90 x 13	CRSH1	R	25979
65 x x 11	VR2	V	400655	66.68 x 92.02 x 19.837	† KIT	P	480260
SHAFT RANGE 63.00MM - 68.00MM				SPEEDI-SLEEVE & SEAL KIT			
65 x x 19.99	SSLEEVE		<b>99254</b>	66.68 x 112.73 x 19.837	KIT	R	480261
SHAFT RANGE 64.92MM - 65.08MM				SPEEDI-SLEEVE & SEAL KIT			
65 x x 20	GSLEEVE		99841	66.68 x 115.9 x 19.837	KIT	P	480262
SHAFT RANGE 64.922 - 65.075 MM				SPEEDI-SLEEVE & SEAL KIT			
65 x 75 x 8	HM102	R	25590	67 x 85 x 10	CRSH12	R	26381
65 x 80 x 8	HMSA7	R	<b>25409</b>	67 x 88 x 8	HMS4	P	<b>26379</b>
65 x 80 x 8	† CRW1	R	<b>25410</b>	67 x 90 x 13	CRSH11	R	26383
65 x 80 x 8	† CRW1	V	<b>25514</b>				
65 x 80 x 8	HMS4	R	▲ <b>25416</b>				
65 x 82 x 10	HMS4	R	<b>25417</b>				
65 x 85	MVR1	R	MVR1-65				

Complete size listing — Metric

Metric size shaft x bore x width	Type and style	Lip code	Stock no.	Metric size shaft x bore x width	Type and style	Lip code	Stock no.
68 x x 19.05	SSLEEVE		<b>99266</b>	70 x 90	MVR1	R	MVR1-70
	SHAFT RANGE 67.81MM - 68.00MM			70 x 90 x 13	HMSA7	R	<b>27640</b>
68 x 85 x 8	† CRW1	R	<b>▲ 26630</b>	70 x 90 x 12	HMS4	R	<b>27637</b>
68 x 85 x 10	CRS1	R	26635	70 x 90 x 13	HMS4	R	<b>27587</b>
68 x 85 x 8	HMS4	V	<b>26632</b>	70 x 90 x 8	† CRW1	R	<b>▲ 27740</b>
	W/STAINLESS STEEL SPRING			70 x 90 x 10	† CRW1	V	<b>27743</b>
68 x 88 x 8	† CRW1	R	<b>26640</b>	70 x 90 x 10	† CRWHA1	P	<b>27746</b>
68 x 90 x 10	HMSA7	R	<b>26649</b>	70 x 90 x 7	HMSA7P2	R	27571
68 x 90 x 8	† CRW1	R	<b>▲ 26650</b>	70 x 90 x 10	HMS4	R	<b>▲ 27739</b>
68 x 90 x 8	† CRW1	V	<b>26652</b>	70 x 90 x 10	HMSA7	R	<b>27741</b>
68 x 90 x 10	HMS4	R	<b>▲ 26648</b>	70 x 90 x 12	HMSA7	R	<b>27636</b>
68 x 90 x 10	HMS4	V	<b>26653</b>	70 x 92	MVR2	R	MVR2-70
68 x 90 x 10	HMSA7	V	<b>26657</b>	70 x 92 x 11	† CRWH1	R	<b>▲ 27748</b>
68 x 90 x 12	HMS4	R	<b>26651</b>	70 x 92 x 11	† CRWH1	V	<b>27749</b>
68 x 95 x 10	† CRW1	R	<b>▲ 26660</b>	70 x 92 x 12	HMSA7	R	<b>27750</b>
68 x 95 x 10	† CRW1	V	<b>26661</b>	70 x 95 x 10	HMSA7	V	<b>27598</b>
68 x 95 x 13	HMS4	R	<b>26665</b>	70 x 95 x 10	† CRW1	R	<b>27755</b>
68 x 100 x 10	† CRW1	R	<b>26670</b>	70 x 95 x 10	HMS47	R	27596
68 x 100 x 10	HMS4	R	<b>▲ 26673</b>	70 x 95 x 10	HMS4	V	<b>27757</b>
68 x 100 x 13	HMSA7	R	<b>26683</b>		W/STAINLESS STEEL SPRING		
69 x 90 x 10	HMS47	R	27170	70 x 95 x 13	HMS4	R	<b>▲ 27759</b>
69.85 x 89.99 x 19.837	KIT	P	480273	70 x 95 x 13	HMSA7	R	<b>27760</b>
	SPEEDI-SLEEVE & SEAL KIT			70 x 100 x 10	HMSA7	R	<b>27607</b>
69.85 x 95.28 x 19.837	† KIT	P	480274	70 x 100 x 12	HMS4	R	<b>27608</b>
	SPEEDI-SLEEVE & SEAL KIT			70 x 100 x 10	HMS4	R	<b>▲ 27768</b>
69.85 x 98.45 x 19.837	KIT	P	480275	70 x 100 x 10	† CRW1	R	<b>27770</b>
	SPEEDI-SLEEVE & SEAL KIT			70 x 100 x 6	HMS46	R	27606
69.85 x 107.92 x 19.837	KIT	P	480278	70 x 100 x 10	HMS4	V	<b>27773</b>
	SPEEDI-SLEEVE & SEAL KIT			70 x 100 x 13	HMS4	R	<b>27775</b>
70 x x 9	VR1	R	<b>400700</b>	70 x 105 x 10	† CRW1	R	<b>27785</b>
	SHAFT RANGE 68.00MM - 73.00MM			70 x 105 x 13	HMS4	R	<b>▲ 27783</b>
70 x x 9	VR1	V	<b>400704</b>	70 x 110 x 10	HMS4	R	<b>27788</b>
	SHAFT RANGE 68.00MM - 73.00MM			70 x 110 x 10	HMSA7	R	<b>27789</b>
70 x x 13.5	VR2	R	400701	70 x 110 x 13	HMS4	R	<b>27619</b>
	SHAFT RANGE 68.00MM - 73.00MM			70 x 110 x 10	† CRW1	R	<b>▲ 27790</b>
70 x x 13.5	VR2	V	400705	70 x 110 x 12.7	CRWHA1	R	<b>27791</b>
	SHAFT RANGE 68.00MM - 73.00MM			70 x 110 x 12	HMS4	R	<b>27792</b>
70 x x 19.837	GSLEEVE		99844	70 x 110 x 8	HMS47	R	27620
	SHAFT RANGE 69.85MM - 70.00MM			72 x x 19.05	SSLEEVE		<b>99284</b>
70 x x 10.31	SSLEEVE		<b>99272</b>		SHAFT RANGE 71.81MM - 72.00MM		
	SHAFT RANGE 69.85MM - 70.01MM			72 x 86 x 7.5	HMSA7	R	<b>28307</b>
70 x x 19.84	SSLEEVE		<b>99275</b>	72 x 88 x 8	† CRW1	R	<b>28310</b>
	SHAFT RANGE 69.85MM - 70.01MM			72 x 90 x 10	HMSA7	R	<b>28331</b>
70 x x 19.99	SSLEEVE		<b>99276</b>	72 x 90 x 10	HMS4	R	<b>▲ 28330</b>
	SHAFT RANGE 69.92MM - 70.08MM			72 x 95 x 13	CRS13	R	28362
70 x x 28.58	SSLEEVE		<b>99269</b>	72 x 95 x 10	HMS4	R	<b>▲ 28341</b>
	SHAFT RANGE 69.85MM - 70.01MM			72 x 100 x 10	HMS4	R	<b>▲ 28354</b>
70 x 85 x 8	† CRW1	R	<b>27710</b>	72 x 100 x 12	HMS4	R	<b>28358</b>
70 x 85 x 8	HMS4	R	<b>▲ 27714</b>	72 x 105 x 13	CRSA13	R	28375
70 x 85 x 7	HMSA7	R	<b>27719</b>	73 x x 19.84	SSLEEVE		<b>99287</b>
70 x 85 x 8	HMSA7	R	<b>27715</b>		SHAFT RANGE 72.97MM - 73.13MM		
70 x 85 x 7	HMS4	R	<b>27721</b>	73 x x 19.837	GSLEEVE		99846
70 x 88 x 8	† CRW1	R	<b>▲ 27725</b>		SHAFT RANGE 72.97MM - 73.12MM		
70 x 88 x 8	† CRW1	V	<b>27726</b>	73 x 90 x 8	HMSA27	R	28325
70 x 88 x 12	HMS4	R	<b>27727</b>				

**Bold numbers** are preferred designs  
▲ WasteWatcher numbers

† Includes Bore-Tite on O.D.



## Complete size listing — Metric

Metric size shaft x bore x width	Type and style	Lip code	Stock no.	Metric size shaft x bore x width	Type and style	Lip code	Stock no.
73 x 92 x 11.13	† CRWH1	R	<b>28612</b>	75 x 110 x 13	CRS13	R	29568
73 x 95 x 10	CRSH13	R	28740	75 x 110 x 12	HMS4	R	▲ <b>29575</b>
73 x 100 x 13	CRSH11	R	28744	75 x 115 x 12	† CRW1	R	▲ <b>29585</b>
73 x 110 x 11.13	† CRWA1	P	<b>28622</b>	75 x 115 x 13	CRSH1	R	29582
74 x 90 x 10	HMS46	R	29132	75 x 120 x 12	HMS4	R	▲ <b>29587</b>
74 x 95 x 10	CRSH13	R	29133	76 x x 20.65	SSLEEVE		<b>99299</b>
74 x 95 x 10	HMS48	R	29134	SHAFT RANGE 75.94MM - 76.10MM			
74 x 100 x 13	CRSH1	R	29129	76 x x 14.3	SSLEEVE		<b>99298</b>
74.63 x 100.03 x 19.837	KIT	P	480293	SHAFT RANGE 75.94MM - 76.10MM			
74.63 x 101.68 x 19.837	SPEEDI-SLEEVE & SEAL KIT			76 x 95 x 10	CRS11	R	29931
	KIT	P	480294	76 x 100 x 10	HMS47	R	29936
	SPEEDI-SLEEVE & SEAL KIT			76.02 x x 12.29	SSLEEVE		<b>99291</b>
				SHAFT RANGE 75.94MM - 76.10MM			
75 x x 9	VR1	R	<b>400750</b>	76.2 x 95.28 x 20.65	KIT	R	480299
SHAFT RANGE 73.00MM - 78.00MM							
75 x x 9	VR1	V	<b>400754</b>	SPEEDI-SLEEVE & SEAL KIT			
SHAFT RANGE 73.00MM - 78.00MM				76.2 x 101.68 x 20.65	KIT	P	480300
75 x x 13.5	VR2	R	400751	SPEEDI-SLEEVE & SEAL KIT			
SHAFT RANGE 73.00MM - 78.00MM				76.2 x 107.92 x 20.65	KIT	P	480303
75 x x 13.5	VR2	V	400755	SPEEDI-SLEEVE & SEAL KIT			
SHAFT RANGE 73.00MM - 78.00MM				77 x 95 x 10	CRSH13	R	30310
75 x x 15.09	SSLEEVE		<b>99289</b>	77 x 100 x 10	CRSH13	R	30311
SHAFT RANGE 74.93MM - 75.09MM							
75 x x 22	SSLEEVE		<b>99294</b>	78 x x 19.05	SSLEEVE		<b>99306</b>
SHAFT RANGE 74.93MM - 75.09MM				SHAFT RANGE 77.81MM - 78.00MM			
75 x 90 x 8	HMS4	R	<b>29529</b>	78 x 100 x 10	HMSA7	R	<b>30726</b>
75 x 90 x 8	† CRW1	R	▲ <b>29510</b>	78 x 100 x 10	HMS4	R	▲ <b>30725</b>
75 x 90 x 10	HMSA7	R	<b>29512</b>	78 x 105 x 13	CRSH11	R	30716
75 x 90 x 10	HMS4	R	<b>29513</b>	78 x 110 x 13	CRSH11	R	30717
75 x 95	MVR1	R	MVR1-75	80 x x 9	VR1	R	<b>400800</b>
75 x 95 x 10	HMSA7	R	<b>29521</b>	SHAFT RANGE 78.00MM - 83.00MM			
75 x 95 x 12	HMSA7	R	<b>29551</b>	80 x x 9	VR1	V	<b>400804</b>
75 x 95 x 8	HMSA7	R	<b>29536</b>	SHAFT RANGE 78.00MM - 83.00MM			
75 x 95 x 10	HMS4	R	▲ <b>29524</b>	80 x x 13.5	VR2	R	400801
75 x 95 x 10	† CRW1	R	<b>29525</b>	SHAFT RANGE 78.00MM - 83.00MM			
75 x 95 x 10	† CRW1	V	<b>29526</b>	80 x x 13.5	VR2	V	400805
75 x 95 x 12	HMS4	R	<b>29537</b>	SHAFT RANGE 78.00MM - 83.00MM			
75 x 95 x 10	HMSA7	V	<b>29527</b>	80 x x 19.05	SSLEEVE		<b>99313</b>
W/STAINLESS STEEL SPRING				SHAFT RANGE 79.81MM - 80.01MM			
75 x 95 x 12	HMS4	V	<b>29530</b>	80 x x 11	SSLEEVE		<b>99317</b>
75 x 97	MVR2	R	MVR2-75	SHAFT RANGE 79.90MM - 80.08MM			
75 x 100 x 13	HMS4	R	<b>29495</b>	80 x x 21.01	SSLEEVE		<b>99315</b>
75 x 100 x 10	† CRW1	R	<b>29540</b>	SHAFT RANGE 79.90MM - 80.08MM			
75 x 100 x 10	† CRW1	V	<b>29542</b>	80 x 95 x 10	CRSH13	R	31501
75 x 100 x 13	HMSA7	R	<b>29580</b>	80 x 100	MVR1	R	MVR1-80
75 x 100 x 10	HMS4	R	▲ <b>29543</b>	80 x 100 x 13	CRSA1	R	31503
75 x 100 x 10	HMS4	V	<b>29544</b>	80 x 100 x 10	† CRW1	R	<b>31510</b>
75 x 100 x 10	HMSA7	V	<b>29545</b>	80 x 100 x 10	HMS4	R	▲ <b>31512</b>
W/STAINLESS STEEL SPRING				80 x 100 x 10	HMSA7	R	<b>31513</b>
75 x 100 x 12	HMS4	R	<b>29563</b>	80 x 100 x 10	† CRW1	V	<b>31524</b>
75 x 100 x 10	HMSA7	R	<b>29554</b>	80 x 100 x 7	HMSA7P2	R	31533
75 x 105 x 10	† CRW1	R	<b>29555</b>	80 x 100 x 13	HMS47	R	31539
75 x 105 x 13	HMS4	R	▲ <b>29567</b>	80 x 100 x 10	HMSA7	V	<b>31509</b>
75 x 110 x 13	HMSA7	R	<b>29581</b>	W/STAINLESS STEEL SPRING			
75 x 110 x 13	CRSH13	R	29569	80 x 100 x 10	HMS4	V	<b>31516</b>
75 x 110 x 10	† CRW1	R	<b>29570</b>	80 x 100 x 12	HMSA7	R	<b>31499</b>
				80 x 100 x 13	HMS4	R	<b>31588</b>

Complete size listing — Metric

Metric size shaft x bore x width	Type and style	Lip code	Stock no.	Metric size shaft x bore x width	Type and style	Lip code	Stock no.
80 x 100 x 13	HMSA7	R	<b>31590</b>	85 x 100 x 9	HMSA7	R	<b>33458</b>
80 x 102	MVR2	R	MVR2-80	85 x 100 x 9	CRS1	R	33459
80 x 105 x 13	HMS4	R	<b>31547</b>	85 x 105	MVR1	R	MVR1-85
80 x 105 x 10	† CRW1	V	<b>31517</b>	85 x 105 x 13	HMSA7	R	<b>33416</b>
80 x 105 x 10	† CRW1	R	▲ <b>31515</b>	85 x 105 x 10	† CRW1	R	▲ <b>33410</b>
80 x 105 x 13	HMSA7	R	<b>31521</b>	85 x 105 x 10	† CRW1	V	<b>33412</b>
80 x 110 x 10	HMSA7	R	<b>31560</b>	85 x 105 x 12	HMSA7	R	<b>33413</b>
80 x 110 x 12	HMSA7	R	<b>31580</b>		W/CCW HELIX FROM AIR SIDE		
80 x 110 x 13	HMS4	R	<b>31573</b>	85 x 105 x 13	HMS4	R	<b>33415</b>
80 x 110 x 10	† CRW1	R	<b>31520</b>	85 x 107	MVR2	R	MVR2-85
80 x 110 x 12	HMS4	R	<b>31530</b>	85 x 110 x 10	† CRW1	R	▲ <b>33425</b>
80 x 110 x 10	HMS4	R	▲ <b>31525</b>	85 x 110 x 10	† CRWA1	V	<b>33426</b>
80 x 110 x 12	HMS4	V	<b>31526</b>	85 x 110 x 12	HMS4	R	<b>33427</b>
80 x 110 x 12	HMSA7	V	<b>31531</b>	85 x 110 x 12	HMS4	V	<b>33428</b>
	W/STAINLESS STEEL SPRING				W/STAINLESS STEEL SPRING		
80 x 115 x 13	CRS13	R	31563	85 x 110 x 12	HMSA7	R	<b>33429</b>
80 x 115 x 10	HMS46	R	31562	85 x 110 x 13	HMSA7	R	<b>33431</b>
80 x 120 x 13	HMS4	R	<b>31546</b>	85 x 115 x 13	CRSH13	R	33488
80 x 125 x 10	† CRW1	R	▲ <b>31551</b>	85 x 115 x 13	HMS4	R	▲ <b>33443</b>
80 x 125 x 10	† CRW1	V	<b>31552</b>	85 x 120 x 12	HMSA7	R	<b>33564</b>
80 x 125 x 13	CRSH1	R	31576	85 x 120 x 12	† CRW1	R	<b>33555</b>
80 x 125 x 13	HMS43	R	31568	85 x 120 x 12	HMS4	R	▲ <b>33563</b>
80 x 130 x 12	† CRWA1	R	<b>31565</b>	85 x 130 x 12	HMS4	R	<b>33586</b>
80 x 140 x 12	† CRW1	R	<b>31585</b>	85 x 130 x 12	HMSA7	R	<b>33587</b>
81 x 100 x 10	CRSH11	R	31891	85 x 130 x 12	† CRW1	R	<b>33585</b>
82 x x 16.76	SSLEEVE		<b>99328</b>	85 x 130 x 14	HMSA7	R	<b>33593</b>
	SHAFT RANGE 81.91MM - 82.07MM			86 x 105 x 13	HMS46	R	33862
82 x 105 x 13	CRSH13	R	32285	86 x 110 x 13	CRSH11	R	33863
82 x 105 x 12	HMS4	R	<b>32302</b>	87 x 110 x 13	CRSH13	R	34251
82 x 110 x 12	HMS4	R	<b>32286</b>	88 x 110 x 12	HMS4	R	▲ <b>34623</b>
82 x 110 x 12	HMSA7	R	<b>32275</b>	88 x 110 x 13	CRSH1	R	34655
82.55 x 107.92 x 20.65	† KIT	P	480325	88 x 120 x 13	CRSH13	R	34653
	SPEEDI-SLEEVE & SEAL KIT			88.9 x 114.33 x 20.65	KIT	P	480350
82.55 x 110.85	KIT	P	1725		SPEEDI-SLEEVE & SEAL KIT		
	SEE KIT SECTION			89 x x 7.95	SSLEEVE		<b>99347</b>
84 x x 20.65	SSLEEVE		<b>99331</b>		SHAFT RANGE 88.90MM - 89.06MM		
	SHAFAT RANGE 83.99MM - 84.15MM			89 x x 20.65	GSLEEVE		99852
84 x 100 x 10	HMSA1	R	33070		SHAFT RANGE 88.90MM - 89.05MM		
84 x 110 x 12	CRSH11	R	33072	89 x x 15.88	SSLEEVE		<b>99349</b>
84 x 127 x 11	† CRWH1	R	<b>33115</b>		SHAFT RANGE 88.92MM - 89.08MM		
85 x x 9	VR1	R	<b>400850</b>	89 x x 20.65	SSLEEVE		<b>99350</b>
	SHAFT RANGE 83.00MM - 88.00MM				SHAFT RANGE 88.90MM - 89.06MM		
85 x x 9	VR1	V	<b>400854</b>	89 x 127 x 11.13	† CRWH1	R	<b>35125</b>
	SHAFT RANGE 83.00MM - 88.00MM			89 x 127 x 11.13	† CRWHA1	P	<b>35127</b>
85 x x 13.5	VR2	R	400851	90 x x 9	VR1	R	<b>400900</b>
	SHAFT RANGE 83.00MM - 88.00MM				SHAFT RANGE 88.00MM - 93.00MM		
85 x x 13.5	VR2	V	400855	90 x x 9	VR1	V	<b>400904</b>
	SHAFT RANGE 83.00MM - 88.00MM				SHAFT RANGE 88.00MM - 93.00MM		
85 x x 10.13	SSLEEVE		<b>99334</b>	90 x x 13.5	VR2	R	400901
	SHAFT RANGE 84.78MM - 85.00MM				SHAFT RANGE 88.00MM - 93.00MM		
85 x x 16.99	SSLEEVE		<b>99332</b>				
	SHAFT RANGE 84.76MM - 85.02MM						
85 x x 21.01	SSLEEVE		<b>99333</b>				
	SHAFT RANGE 84.76MM - 85.02MM						
85 x 100 x 12	CRSA12	R	33463				
85 x 100 x 13	CRSH13	R	33464				
85 x 100 x 9	HMS4	R	<b>33456</b>				

**Bold numbers** are preferred designs  
▲ WasteWatcher numbers

† Includes Bore-Tite on O.D.

## Complete size listing — Metric

Metric size shaft x bore x width	Type and style	Lip code	Stock no.	Metric size shaft x bore x width	Type and style	Lip code	Stock no.
90 x x 13.5	VR2	V	400905	92 x 127 x 11.13	† CRWH1	R	<b>36025</b>
	SHAFT RANGE 88.00MM - 93.00MM			95 x x 9	VR1	R	<b>400950</b>
90 x x 11.13	SSLEEVE		<b>99352</b>		SHAFT RANGE 93.00MM - 98.00MM		
	SHAFT RANGE 89.91MM - 90.07MM			95 x x 9	VR1	V	<b>400954</b>
90 x x 13.36	SSLEEVE		<b>99353</b>		SHAFT RANGE 93.00MM - 98.00MM		
	SHAFT RANGE 89.91MM - 90.07MM			95 x x 13.5	VR2	R	400951
90 x x 18.03	SSLEEVE		<b>99351</b>		SHAFT RANGE 93.00MM - 98.00MM		
	SHAFT RANGE 89.91MM - 90.07MM			95 x x 13.5	VR2	V	400955
90 x x 23.01	SSLEEVE		<b>99354</b>		SHAFT RANGE 93.00MM - 98.00MM		
	SHAFT RANGE 89.91MM - 90.07MM			95 x x 21.01	SSLEEVE		<b>99369</b>
90 x 110	MVR1	R	MVR1-90		SHAFT RANGE 94.92MM - 95.08MM		
90 x 110 x 8.3	SC	R	522353	95 x x 8.74	SSLEEVE		<b>99374</b>
90 x 110 x 12	† CRW1	R	<b>35410</b>		SHAFT RANGE 94.99MM - 95.15MM		
90 x 110 x 12	† CRW1	V	<b>35412</b>	95 x x 11.91	SSLEEVE		<b>99364</b>
90 x 110 x 12	HMSA7	R	<b>35414</b>		SHAFT RANGE 94.99MM - 95.15MM		
90 x 110 x 5.5	HMS4	R	<b>35501</b>	95 x 110 x 12	HMS4	R	<b>37440</b>
90 x 110 x 12	HMS4	R	▲ <b>35411</b>	95 x 110 x 10	† CRW1	R	▲ <b>37015</b>
90 x 110 x 5.5	HMSA7	R	<b>35504</b>	95 x 110 x 9	CRS1	R	37001
90 x 110 x 7.5	HMSA7P2	R	35439	95 x 110 x 9	HMS4	R	<b>37005</b>
90 x 110 x 8	HMSA7	R	<b>35425</b>	95 x 110 x 9	HMSA7	R	<b>37008</b>
90 x 110 x 8	HMS4	R	<b>35428</b>	95 x 115	MVR1	R	MVR1-95
90 x 110 x 13	HMSA7	R	<b>35449</b>	95 x 115 x 12	† CRW1	R	<b>37025</b>
90 x 110 x 13	HMS4	R	<b>35498</b>	95 x 115 x 12	† CRW1	V	<b>37026</b>
90 x 112	MVR2	R	MVR2-90	95 x 115 x 12	HMS4	R	▲ <b>37020</b>
90 x 115 x 9	CRSH11	R	35453	95 x 115 x 12	CRSA1	R	37027
90 x 115 x 13	HMS4	R	<b>35483</b>	95 x 117	MVR2	R	MVR2-95
90 x 115 x 12	† CRWA1	R	▲ <b>35420</b>	95 x 120 x 12	HMSA7	R	<b>37043</b>
90 x 115 x 13	HMSA7	R	<b>35421</b>	95 x 120 x 12	† CRW1	R	▲ <b>37040</b>
90 x 120 x 12	HMS4	V	<b>35461</b>	95 x 120 x 12	† CRW1	V	<b>37041</b>
90 x 120 x 12	† CRW1	R	<b>35430</b>	95 x 120 x 12	† CRWA1	V	<b>37042</b>
90 x 120 x 12	† CRW1	V	<b>35431</b>	95 x 120 x 12	HMS4	R	<b>37039</b>
90 x 120 x 13	HMS4	R	<b>35459</b>	95 x 120 x 13	HMSA7	R	<b>37439</b>
90 x 120 x 13	HMSA7	R	<b>35468</b>	95 x 125 x 12	HMSA7	R	<b>37424</b>
90 x 120 x 12	HMS4	R	▲ <b>35432</b>	95 x 125 x 12	† CRW1	R	<b>37050</b>
90 x 120 x 12	HMSA7	V	<b>35435</b>	95 x 125 x 12	HMS4	R	▲ <b>37047</b>
	W/STAINLESS STEEL SPRING			95 x 130 x 12	† CRW1	R	<b>37075</b>
90 x 120 x 12	HMSA7	R	<b>35484</b>	95 x 130 x 12	HMS4	R	▲ <b>37081</b>
90 x 125 x 13	HMS4	R	<b>35508</b>	95 x 130 x 15	HMSA7	R	<b>35455</b>
90 x 125 x 13	HMSA7	R	<b>35511</b>	95.25 x 114.3 x 17.475	† KIT	P	900
90 x 125 x 12	† CRW1	R	▲ <b>35440</b>		SPEEDI-SLEEVE & SEAL KIT		
90 x 125 x 12	† CRW1	V	<b>35441</b>	97 x 120 x 13	CRSH11	R	38191
90 x 125 x 13	CRSH1	R	35477	98 x 120 x 12	† CRW1	V	<b>38520</b>
90 x 130 x 12	† CRW1	R	<b>35450</b>	98 x 120 x 13	HMS4	R	▲ <b>38523</b>
90 x 130 x 13	HMS46	R	35472	98 x 125 x 12	HMS45	R	38581
90 x 140 x 12	† CRWA1	R	<b>35481</b>	98 x 130 x 13	CRSH11	R	38583
90 x 140 x 13	HMS4	R	<b>35482</b>	99 x 124 x 9.53	† CRW1	R	<b>38890</b>
92 x x 20.65	SSLEEVE		<b>99360</b>	100 x x 9	VR1	R	<b>401000</b>
	SHAFT RANGE 91.89MM - 92.05MM				SHAFT RANGE 98.00MM - 105.00MM		
92 x 120 x 12	HMS46	R	36222	100 x x 9	VR1	V	<b>401004</b>
92 x 120 x 13	HMS4	R	<b>36013</b>		SHAFT RANGE 98.00MM - 105.00MM		
92 x 120 x 14	HMS4	R	<b>36015</b>				
92 x 127 x 11	† CRWHA1	R	<b>36027</b>				

Complete size listing — Metric

Metric size shaft x bore x width	Type and style	Lip code	Stock no.	Metric size shaft x bore x width	Type and style	Lip code	Stock no.
100 x x 13.5	VR2	R	401001	105 x 130 x 12	† CRW1	V	<b>41426</b>
	SHAFT RANGE 98.00MM - 105.00MM			105 x 130 x 12	HMS4	R	▲ <b>41430</b>
100 x x 13.5	VR2	V	401005	105 x 130 x 12	HMSA7	R	<b>41433</b>
	SHAFT RANGE 98.00MM - 105.00MM			105 x 135 x 13	CRSH11	R	41352
100 x x 20.65	SSLEEVE		<b>99393</b>	105 x 135 x 12	† CRWA1	R	<b>41440</b>
	SHAFT RANGE 99.95MM - 100.11MM						
100 x x 20.65	GSLEEVE		99854	105 x 135 x 14	HMSA7	R	<b>41443</b>
	SHAFT RANGE 99.94MM - 100.10MM			105 x 140 x 12	HMSA7	R	<b>41460</b>
100 x 115 x 9	HMS4	R	<b>39100</b>	105 x 140 x 12	† CRWA1	R	<b>41455</b>
				105 x 140 x 12	HMS4	R	▲ <b>41456</b>
100 x 120	MVR1	R	MVR1-100	105 x 140 x 15	HMS4	R	<b>41457</b>
100 x 120 x 8	CRS13	R	39384				
100 x 120 x 10	HMSA7	R	<b>39114</b>	105 x 145 x 15	CRS11	R	41358
100 x 120 x 13	CRSH1	R	39387	105 x 150 x 15	CRSH11	R	41360
100 x 120 x 12	† CRW1	R	▲ <b>39120</b>	105 x 160 x 12	† CRW1	R	<b>41475</b>
				107 x 123 x 11	CRSA1	R	42120
100 x 120 x 12	† CRW1	V	<b>39125</b>	107 x 130 x 13	CRSH11	R	42130
100 x 120 x 12	HMSA7	R	<b>39129</b>				
100 x 120 x 10	HMS4	R	▲ <b>39118</b>	108 x x 20.65	SSLEEVE		<b>99424</b>
100 x 120 x 12	HMS4	R	<b>39122</b>		SHAFT RANGE 107.90MM - 108.10MM		
100 x 120 x 13	HMSA7	R	<b>39416</b>	108 x 130 x 13	CRSH1	R	42520
				110 x x 10.5	VR1	R	<b>401100</b>
100 x 122	MVR2	R	MVR2-100		SHAFT RANGE 105.00MM - 115.00MM		
100 x 125 x 13	HMS4	R	<b>39142</b>	110 x x 10.5	VR1	V	<b>401104</b>
100 x 125 x 12	† CRW1	R	▲ <b>39135</b>		SHAFT RANGE 105.00MM - 115.00MM		
100 x 125 x 12	† CRW1	V	<b>39136</b>	110 x x 15.5	VR2	R	401101
100 x 125 x 12	HMS4	R	▲ <b>39139</b>		SHAFT RANGE 105.00MM - 115.00MM		
				110 x x 15.5	VR2	V	401105
100 x 125 x 12	HMSA7	R	<b>39140</b>		SHAFT RANGE 105.00MM - 115.00MM		
100 x 125 x 13	HMSA7	R	<b>39392</b>	110 x x 11.38	SSLEEVE		<b>99434</b>
100 x 127 x 11.13	† CRWH1	R	<b>39145</b>		SHAFT RANGE 109.78MM-110.00MM		
100 x 130 x 12	HMS4	V	<b>39403</b>	110 x x 12.93	SSLEEVE		<b>99435</b>
100 x 130 x 12	† CRW1	R	<b>39155</b>		SHAFT RANGE 109.91MM-110.11MM		
				110 x 128 x 9	CRSA13	R	43313
100 x 130 x 12	HMS4	R	▲ <b>39156</b>	110 x 130 x 12	HMS4	R	▲ <b>43303</b>
100 x 130 x 12	HMSA7	R	<b>39158</b>				
100 x 130 x 12	HMSA7	V	<b>39159</b>	110 x 130 x 12	† CRW1	R	<b>43310</b>
	W/STAINLESS STEEL SPRING			110 x 130 x 12	† CRW1	V	<b>43311</b>
100 x 130 x 10	HMS46	R	39399	110 x 130 x 12	HMS4	V	<b>43300</b>
100 x 130 x 13	HMSA7	R	<b>39415</b>	110 x 130 x 12	HMSA7	V	<b>43301</b>
					W/STAINLESS STEEL SPRING		
100 x 135 x 13	HMS47	R	39406	110 x 130 x 13	HMS4	R	<b>43359</b>
100 x 135 x 12	† CRWA1	R	<b>39170</b>				
100 x 140 x 12	† CRWA1	R	<b>39180</b>	110 x 130 x 13	HMSA7	R	<b>43363</b>
100 x 140 x 13	HMS4	R	<b>39183</b>	110 x 130 x 12	HMSA7	R	<b>43304</b>
100 x 140 x 13	HMSA7	R	<b>39184</b>	110 x 135 x 12	† CRW1	V	<b>43326</b>
				110 x 135 x 12	HMS4	R	▲ <b>43327</b>
100 x 150 x 12	HMS4	R	<b>39421</b>	110 x 140 x 12	† CRW1	V	<b>43338</b>
101 x 114 x 10	HMSA1	R	39760				
102 x 116 x 14	HMSA1	R	40151	110 x 140 x 12	† CRW1	R	<b>43340</b>
102 x 130 x 13	HMS4	R	<b>40248</b>	110 x 140 x 12	HMS4	R	▲ <b>43341</b>
104 x x 19.99	SSLEEVE		<b>99409</b>	110 x 140 x 13	HMS4	R	<b>43342</b>
	SHAFT RANGE 103.89MM-104.09MM			110 x 140 x 12	HMSA7	R	<b>43324</b>
				110 x 140 x 14	HMSA7	R	<b>43343</b>
104 x 125 x 10	HMS4	R	<b>40939</b>				
105 x x 19.99	SSLEEVE		<b>99413</b>	110 x 140 x 13	HMSA7	R	<b>43361</b>
	SHAFT RANGE 104.90MM-105.10MM			110 x 145 x 12	† CRW1	R	▲ <b>43355</b>
105 x 120 x 8	CRSA13	R	41340	110 x 145 x 15	HMSA7	R	<b>43357</b>
105 x 125	MVR1	R	MVR1-105	110 x 150 x 13	HMS4	R	<b>43334</b>
105 x 125 x 12	CRS1	R	41411	110 x 160 x 12	† CRWH1	R	<b>43390</b>
105 x 125 x 13	HMSA7	R	<b>41370</b>				
105 x 125 x 12	HMSA27	R	41410				
105 x 125 x 13	HMS4	R	<b>41367</b>				
105 x 127 x 11.13	† CRWH1	R	<b>41415</b>				
105 x 130 x 12	† CRW1	R	<b>41425</b>				

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## Complete size listing — Metric

Metric size shaft x bore x width	Type and style	Lip code	Stock no.	Metric size shaft x bore x width	Type and style	Lip code	Stock no.
111.1 x x 20.65	SSLEEVE		<b>99437</b>	120 x 150 x 12	HMS4	V	<b>47253</b>
	SHAFT RANGE 111.00MM - 111.20MM				W/STAINLESS STEEL SPRING		
112 x x 19.05	SSLEEVE		<b>99438</b>	120 x 150 x 12	HMSA7	V	<b>47254</b>
	SHAFT RANGE 111.78MM-112.00MM				W/STAINLESS STEEL SPRING		
112 x 140 x 13	CRSA11	R	44092	120 x 150 x 14	HMSA7	R	<b>47260</b>
112 x 140 x 13	HMS47	R	44094	120 x 150 x 12	HMSA7	R	<b>47276</b>
112 x 150 x 15	CRSH11	R	44095	120 x 155 x 16	HMSA7	R	<b>47273</b>
113 x 140 x 13	CRSH1	R	44493	120 x 160 x 12	† CRWH1	R	<b>▲ 47291</b>
114 x 140 x 13	HMSA7	R	<b>44880</b>	120 x 160 x 15	CRSH11	R	47272
114.3 x 139.73 x 20.65	KIT	R	480450	120 x 160 x 12	HMS4	R	<b>47287</b>
	SPEEDI-SLEEVE & SEAL KIT			120 x 160 x 12	HMS4	V	<b>47289</b>
115 x x 20.65	SSLEEVE		<b>99452</b>		W/STAINLESS STEEL SPRING		
	SHAFT RANGE 114.89MM-115.09MM			122 x x 19.99	SSLEEVE		<b>99472</b>
115 x 135 x 12	† CRW1	R	<b>45210</b>		SHAFT RANGE 121.90MM-122.10MM		
115 x 140 x 12	HMSA7	R	<b>45224</b>	122 x 150 x 13	CRSH13	R	48030
115 x 140 x 12	† CRW1	R	<b>▲ 45220</b>	122 x 150 x 15	HMSA75	R	48031
115 x 140 x 12	† CRW1	R	<b>45221</b>	123 x x 19.99	SSLEEVE		<b>99484</b>
	W/SS CASE & SPRING				SHAFT RANGE 122.91MM-123.11MM		
115 x 140 x 12	† CRW1	V	<b>45222</b>	125 x x 10	SSLEEVE		<b>99490</b>
115 x 140 x 12	HMS4	R	<b>▲ 45223</b>		SHAFT RANGE 124.90MM-125.10MM		
115 x 140 x 13	HMS4	R	<b>45225</b>	125 x x 26.01	SSLEEVE		<b>99492</b>
115 x 145 x 12	† CRW1	R	<b>▲ 45230</b>		SHAFT RANGE 124.89MM-125.09MM		
115 x 145 x 14	HMSA7	R	<b>45233</b>	125 x 146 x 14	CRSA1	P	49208
115 x 150 x 12	† CRW1	R	<b>45250</b>	125 x 150 x 13	HMS4	R	<b>49264</b>
115 x 150 x 12	HMS4	R	<b>▲ 45252</b>	125 x 150 x 13	HMSA7	R	<b>49267</b>
115 x 160 x 12	† CRW1	R	<b>45290</b>	125 x 150 x 12	† CRW1	R	<b>49210</b>
115 x 160 x 15	CRSH1	R	45299	125 x 150 x 12	† CRW1	V	<b>49211</b>
118 x 140 x 13	CRSH11	R	46460	125 x 150 x 12	HMS4	R	<b>▲ 49215</b>
119 x x 20.65	SSLEEVE		<b>99468</b>	125 x 150 x 12	HMSA7	R	<b>49213</b>
	SHAFT RANGE 119.00MM - 119.20MM			125 x 150 x 12	HMSA7	V	<b>49214</b>
120 x x 6.5	VR1-SPL	#	401208		W/STAINLESS STEEL SPRING		
	SHAFT RANGE 115.00MM - 125.00MM			125 x 150 x 15	HMS43	V	49221
120 x x 10.5	VR1	R	<b>401200</b>	125 x 155 x 14	HMS1	R	<b>▲ 49240</b>
	SHAFT RANGE 115.00MM - 125.00MM			125 x 155 x 14	HMSA7	R	<b>49243</b>
120 x x 10.5	VR1	V	<b>401204</b>	125 x 160 x 12	† CRW1	R	<b>49270</b>
	SHAFT RANGE 115.00MM - 125.00MM			125 x 160 x 12	HMS4	R	<b>▲ 49268</b>
120 x x 15.5	VR2	R	401201	125 x 170 x 15	HMSA7	R	<b>49235</b>
	SHAFT RANGE 115.00MM - 125.00MM			126 x 147 x 11	CRSA1	R	49600
120 x x 15.5	VR2	V	401205	127 x x 20.65	SSLEEVE		<b>99499</b>
	SHAFT RANGE 115.00MM - 125.00MM				SHAFT RANGE 126.95MM - 127.15MM		
120 x x 8	SSLEEVE		<b>99471</b>	127 x x 13.72	SSLEEVE		<b>99501</b>
	SHAFT RANGE 119.89MM-120.09MM				SHAFT RANGE 126.95MM - 127.15MM		
120 x x 19.99	SSLEEVE		<b>99473</b>	127 x x 17.475	GSLEEVE		99857
	SHAFT RANGE 119.89MM-120.09MM				SHAFT RANGE 126.94MM - 127.15MM		
120 x 140 x 12	† CRWA1	R	<b>47210</b>	127 x x 17.48	SSLEEVE		<b>99498</b>
120 x 140 x 13	HMS4	R	<b>▲ 47212</b>		SHAFT RANGE 126.95MM - 127.15MM		
120 x 140 x 13	HMSA7	R	<b>47214</b>	127 x x 20.65	GSLEEVE		99858
120 x 145 x 12	† CRW1	R	<b>▲ 47230</b>		SHAFT RANGE 126.94MM - 127.15MM		
120 x 145 x 12	HMS4	R	<b>47225</b>	127 x 155.6 x 20.65	† KIT	V	218
120 x 150 x 15	CRSH1	R	47264		SEE KIT SECTION		
120 x 150 x 12	† CRW1	R	<b>▲ 47250</b>	128 x 146 x 13.5	CRSH12	R	50390
120 x 150 x 13	HMS4	R	<b>47240</b>	128 x 150 x 13	HMS47	R	50391
120 x 150 x 12	HMS4	R	<b>▲ 47252</b>	128 x 150 x 15	HMS4	R	<b>50600</b>
				128 x 160 x 15	CRSH13	R	50394

Complete size listing — Metric

Metric size shaft x bore x width	Type and style	Lip code	Stock no.	Metric size shaft x bore x width	Type and style	Lip code	Stock no.
129 x 160 x 15	CRSH11	R	50790	140 x x 10.5	VR1	R	<b>401400</b>
130 x x 10.5	VR1	R	<b>401300</b>		SHAFT RANGE 135.00MM - 145.00MM		
130 x x 10.5	VR1	V	<b>401304</b>	140 x x 10.5	VR1	V	<b>401404</b>
	SHAFT RANGE 125.00MM - 135.00MM				SHAFT RANGE 135.00MM - 145.00MM		
130 x x 15.5	VR2	R	401301	140 x x 15.5	VR2	R	401401
	SHAFT RANGE 125.00MM - 135.00MM				SHAFT RANGE 135.00MM - 145.00MM		
130 x x 15.5	VR2	V	401305	140 x x 15.5	VR2	V	401405
	SHAFT RANGE 125.00MM - 135.00MM				SHAFT RANGE 135.00MM - 145.00MM		
130 x x 19.05	SSLEEVE		<b>99494</b>	140 x x 20.5	SSLEEVE		<b>99552</b>
	SHAFT RANGE 129.80MM-130.00MM				SHAFT RANGE 139.90MM-140.11MM		
130 x x 22	SSLEEVE		<b>99491</b>	140 x 160 x 12	† CRW1	R	<b>▲ 55115</b>
	SHAFT RANGE 129.97MM - 130.17MM			140 x 160 x 13	HMS4	R	<b>▲ 55116</b>
130 x 150 x 10	CRSA1	R	51182	140 x 165 x 12	HMS45	R	55134
130 x 150 x 14	CRSA1	R	51181	140 x 170 x 12	† CRW1	R	<b>▲ 55118</b>
130 x 155 x 10	CRSH1	R	51179	140 x 170 x 12	CRW1	V	<b>55125</b>
130 x 160 x 13	CRS1	R	51189	140 x 170 x 13	HMS4	R	<b>▲ 55119</b>
130 x 160 x 13	CRSA1	R	51190	140 x 170 x 15	HMS4	R	<b>55120</b>
130 x 160 x 12	† CRW1	R	<b>51125</b>	140 x 170 x 15	HMSA7	R	<b>55121</b>
130 x 160 x 12	† CRW1	V	<b>51126</b>	140 x 170 x 12	HMSA7	R	<b>55113</b>
130 x 160 x 15	HMSA7	R	<b>51193</b>	140 x 180 x 15	CRSA13	R	55160
130 x 160 x 12	HMS4	R	<b>▲ 51130</b>	140 x 180 x 12	HMS4	R	<b>▲ 55127</b>
130 x 160 x 12	HMSA7	R	<b>51131</b>	143 x 181 x 12.7	† CRWHA1	R	<b>56315</b>
130 x 160 x 13	HMS4	R	<b>51123</b>	144 x 160 x 12	HMSA7	R	<b>56340</b>
130 x 160 x 13	HMSA7	R	<b>51128</b>	145 x x 19.05	SSLEEVE		<b>99571</b>
130 x 160 x 15	HMSA7	R	<b>51117</b>		SHAFT RANGE 144.75MM-145.00MM		
130 x 160 x 15	HMS4	R	<b>51120</b>	145 x 164 x 14	CRSA1	R	57080
130 x 160 x 14	HMSA7	R	<b>51135</b>	145 x 165 x 13	CRSH12	R	57089
130 x 165 x 13	CRSH1	R	51151	145 x 170 x 13	CRSA11	R	57094
130 x 170 x 12	HMS4	R	<b>▲ 51140</b>	145 x 170 x 15	HMS4	R	<b>▲ 57110</b>
130 x 170 x 12	† CRW1	R	<b>51180</b>	145 x 170 x 12	HMSA7	R	<b>57088</b>
130 x 170 x 12	HMS4	V	<b>51185</b>	145 x 175 x 14	CRS1	R	57120
130 x 170 x 15	HMS4	R	<b>51143</b>	145 x 175 x 14	HMSA7	R	<b>57123</b>
130 x 180 x 15	CRSH13	R	51203	145 x 175 x 15	HMS4	R	<b>▲ 57118</b>
135 x x 20.5	SSLEEVE		<b>99533</b>	145 x 180 x 12	HMS4	R	<b>▲ 57125</b>
	SHAFT RANGE 134.80MM - 135.00MM			145 x 180 x 12	HMSA7	R	<b>57533</b>
135 x 160 x 13	CRSH12	R	53154	145 x 190 x 16	HMSA7	R	<b>57533</b>
135 x 160 x 13	CRSH1	R	53152	148 x 170 x 15	HMS4	R	<b>57599</b>
135 x 160 x 12	HMS4	R	<b>▲ 53135</b>	150 x x 8	VR3	R	401502
135 x 160 x 13	HMSA7	R	<b>53142</b>		SHAFT RANGE 145.00MM - 155.00MM		
135 x 160 x 13	HMS4	R	<b>53143</b>	150 x x 8	VR3	V	401506
135 x 160 x 15	HMS4	R	<b>53140</b>		SHAFT RANGE 145.00MM - 155.00MM		
135 x 165 x 13	CRSH13	R	53156	150 x x 10.5	VR1	R	<b>401500</b>
135 x 165 x 14	HMSA7	R	<b>53145</b>		SHAFT RANGE 145.00MM - 155.00MM		
135 x 170 x 12	HMSA7	R	<b>53149</b>	150 x x 10.5	VR1	V	<b>401504</b>
135 x 170 x 12	HMS4	R	<b>53155</b>		SHAFT RANGE 145.00MM - 155.00MM		
135 x 170 x 15	CRSH1	R	53162	150 x x 15.5	VR2	R	401501
135 x 180 x 15	CRSH13	R	53165		SHAFT RANGE 145.00MM - 155.00MM		
138 x 152 x 12	CRSA1	R	54330	150 x x 15.5	VR2	V	401505
139 x x 14.3	SSLEEVE		<b>99547</b>		SHAFT RANGE 145.00MM - 155.00MM		
	SHAFT RANGE 138.99MM - 139.19MM			150 x x 26.01	SSLEEVE		<b>99595</b>
140 x x 8	VR3	R	401402		SHAFT RANGE 149.75MM-150.00MM		
	SHAFT RANGE 135.00MM - 145.00MM			150 x 170 x 15	CRSH1	R	59062
140 x x 8	VR3	V	401406	150 x 180 x 15.88	HS8	R	<b>596132</b>
	SHAFT RANGE 135.00MM - 145.00MM			150 x 180 x 12	HMS4	R	<b>▲ 59005</b>
140 x x 8	VR3	V	401406	150 x 180 x 15	HMS4	R	<b>59010</b>
	SHAFT RANGE 135.00MM - 145.00MM			150 x 180 x 15	HMS4	V	<b>59061</b>
				150 x 180 x 13	HMSA7	R	<b>59057</b>
				150 x 180 x 14	HMSA7	R	<b>59053</b>
				150 x 180 x 14	HMS4	R	<b>59059</b>

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**▲** WasteWatcher numbers

† Includes Bore-Tite on O.D.



## Complete size listing — Metric

Metric size shaft x bore x width	Type and style	Lip code	Stock no.	Metric size shaft x bore x width	Type and style	Lip code	Stock no.
150 x 180 x 15	HMSA7	R	<b>59076</b>	170 x x 8	VR3	V	401706
150 x 180 x 13	HMS4	R	<b>59063</b>		SHAFT RANGE 165.00MM - 175.00MM		
150 x 180 x 13	CRSH1	R	59065	170 x x 12	VR1	R	<b>401700</b>
150 x 190 x 15	CRSH13	R	59071		SHAFT RANGE 165.00MM - 175.00MM		
150 x 200 x 15	CRSH1	R	59077	170 x x 12	VR1	V	<b>401704</b>
					SHAFT RANGE 165.00MM - 175.00MM		
152.4 x 171.45 x 12.7	KIT	V	210	170 x x 18	VR2	R	401701
	SEE KIT SECTION				SHAFT RANGE 165.00MM - 175.00MM		
154 x x 26.01	SSLEEVE		<b>99605</b>	170 x x 18	VR2	V	401705
	SHAFT RANGE 153.87MM-154.13MM				SHAFT RANGE 165.00MM - 175.00MM		
154 x 175 x 13	CRSA1	R	▲ 60622	170 x x 31.75	SSLEEVE		<b>99640</b>
155 x x 26.01	SSLEEVE		<b>99606</b>		SHAFT RANGE 169.75MM - 170.01MM		
	SHAFT RANGE 154.75MM-155.00MM			170 x 190 x 15	CRSH1	R	66927
155 x 180 x 15	HMSA7	R	<b>61031</b>	170 x 200 x 16	HS8	V	<b>595073</b>
				170 x 200 x 15	HDS2	R	<b>596450</b>
155 x 190 x 15	HMS4	R	<b>60920</b>	170 x 200 x 12	HMS4	R	▲ <b>66925</b>
155 x 200 x 15	CRSH11	R	61024				
158 x 180 x 15	CRSH13	R	62200	170 x 200 x 15	HMS4	R	<b>66930</b>
160 x x 7	VR1-SPL	#	401608	170 x 200 x 15	HMSA7	R	<b>66922</b>
	SHAFT RANGE 155.00MM - 165.00MM			170 x 200 x 16	HMS4	R	<b>66918</b>
160 x x 8	VR3	R	401602	170 x 200 x 16	HMSA7	R	<b>66920</b>
	SHAFT RANGE 155.00MM - 165.00MM			170 x 210 x 15	HMSA7	R	<b>66947</b>
160 x x 8	VR3	V	401606				
	SHAFT RANGE 155.00MM - 165.00MM			170 x 210 x 16	HDS1	R	595932
160 x x 12	VR1	R	<b>401600</b>	175 x x 27.99	SSLEEVE		<b>99687</b>
	SHAFT RANGE 155.00MM - 165.00MM				SHAFT RANGE 174.75MM - 175.01MM		
160 x x 12	VR1	V	<b>401604</b>	175 x 200 x 15	HMS4	R	▲ <b>68800</b>
	SHAFT RANGE 155.00MM - 165.00MM			175 x 200 x 15	HMSA7	R	<b>68803</b>
160 x x 18	VR2	R	401601	175 x 205 x 15	HMS4	R	<b>68905</b>
	SHAFT RANGE 155.00MM - 165.00MM						
160 x x 18	VR2	V	401605	178 x 215 x 16	CRSH11	R	70082
	SHAFT RANGE 155.00MM - 165.00MM			180 x x 8	VR3	R	401802
160 x x 25.4	SSLEEVE		<b>99630</b>		SHAFT RANGE 175.00MM - 185.00MM		
	SHAFT RANGE 159.74MM - 160.00MM			180 x x 8	VR3	V	401806
160 x 180 x 15	CRSH13	R	62989		SHAFT RANGE 175.00MM - 185.00MM		
160 x 185 x 13	CRSA1	V	62935	180 x x 12	VR1	R	<b>401800</b>
	W/STAINLESS STEEL SPRING				SHAFT RANGE 175.00MM - 185.00MM		
160 x 185 x 14	HMS47	R	62995	180 x x 12	VR1	V	<b>401804</b>
160 x 185 x 10	HMS4	R	▲ <b>62930</b>		SHAFT RANGE 175.00MM - 185.00MM		
160 x 190 x 13	CRS11	R	62998	180 x x 18	VR2	R	401801
160 x 190 x 15	HMS4	R	▲ <b>62940</b>		SHAFT RANGE 175.00MM - 185.00MM		
160 x 190 x 15	† CRW1	V	<b>62941</b>	180 x x 18	VR2	V	401805
160 x 190 x 15	HMSA7	V	<b>62945</b>		SHAFT RANGE 175.00MM - 185.00MM		
160 x 190 x 15	HMSA7	R	<b>62939</b>	180 x x 32.99	SSLEEVE		<b>99721</b>
					SHAFT RANGE 179.75MM - 180.01MM		
160 x 200 x 15.88	HS8	D	<b>595294</b>	180 x 200 x 12	CRS1	R	70801
	W/ LT. SPRING			180 x 200 x 15	HMS4	R	<b>70813</b>
160 x 200 x 15	HMSA7	R	<b>63005</b>	180 x 210 x 15	HMSA7	R	<b>70809</b>
162 x 190 x 12	HMS46	R	63781	180 x 210 x 15	HMS4	R	▲ <b>70805</b>
162 x 200 x 14.3	† CRWHA1	R	<b>63829</b>	180 x 210 x 15	HMS1	V	70803
162 x 200 x 15.88	† CRWH1	R	<b>63825</b>		W/STAINLESS STEEL SPRING		
165 x 190 x 13	CRS13	R	64960	180 x 215 x 15	CRSHA13	R	70876
165 x 190 x 13	HMS4	R	▲ <b>64500</b>	180 x 215 x 15	HMSA7	R	<b>70879</b>
165 x 200 x 15	CRSH11	R	64964				
168 x 200 x 15	CRSH1	R	66145	180 x 215 x 16	CRS1	R	70869
170 x x 8	VR3	R	401702	184 x x 31.75	SSLEEVE		<b>99725</b>
	SHAFT RANGE 165.00MM - 175.00MM				SHAFT RANGE 183.99MM - 184.25MM		
				185 x x 32	SSLEEVE		<b>99726</b>
					SHAFT RANGE 184.75MM-185.00MM		
				185 x 24.99 x 30	CT1	R	593637
					BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT		
				185 x 210 x 13	HMS4	R	<b>72813</b>

Complete size listing — Metric

Metric size shaft x bore x width	Type and style	Lip code	Stock no.	Metric size shaft x bore x width	Type and style	Lip code	Stock no.
185 x 215 x 16	CRSHA11	R	72832	200 x 238.1 x 19.1	HS8	R	<b>595101</b>
185 x 220 x 12.7	HS8	R	<b>594916</b>	200 x 240 x 20	HDL	R	<b>HDL-3013-R</b>
186 x 226 x 16	HS8	R	<b>595185</b>	200 x 240 x 16	HDS1	H	596296
188 x 215 x 16	† CRWH1	R	<b>74800</b>	200 x 240 x 20	HDS2	R	<b>595408</b>
190 x x 8	VR3	R	401902	200 x 250 x 15	CRSH1	R	78751
SHAFT RANGE 185.00MM - 195.00MM				200 x 255 x 22	HDS2	R	<b>595409</b>
190 x x 8	VR3	V	401906	203 x 254 x 15.88	† CRWH1	R	<b>79825</b>
SHAFT RANGE 185.00MM - 195.00MM				203 x 254 x 15.88	CRWHA1	R	<b>79826</b>
190 x x 12	VR1	R	<b>401900</b>	205 x 230 x 15	CRS11	R	78757
SHAFT RANGE 185.00MM - 195.00MM				210 x 240 x 20	HDS1	V	596185
190 x x 12	VR1	V	<b>401904</b>	210 x 240 x 15	HMS4	R	▲ <b>82610</b>
SHAFT RANGE 185.00MM - 195.00MM				210 x 240 x 20	HDS2	V	<b>596468</b>
190 x x 18	VR2	R	401901	210 x 245 x 16	HDS1	R	593438
SHAFT RANGE 185.00MM - 195.00MM				210 x 245 x 16	HDS1	V	595880
190 x x 18	VR2	V	401905	210 x 250 x 15	HMS4	R	<b>82607</b>
SHAFT RANGE 185.00MM - 195.00MM				210 x 250 x 20	HDS1	V	82615
190 x 215 x 15	CRS13	R	74801	210 x 265 x 23	HDS2	R	<b>595410</b>
190 x 215 x 16	CRSH1	R	74815	215 x x 25.4	LDSL3	R	90179
190 x 220 x 12	HMSA7	R	<b>74803</b>	FOR SEAL SH SIZE 220.00MM			
190 x 220 x 15	HMSA7	R	<b>74813</b>	215 x 240 x 12	HMSA7	R	84650
190 x 220 x 15	HMS4	R	▲ <b>74805</b>	215 x 248 x 15	HDS1	R	596518
190 x 220 x 15	HMS4	V	<b>74807</b>	215 x 250 x 16	HMSA7	R	84651
190 x 220 x 15	HMSA7	V	<b>74808</b>	215 x 270 x 23	HDS2	R	<b>595196</b>
W/STAINLESS STEEL SPRING				215.2 x x 35	LDSL3	R	87831
190 x 225 x 16	HMSA7	R	74812	FOR SEAL SH SIZE 220.00MM			
190 x 225 x 16	HMS4	R	<b>74820</b>	216 x 254 x 15.88	† CRWH1	R	<b>85115</b>
190 x 225 x 16	HMSA7	R	<b>74824</b>	219.989 x x 19.99	VR1	R	<b>402200</b>
190 x 230 x 16	HS8	R	<b>594857</b>	SHAFT RANGE 210.00MM - 235.00MM			
195 x 220 x 16	CRSH13	R	76770	220 x x 8	VR3	R	402202
195 x 230 x 15	CRSH1	R	76790	SHAFT RANGE 210.00MM - 233.00MM			
199 x x 12	VR1	R	<b>401990</b>	220 x x 8	VR3	V	402206
SHAFT RANGE 190.00MM - 210.00MM				SHAFT RANGE 210.00MM - 233.00MM			
199 x x 12	VR1	V	<b>401994</b>	220 x x 20	VR1	V	<b>402204</b>
SHAFT RANGE 190.00MM - 210.00MM				SHAFT RANGE 210.00MM - 233.00MM			
199 x x 18	VR2	R	401991	220 x x 40	LDSL3	R	87914
SHAFT RANGE 190.00MM - 210.00MM				FOR SEAL SH SIZE 225.00MM			
199 x x 18	VR2	V	401995	220 x 225 x 50.8	LDSL3	R	87915
SHAFT RANGE 190.00MM - 210.00MM				FOR SEAL SH SIZE 225.00MM			
200 x x 8	VR3	R	402002	220 x 250 x 15	HDL	R	<b>HDL-3069-R</b>
SHAFT RANGE 190.00MM - 210.00MM				220 x 250 x 15	HS8	R	<b>595075</b>
200 x x 8	VR3	V	402006	220 x 250 x 16	HS8	D	<b>596225</b>
SHAFT RANGE 190.00MM - 210.00MM				220 x 250 x 18	HDL	R	<b>HDL-3039-R</b>
200 x x 20	VR1	R	<b>402000</b>	220 x 250 x 16	CRWH1	R	<b>86617</b>
SHAFT RANGE 190.00MM - 210.00MM				220 x 250 x 15	HMSA7	R	<b>86616</b>
200 x x 20	VR1	V	<b>402004</b>	220 x 250 x 16	HMS4	R	<b>86603</b>
SHAFT RANGE 190.00MM - 210.00MM				220 x 250 x 16	HMSA7	R	<b>86606</b>
200 x x 34.52	SSLLEEVE	R	<b>99787</b>	220 x 250 x 15	HMS43	V	86611
SHAFT RANGE 199.87MM - 200.13MM				220 x 250 x 15	HMS4	V	<b>86614</b>
200 x 230 x 15	HMS4	R	▲ <b>78705</b>	220 x 250 x 15	HMS4	R	▲ <b>86615</b>
200 x 230 x 16	CRS13	R	78745	220 x 255 x 16	HDS1	R	595999
200 x 230 x 15.87	HDS1	R	595139	W/4 EA 12.70MM ADJ. LUGS			
200 x 230 x 15	HMSA7	R	<b>78706</b>	220 x 255 x 18	HDS2	R	<b>597284</b>
200 x 230 x 15	HMSA7	V	<b>78703</b>	220 x 260 x 14.27	HS8	R	<b>594917</b>
W/STAINLESS STEEL SPRING				220 x 260 x 15	HS8	R	<b>596048</b>
200 x 230 x 13	HMSA7P2	R	78742				
200 x 238 x 19	HS6	R	595693				
200 x 238 x 19	HDS1	V	78708				

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Metric size shaft x bore x width	Type and style	Lip code	Stock no.	Metric size shaft x bore x width	Type and style	Lip code	Stock no.
220 x 260 x 16	HS8	R	<b>596324</b>	240 x 280 x 20	HS7	R	595668
220 x 260 x 22	HDS2	V	<b>595851</b>	240 x 280 x 16	HDS2	D	<b>594897</b>
220 x 260 x 16	HDS1	R	592515	240 x 280 x 16	HDS2	R	<b>94498</b>
220 x 260 x 20	HDS1	R	594271	240 x 280 x 23	HDSA1	R	595573
220 x 260 x 22	HDS2	D	<b>595319</b>	240 x 290 x 20	HDS1	R	595315
224 x 260 x 16	HDS1	R	593489	240 x 300 x 25	HDS1	R	592964
224 x 260 x 16	HDS2	R	<b>595651</b>	240.208 x x 44	LDSL4		87911
224 x 274 x 20	HDS2	R	<b>595411</b>		FOR SEAL SH SIZE 245.00MM		
225 x 257 x 16	HDS1	R	595249	245 x 290 x 15	HS4	V	596309
229.01 x 18.11 x 29.21	CT1	R	528631	245 x 305 x 28	HDS2	R	<b>595414</b>
	BORE DIA. IS SHOULDER WIDTH			245.2 x x 63.5	LDSL3		90766
					FOR SEAL SH SIZE 250.00MM		
230 x 260 x 15	HS8	R	<b>90057</b>	250 x x 8	VR3	R	402502
230 x 260 x 15	HDS7	R	597293		SHAFT RANGE 233.00MM - 260.00MM		
230 x 260 x 15	HMSA7	R	<b>90554</b>	250 x x 8	VR3	V	402506
230 x 260 x 15	HMS4	R	▲ <b>90555</b>		SHAFT RANGE 233.00MM - 260.00MM		
230 x 260 x 15.88	HDS1	V	596462	250 x x 20	VR1	R	<b>402500</b>
					SHAFT RANGE 233.00MM - 260.00MM		
230 x 260 x 16	HDS1	R	596335	250 x x 20	VR1	V	<b>402504</b>
230 x 265 x 16	HDS1	R	595998		SHAFT RANGE 233.00MM - 260.00MM		
	W/4 EA 12.70MM ADJ. LUGS			250 x 280 x 16	HDS1	D	591941
230 x 269 x 22	HS5	R	<b>595195</b>				
230 x 270 x 15	CRSH11	R	90559	250 x 280 x 15	HS8	R	<b>594732</b>
230 x 270 x 16	HDS1	R	596016	250 x 280 x 16	HDS2	D	<b>595371</b>
				250 x 280 x 16	HDS2	R	<b>595763</b>
230 x 270 x 16	HDS2	V	<b>596548</b>	250 x 280 x 16	HDS1	V	595831
230 x 280 x 16	HDS2	R	<b>590632</b>	250 x 280 x 15	HMS4	R	▲ <b>98435</b>
	W/4 EA 3.20MM LUGS						
230 x 285 x 23	HDS1	R	593546	250 x 285 x 16	HDS2	R	<b>595415</b>
230 x 285 x 23	HDS2	R	<b>595412</b>	250 x 285 x 16	HDS2	D	<b>595122</b>
235 x 270 x 16	HDS2	R	<b>595058</b>	250 x 290 x 15.88	HS8	R	<b>596239</b>
				250 x 290 x 16	HDS1	R	595792
235 x 270 x 15	HDS7	H	596345	250 x 290 x 16.5	HDS3	D	595847
235 x 270 x 16	HDS7	H	596344		W/6 EA 12.70MM ADJ. LUGS		
235.229 x x 18	LDSL4		90952				
	FOR SEAL SH SIZE 240.00MM			250 x 310 x 25	HDS1	R	595203
238 x 290 x 25.4	HDS2	R	<b>595413</b>	254 x 17.48 x 28.57	CT1	R	524205
	W/6 EA 12.70MM ADJ. LUGS				BORE DIA. IS SHOULDER WIDTH		
240 x x 17.5	LDSL3		90156	254 x 17.48 x 28.57	CT1	R	527806
	FOR SEAL SHAFT SIZE 250.00MM				BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT		
240 x 23.8 x 28.57	CT3	R	594780	254 x 20.62 x 25.4	CT3	R	528780
	BORE DIA. IS SHOULDER WIDTH				BORE DIA. IS SHOULDER WIDTH		
240 x 23.825 x 29	CT3	R	595464	260 x 280 x 16	HMS1	V	102360
	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT				W/STAINLESS STEEL SPRING		
240 x 270 x 15	HS8	R	<b>595165</b>				
240 x 270 x 16	HDS1	R	590767	260 x 285.4 x 12.7	HS5	R	<b>1023015</b>
240 x 270 x 16	HDS2	R	<b>594397</b>	260 x 290 x 16	HS8	R	<b>1024068</b>
	W/6 EA 3.20MM LUGS			260 x 290 x 16	HDS2	R	<b>1023452</b>
				260 x 290 x 16	HDS2	V	<b>1023453</b>
240 x 270 x 16	HDS2	D	<b>595577</b>	260 x 290 x 16	HDS2	D	<b>1024081</b>
240 x 270 x 16	HDS2	V	<b>595298</b>				
	W/4 EA 3.20MM LUGS			260 x 300 x 20	CRS1	R	102365
240 x 270 x 15	HMS4	R	▲ <b>94495</b>	260 x 300 x 20	HDS2	D	<b>1024218</b>
240 x 275 x 18	HDS2	R	<b>597287</b>	260 x 300 x 16	HDS2	R	<b>1023282</b>
240 x 275 x 16	HDS2	D	<b>595930</b>		W/ 4 EA 6.35MM LUGS		
				260 x 300 x 16	HDS2	R	<b>1024232</b>
240 x 275 x 16	HDS1	R	596014	260 x 300 x 20	HDS1	V	1023287
	W/4 EA 12.70MM ADJ. LUGS						
240 x 275 x 16	HMS4	R	<b>94480</b>	260 x 300 x 20	HDS1	R	1024280
240 x 275 x 16	HMSA7	R	<b>94484</b>	260 x 304 x 20	HS8	R	<b>1023398</b>
240 x 279 x 22	HS5	R	<b>595190</b>	260 x 315 x 24	HDS2	R	<b>1024632</b>
240 x 280 x 20	HDL	R	<b>HDL-3015-R</b>	260 x 320 x 25	HDS1	V	1023670
				260 x 320 x 25	HDS2	R	<b>1023972</b>

Complete size listing — Metric

Metric size shaft x bore x width	Type and style	Lip code	Stock no.	Metric size shaft x bore x width	Type and style	Lip code	Stock no.
265 x 290 x 16	CRSH13	R	104300	280 x 340 x 20.62	HDL	R	<b>HDL-4039-R</b>
265 x 305 x 18	HDS1	R	1043240	280 x 340 x 25	HDS1	R	1102720
265 x 310 x 22	HS7	R	1043427	280.01 x x 45.009	LDSL4	R	90437
265 x 310 x 16	HDS1	R	1043360	FOR SEAL SH SIZE 285.00MM			
266 x 310 x 20	HS8	R	<b>1047388</b>	285 x 320 x 16	HDS2	R	<b>1122162</b>
				285 x 320 x 16	HDS2	R	<b>1122165</b>
				W/6 EA 12.70MM ADJ. LUGS			
270 x 310 x 16	HDS1	V	1063253	285 x 325 x 16	HDS1	R	1122230
270 x 310 x 20	HDLA	R	HDLA-3035-R	285.217 x x 63.5	LDSL4	R	90238
270 x 310 x 20	HS8	R	<b>1063258</b>	FOR SEAL SH SIZE 290.00MM			
270 x 310 x 20	HS8	R	<b>1063268</b>	290 x 330 x 16	CRSA13	R	1141288
W/HOOK & EYE SPRING CONNECTOR				290 x 330 x 20	HS8	R	<b>1141258</b>
270 x 310 x 16	HDS2	V	<b>1063284</b>	290 x 330 x 18	HDS2	R	<b>1142242</b>
270 x 310 x 16	HDS3	V	1063318				
W/6 EA 12.70MM ADJ. LUGS				290 x 330 x 18	HDS2	D	<b>1141282</b>
270 x 310 x 20	HDS2	V	<b>1063248</b>	W/6 EA 9.00MM LUGS			
W/SPRING KOVER				290 x 335 x 24	HS7	R	1142427
270 x 310 x 20	HDS2	R	<b>1063252</b>	290 x 350 x 25	HDS7	R	596382
270 x 310 x 16	HDS2	R	<b>1063242</b>	290 x 350 x 25	HDS2	V	<b>1141744</b>
270 x 310 x 20.5	HDS3	D	1063303	290 x 350 x 25	HDS2	R	<b>1142732</b>
W/6 EA 12.70MM ADJ. LUGS							
270 x 310 x 16	HDS1	R	1063240	295 x 330 x 17.48	HDS1	V	1161170
270 x 314 x 20	HDS1	R	1063780	295 x 330 x 17.48	HDS2	V	<b>1161174</b>
270 x 330 x 25	HDS2	V	<b>1063744</b>	295 x 335 x 18	HDS1	R	1161300
270 x 330 x 25.4	HDSA1	R	1063960	295.199 x x 32	LDSL4	R	90114
270 x 335 x 18	HDS1	R	1063790	FOR SEAL SHAFT SIZE 300.00MM			
				300 x x 8	VR3	R	403002
275 x x 8	VR3	R	402752	SHAFT RANGE 285.00MM - 310.00MM			
SHAFT RANGE 260.00MM - 285.00MM				300 x x 8	VR3	V	403006
275 x x 8	VR3	V	402756	SHAFT RANGE 185.00MM - 310.00MM			
SHAFT RANGE 260.00MM - 285.00MM				300 x x 20	VR1	R	<b>403000</b>
275 x x 20	VR1	R	<b>402750</b>	SHAFT RANGE 290.00MM - 310.00MM			
SHAFT RANGE 260.00MM - 285.00MM				300 x x 20	VR1	V	<b>403004</b>
275 x x 20	VR1	V	<b>402754</b>	SHAFT RANGE 290.00MM - 310.00MM			
SHAFT RANGE 260.00MM - 285.00MM				300 x 19.23 x 24	CT3	R	594734
275 x x 22	LDSL4	R	90546	BORE DIA. IS SHOULDER WIDTH			
FOR SEAL SH SIZE 280.00MM				300 x 19.23 x 24	CT3	R	594814
				BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT			
275 x 310 x 16	HDS1	R	1082160	300 x 332 x 16	HDS2	R	<b>1181052</b>
280 x 310 x 15	HS8	R	<b>1102078</b>	300 x 335 x 18	CRSH11	R	118101
280 x 310 x 16	HS8	R	<b>1102108</b>	300 x 335 x 18	HDS2	R	<b>1181182</b>
280 x 310 x 16	HDS2	R	<b>1102012</b>	300 x 338.094 x 19.05	HDS2	R	<b>1181252</b>
280 x 310 x 16	HDS2	D	<b>1102118</b>	300 x 340 x 16.5	HDS3	D	1181303
				W/6 EA 12.70MM ADJ. LUGS			
280 x 310 x 16	HDS1	V	1102060	300 x 340 x 20	HS8	R	<b>1181268</b>
280 x 310 x 16	HDS1	R	1102080	300 x 340 x 16	HDS1	R	1181310
280 x 310 x 16	HMS4	R	<b>110222</b>	300 x 340 x 22.225	† HDSA2	R	1181921
280 x 320 x 19.05	HS8	R	<b>1102258</b>	W/ BORE-TITE ON OD			
280 x 320 x 20	† CRWA1	R	<b>▲ 110245</b>	300 x 340 x 18	HDS1	D	1181220
				300 x 340 x 18	HDS7	R	1181231
280 x 320 x 20	† CRWA1	V	<b>110246</b>				
280 x 320 x 20	HDS2	R	<b>1102252</b>	300 x 340 x 18	HDS2	V	<b>1181262</b>
280 x 320 x 16	HDS1	R	1102220	300 x 340 x 18	HDS1	V	1181307
280 x 320 x 16	HDS2	D	<b>1102218</b>	300 x 340 x 20	HDS2	V	<b>1181234</b>
280 x 320 x 18	HDS1	R	1103258	300 x 340 x 18	HDS2	R	<b>1181232</b>
W/4 EA 12.70MM ADJ. LUGS				300 x 340 x 18	HMS4	R	<b>118100</b>
280 x 320 x 18	HDS1	R	1102260				
280 x 320 x 20	HDS1	R	1102250	300 x 340 x 16	HMS46	R	118102
280 x 324 x 20	HS8	R	<b>1102378</b>	300 x 340 x 16	HMS4	R	<b>118103</b>
280 x 325 x 24	HS5	R	<b>595193</b>	300 x 340 x 16	HMSA7	R	<b>118106</b>
280 x 330 x 24	HDS1	R	594272	300 x 344 x 20	HDS2	V	<b>1181372</b>
				300 x 345 x 22	HS7	R	1181587

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 ▲ WasteWatcher numbers

† Includes Bore-Tite on O.D.

## Complete size listing — Metric

Metric size shaft x bore x width	Type and style	Lip code	Stock no.	Metric size shaft x bore x width	Type and style	Lip code	Stock no.
300 x 345 x 22	HDS1	R	1181410	320 x 380 x 25	HDS1	R	1259670
300 x 350 x 25	HDS1	R	1181420	320 x 380 x 28	HDS7	R	1259720
300 x 360 x 25	HDS2	R	<b>1181712</b>	320 x 380 x 28	HDSA2	RD	1259962
300 x 360 x 25	HDS2	V	<b>1181704</b>	320 x 380 x 25	HDS2	R	<b>1260732</b>
304.8 x x 34.925	LDSL4		90150	325 x x 8	VR3	R	403252
FOR SEAL SHAFT SIZE 310.00MM				SHAFT RANGE 310.00MM - 335.00MM			
310 x 340 x 15	HS8	V	<b>1220055</b>	325 x x 8	VR3	V	403256
310 x 340 x 15	HS8	R	<b>1220058</b>	SHAFT RANGE 310.00MM - 335.00MM			
310 x 350 x 18	HS8	R	<b>1220254</b>	325 x x 20	VR1	R	<b>403250</b>
W/HOOK & EYE SPRING CONNECTOR				SHAFT RANGE 310.00MM - 335.00MM			
310 x 350 x 20	HS8	D	<b>1220289</b>	325 x x 20	VR1	V	<b>403254</b>
310 x 350 x 20	HDS3	D	1220283	SHAFT RANGE 310.00MM - 335.00MM			
W/6 EA 12.70MM ADJ. LUGS				325 x 368 x 20	HS5	R	<b>595680</b>
310 x 350 x 18	HDS2	V	<b>1220224</b>	325.222 x x 63.5	LDSL4		90239
310 x 350 x 20	HDS2	D	<b>1220228</b>	FOR SEAL SH SIZE 330.00MM			
310 x 350 x 18	HDS3	D	596490	330 x 370 x 18	HDL	R	<b>HDL-3007-R</b>
W/4 EA 12.70MM ADJ. LUGS				330 x 370 x 18	HDS2	V	<b>1299242</b>
310 x 354 x 20	HS5	R	<b>595681</b>	330 x 370 x 20	HDS1	R	1299280
310 x 354 x 20.5	HDS3	D	1220343	330 x 370 x 16	HDS2	R	<b>1299312</b>
W/6 EA 12.70MM ADJ. LUGS				330 x 370 x 20	HDS2	R	<b>1299212</b>
310 x 370 x 25	HDS1	R	1220720	W/4 EA 4.77MM LUGS			
310 x 370 x 25	HDS2	D	<b>1220722</b>	330 x 370 x 25	HDS2	R	<b>1299272</b>
310 x 370 x 25	HDS2	R	<b>1220972</b>	330 x 370 x 18	HDS2	R	<b>1299252</b>
310 x 370 x 25	HDS1	R	1221728	330 x 370 x 18	HDS1	R	1299300
W/4 EA 4.77MM LUGS				330 x 370 x 18	HDS2	D	<b>1299302</b>
310 x 370 x 25.4	HDSA1	R	1220960	330 x 370 x 20	HDS1	R	1299303
315 x 355 x 16	HS4	V	1240234	330 x 370 x 20	HDS2	R	<b>1299262</b>
315 x 355 x 18	HDS1	V	1240240	330 x 374 x 18	HDS1	R	1299340
315 x 355 x 20	HDS1	V	1240230	W/4 EA 12.70MM ADJ. LUGS			
315 x 355 x 18	HDS1	R	1240250	330 x 374 x 20	HDS2	R	<b>1299382</b>
315 x 365 x 20	HDS1	R	1240470	330 x 390 x 25	HDS1	R	1299700
315.189 x x 63.5	LDSL4		90155	330 x 390 x 28	HDS2	D	<b>1299732</b>
FOR SEAL SH SIZE 320.00MM				335 x 375 x 18	HDS1	R	592787
317 x 352 x 23	HDSA1	RD	1248920	335 x 375 x 18	HDS3	D	1318303
318 x 360 x 20	HDS2	R	<b>1252340</b>	W/6 EA 12.70MM ADJ. LUGS			
320 x x 50	VR4	R	<b>403203</b>	335 x 380 x 20	HDS1	R	1319430
SHAFT RANGE 320.00MM - 325.00MM				335.2 x x 39	LDSL4		90777
320 x x 63.5	LDSL4		90198	FOR SEAL SH SIZE 340.00MM			
FOR SEAL SH SIZE 325.00MM				335.229 x x 18	LDSL4		87901
320 x 350 x 16	HDS1	R	1259100	FOR SEAL SH SIZE 340.00MM			
320 x 350 x 18	HDS1	R	592869	340 x x 50	LDSL3		90113
320 x 355 x 16	HDS1	R	1259160	FOR SEAL SH SIZE 345.00MM			
320 x 358 x 19	HDS1	R	1259240	340 x 372 x 18	HS8	R	<b>1339128</b>
320 x 360 x 20	HS8	R	<b>1259288</b>	340 x 372 x 16	HDS2	V	<b>1339114</b>
W/THREADED SPRING CONNECTOR				340 x 372 x 16	HDS1	R	1339110
320 x 360 x 16	HDS1	R	1259220	340 x 380 x 18	HDLA	R	HDLA-3036-R
W/6 EA 12.70MM ADJ. LUGS				340 x 380 x 20	HS8	R	<b>1338288</b>
320 x 360 x 22.23	HDSC1	VD	1259937	340 x 380 x 20	HDS2	V	<b>1338304</b>
320 x 360 x 25	HDSB2	RD	1259928	340 x 380 x 20	HDS3	D	1338233
320 x 360 x 20	HDS1	V	1259280	W/4 EACH 12.70MM ADJ. LUGS			
320 x 360 x 18	HDS2	V	<b>1259247</b>	340 x 380 x 20	HDS1	R	1339300
320 x 360 x 18	HDS1	R	1259370	340 x 380 x 18	HDS1	V	1339211
320 x 360 x 20	HDS1	R	1259380	340 x 380 x 18	HDS2	V	<b>1339214</b>
320 x 364 x 20	HDS2	D	<b>1259343</b>	340 x 380 x 18	HDS1	R	1339301
320 x 380 x 25	HDS1	R	1260690	340 x 380 x 18	HDS2	R	<b>1339302</b>
320 x 380 x 30	HDS1	R	1260720	340 x 380 x 20	HDS2	H	<b>1339251</b>
				340 x 380 x 20	HDS2	R	<b>1339252</b>



Complete size listing — Metric

Metric size shaft x bore x width	Type and style	Lip code	Stock no.	Metric size shaft x bore x width	Type and style	Lip code	Stock no.
340 x 384 x 20	HDS1	R	1338340	364 x 420 x 25	HDSA2	RD	1433962
340 x 390 x 25.4	HDS1	R	1339490	364 x 420 x 25	HDSC7	RD	1433970
345 x 390 x 25	HS8	R	<b>1358418</b>	365 x 400 x 17	HDS1	R	1436170
350 x x 8	VR3	R	403502	365 x 405 x 18	HDS2	R	<b>1437242</b>
	SHAFT RANGE 335.00MM - 365.00MM			365 x 405 x 18	HDS2	V	<b>1437254</b>
350 x x 8	VR3	V	403506				
	SHAFT RANGE 335.00MM - 365.00MM			365 x 405 x 18	HDS3	R	1437283
350 x x 20	VR1	R	<b>403500</b>		W/6 EA 12.70MM ADJ. LUGS		
	SHAFT RANGE 335.00MM - 365.00MM			365.2 x x 20	LDSL4		87531
350 x x 20	VR1	V	<b>403504</b>		FOR SEAL SH SIZE 370.00MM		
	SHAFT RANGE 335.00MM - 365.00MM			370 x 410 x 16	HDS2	R	<b>1456232</b>
350 x 380 x 16	HDS2	V	<b>1377040</b>	370 x 410 x 18	HDS1	R	1456240
350 x 380 x 16	HDS2	R	<b>1377050</b>	370 x 420 x 25	HDS1	R	1456490
350 x 380 x 16	HDS1	R	1377100				
				370 x 420 x 25	HDS1	R	1456491
350 x 380 x 20.5	HDS2	H	<b>1378372</b>		W/4 EA 4.77MM LUGS		
350 x 390 x 18	HS8	R	<b>1378268</b>	375 x x 8	VR3	R	403752
350 x 390 x 18	HDS2	V	<b>1378212</b>		SHAFT RANGE 365.00MM - 385.00MM		
350 x 390 x 18	HDS2	D	<b>1377242</b>	375 x x 8	VR3	V	403756
350 x 390 x 18	HDS1	D	1377280		SHAFT RANGE 365.00MM - 385.00MM		
				375 x x 20	VR1	R	<b>403750</b>
350 x 390 x 18	HDS1	V	1377287		SHAFT RANGE 365.00MM - 390.00MM		
350 x 400 x 25.4	HS5	R	<b>595191</b>	375 x x 20	VR1	V	<b>403754</b>
350 x 400 x 17	HDS1	R	1378540		SHAFT RANGE 365.00MM - 390.00MM		
355.2 x x 25.4	LDSL4		90778				
	FOR SEAL SH SIZE 360.00MM			375 x x 50	VR4	R	<b>403753</b>
355.6 x 406.4 x 20.62	HDLA	R	HDLA-4135-R		SHAFT RANGE 375.00MM - 380.00MM		
				375 x 420 x 18	HDS1	R	1476380
360 x x 50	VR4	R	<b>403603</b>	375 x 420 x 18	HDS2	R	<b>1476432</b>
	SHAFT RANGE 360.00MM - 365.00MM			380 x 27 x 38.1	CT1	R	593171
360 x x 44	LDSL4		87500		BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT		
	FOR SEAL SH SIZE 364.78MM			380 x 418 x 19	HS7	R	1496257
360 x 390 x 18	HS5	H	<b>1417075</b>				
360 x 390 x 15.88	HDS2	R	<b>1417442</b>	380 x 418 x 19	HS8	R	<b>1496258</b>
360 x 392 x 15.88	HDS1	R	1417060	380 x 420 x 19.05	HS8	V	<b>1496268</b>
				380 x 420 x 20	HS8	D	<b>1496238</b>
360 x 392 x 20	HDS1	R	1417130	380 x 420 x 20	HS7	R	1496247
360 x 398 x 20	HDS2	R	<b>1417222</b>	380 x 420 x 20	HS8	H	<b>1496248</b>
360 x 400 x 18	HS8	R	<b>1417268</b>				
360 x 400 x 20	HS7	R	1417287	380 x 420 x 20	HS8	D	<b>1496289</b>
360 x 400 x 20	HDS1	R	1417310	380 x 420 x 20	HS8	R	<b>1496308</b>
				380 x 420 x 16	HDS3	R	1496223
360 x 400 x 17	HDS2	R	<b>1417245</b>		W/4 EA 12.70MM ADJ. LUGS		
	W/4 EA 4.77MM LUGS			380 x 420 x 16	HDS3	D	1496283
360 x 400 x 20	HDS2	R	<b>1417253</b>		W/6 EA 12.70MM ADJ. LUGS		
360 x 400 x 25	HDS2	R	<b>1417275</b>	380 x 420 x 20	HDS2	V	<b>1496256</b>
360 x 400 x 17	HDS2	R	<b>1417252</b>				
	W/6 EA 12.70MM ADJ. LUGS			380 x 420 x 20	HDS2	D	<b>1496259</b>
360 x 400 x 18	HDS1	R	1417250	380 x 420 x 20	HDS3	D	1496263
					W/4 EACH 12.70MM ADJ LUGS		
360 x 400 x 18	HDS1	V	1417337	380 x 420 x 20	HDS1	R	1496250
360 x 400 x 20	HDS1	V	1417251	380 x 420 x 20	HDS2	R	<b>1496252</b>
360 x 404 x 17.45	HDL	R	<b>HDL-9996-R</b>	380 x 420 x 20	HDS2	R	<b>1496254</b>
360 x 404 x 16	HDS1	R	1417220		W/4 EA 9.50MM LUGS		
	W/6 EA 12.70MM ADJ. LUGS			380 x 420 x 22.2	HDSA2	VD	1496944
360 x 404 x 20	HDS2	R	<b>1417342</b>	380 x 424 x 20	HS8	R	<b>1496384</b>
					W/HOOK & EYE SPRING CONNECTOR		
360 x 404 x 20	HDS7	R	1417351	380 x 425 x 20	HDS2	R	<b>1378392</b>
360 x 410 x 17	HDS1	R	1457230	380 x 430 x 20	HS8	R	<b>1496508</b>
360 x 410.8 x 22.26	HS8	R	<b>1417588</b>	380 x 430 x 19	HDS2	R	<b>1496470</b>
360 x 420 x 25	HDS1	R	1417720				
364 x 406 x 17	HDS7	D	596393				

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## Complete size listing — Metric

Metric size shaft x bore x width	Type and style	Lip code	Stock no.	Metric size shaft x bore x width	Type and style	Lip code	Stock no.
380 x 440 x 25	HDS1	R	1496671	400 x 450 x 25	HS8	R	<b>1574488</b>
380 x 440 x 25	HDS2	R	<b>1496672</b>	400 x 450 x 25	HS5	R	<b>595194</b>
380 x 440 x 28	HDSA2	RD	1496972	400 x 450 x 20	HDS3	D	1574573
381 x 17.48 x 28.57	CT1	R	594025		W/4 EA 12.70MM ADJ. LUGS		
	BORE DIA. IS SHOULDER WIDTH			400 x 450 x 17.5	HDS2	R	<b>1574504</b>
389.99 x 20.62 x 25.4	CT3	R	594190		W/4 EA 3.20MM LUGS		
	BORE DIA. IS SHOULDER WIDTH			400 x 450 x 20	HDS1	R	1574500
390 x x 50	VR4	R	<b>403903</b>	400 x 450 x 20	HDS2	R	<b>1574503</b>
	SHAFT RANGE 390.00MM - 395.00MM			400 x 450 x 20	HDS1	V	1574520
390 x 430 x 16	HDL	R	<b>HDL-4616-R</b>	400 x 451 x 22.225	HS8	R	<b>1574558</b>
390 x 430 x 16	HDS1	R	1535300	400 x 460 x 25	HDS1	R	1575720
390 x 430 x 16	HDS2	R	<b>1535304</b>	400 x 460 x 28	HDSA2	RD	1574972
390 x 430 x 18	HDS2	R	<b>1535242</b>				
390 x 430 x 20	HDS2	D	<b>1535248</b>	405.232 x x 50	LDSL4		90042
390 x 430 x 20	HDS2	V	<b>1535284</b>		FOR SEAL SH SIZE 410.00MM		
390 x 434 x 20	HS5	R	<b>1535345</b>	410 x x 50	VR4	R	<b>404103</b>
390 x 434 x 18	HDS1	R	1535340		SHAFT RANGE 410.00MM - 415.00MM		
	W/6 EA 12.70MM ADJ. LUGS			410 x 12.5 x 23.83	CT1	R	595110
390 x 434 x 20	HDS2	R	<b>1535382</b>		BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT		
390 x 434 x 22	HDSA2	V	1535934	410 x 450 x 17.5	HDS1	V	1614237
390 x 450 x 25	HDS1	R	1535710	410 x 450 x 20	HDS2	R	<b>1614242</b>
394 x 420 x 16	HMS46	R	1551038	410 x 454 x 19	HS8	R	<b>1614388</b>
395 x 430 x 18	HDS2	R	<b>1555185</b>	410 x 454 x 20	HS5	R	<b>594849</b>
	W/6 EA 12.70MM ADJ. LUGS			410 x 460 x 22	HDS2	R	<b>1614572</b>
395 x 430 x 18	HDS1	V	1555193	410 x 470 x 25	HDS1	R	1614720
					W/4 EA 6.30MM LUGS		
395.22 x x 63.5	LDSL4		87461	410 x 470 x 25	HDS1	R	1614721
	FOR SEAL SHAFT SIZE 400.00MM			419.989 x x 63.5	LDSL3		97064
400 x x 8	VR3	R	404002		FOR SEAL SH SIZE 425.00MM		
	SHAFT RANGE 385.00MM - 410.00MM			420 x 460 x 20	HDL	R	<b>HDL-3010-R</b>
400 x x 8	VR3	V	404006	420 x 460 x 20	HS7	R	1653267
	SHAFT RANGE 385.00MM - 410.00MM			420 x 460 x 20	HDS1	V	596044
400 x x 20	VR1	R	<b>404000</b>	420 x 460 x 22.23	HDSC1	VD	1653927
	SHAFT RANGE 390.00MM - 430.00MM			420 x 460 x 20	HDS2	R	<b>1653262</b>
400 x x 20	VR1	V	<b>404004</b>	420 x 460 x 20	HDS1	R	1653300
	SHAFT RANGE 390.00MM - 430.00MM			420 x 464 x 20	HDS2	R	<b>1653342</b>
400 x x 50	VR4	R	<b>404003</b>	420 x 470 x 22	HDS1	R	1653570
	SHAFT RANGE 400.00MM - 405.00MM				W/6 EA 12.70MM ADJ. LUGS		
400 x 440 x 20	HDL	R	<b>HDL-3038-R</b>	420 x 470 x 20	HDS3	D	1653502
400 x 440 x 20	HS7	R	1574267		W/6 EA 12.70MM ADJ. LUGS		
400 x 440 x 18	HDS1	R	1574220	420 x 470 x 20	HDS3	H	1653742
	W/6 EA 12.70MM ADJ. LUGS				W/6 EA 12.70MM ADJ. LUGS		
400 x 440 x 20	HDS2	R	<b>1575212</b>	420 x 480 x 28	HDS1	R	1654740
400 x 440 x 20	HDS1	V	1575337	420 x 480 x 25	HDS1	R	1654730
400 x 440 x 20	HDS2	V	<b>1574264</b>	430 x x 50	VR4	R	<b>404303</b>
400 x 440 x 20	HDS1	R	1575280		SHAFT RANGE 430.00MM - 435.00MM		
400 x 444 x 13.5	HS8	R	<b>1574368</b>	430 x 480 x 22	HDS1	V	1692567
400 x 444 x 20	HS5	R	<b>595291</b>	430 x 480 x 16	HDS2	R	<b>1693506</b>
400 x 444 x 20	HDS7	R	1574250	430 x 480 x 25	HDS2	R	<b>1693502</b>
400 x 444 x 20	HDS1	R	1574350	430 x 480 x 18	HDS2	R	<b>1692502</b>
400 x 444 x 22	HDS1	R	1574340		W/4 EA 3.18MM LUGS		
400 x 444 x 20	HDS2	R	<b>1575382</b>	430 x 480 x 22	HDS2	R	<b>1693562</b>
400 x 447 x 20	HS5	R	<b>1574445</b>	430 x 490 x 25	HDS1	R	1693780

Complete size listing — Metric

Metric size shaft x bore x width	Type and style	Lip code	Stock no.	Metric size shaft x bore x width	Type and style	Lip code	Stock no.
435 x 475 x 20	HDS1	R	1712240	460 x 520 x 25	HDS2	R	<b>1811722</b>
435 x 485 x 18	HDS2	R	<b>1712472</b>	461 x 495 x 20	HDS7	H	1815180
	W/6 EA 9.50MM ADJ. LUGS			463 x 528 x 20	HDS1	R	1850660
435 x 485 x 18	HDS2	R	<b>1712522</b>	467 x 510 x 20	HDS2	V	<b>1838342</b>
435 x 485 x 18	HDS2	R	<b>1712562</b>	470 x x 50	VR4	R	<b>404703</b>
	W/6 EA 12.70MM ADJ. LUGS				SHAFT RANGE 470.00MM - 475.00MM		
435.204 x x 63.5	LDSL4		87916	470 x 510 x 20	HDS2	V	<b>1850253</b>
	FOR SEAL SH SIZE 440.00MM			470 x 510 x 20	HDS1	R	1850280
440 x 470 x 20	HDS1	R	1732130	470 x 510 x 20	HDS2	R	<b>1850302</b>
440 x 472 x 16	HS8	R	<b>1732118</b>	470 x 520 x 20.7	HS4	R	1850503
	W/HOOK & EYE SPRING CONNECTOR			470 x 520 x 22	HDL	R	<b>HDL-3029-R</b>
440 x 480 x 20	HDL	R	<b>HDL-4192-R</b>	470 x 520 x 20	HDS1	R	1850590
440 x 480 x 20	HS8	R	<b>1732288</b>		W/4 EA 12.70MM ADJ. LUGS		
440 x 480 x 21	HS8	H	<b>1732308</b>	470 x 520 x 20	HDS1	V	1850510
440 x 480 x 20	HDS1	R	1732250	470 x 530 x 20	HDL	R	<b>HDL-3062-R</b>
440 x 480 x 20	HDS1	V	1732253	470 x 530 x 25	HDS1	D	1850720
440 x 480 x 20	HDS7	R	1732259	470 x 530 x 25	HDS1	R	1850728
440 x 480 x 22.23	HDSA2	V	1732934		W/4 EA 9.50MM LUGS		
440 x 480 x 20	HDS1	R	1732258	470 x 530 x 25	HDS2	R	<b>1850722</b>
	W/4 EA 9.52MM LUGS			470 x 530 x 26	HDS2	R	<b>1850702</b>
440 x 490 x 20	HDS1	R	1732490	470 x 530 x 28	HDS7	R	1850710
445 x 485 x 20	HDS1	R	1752270	475 x 525 x 25	HS4	R	1870504
446 x 496 x 22	HDS1	R	1755500	475.183 x x 20	LDSL4		87921
448 x 480 x 16	HDS2	R	<b>1763110</b>		FOR SEAL SHAFT SIZE 480.00MM		
450 x x 8	VR3	R	404502	480 x x 50	VR4	R	<b>404803</b>
	SHAFT RANGE 440.00MM - 475.00MM				SHAFT RANGE 480.00MM - 485.00MM		
450 x x 8	VR3	V	404506	480 x 520 x 20	HDS2	V	<b>1889284</b>
	SHAFT RANGE 440.00MM - 475.00MM			480 x 520 x 20	HDS1	D	1889260
450 x x 20	VR1	R	<b>404500</b>	480 x 520 x 20	HDS1	R	1890260
	SHAFT RANGE 430.00MM - 480.00MM			480 x 530 x 20	HS8	R	<b>1890548</b>
450 x x 20	VR1	V	<b>404504</b>	480 x 530 x 25	HS5	R	<b>595199</b>
	SHAFT RANGE 430.00MM - 480.00MM			480 x 530 x 20	HDS3	D	1889502
450 x x 50	VR4	R	<b>404503</b>		W/4 EA 12.70MM ADJ. LUGS		
	SHAFT RANGE 450.00MM - 455.00MM			480 x 530 x 20	HDS3	H	1889742
450 x 490 x 20	HDS1	R	1771250		W/4 EA 12.70MM ADJ. LUGS		
450 x 500 x 25	HS8	R	<b>1771508</b>	480 x 530 x 18	HDS1	R	1889570
450 x 500 x 20	HDS1	R	1771470		W/6 EA 12.70MM ADJ. LUGS		
454.03 x 504.83 x 19.05	HDS1	R	592944	485 x x 50	VR4	R	<b>404853</b>
	W/SS CASE				SHAFT RANGE 484.88MM - 489.96MM		
455 x x 50	VR4	R	<b>404553</b>	485 x 535 x 19	HDL	R	<b>HDL-4220-R</b>
	SHAFT RANGE 455.00MM - 460.00MM			485 x 535 x 22	HDS1	R	1909500
455 x x 30	LDSL4		90347	485 x 535 x 20	HDS3	D	1909503
	FOR SEAL SH SIZE 460.00MM				W/4 EA 12.70MM ADJ. LUGS		
455 x 459.77 x 30	LDSL4		90765	490 x x 50	VR4	R	<b>404903</b>
	FOR SEAL SH SIZE 460.00MM				SHAFT RANGE 490.00MM - 495.00MM		
455.2 x x 50	LDSL4		87504	490 x 530 x 20	HS8	R	<b>1929228</b>
	FOR SEAL SH SIZE 460.00MM			490 x 530 x 20.5	HS5	D	<b>595169</b>
458 x 505 x 20.62	HDS2	R	<b>1803452</b>	490 x 530 x 20	HDS1	R	1929218
460 x x 50	VR4	R	<b>404603</b>		W/4 EA 4.80MM ADJ. LUGS		
	SHAFT RANGE 460.00MM - 465.00MM			490 x 530 x 20	HDS1	R	1929250
460 x 500 x 20	HDS1	V	1811287	490 x 540 x 25	HS8	R	<b>1929578</b>
460 x 500 x 23	HDS1	V	1811300	490 x 540 x 25	HDS1	R	1929570
460 x 500 x 20	HDS1	R	1811280				
460 x 504 x 20	HDS1	R	1811340				
460 x 510 x 22	HDS2	V	<b>1811564</b>				
460 x 510 x 20.62	HDS2	R	<b>1811452</b>				

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## Complete size listing — Metric

Metric size shaft x bore x width	Type and style	Lip code	Stock no.	Metric size shaft x bore x width	Type and style	Lip code	Stock no.
490 x 541 x 20.7	HS6	R	1929576	520 x 570 x 24	HS5	R	<b>595192</b>
494.436 x x 111.252	LDSL4		90259	520 x 570 x 18	HDS1	R	2047500
	FOR SEAL SH SIZE 500.00MM				W/6 EA 12.70MM ADJ. LUGS		
495.2 x x 30	LDSL4		87503	520 x 580 x 20	HDS1	R	2047700
	FOR SEAL SH SIZE 500.00MM			520 x 580 x 20	HDS2	R	<b>2047702</b>
500 x x 8	VR3	R	405002	520 x 580 x 25	HDS2	R	<b>2047692</b>
	SHAFT RANGE 475.00MM - 510.00MM						
500 x x 8	VR3	V	405006	520 x 580 x 25	HDS2	R	<b>2047705</b>
	SHAFT RANGE 474.98MM - 620.03MM				W/6 EA 12.70MM ADJ. LUGS		
500 x x 20	VR1	R	<b>405000</b>	525 x x 8	VR3	R	405252
	SHAFT RANGE 480.00MM - 530.00MM				SHAFT RANGE 510.00MM - 540.00MM		
500 x x 20	VR1	V	<b>405004</b>	525 x 575 x 20.7	HS4	R	2066503
	SHAFT RANGE 480.00MM - 530.00MM			525 x 575 x 20	HDS3	D	2066573
500 x x 50	VR4	R	<b>405003</b>		W/4 EA 12.70MM ADJ. LUGS		
	SHAFT RANGE 500.00MM - 505.00MM			525 x 575 x 22	HDS1	R	2066500
500 x 540 x 20	HDS1	R	1968280	530 x x 50	VR4	R	<b>405303</b>
	W/4/ EA 10.00MM LUGS				SHAFT RANGE 530.00MM - 535.00MM		
500 x 540 x 20	HDS3	D	1968223	530 x x 20	LDSL4		87783
	W/6 EA 12.70MM ADJ. LUGS				FOR SEAL SH SIZE 535.00MM		
500 x 540 x 20	HDS1	R	1968190	530 x 575 x 20	HS5	R	<b>594770</b>
500 x 540 x 20	HDS1	V	1968257	530 x 576 x 21	HS8	R	<b>2086448</b>
500 x 550 x 19	HDL	R	<b>HDL-4232-R</b>	530 x 580 x 20	HS8	R	<b>2086508</b>
500 x 550 x 25	HS8	R	<b>1968388</b>	530 x 580 x 20.62	HDL	R	<b>HDL-4244-R</b>
500 x 550 x 18	HDS1	R	1968570	530 x 580 x 22	HDS1	R	2086541
	W/6 EA 12.70MM ADJ. LUGS				W/6 EA 6.40MM LUGS		
500 x 550 x 18	HDS2	R	<b>1968500</b>	530 x 580 x 22	HS8	R	<b>2087568</b>
500 x 550 x 18	HDS2	D	<b>1968462</b>	530 x 580 x 22	HDS3	D	2086573
500 x 550 x 20	HDS7	D	1985539		W/6 EA 12.70MM ADJ. LUGS		
	W/6 EA 12.70MM ADJ. LUGS			530 x 580 x 20	HDS1	V	2087547
500 x 550 x 18	HDS1	D	1968458	530 x 580 x 20	HDS1	R	2086510
500 x 560 x 18	HDS1	V	596045	530 x 580 x 22	HDS1	R	2086540
	W/6 EA 12.70MM ADJ. LUGS			530 x 580 x 20	HDS7	D	2086539
503.25 x x 24.003	LDSL4		90149		W/6 EA 12.70MM ADJ. LUGS		
	FOR SEAL SH SIZE 508.00MM			530 x 580 x 22	HDS7	R	2086500
505 x 555 x 20.62	HDS2	R	<b>1988462</b>	533 x 20.65 x 31.75	CT1	R	594241
510 x x 50	VR4	R	<b>405103</b>		BORE DIA. IS SHOULDER WIDTH		
	SHAFT RANGE 510.00MM - 515.00MM			535 x 580 x 20	HDS3	D	2105443
510 x 550 x 20	HDS1	D	2007260		W/6 EA 12.70MM ADJ. LUGS		
510 x 554 x 20	HDS1	D	2007340	540 x 580 x 20	HDS1	R	2126280
510 x 560 x 25	HDS2	D	<b>2007502</b>	540 x 584 x 20	HS4	R	2126344
510 x 560 x 25	HDS1	D	2008570	540 x 590 x 24.98	HDL	R	<b>HDL-7393-R</b>
513 x 543 x 16	HDL	R	<b>HDL-9997-R</b>	540 x 590 x 20	HDS2	D	<b>2126502</b>
515 x 555 x 20	HS5	R	<b>2027295</b>	540 x 590 x 20	HDS2	V	<b>2126504</b>
	W/SPRING KOVER			540 x 590 x 20	HDS1	R	2126540
515 x 555 x 20	HS8	R	<b>2028258</b>	542 x 578 x 16	HDS7	D	2133181
					W/4 EACH 12.70MM ADJ LUGS		
515 x 555 x 20	HDS7	R	2027280	545 x 595 x 22	HDS1	R	2145500
515 x 555 x 20	HDS2	R	<b>2027282</b>	550 x x 8	VR3	R	405502
519 x 560 x 25	HS8	D	<b>2043308</b>		SHAFT RANGE 540.00MM - 575.00MM		
519 x 560 x 25	HS5	D	<b>596075</b>	550 x x 20	VR1	R	<b>405500</b>
520 x x 50	VR4	R	<b>405203</b>		SHAFT RANGE 530.00MM - 580.00MM		
	SHAFT RANGE 520.00MM - 525.00MM			550 x x 20	VR1	V	<b>405504</b>
520 x 560 x 18	HDL	R	<b>HDL-3025-R</b>		SHAFT RANGE 530.00MM - 580.00MM		
520 x 560 x 20	HDS1	R	2047258	550 x x 50	VR4	R	<b>405503</b>
	W/4 EA 9.50MM LUGS				SHAFT RANGE 550.00MM - 555.00MM		
520 x 560 x 20	HDS1	R	2047220	550 x 590 x 20	HS8	R	<b>2165288</b>
520 x 560 x 20	HDS1	V	2047283	550 x 590 x 20	HDS1	R	2165258
520 x 570 x 22	HDL	R	<b>HDL-3027-R</b>		W/4 EA 9.50MM LUGS		

Complete size listing — Metric

Metric size shaft x bore x width	Type and style	Lip code	Stock no.	Metric size shaft x bore x width	Type and style	Lip code	Stock no.
550 x 590 x 20	HDS1	R	2165250	590 x x 50	VR4	R	<b>405903</b>
550 x 590 x 20	HDS1	R	2165255	SHAFT RANGE 590.00MM - 600.00MM			
	W/4 EA 4.80MM LUGS			590 x 630 x 20	HDS3	D	2323253
550 x 600 x 20	HDS1	R	2165500		W/6 EA 12.70MM ADJ. LUGS		
550 x 600 x 25	HDS2	R	<b>2165492</b>	590 x 630 x 20	HDS1	R	2322218
550 x 610 x 25	HDS2	R	<b>2163672</b>		W/4 EA 4.80MM ADJ. LUGS		
550 x 610 x 25	HDS1	R	2165720	590 x 630 x 20	HDS1	R	2322250
550 x 620 x 25	HDS1	V	2165840	590 x 630 x 20	HDS7	D	2322221
555.2 x x 63.5	LDSL4		90075		W/6 EA 12.70MM ADJ. LUGS		
	FOR SEAL SH SIZE 560.00MM			590 x 640 x 25	HS8	R	<b>2322498</b>
556 x 610 x 25.4	HS7	R	2189637	590 x 640 x 22	HDS2	R	<b>2323562</b>
560 x x 50	VR4	R	<b>405603</b>	595.2 x x 58.17	LDSL3		90120
	SHAFT RANGE 560.00MM - 564.89MM				FOR SEAL SH SIZE 600.00MM		
560 x 600 x 18	HDS2	R	<b>2204242</b>	595.2 x x 63.5	LDSL4		89997
560 x 604 x 16	HDS2	R	<b>2204332</b>		FOR SEAL SH SIZE 600.00MM		
	W/4 EA 3.20MM LUGS			595.224 x x 50.013	LDSL3		90241
560 x 604 x 20	HDS2	R	<b>2205382</b>		FOR SEAL SH SIZE 600.00MM		
560 x 604 x 20	HDS1	R	2204340	600 x x 8	VR3	R	406002
560 x 604 x 20	HDS7	R	2204380		SHAFT RANGE 575.00MM - 625.00MM		
560 x 610 x 22	HDS7	R	2204510	600 x x 20	VR1	R	<b>406000</b>
560 x 610 x 20	HDS1	V	2204473		SHAFT RANGE 580.00MM - 630.00MM		
560 x 610 x 20	HDS1	R	2204500	600 x x 20	VR1	V	<b>406004</b>
	W/4 EA 12.70MM ADJ. LUGS				SHAFT RANGE 580.00MM - 630.00MM		
560 x 610 x 20	HMS46	R	2204508	600 x x 50	VR4	R	<b>406003</b>
560 x 620 x 30	HDSA2	RD	2204962		SHAFT RANGE 600.00MM - 610.00MM		
560 x 620 x 29.34	HDS7	R	2204720	600 x 18.9 x 30	CT1	R	594431
565 x 601 x 20	HDL	R	<b>HDL-9995-R</b>		BORE DIA. IS SHOULDER WIDTH		
570 x x 50	VR4	R	<b>405703</b>	600 x 640 x 20	HDL	R	<b>HDL-8624-R</b>
	SHAFT RANGE 570.00MM - 575.00MM			600 x 640 x 20	HDS1	R	2362250
570 x 610 x 20	HDS1	R	2244260	600 x 640 x 20	HDS1	V	2362253
570 x 620 x 22	HDS2	R	<b>2244552</b>	600 x 650 x 25	HDS1	R	2362500
	W/6 EA 12.70MM ADJ. LUGS			600 x 650 x 18	HDS1	R	2362580
573 x 18.999 x 31.979	CT1	R	594874		W/4 EA 12.70MM ADJ. LUGS		
	BORE DIA. IS SHOULDER WIDTH			600 x 660 x 18	HDS1	V	596046
575 x x 50	VR4	R	<b>405753</b>		W/6 EA 12.70MM ADJ. LUGS		
	SHAFT RANGE 575.00MM - 580.00MM			604 x 640 x 22	HDS1	R	2378190
575.234 x x 63.5	LDSL4		90951	610 x x 50	VR4	R	<b>406103</b>
	FOR SEAL SH SIZE 580.00MM				SHAFT RANGE 610.00MM - 620.00MM		
578 x 640 x 30	HDS1	R	2276740	610 x 660 x 20	HDS2	R	<b>2407542</b>
580 x x 50	VR4	R	<b>405803</b>	615 x 665 x 24	HS8	R	<b>2410488</b>
	SHAFT RANGE 580.00MM - 585.00MM			620 x x 50	VR4	R	<b>406203</b>
580 x 620 x 20	HDS2	D	<b>2283282</b>		SHAFT RANGE 620.00MM - 630.00MM		
580 x 620 x 20	HDS3	D	2283228	620 x 670 x 22	HS8	D	<b>2440509</b>
	W/6 EA 12.70MM ADJ. LUGS			620 x 670 x 20	HDS1	R	2441540
580 x 630 x 18	HDS1	R	2283500	620 x 670 x 20	HDS1	R	2441548
	W/6 EA 12.70MM ADJ. LUGS				W/4 EA 3.18MM LUGS		
580 x 630 x 25	HDS1	R	2284578	620 x 680 x 20	HDS1	R	2440670
	W/4 EA 4.77MM ADJ. LUGS				W/4 EA 12.70MM ADJ. LUGS		
580 x 640 x 25	HDS1	R	2283700	625 x 665 x 25	HDS1	R	2460220
580 x 640 x 25	HDS2	R	<b>2284732</b>	625 x 676 x 19	HS8	D	<b>2460548</b>
580 x 640 x 30	HDSA2	RD	2283972	630 x x 50	VR4	R	<b>406303</b>
585 x 620 x 20	HDS2	R	<b>2303192</b>		SHAFT RANGE 630.00MM - 640.00MM		
585.216 x x 54.991	LDSL4		90292	630 x 670 x 20	HDL	R	<b>HDL-3020-R</b>
	FOR SEAL SH SIZE 590.00MM			630 x 670 x 20	HDS3	R	2480255
586 x 650 x 25	HDS1	R	2307740		W/6 EA 12.70MM ADJ. LUGS		

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Metric size shaft x bore x width	Type and style	Lip code	Stock no.	Metric size shaft x bore x width	Type and style	Lip code	Stock no.
630 x 670 x 20	HS8	R	<b>2480258</b>	690 x x 50	VR4	R	<b>406903</b>
	W/HOOK & EYE SPRING CONNECTOR				SHAFT RANGE 690.00MM - 700.00MM		
630 x 670 x 20	HDS1	R	2480250	690 x 730 x 20	HS8	R	<b>2716288</b>
630 x 670 x 20	HDS1	V	2480253	690 x 730 x 20	HDS1	R	2716210
630 x 670 x 20	HDS3	D	2480283	695 x 770 x 30	HDS1	R	2736840
	W/4 EA 12.70MM ADJ. LUGS			700 x x 20	VR1	R	<b>407000</b>
630 x 670 x 20	HDS1	R	2480300		SHAFT RANGE 665.00MM - 705.00MM		
	W/ 6 EA. 12.70 MM LUGS			700 x x 50	VR4	R	<b>407003</b>
630 x 670 x 20	HDS2	R	<b>2480242</b>		SHAFT RANGE 700.00MM - 710.00MM		
	W/6 EA 12.70MM ADJ. LUGS			700 x 740 x 20	HS5	D	<b>2755285</b>
630 x 674 x 20	† HDS1	R	2480380	700 x 740 x 20	HDS1	R	2755250
630 x 690 x 20	HDL	R	<b>HDL-3059-R</b>	700 x 750 x 20	HS8	R	<b>2755508</b>
640 x x 50	VR4	R	<b>406403</b>	700 x 750 x 20	HDS1	R	2755490
	SHAFT RANGE 640.00MM - 650.00MM			700 x 750 x 20	HDS1	R	2755491
640 x 680 x 20	HDL	R	<b>HDL-3019-R</b>		W/4 EA 4.77MM LUGS		
640 x 680 x 20	HDS1	V	2519300	700 x 760 x 25	HDS1	R	2755700
640 x 690 x 25	HDS1	R	2519490	710 x 760 x 20	HDS1	V	2795507
640 x 690 x 25	HDS7	R	2519511	710 x 760 x 20	HDS2	V	<b>2795544</b>
645.2 x x 64	LDSL4	R	90004	710 x 760 x 25	HDS2	D	<b>2795502</b>
	FOR SEAL SH SIZE 650.00MM			710 x 760 x 20	HDS2	R	<b>2795542</b>
645.236 x x 63.5	LDSL3	R	87817	710 x 760 x 22.2	† HDS2	D	<b>2795482</b>
	FOR SEAL SH SIZE 650.00MM				W/4 EA 3.20MM ADJ. LUGS		
647 x 700 x 25	HDS7	H	2547541	710 x 760 x 25	HDS2	D	<b>2795512</b>
650 x x 20	VR1	R	<b>406500</b>		W/4 EA 4.80MM LUGS		
	SHAFT RANGE 630.00MM - 665.00MM			710 x 770 x 25	HDS1	R	2793700
650 x x 50	VR4	R	<b>406503</b>		W/6 EA 12.70MM ADJ. LUGS		
	SHAFT RANGE 650.00MM - 660.00MM			712 x 757 x 20.5	HS5	D	<b>595168</b>
650 x 700 x 20	HS8	R	<b>2559488</b>	714.807 x x 50	LDSL4	R	87820
650 x 700 x 22	HDS2	V	<b>2559504</b>		FOR SEAL SHAFT SIZE 720.00MM		
650 x 700 x 22	HDS2	D	<b>2559502</b>	720 x 770 x 25	HDS2	R	<b>2834500</b>
650 x 710 x 25	HDS2	R	<b>2559702</b>	720 x 771.1 x 21	HS8	D	<b>2834578</b>
650 x 714 x 25	HDL	R	<b>HDL-3016-R</b>	725 x x 20	VR1	R	<b>407250</b>
655 x 28.91 x 40	CT4	R	594784		SHAFT RANGE 705.00MM - 745.00MM		
	BORE DIA. IS SHOULDER WIDTH			725 x x 20	VR1	V	<b>407254</b>
660 x 700 x 18	HDS1	R	2598240		SHAFT RANGE 705.00MM - 745.00MM		
660 x 724 x 25	HDS1	R	2598670	730 x x 50	VR4	R	<b>407303</b>
668 x 706 x 25.4	HDL	R	<b>HDL-9992-R</b>		SHAFT RANGE 730.00MM - 740.00MM		
670 x 710 x 20	HDS1	R	2637218	735.228 x x 63	LDSL4	R	89949
	W/4 EA 4.77MM LUGS				FOR SEAL SH SIZE 740.00MM		
670 x 710 x 20	† HDS1	R	2637250	737 x 790 x 15.88	HS6	R	2901636
670 x 714 x 20	HDS3	D	2637413	740 x x 50	VR4	R	<b>407403</b>
	W/6 EA 12.70MM ADJ. LUGS				SHAFT RANGE 740.00MM - 750.00MM		
670 x 734 x 22	HDS1	R	2637740	740 x 780 x 16.5	HDS1	R	2913220
	W/6 EA 12.70MM ADJ. LUGS			740 x 780 x 16.5	HDS1	R	2913225
676 x 740 x 22	HDS1	R	2661790		W/6 EA 3.20MM LUGS		
	W/6 EA 12.70MM ADJ. LUGS			740 x 780 x 16.5	HDS1	V	2913240
680 x x 50	VR4	R	<b>406803</b>	740 x 780 x 16.5	HDS1	V	2913276
	SHAFT RANGE 679.95MM - 690.11MM				W/6 EA 3.20MM LUGS		
680 x 730 x 25	HDS1	V	2677570	740 x 790 x 15.88	HS8	R	<b>2913488</b>
680 x 730 x 25	HDS2	V	<b>2677572</b>	740 x 790 x 25	HS8	R	<b>2913508</b>
	W/6 EA 12.70MM ADJ. LUGS			740 x 790 x 25	HDS2	R	<b>2913505</b>
680 x 730 x 20	HDS2	R	<b>2677542</b>		W/4 EA .125 LUGS		
680 x 730 x 20	HDS1	V	2677577	750 x x 20	VR1	R	<b>407500</b>
680 x 740 x 30	HDS2	R	<b>2677702</b>		SHAFT RANGE 745.00MM - 785.00MM		
685 x 720 x 20	HDS2	R	<b>2696192</b>	750 x x 50	VR4	R	<b>407503</b>
685.216 x x 63.5	LDSL4	R	90953		SHAFT RANGE 750.00MM - 758.00MM		
	FOR SEAL SH SIZE 960.00MM			750 x 780 x 18	HDS1	R	2953100
				750 x 790 x 23	HDS1	V	2952287



Complete size listing — Metric

Metric size shaft x bore x width	Type and style	Lip code	Stock no.	Metric size shaft x bore x width	Type and style	Lip code	Stock no.
750 x 800 x 25	HDS2	R	<b>2952502</b>	810 x 860 x 20.65	HS7	R	3189557
750 x 810 x 25	HDS1	R	2952700	810 x 860 x 25	HDS2	R	<b>3189502</b>
750 x 814 x 25	HDL	R	<b>HDL-4629-R</b>	825 x 17.48 x 28.57	CT1	R	594785
750 x 814 x 25	HDS1	R	2953740	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT			
755.193 x x 63.5	W/6 EA 12.70MM ADJ. LUGS LDLVL3		87981	825 x 860 x 20	HDS2	R	<b>3248192</b>
	FOR SEAL SHAFT SIZE 760.00MM			837 x 889 x 22.22	HDL	R	<b>HDL-3009-R</b>
757.5 x x 8	VR3	R	407502	840 x 892 x 18	HS6	R	3307546
	SHAFT RANGE 740.00MM - 775.00MM			840 x 904 x 25	HDL	R	<b>HDL-3034-R</b>
760 x x 50	VR4	R	<b>407603</b>	850 x x 20	VR1	R	<b>408500</b>
	SHAFT RANGE 758.00MM- 766.00MM			850 x x 50	VR4	R	<b>408503</b>
760 x 800 x 20.6	HS8	R	<b>2992268</b>	850 x x 50	VR4	R	<b>408503</b>
760 x 800 x 20	HDS3	V	2992286	SHAFT RANGE 841.00MM - 851.00MM			
	W/6 EA 12.70MM ADJ. LUGS			850 x 910 x 50	HDSE1	RR	3346961
760 x 800 x 20	HDS1	V	2992283	850 x 910 x 25	HDS1	R	3346700
760 x 810 x 20.6	HS8	R	<b>2992498</b>	W/6 EA 12.70MM ADJ. LUGS			
760 x 810 x 25	HDS1	R	2992500	850 x 925 x 27	HDS1	R	3346840
760 x 810 x 25	HDS1	R	2992570	853 x 917 x 20	HDS3	D	3358743
	W/6 EA 4.77MM LUGS			853 x 917 x 22.1	HDS3	D	3357743
760 x 810 x 25	HDS7	R	2992510	W/6 EA 12.70MM ADJ. LUGS			
760 x 820 x 17.5	HS8	R	<b>2992698</b>	853 x 917 x 25	HDS3	D	3358803
				W/6 EA 12.70MM ADJ. LUGS			
760 x 820 x 25	HDS1	R	2992700	860 x 920 x 25	HDS1	R	3385700
	W/6 EA 12.70MM ADJ. LUGS			865 x 911 x 18	HS8	R	<b>3405438</b>
760 x 824 x 22	HDS1	R	2992770	865.226 x x 63.5	LDLVL4		90221
	W/6 EA 12.70MM ADJ. LUGS			FOR SEAL SH SIZE 870.00MM			
770 x x 50	VR4	R	<b>407703</b>	867 x 920 x 15.88	HS6	R	3413566
	SHAFT RANGE 766.00MM - 774.00MM			870 x 920 x 15.88	HS8	R	<b>3425478</b>
770 x 810 x 20	HDS1	V	3031280	875.182 x x 63.5	LDLVL4		90103
770 x 834 x 25	HDS2	R	<b>3031762</b>	FOR SEAL SH SIZE 880.00MM			
770 x 845 x 27.79	HDS1	R	3032840	880 x 940 x 25	HDS2	R	<b>3464702</b>
778 x 818 x 20.5	HS5	D	<b>595167</b>	880 x 940 x 25	HDS3	R	3464705
780 x x 50	VR4	R	<b>407803</b>	W/6 EA 12.70MM ADJ. LUGS			
	SHAFT RANGE 774.00MM - 783.00MM			880 x 944 x 25	HDS3	D	3464783
780 x 820 x 18	HS8	R	<b>3070248</b>	W/6 EA 12.70MM ADJ. LUGS			
780 x 820 x 19.05	HDS2	R	<b>3070252</b>	880 x 944 x 22	HDS1	R	3464770
				W/6 EA 12.70MM ADJ. LUGS			
780 x 820 x 19.05	HDS1	V	3070247	880 x 944 x 25	HDS1	V	3464787
780 x 830 x 22	HS5	R	<b>3070565</b>	880.01 x 944 x 25	HDS2	R	<b>3464782</b>
780 x 844 x 25	HDL	R	<b>HDL-3032-R</b>	889 x 20.65 x 31.75	CT1	R	524220
790 x 834 x 25	HDS1	R	3110340	BORE DIA. IS SHOULDER WIDTH			
790 x 850 x 25	HDS2	V	<b>3110784</b>	890 x x 50	VR4	R	<b>408903</b>
				SHAFT RANGE 882.00MM - 892.00MM			
790 x 850 x 25	HDS2	V	<b>3110786</b>	893 x 925 x 20	HDS2	H	<b>3515138</b>
	W/6 EA 12.70MM ADJ. LUGS			900 x x 20	VR1	R	<b>409000</b>
790 x 850 x 25	HDS1	V	3110780	SHAFT RANGE 875.00MM - 920.00MM			
790 x 850 x 25	HDSA1	RL	3110978	900 x x 50	VR4	R	<b>409003</b>
790 x 854 x 25	HDL	R	<b>HDL-6666-R</b>	SHAFT RANGE 892.00MM - 912.00MM			
800 x x 20	VR1	R	<b>408000</b>	900 x 960 x 25	HDS1	R	3543710
	SHAFT RANGE 785.00MM - 830.00MM			W/6 EA 12.70MM ADJ. LUGS			
800 x x 50	VR4	R	<b>408003</b>	900 x 960 x 30	HDS1	R	3543700
	SHAFT RANGE 792.00MM - 801.00MM			910 x 966 x 17.86	HS6	R	3582646
800 x 850 x 25.4	HS8	R	<b>3150578</b>	910 x 966 x 17.86	HS5	R	<b>3582648</b>
800 x 850 x 20	HDS1	R	3149465	910 x 974 x 22	HDS1	R	3582770
	W/6 EACH 1.57MM LUGS			W/6 EA 12.70MM ADJ. LUGS			
800 x 860 x 25	HDS1	R	3149500	920 x x 50	VR4	R	<b>409203</b>
	W/6 EA 12.70MM ADJ. LUGS			SHAFT RANGE 912.00MM - 922.00MM			
810 x 850 x 20	HDS1	V	3189280	920 x 980 x 30	HDS1	R	3622690
				920 x 984 x 25	HDS1	V	3622747

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† Includes Bore-Tite on O.D.



## Complete size listing — Metric

Metric size shaft x bore x width	Type and style	Lip code	Stock no.	Metric size shaft x bore x width	Type and style	Lip code	Stock no.
920 x 984 x 25	HDS2	V	<b>3622784</b>	1000 x 1050 x 20	HDS1	R	4133510
925 x 975 x 22	HS8	D	<b>3641509</b>	1000 x 1050 x 23	HDS2	R	<b>3937582</b>
927 x 978 x 22	HDS2	D	<b>3649572</b>	1000 x 1050 x 23	HDS2	R	<b>3937595</b>
930 x 980 x 22.22	HDL	R	<b>HDL-3026-R</b>	W/6 EA 12.70MM ADJ. LUGS			
930 x 982 x 22.23	HS6	R	3661546	1000 x 1060 x 25	HDS2	R	<b>3937702</b>
939 x 971 x 15.87	HDS3	H	3716478	1000 x 1060 x 25	HDS3	R	3937705
W/6 EA 12.70MM ADJ. LUGS				W/6 EA 12.70MM ADJ. LUGS			
939 x 971 x 22.23	HDS2	H	<b>3716488</b>	1016 x 25.4 x 36.53	CT1	R	525035
940 x 1000 x 25	HDS1	D	3937670	BORE DIA. IS SHOULDER WIDTH			
940 x 1000 x 25	HDS1	D	3701728	1016 x 27 x 38.1	CT1	R	527903
W/6 EA 9.50MM ADJ. LUGS				BORE DIA. IS SHOULDER WIDTH			
940 x 1000 x 25	HDS1	R	3700728	1020 x 1084 x 25	HDS1	R	4016790
W/4 EA 12.70MM ADJ. LUGS				1020 x 1084 x 25	HDS1	R	4016792
940 x 1000 x 25	HDS3	D	3700703	W/6 EA 1.60MM LUGS			
W/6 EA 12.70MM ADJ. LUGS				1030 x 1070 x 25	HDL	R	<b>HDL-3070-R</b>
950 x x 20	VR1	R	<b>409500</b>	1049.325 x x 59.995	LDSL4		89947
SHAFT RANGE 920.00MM - 965.00MM				FOR SEAL SH SIZE 1054.00MM			
950 x x 50	VR4	R	<b>409503</b>	1050 x x 20	VR1	R	<b>410500</b>
SHAFT RANGE 944.00MM - 955.00MM				SHAFT RANGE 1015.00MM -1065.00MM			
950 x 980 x 18	HDS1	R	3740100	1050 x x 50	VR4	R	<b>410503</b>
950 x 1000 x 25	HDS1	R	3740560	SHAFT RANGE 1035.00MM -1055.00MM			
950 x 1006 x 20	HDS2	R	<b>3740652</b>	1055 x 1100 x 25	HDL	R	<b>HDL-3012-R</b>
950 x 1010 x 25	HDS1	R	3740700	1055 x 1100 x 25	HS5	R	<b>4153425</b>
W/6 EA 12.70MM ADJ. LUGS				1055 x 1100 x 25	HS8	D	<b>4153448</b>
960 x 1000 x 25	HDS1	D	3779670	1055 x 1100 x 25	HS5	D	<b>595215</b>
960 x 1020 x 25	HDS3	D	3779788	1055 x 1100 x 25	HDS2	D	<b>4154428</b>
W/6 EA 12.70MM ADJ LUGS				1060 x x 50	VR4	R	<b>410603</b>
960 x 1020 x 25	HDS2	D	<b>3779692</b>	SHAFT RANGE 1045.00MM -1065.00MM			
W/8 EA 10.00MM LUGS				1070 x 1120 x 20	HS6	R	4212496
960 x 1020 x 25	HDS1	D	3780728	1100 x x 20	VR1	R	<b>411000</b>
W/4 EA 4.77MM LUGS				SHAFT RANGE 1065.00MM -1115.00MM			
960 x 1020 x 25	HDS2	H	<b>3780729</b>	1100 x x 20	VR1	V	<b>411004</b>
960 x 1020 x 25	HDS1	D	3779680	SHAFT RANGE 1065.00MM - 1115.00MM			
960 x 1020 x 25	HDS2	V	<b>3779706</b>	1100 x x 50	VR4	R	<b>411003</b>
W/4 EA 4.77MM LUGS				SHAFT RANGE 1085.00MM -1105.00MM			
960 x 1024 x 25	HDS2	V	<b>3779784</b>	1100.226 x x 63	LDSL4		89946
960 x 1040 x 23	HDS2	R	<b>3780901</b>	FOR SEAL SH SIZE 1105.00MM			
960 x 1040 x 23	HDS1	R	3780902	1105 x 1151 x 17.5	HS8	R	<b>4350508</b>
W/6 EA 12.70MM LUGS				1105 x 1160 x 22	HDL	R	<b>HDL-4640-R</b>
960 x 1040 x 23	HDS1	R	3780904	1105 x 1160 x 25	HDS1	R	4350700
960 x 1040 x 23	HDS2	R	<b>3780905</b>	1120 x 1184 x 25	HDS2	R	<b>4409592</b>
W/8 EA 5.60MM LUGS				W/6 EA 12.70MM ADJ. LUGS			
960 x 1040 x 23	HDS2	V	<b>3780908</b>	1140 x 1180 x 20	HDS1	V	4488287
970 x x 50	VR4	R	<b>409703</b>	1150 x x 20	VR1	R	<b>411500</b>
SHAFT RANGE 965.98MM - 977.01MM				SHAFT RANGE 1115.00MM -1165.00MM			
978 x 1018 x 18	HS5	R	<b>595118</b>	1160 x x 50	VR4	R	<b>411603</b>
980 x x 50	VR4	R	<b>409808</b>	SHAFT RANGE 1145.00MM - 1165.00MM			
SHAFT RANGE 977.00MM - 988.00MM				1180 x 1230 x 20	HS6	R	4645556
990 x 1040 x 25	HDL	R	<b>HDL-9998-R</b>	1200 x x 20	VR1	R	<b>412000</b>
990 x 1045 x 25	HDS1	R	3898631	SHAFT RANGE 1165.00MM -1215.00MM			
990 x 1045 x 25	HDS3	D	3897543	1200 x x 50	VR4	R	<b>412003</b>
W/6 EACH 12.70MM ADJ.LUGS				SHAFT RANGE 1185.00MM -1205.00MM			
1000 x x 20	VR1	R	<b>410000</b>	1200 x 1264 x 22.2	† HDS2	D	<b>4724762</b>
SHAFT RANGE 965.00MM -1015.00MM				W/4 EA 3.20MM LUGS			
1000 x x 50	VR4	R	<b>410003</b>				
SHAFT RANGE 999.00MM -1010.00MM							
1000 x 1035 x 20	HDS2	R	<b>3937172</b>				
1000 x 1050 x 23	HDS2	R	<b>3937565</b>				
W/6 EA 3.97MM LUGS							

Complete size listing — Metric

Metric size shaft x bore x width	Type and style	Lip code	Stock no.	Metric size shaft x bore x width	Type and style	Lip code	Stock no.
1220 x 1255 x 20	HDS2	R	<b>4803182</b>	1650 x x 50	VR4	R	<b>416503</b>
1248 x 1298 x 20.7	HS8	R	<b>4913508</b>	SHAFT RANGE 1640.00MM -1680.00MM			
1250 x x 20	VR1	R	<b>412500</b>	1675 x 1725 x 20	HS8	R	<b>6594478</b>
SHAFT RANGE 1215.00MM -1270.00MM				1675 x 1725 x 20.62	HS8	D	<b>6594558</b>
1250 x x 50	VR4	R	<b>412503</b>	1700 x x 20	VR1	R	<b>417000</b>
SHAFT RANGE 1235.00MM -1255.00MM				SHAFT RANGE 1670.00MM -1720.00MM			
1250 x 1314 x 21.54	HDS7	R	4921790	1700 x x 50	VR4	R	<b>417003</b>
W/12 EA 6.35MM LUGS				SHAFT RANGE 1680.00MM -1720.00MM			
1250 x 1314 x 25	HDS2	R	<b>4921793</b>	1750 x x 20	VR1	R	<b>417500</b>
1260 x 1300 x 18	HDS1	R	593764	SHAFT RANGE 1720.00MM -1770.00MM			
1270 x 20.62 x 25.4	CT3	R	593525	1750 x x 50	VR4	R	<b>417503</b>
BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT				SHAFT RANGE 1720.00MM -1765.00MM			
1270 x 23.83 x 34.92	CT1	R	529129	1800 x x 20	VR1	R	<b>418000</b>
BORE DIA. IS SHOULDER WIDTH				SHAFT RANGE 1770.00MM -1820.00MM			
1300 x x 20	VR1	R	<b>413000</b>	1800 x x 50	VR4	R	<b>418003</b>
SHAFT RANGE 1270.00MM -1320.00MM				SHAFT RANGE 1765.00MM -1810.00MM			
1300 x x 50	VR4	R	<b>413003</b>	1810 x 1860 x 20	HS8	R	<b>7125478</b>
SHAFT RANGE 1295.00MM -1315.00MM				1810 x 1860 x 20.62	HS8	D	<b>7153558</b>
1350 x x 20	VR1	R	<b>413500</b>	1850 x x 20	VR1	R	<b>418500</b>
SHAFT RANGE 1320.00MM -1370.00MM				SHAFT RANGE 1820.00MM -1870.00MM			
1350 x x 50	VR4	R	<b>413503</b>	1850 x x 50	VR4	R	<b>418503</b>
SHAFT RANGE 1340.00MM -1365.00MM				SHAFT RANGE 1810.00MM -1855.00MM			
1350 x 1415 x 25	HDL	R	<b>HDL-3028-R</b>	1900 x x 20	VR1	R	<b>419000</b>
1370 x 1420 x 19.83	HS8	H	<b>5393458</b>	SHAFT RANGE 1870.00MM -1920.00MM			
1370 x 1420 x 20	HDS1	R	5393510	1900 x x 50	VR4	R	<b>419003</b>
1370 x 1420 x 19.05	HDS2	H	<b>5393512</b>	SHAFT RANGE 1855.00MM -1905.00MM			
1380 x 1420 x 18	HS8	R	<b>5433258</b>	1950 x x 20	VR1	R	<b>419500</b>
1380 x 1440 x 25	HDL	R	<b>HDL-8594-R</b>	SHAFT RANGE 1920.00MM -1970.00MM			
1400 x x 20	VR1	R	<b>414000</b>	1950 x x 50	VR4	R	<b>419503</b>
SHAFT RANGE 1370.00MM -1420.00MM				SHAFT RANGE 1905.00MM -1955.00MM			
1400 x x 50	VR4	R	<b>414003</b>	2000 x x 20	VR1	R	<b>419990</b>
SHAFT RANGE 1390.00MM -1415.00MM				SHAFT RANGE 1970.00MM -2020.00MM			
1450 x x 20	VR1	R	<b>414500</b>	2000 x x 50	VR4	R	<b>419993</b>
SHAFT RANGE 1420.00MM -1470.00MM				SHAFT RANGE 1955.00MM -2010.00MM			
1450 x x 50	VR4	R	<b>414503</b>	2050 x x 50	VR4	R	<b>420503</b>
SHAFT RANGE 1440.00MM -1465.00MM				SHAFT RANGE 2010.00MM -2070.00MM			
1500 x x 20	VR1	R	<b>415000</b>	2500 x 20.73 x 25.5	CT3	R	596289
SHAFT RANGE 1470.00MM -1520.00MM				BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT			
1500 x x 50	VR4	R	<b>415003</b>	2540 x 27 x 38.1	CT1	R	522856
SHAFT RANGE 1490.00MM -1515.00MM				BORE DIA. IS SHOULDER WIDTH			
1530 x 1580 x 20	HDS1	R	6023510	2850 x 2900 x 20.625	HS8	D	<b>595210</b>
1550 x x 20	VR1	R	<b>415500</b>	2900 x 2959 x 17.33	HS6	R	597336
SHAFT RANGE 1520.00MM -1570.00MM				3000 x 3050 x 20.625	HS8	D	<b>595211</b>
1550 x x 50	VR4	R	<b>415503</b>	3810 x 20.65 x 31.75	CT3	R	596050
SHAFT RANGE 1540.00MM -1570.00MM				BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT			
1550 x 1610 x 25	HDL	R	<b>HDL-8622-R</b>	3980 x 20.73 x 25.5	CT3	R	596290
1550 x 1610 x 25	HDS2	V	<b>6102702</b>	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT			
1600 x x 20	VR1	R	<b>416000</b>				
SHAFT RANGE 1570.00MM -1620.00MM							
1600 x x 50	VR4	R	<b>416003</b>				
SHAFT RANGE 1600.00MM -1640.00MM							
1612 x 20.65 x 25.4	CT3	R	595373				
BORE DIA. IS SHOULDER WIDTH							
1636 x 1700 x 22	HDL	R	<b>HDL-4979-R</b>				
1650 x x 20	VR1	R	<b>416500</b>				
SHAFT RANGE 1620.00MM -1670.00MM							

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† Includes Bore-Tite on O.D.

## LDS section - HDL inch size listing

Stock no.	Shaft	Inch bore	Width	Type and style	Lip	Stock no.	Shaft	Inch bore	Width	Type and style	Lip
HDL-1299-R	6.125	7.625	0.687	HDL	R	HDL-7718-R *	8.625	10.750	0.812	HDL	R
HDL-1299-H	6.125	7.625	0.687	HDL	H	HDL-7718-H *	8.625	10.750	0.812	HDL	H
HDL-1299-V	6.125	7.625	0.687	HDL	V	HDL-7718-V *	8.625	10.750	0.812	HDL	V
HDL-3011-R	7.125	8.250	0.750	HDL	R	HDL-3946-R	8.750	10.250	0.687	HDL	R
HDL-3011-H	7.125	8.250	0.750	HDL	H	HDL-3946-H	8.750	10.250	0.687	HDL	H
HDL-3011-V	7.125	8.250	0.750	HDL	V	HDL-3946-V	8.750	10.250	0.687	HDL	V
HDL-9176-R	7.875	9.375	0.687	HDL	R	HDL-9911-R *	8.750	10.500	0.687	HDL	R
HDL-9176-H	7.875	9.375	0.687	HDL	H	HDL-9911-H *	8.750	10.500	0.687	HDL	H
HDL-9176-V	7.875	9.375	0.687	HDL	V	HDL-9911-V *	8.750	10.500	0.687	HDL	V
HDL-3921-R	8.000	9.500	0.687	HDL	R	HDL-3952-R *	8.750	10.750	0.812	HDL	R
HDL-3921-H	8.000	9.500	0.687	HDL	H	HDL-3952-H *	8.750	10.750	0.812	HDL	H
HDL-3921-V	8.000	9.500	0.687	HDL	V	HDL-3952-V *	8.750	10.750	0.812	HDL	V
HDL-9712-R *	8.125	10.125	0.687	HDL	R	HDL-3953-R *	8.875	10.875	0.812	HDL	R
HDL-9712-H *	8.125	10.125	0.687	HDL	H	HDL-3953-H *	8.875	10.875	0.812	HDL	H
HDL-9712-V *	8.125	10.125	0.687	HDL	V	HDL-3953-V *	8.875	10.875	0.812	HDL	V
HDL-4499-R	8.250	10.250	0.812	HDL	R	HDLA-3031-R	9.000	10.000	0.750	HDLA	R
HDL-4499-H	8.250	10.250	0.812	HDL	H	HDLA-3031-R	9.000	10.000	0.750	HDLA	R
HDL-4499-V	8.250	10.250	0.812	HDL	V	HDLA-3031-V	9.000	10.000	0.750	HDLA	V
HDL-3933-R	8.375	9.875	0.687	HDL	R	HDL-3954-R	9.000	10.500	0.687	HDL	R
HDL-3933-H	8.375	9.875	0.687	HDL	H	HDL-3954-H	9.000	10.500	0.687	HDL	H
HDL-3933-V	8.375	9.875	0.687	HDL	V	HDL-3954-V	9.000	10.500	0.687	HDL	V
HDL-4500-R *	8.375	10.375	0.812	HDL	R	HDL-3955-R *	9.000	11.000	0.812	HDL	R
HDL-4500-H *	8.375	10.375	0.812	HDL	H	HDL-3955-H *	9.000	11.000	0.812	HDL	H
HDL-4500-V *	8.375	10.375	0.812	HDL	V	HDL-3955-V *	9.000	11.000	0.812	HDL	V
HDL-1705-R	8.500	9.750	0.562	HDL	R	HDL-3957-R	9.125	10.625	0.687	HDL	R
HDL-1705-H	8.500	9.750	0.562	HDL	H	HDL-3957-H	9.125	10.625	0.687	HDL	H
HDL-1705-V *	8.500	9.750	0.562	HDL	V	HDL-3957-V	9.125	10.625	0.687	HDL	V
HDL-6384-R	8.500	9.750	0.652	HDL	R	HDL-3962-R *	9.125	11.125	0.812	HDL	R
HDL-6384-H	8.500	9.750	0.652	HDL	H	HDL-3962-H *	9.125	11.125	0.812	HDL	H
HDL-6384-V	8.500	9.750	0.652	HDL	V	HDL-3962-V *	9.125	11.125	0.812	HDL	V
HDLA3066-R	8.500	9.750	0.750	HDLA	R	HDL-8765-R *	9.134	10.625	0.687	HDL	R
HDLA3066-H	8.500	9.750	0.750	HDLA	H	HDL-8765-H *	9.134	10.625	0.687	HDL	H
HDLA3066-V	8.500	9.750	0.750	HDLA	V	HDL-8765-V *	9.134	10.625	0.687	HDL	V
HDL-8453-R	8.500	10.000	0.687	HDL	R	HDL-3963-R	9.250	10.750	0.687	HDL	R
HDL-8453-H	8.500	10.000	0.687	HDL	H	HDL-3963-H	9.250	10.750	0.687	HDL	H
HDL-8453-V	8.500	10.000	0.687	HDL	V	HDL-3963-V	9.250	10.750	0.687	HDL	V
HDL-3938-R *	8.500	10.500	0.812	HDL	R	HDL-9706-R *	9.250	11.250	0.687	HDL	R
HDL-3938-H *	8.500	10.500	0.812	HDL	H	HDL-9706-H *	9.250	11.250	0.687	HDL	H
HDL-3938-V *	8.500	10.500	0.812	HDL	V	HDL-9706-V *	9.250	11.250	0.687	HDL	V
HDL-3939-R	8.625	10.125	0.687	HDL	R	HDL-4610-R	9.375	11.375	0.812	HDL	R
HDL-3939-H	8.625	10.125	0.687	HDL	H	HDL-4610-H	9.375	11.375	0.812	HDL	H
HDL-3939-V	8.625	10.125	0.687	HDL	V	HDL-4610-V	9.375	11.375	0.812	HDL	V
HDL-2736-R *	8.625	10.260	0.687	HDL	R	HDL-3145-R *	9.500	10.750	0.562	HDL	R
HDL-2736-H *	8.625	10.260	0.687	HDL	H	HDL-3145-H *	9.500	10.750	0.562	HDL	H
HDL-2736-V *	8.625	10.260	0.687	HDL	V	HDL-3145-V *	9.500	10.750	0.562	HDL	V

*LDS section - HDL inch size listing - (cont.)*

Stock no.	Shaft	Inch bore	Width	Type and style	Lip	Stock no.	Shaft	Inch bore	Width	Type and style	Lip
HDL-3981-R	9.500	11.250	0.750	HDL	R	HDL-4009-R	10.250	12.250	0.812	HDL	R
HDL-3981-H	9.500	11.250	0.750	HDL	H	HDL-4009-H	10.250	12.250	0.812	HDL	H
HDL-3981-V	9.500	11.250	0.750	HDL	V	HDL-4009-V	10.250	12.250	0.812	HDL	V
HDLA-3981-R	9.500	11.250	0.750	HDLA	R	HDL-4015-R *	10.250	12.500	0.812	HDL	R
HDLA-3981-H	9.500	11.250	0.750	HDLA	H	HDL-4015-H *	10.250	12.500	0.812	HDL	H
HDLA-3981-V	9.500	11.250	0.750	HDLA	V	HDL-4015-V *	10.250	12.500	0.812	HDL	V
HDL-3984-R	9.500	11.500	0.812	HDL	R	HDL-4011-R	10.500	12.000	0.687	HDL	R
HDL-3984-H	9.500	11.500	0.812	HDL	H	HDL-4011-H	10.500	12.000	0.687	HDL	H
HDL-3984-V	9.500	11.500	0.812	HDL	V	HDL-4011-V	10.500	12.000	0.687	HDL	V
HDL-1692-R *	9.750	11.125	0.562	HDL	R	HDL-3041-R	10.500	12.500	0.750	HDL	R
HDL-1692-H *	9.750	11.125	0.562	HDL	H	HDL-3041-H	10.500	12.500	0.750	HDL	H
HDL-1692-V *	9.750	11.125	0.562	HDL	V	HDL-3041-V	10.500	12.500	0.750	HDL	V
HDL-3985-R	9.750	11.250	0.687	HDL	R	HDL-4017-R	10.500	12.500	0.812	HDL	R
HDL-3985-H	9.750	11.250	0.687	HDL	H	HDL-4017-H	10.500	12.500	0.812	HDL	H
HDL-3985-V	9.750	11.250	0.687	HDL	V	HDL-4017-V	10.500	12.500	0.812	HDL	V
HDL-9425-R *	9.750	11.750	0.687	HDL	R	HDL-4023-R	10.750	12.250	0.687	HDL	R
HDL-9425-H *	9.750	11.750	0.687	HDL	H	HDL-4023-H	10.750	12.250	0.687	HDL	H
HDL-9425-V *	9.750	11.750	0.687	HDL	V	HDL-4023-V	10.750	12.250	0.687	HDL	V
HDL-3051-R	10.000	11.500	0.625	HDL	R	HDL-4033-R	10.750	12.500	0.875	HDL	R
HDL-3051-H	10.000	11.500	0.625	HDL	H	HDL-4033-H	10.750	12.500	0.875	HDL	H
HDL-3051-V	10.000	11.500	0.625	HDL	V	HDL-4033-V	10.750	12.500	0.875	HDL	V
HDL-3992-R	10.000	11.500	0.687	HDL	R	HDL-3014-R	10.750	12.750	0.625	HDL	R
HDL-3992-H	10.000	11.500	0.687	HDL	H	HDL-3014-H	10.750	12.750	0.625	HDL	H
HDL-3992-V	10.000	11.500	0.687	HDL	V	HDL-3014-V	10.750	12.750	0.625	HDL	V
HDL-3994-R *	10.000	11.750	0.750	HDL	R	HDL-4031-R *	10.750	12.750	0.812	HDL	R
HDL-3994-H *	10.000	11.750	0.750	HDL	H	HDL-4031-H *	10.750	12.750	0.812	HDL	H
HDL-3994-V *	10.000	11.750	0.750	HDL	V	HDL-4031-V *	10.750	12.750	0.812	HDL	V
HDL-3997-R	10.000	12.000	0.812	HDL	R	HDL-4022-R *	10.750	13.000	0.812	HDL	R
HDL-3997-H	10.000	12.000	0.812	HDL	H	HDL-4022-H *	10.750	13.000	0.812	HDL	H
HDL-3997-V	10.000	12.000	0.812	HDL	V	HDL-4022-V *	10.750	13.000	0.812	HDL	V
HDL-3998-R *	10.000	12.000	0.875	HDL	R	HDL-4026-R *	10.750	13.250	0.812	HDL	R
HDL-3998-H *	10.000	12.000	0.875	HDL	H	HDL-4026-H *	10.750	13.250	0.812	HDL	H
HDL-3998-V *	10.000	12.000	0.875	HDL	V	HDL-4026-V *	10.750	13.250	0.812	HDL	V
HDL-3669-R	10.000	12.250	0.812	HDL	R	HDL-4027-R *	10.875	12.375	0.687	HDL	R
HDL-3669-H	10.000	12.250	0.812	HDL	H	HDL-4027-H *	10.875	12.375	0.687	HDL	H
HDL-3669-V	10.000	12.250	0.812	HDL	V	HDL-4027-V *	10.875	12.375	0.687	HDL	V
HDL-3999-R	10.125	11.625	0.687	HDL	R	HDL-4028-R	10.875	12.500	0.687	HDL	R
HDL-3999-H	10.125	11.625	0.687	HDL	H	HDL-4028-H	10.875	12.500	0.687	HDL	H
HDL-3999-V	10.125	11.625	0.687	HDL	V	HDL-4028-V	10.875	12.500	0.687	HDL	V
HDL-5989-R	10.125	11.750	0.687	HDL	R	HDL-3135-R *	11.000	12.250	0.562	HDL	R
HDL-5989-H	10.125	11.750	0.687	HDL	H	HDL-3135-H *	11.000	12.250	0.562	HDL	H
HDL-5989-V	10.125	11.750	0.687	HDL	V	HDL-3135-V *	11.000	12.250	0.562	HDL	V
HDL-4004-R	10.250	11.750	0.687	HDL	R	HDL-4611-R	11.000	12.500	0.687	HDL	R
HDL-4004-H	10.250	11.750	0.687	HDL	H	HDL-4611-H	11.000	12.500	0.687	HDL	H
HDL-4004-V	10.250	11.750	0.687	HDL	V	HDL-4611-V	11.000	12.500	0.687	HDL	V

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## LDS section - HDL inch size listing - (cont.)

Stock no.	Shaft	Inch bore	Width	Type and style	Lip	Stock no.	Shaft	Inch bore	Width	Type and style	Lip
HDL-6034-R *	11.000	13.000	0.687	HDL	R	HDL-5838-R *	12.000	14.000	0.687	HDL	R
HDL-6034-H *	11.000	13.000	0.687	HDL	H	HDL-5838-H *	12.000	14.000	0.687	HDL	H
HDL-6034-V *	11.000	13.000	0.687	HDL	V	HDL-5838-V *	12.000	14.000	0.687	HDL	V
HDL-4036-R	11.000	13.000	0.812	HDL	R	HDL-4071-R	12.000	14.000	0.750	HDL	R
HDL-4036-H	11.000	13.000	0.812	HDL	H	HDL-4071-H	12.000	14.000	0.750	HDL	H
HDL-4036-V	11.000	13.000	0.812	HDL	V	HDL-4071-V	12.000	14.000	0.750	HDL	V
HDL-3060-R	11.000	13.500	0.687	HDL	R	HDL-4072-R	12.000	14.000	0.812	HDL	R
HDL-3060-H	11.000	13.500	0.687	HDL	H	HDL-4072-H	12.000	14.000	0.812	HDL	H
HDL-3060-V	11.000	13.500	0.687	HDL	V	HDL-4072-V	12.000	14.000	0.812	HDL	V
HDL-3699-R *	11.125	13.000	0.687	HDL	R	HDL-3702-R *	12.000	14.750	0.812	HDL	R
HDL-3699-H *	11.125	13.000	0.687	HDL	H	HDL-3702-H *	12.000	14.750	0.812	HDL	H
HDL-3699-V *	11.125	13.000	0.687	HDL	V	HDL-3702-V *	12.000	14.750	0.812	HDL	V
HDL-3700-R *	11.125	13.250	0.812	HDL	R	HDL-4053-R *	12.125	13.875	0.687	HDL	R
HDL-3700-H *	11.125	13.250	0.812	HDL	H	HDL-4053-H *	12.125	13.875	0.687	HDL	H
HDL-3700-V *	11.125	13.250	0.812	HDL	V	HDL-4053-V *	12.125	13.875	0.687	HDL	V
HDL-4527-R	11.250	12.750	0.687	HDL	R	HDL-4613-R	12.250	13.750	0.687	HDL	R
HDL-4527-H	11.250	12.750	0.687	HDL	H	HDL-4613-H	12.250	13.750	0.687	HDL	H
HDL-4527-V	11.250	12.750	0.687	HDL	V	HDL-4613-V	12.250	13.750	0.687	HDL	V
HDL-8778-R *	11.250	13.250	0.687	HDL	R	HDL-4614-R	12.250	13.750	0.875	HDL	R
HDL-8778-H *	11.250	13.250	0.687	HDL	H	HDL-4614-H	12.250	13.750	0.875	HDL	H
HDL-8778-V *	11.250	13.250	0.687	HDL	V	HDL-4614-V	12.250	13.750	0.875	HDL	V
HDL-4047-R *	11.250	13.250	0.812	HDL	R	HDL-4055-R *	12.250	14.000	0.687	HDL	R
HDL-4047-H *	11.250	13.250	0.812	HDL	H	HDL-4055-H *	12.250	14.000	0.687	HDL	H
HDL-4047-V *	11.250	13.250	0.812	HDL	V	HDL-4055-V *	12.250	14.000	0.687	HDL	V
HDL-4052-R	11.375	13.375	0.812	HDL	R	HDL-4075-R	12.250	14.250	0.812	HDL	R
HDL-4052-H	11.375	13.375	0.812	HDL	H	HDL-4075-H	12.250	14.250	0.812	HDL	H
HDL-4052-V	11.375	13.375	0.812	HDL	V	HDL-4075-V	12.250	14.250	0.812	HDL	V
HDL-4057-R	11.500	13.000	0.687	HDL	R	HDL-4076-R	12.375	13.875	0.687	HDL	R
HDL-4057-H	11.500	13.000	0.687	HDL	H	HDL-4076-H	12.375	13.875	0.687	HDL	H
HDL-4057-V	11.500	13.000	0.687	HDL	V	HDL-4076-V	12.375	13.875	0.687	HDL	V
HDL-4063-R	11.500	13.500	0.812	HDL	R	HDL-4056-R	12.375	14.000	0.687	HDL	R
HDL-4063-H	11.500	13.500	0.812	HDL	H	HDL-4056-H	12.375	14.000	0.687	HDL	H
HDL-4063-V	11.500	13.500	0.812	HDL	V	HDL-4056-V	12.375	14.000	0.687	HDL	V
HDL-4064-R	11.750	13.250	0.687	HDL	R	HDL-4097-R *	12.375	14.375	0.687	HDL	R
HDL-4064-H	11.750	13.250	0.687	HDL	H	HDL-4097-H *	12.375	14.375	0.687	HDL	H
HDL-4064-V	11.750	13.250	0.687	HDL	V	HDL-4097-V *	12.375	14.375	0.687	HDL	V
HDL-4612-R	12.000	13.500	0.687	HDL	R	HDL-4106-R *	12.375	14.500	0.812	HDL	R
HDL-4612-H	12.000	13.500	0.687	HDL	H	HDL-4106-H *	12.375	14.500	0.812	HDL	H
HDL-4612-V	12.000	13.500	0.687	HDL	V	HDL-4106-V *	12.375	14.500	0.812	HDL	V
HDL-8523-R *	12.000	13.625	0.687	HDL	R	HDL-4079-R	12.500	14.000	0.687	HDL	R
HDL-8523-H *	12.000	13.625	0.687	HDL	H	HDL-4079-H	12.500	14.000	0.687	HDL	H
HDL-8523-V *	12.000	13.625	0.687	HDL	V	HDL-4079-V	12.500	14.000	0.687	HDL	V
HDL-3701-R *	12.000	13.750	0.687	HDL	R	HDL-4082-R *	12.500	14.500	0.750	HDL	R
HDL-3701-H *	12.000	13.750	0.687	HDL	H	HDL-4082-H *	12.500	14.500	0.750	HDL	H
HDL-3701-V *	12.000	13.750	0.687	HDL	V	HDL-4082-V *	12.500	14.500	0.750	HDL	V

LDS section - HDL inch size listing - (cont.)

Stock no.	Shaft	Inch bore	Width	Type and style	Lip	Stock no.	Shaft	Inch bore	Width	Type and style	Lip
HDL-4083-R	12.500	14.500	0.812	HDL	R	HDL-4105-R *	13.250	15.125	0.687	HDL	R
HDL-4083-H	12.500	14.500	0.812	HDL	H	HDL-4105-H *	13.250	15.125	0.687	HDL	H
HDL-4083-V	12.500	14.500	0.812	HDL	V	HDL-4105-V *	13.250	15.125	0.687	HDL	V
HDL-4084-R *	12.500	15.000	0.812	HDL	R	HDL-6294-R *	13.250	15.250	0.687	HDL	R
HDL-4084-H *	12.500	15.000	0.812	HDL	H	HDL-6294-H *	13.250	15.250	0.687	HDL	H
HDL-4084-V *	12.500	15.000	0.812	HDL	V	HDL-6294-V *	13.250	15.250	0.687	HDL	V
HDL-4081-R *	12.625	14.125	0.687	HDL	R	HDL-4779-R *	13.250	15.250	0.812	HDL	R
HDL-4081-H *	12.625	14.125	0.687	HDL	H	HDL-4779-H *	13.250	15.250	0.812	HDL	H
HDL-4081-V *	12.625	14.125	0.687	HDL	V	HDL-4779-V *	13.250	15.250	0.812	HDL	V
HDL-3716-R *	12.625	14.500	0.687	HDL	R	HDL-4121-R	13.500	15.000	0.687	HDL	R
HDL-3716-H *	12.625	14.500	0.687	HDL	H	HDL-4121-H	13.500	15.000	0.687	HDL	H
HDL-3716-V *	12.625	14.500	0.687	HDL	V	HDL-4121-V	13.500	15.000	0.687	HDL	V
HDL-9766-R *	12.687	14.750	0.812	HDL	R	HDL-3052-R	13.500	15.250	0.750	HDL	R
HDL-9766-H *	12.687	14.750	0.812	HDL	H	HDL-3052-H	13.500	15.250	0.750	HDL	H
HDL-9766-V *	12.687	14.750	0.812	HDL	V	HDL-3052-V	13.500	15.250	0.750	HDL	V
HDL-4089-R	12.750	14.250	0.687	HDL	R	HDL-4128-R	13.500	15.500	0.812	HDL	R
HDL-4089-H	12.750	14.250	0.687	HDL	H	HDL-4128-H	13.500	15.500	0.812	HDL	H
HDL-4089-V	12.750	14.250	0.687	HDL	V	HDL-4128-V	13.500	15.500	0.812	HDL	V
HDL-7652-R *	12.750	14.750	0.687	HDL	R	HDL-4123-R *	13.500	15.750	0.812	HDL	R
HDL-7652-H *	12.750	14.750	0.687	HDL	H	HDL-4123-H *	13.500	15.750	0.812	HDL	H
HDL-7652-V *	12.750	14.750	0.687	HDL	V	HDL-4123-V *	13.500	15.750	0.812	HDL	V
HDL-4092-R *	12.750	15.000	0.812	HDL	R	HDL-4120-R *	13.625	15.500	0.687	HDL	R
HDL-4092-H *	12.750	15.000	0.812	HDL	H	HDL-4120-H *	13.625	15.500	0.687	HDL	H
HDL-4092-V *	12.750	15.000	0.812	HDL	V	HDL-4120-V *	13.625	15.500	0.687	HDL	V
HDL-5404-R *	12.875	15.000	0.812	HDL	R	HDL-4529-R *	13.750	15.250	0.687	HDL	R
HDL-5404-H *	12.875	15.000	0.812	HDL	H	HDL-4529-H *	13.750	15.250	0.687	HDL	H
HDL-5404-V *	12.875	15.000	0.812	HDL	V	HDL-4529-V *	13.750	15.250	0.687	HDL	V
HDL-4093-R	13.000	14.500	0.687	HDL	R	HDL-4531-R *	13.750	15.500	0.750	HDL	R
HDL-4093-H	13.000	14.500	0.687	HDL	H	HDL-4531-H *	13.750	15.500	0.750	HDL	H
HDL-4093-V	13.000	14.500	0.687	HDL	V	HDL-4531-V *	13.750	15.500	0.750	HDL	V
HDL-4096-R *	13.000	14.875	0.687	HDL	R	HDL-4129-R	13.750	15.750	0.812	HDL	R
HDL-4096-H *	13.000	14.875	0.687	HDL	H	HDL-4129-H	13.750	15.750	0.812	HDL	H
HDL-4096-V *	13.000	14.875	0.687	HDL	V	HDL-4129-V	13.750	15.750	0.812	HDL	V
HDL-4099-R	13.000	15.000	0.812	HDL	R	HDL-4119-R *	13.750	16.000	0.812	HDL	R
HDL-4099-H	13.000	15.000	0.812	HDL	H	HDL-4119-H *	13.750	16.000	0.812	HDL	H
HDL-4099-V	13.000	15.000	0.812	HDL	V	HDL-4119-V *	13.750	16.000	0.812	HDL	V
HDL-4101-R	13.250	14.750	0.687	HDL	R	HDL-4108-R *	13.813	16.000	0.812	HDL	R
HDL-4101-H	13.250	14.750	0.687	HDL	H	HDL-4108-H *	13.813	16.000	0.812	HDL	H
HDL-4101-V	13.250	14.750	0.687	HDL	V	HDL-4108-V *	13.813	16.000	0.812	HDL	V
HDL-7734-R	13.250	14.875	0.687	HDL	R	HDL-4110-R *	13.875	16.000	0.812	HDL	R
HDL-7734-H	13.250	14.875	0.687	HDL	H	HDL-4110-H *	13.875	16.000	0.812	HDL	H
HDL-7734-V	13.250	14.875	0.687	HDL	V	HDL-4110-V *	13.875	16.000	0.812	HDL	V
HDL-7169-R *	13.250	15.000	0.687	HDL	R	HDL-4130-R *	13.937	15.437	0.687	HDL	R
HDL-7169-H *	13.250	15.000	0.687	HDL	H	HDL-4130-H *	13.937	15.437	0.687	HDL	H
HDL-7169-V *	13.250	15.000	0.687	HDL	V	HDL-4130-V *	13.937	15.437	0.687	HDL	V

\* Contact SKF for availability



## LDS section - HDL inch size listing - (cont.)

Stock no.	Shaft	Inch bore	Width	Type and style	Lip	Stock no.	Shaft	Inch bore	Width	Type and style	Lip
HDL-4111-R *	13.938	15.500	0.687	HDL	R	HDL-4142-V	14.500	16.000	0.687	HDL	V
HDL-4111-H *	13.938	15.500	0.687	HDL	H	HDL-4142-R	14.500	16.000	0.687	HDL	R
HDL-4111-V *	13.938	15.500	0.687	HDL	V	HDL-4142-H	14.500	16.000	0.687	HDL	H
HDL-4112-R *	13.938	16.000	0.687	HDL	R	HDL-4145-V	14.500	16.500	0.812	HDL	V
HDL-4112-H *	13.938	16.000	0.687	HDL	H	HDL-4145-R	14.500	16.500	0.812	HDL	R
HDL-4112-V *	13.938	16.000	0.687	HDL	V	HDL-4145-H	14.500	16.500	0.812	HDL	H
HDL-4131-R	14.000	15.500	0.687	HDL	R	HDL-3856-R	14.625	16.250	0.687	HDL	R
HDL-4131-H	14.000	15.500	0.687	HDL	H	HDL-3856-H	14.625	16.250	0.687	HDL	H
HDL-4131-V	14.000	15.500	0.687	HDL	V	HDL-3856-V	14.625	16.250	0.687	HDL	V
HDL-5991-R	14.000	15.750	0.687	HDL	R	HDL-3857-R *	14.625	16.750	0.812	HDL	R
HDL-5991-H	14.000	15.750	0.687	HDL	H	HDL-3857-H *	14.625	16.750	0.812	HDL	H
HDL-5991-V	14.000	15.750	0.687	HDL	V	HDL-3857-V *	14.625	16.750	0.812	HDL	V
HDL-4134-R	14.000	15.750	0.750	HDL	R	HDL-4147-R	14.750	16.250	0.687	HDL	R
HDL-4134-H	14.000	15.750	0.750	HDL	H	HDL-4147-H	14.750	16.250	0.687	HDL	H
HDL-4134-V	14.000	15.750	0.750	HDL	V	HDL-4147-V	14.750	16.250	0.687	HDL	V
HDL-4135-R	14.000	16.000	0.812	HDL	R	HDL-5990-R	14.750	16.500	0.687	HDL	R
HDL-4135-H	14.000	16.000	0.812	HDL	H	HDL-5990-H	14.750	16.500	0.687	HDL	H
HDL-4135-V	14.000	16.000	0.812	HDL	V	HDL-5990-V	14.750	16.500	0.687	HDL	V
HDLA-4135-R	14.000	16.000	0.812	HDLA	R	HDL-3858-R	14.875	16.500	0.687	HDL	R
HDLA-4135-H	14.000	16.000	0.812	HDLA	H	HDL-3858-H	14.875	16.500	0.687	HDL	H
HDLA-4135-V	14.000	16.000	0.812	HDLA	V	HDL-3858-V	14.875	16.500	0.687	HDL	V
HDL-5382-R *	14.000	16.250	0.812	HDL	R	HDL-3859-R *	14.875	16.750	0.687	HDL	R
HDL-5382-H *	14.000	16.250	0.812	HDL	H	HDL-3859-H *	14.875	16.750	0.687	HDL	H
HDL-5382-V *	14.000	16.250	0.812	HDL	V	HDL-3859-V *	14.875	16.750	0.687	HDL	V
HDL-7535-R *	14.000	16.500	0.812	HDL	R	HDL-2622-R *	14.875	16.875	0.937	HDL	R
HDL-7535-H *	14.000	16.500	0.812	HDL	H	HDL-2622-H *	14.875	16.875	0.937	HDL	H
HDL-7535-V *	14.000	16.500	0.812	HDL	V	HDL-2622-V *	14.875	16.875	0.937	HDL	V
HDL-9280-R *	14.187	16.732	0.812	HDL	R	HDL-4150-R *	14.875	16.875	1.000	HDL	R
HDL-9280-H *	14.187	16.732	0.812	HDL	H	HDL-4150-H *	14.875	16.875	1.000	HDL	H
HDL-9280-V *	14.187	16.732	0.812	HDL	V	HDL-4150-V *	14.875	16.875	1.000	HDL	V
HDL-4118-R	14.250	15.750	0.687	HDL	R	HDL-3860-R *	14.875	17.000	0.812	HDL	R
HDL-4118-H	14.250	15.750	0.687	HDL	H	HDL-3860-H *	14.875	17.000	0.812	HDL	H
HDL-4118-V	14.250	15.750	0.687	HDL	V	HDL-3860-V *	14.875	17.000	0.812	HDL	V
HDL-4139-R *	14.250	16.000	0.687	HDL	R	HDL-3861-R *	14.906	17.000	0.812	HDL	R
HDL-4139-H *	14.250	16.000	0.687	HDL	H	HDL-3861-H *	14.906	17.000	0.812	HDL	H
HDL-4139-V *	14.250	16.000	0.687	HDL	V	HDL-3861-V *	14.906	17.000	0.812	HDL	V
HDL-4140-R	14.250	16.250	0.812	HDL	R	HDL-4151-R	15.000	16.500	0.687	HDL	R
HDL-4140-H	14.250	16.250	0.812	HDL	H	HDL-4151-H	15.000	16.500	0.687	HDL	H
HDL-4140-V	14.250	16.250	0.812	HDL	V	HDL-4151-V	15.000	16.500	0.687	HDL	V
HDL-3855-R *	14.250	16.500	0.812	HDL	3	HDL-3067-R	15.000	16.500	0.750	HDL	R
HDL-3855-H *	14.250	16.500	0.812	HDL	H	HDL-3067-H	15.000	16.500	0.750	HDL	H
HDL-3855-V *	14.250	16.500	0.812	HDL	V	HDL-3067-V	15.000	16.500	0.750	HDL	V
HDL-5481-R *	14.375	16.000	0.687	HDL	R	HDL-4156-R	15.000	17.000	0.812	HDL	R
HDL-5481-H *	14.375	16.000	0.687	HDL	H	HDL-4156-H	15.000	17.000	0.812	HDL	H
HDL-5481-V *	14.375	16.000	0.687	HDL	V	HDL-4156-V	15.000	17.000	0.812	HDL	V

LDS section - HDL inch size listing - (cont.)

Stock no.	Shaft	Inch bore	Width	Type and style	Lip	Stock no.	Shaft	Inch bore	Width	Type and style	Lip
HDL-3862-V *	15.000	17.250	0.812	HDL	V	HDL-4168-R *	15.500	18.000	0.812	HDL	R
HDL-8508-H *	15.000	17.250	0.812	HDL	H	HDL-4168-H *	15.500	18.000	0.812	HDL	H
HDL-8508-V *	15.000	17.250	0.812	HDL	V	HDL-4168-V *	15.500	18.000	0.812	HDL	V
HDL-3862-R *	15.000	17.250	0.812	HDL	R	HDL-9986-R	15.750	17.165	0.687	HDL	R
HDL-3862-H *	15.000	17.250	0.812	HDL	H	HDL-9986-H	15.750	17.165	0.687	HDL	H
HDL-8508-R *	15.000	17.250	0.812	HDL	R	HDL-9986-V	15.750	17.165	0.687	HDL	V
HDL-9637-R *	15.000	17.500	0.812	HDL	R	HDL-4170-R	15.750	17.250	0.687	HDL	R
HDL-9637-H *	15.000	17.500	0.812	HDL	H	HDL-4170-H	15.750	17.250	0.687	HDL	H
HDL-9637-V *	15.000	17.500	0.812	HDL	V	HDL-4170-V	15.750	17.250	0.687	HDL	V
HDL-3862-R *	15.000	17.750	0.812	HDL	R	HDL-9271-R *	15.750	17.312	0.687	HDL	R
HDL-3862-H *	15.000	17.750	0.812	HDL	H	HDL-9271-H *	15.750	17.312	0.687	HDL	H
HDL-3862-V *	15.000	17.750	0.812	HDL	V	HDL-9271-V *	15.750	17.312	0.687	HDL	V
HDL-4165-R *	15.125	16.750	0.687	HDL	R	HDL-4171-R *	15.750	17.500	0.687	HDL	R
HDL-4165-H *	15.125	16.750	0.687	HDL	H	HDL-4171-H *	15.750	17.500	0.687	HDL	H
HDL-4165-V *	15.125	16.750	0.687	HDL	V	HDL-4171-V *	15.750	17.500	0.687	HDL	V
HDL-4615-R	15.250	16.750	0.687	HDL	R	HDL-6874-R	15.750	17.750	0.687	HDL	R
HDL-4615-H	15.250	16.750	0.687	HDL	H	HDL-6874-H	15.750	17.750	0.687	HDL	H
HDL-4615-V	15.250	16.750	0.687	HDL	V	HDL-6874-V	15.750	17.750	0.687	HDL	V
HDL-4476-R	15.250	17.250	0.812	HDL	R	HDL-4172-R *	15.750	18.000	0.812	HDL	R
HDL-4476-H	15.250	17.250	0.812	HDL	H	HDL-4172-H *	15.750	18.000	0.812	HDL	H
HDL-4476-V	15.250	17.250	0.812	HDL	V	HDL-4172-V *	15.750	18.000	0.812	HDL	V
HDL-3030-R	15.250	17.250	0.875	HDL	R	HDL-4175-R *	15.750	18.500	1.000	HDL	R
HDL-3030-H	15.250	17.250	0.875	HDL	H	HDL-4175-H *	15.750	18.500	1.000	HDL	H
HDL-3030-V	15.250	17.250	0.875	HDL	V	HDL-4175-V *	15.750	18.500	1.000	HDL	V
HDL-4158-R *	15.312	16.875	0.687	HDL	R	HDL-4176-R *	15.875	17.875	0.812	HDL	R
HDL-4158-H *	15.312	16.875	0.687	HDL	H	HDL-4176-H *	15.875	17.875	0.812	HDL	H
HDL-4158-V *	15.312	16.875	0.687	HDL	V	HDL-4176-V *	15.875	17.875	0.812	HDL	V
HDL-5992-R	15.312	17.312	0.687	HDL	R	HDL-4177-R	16.000	17.500	0.687	HDL	R
HDL-5992-H	15.312	17.312	0.687	HDL	H	HDL-4177-H	16.000	17.500	0.687	HDL	H
HDL-5992-V	15.312	17.312	0.687	HDL	V	HDL-4177-V	16.000	17.500	0.687	HDL	V
HDL-4166-R *	15.359	17.717	0.687	HDL	R	HDLA-4177-R	16.000	17.500	0.687	HDLA	R
HDL-4166-H *	15.359	17.717	0.687	HDL	H	HDLA-4177-H	16.000	17.500	0.687	HDLA	H
HDL-4166-V *	15.359	17.717	0.687	HDL	V	HDLA-4177-V	16.000	17.500	0.687	HDLA	V
HDL-4167-R *	15.375	17.250	0.687	HDL	R	HDL-4173-R *	16.000	17.625	0.687	HDL	R
HDL-4167-H *	15.375	17.250	0.687	HDL	H	HDL-4173-H *	16.000	17.625	0.687	HDL	H
HDL-4167-V *	15.375	17.250	0.687	HDL	V	HDL-4173-V *	16.000	17.625	0.687	HDL	V
HDL-4159-R *	15.375	17.375	0.812	HDL	R	HDL-4180-R	16.000	18.000	0.812	HDL	R
HDL-4159-H *	15.375	17.375	0.812	HDL	H	HDL-4180-H	16.000	18.000	0.812	HDL	H
HDL-4159-V *	15.375	17.375	0.812	HDL	V	HDL-4180-V	16.000	18.000	0.812	HDL	V
HDL-4163-R	15.500	17.496	0.812	HDL	R	HDL-5077-R	16.000	18.000	0.875	HDL	R
HDL-4163-H	15.500	17.496	0.812	HDL	H	HDL-5077-H	16.000	18.000	0.875	HDL	H
HDL-4163-V	15.500	17.496	0.812	HDL	V	HDL-5077-V	16.000	18.000	0.875	HDL	V
HDL-6771-R *	15.500	17.750	0.812	HDL	R	HDL-5995-R	16.000	18.500	0.812	HDL	R
HDL-6771-H *	15.500	17.750	0.812	HDL	H	HDL-5995-H	16.000	18.500	0.812	HDL	H
HDL-6771-V *	15.500	17.750	0.812	HDL	V	HDL-5995-V	16.000	18.500	0.812	HDL	V

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## LDS section - HDL inch size listing - (cont.)

Stock no.	Shaft	Inch bore	Width	Type and style	Lip	Stock no.	Shaft	Inch bore	Width	Type and style	Lip
HDL-4181-R	16.250	17.750	0.687	HDL	R	HDL-9695-R *	16.937	19.291	0.812	HDL	R
HDL-4181-H	16.250	17.750	0.687	HDL	H	HDL-9695-H *	16.937	19.291	0.812	HDL	H
HDL-4181-V	16.250	17.750	0.687	HDL	V	HDL-9695-V *	16.937	19.291	0.812	HDL	V
HDL-8217-R *	16.250	18.000	0.687	HDL	R	HDL-4188-R	17.000	18.500	0.687	HDL	R
HDL-8217-H *	16.250	18.000	0.687	HDL	H	HDL-4188-H	17.000	18.500	0.687	HDL	H
HDL-8217-V *	16.250	18.000	0.687	HDL	V	HDL-4188-V	17.000	18.500	0.687	HDL	V
HDL-4184-R *	16.250	18.000	0.750	HDL	R	HDL-4190-R	17.000	19.000	0.812	HDL	R
HDL-4184-H *	16.250	18.000	0.750	HDL	H	HDL-4190-H	17.000	19.000	0.812	HDL	H
HDL-4184-V *	16.250	18.000	0.750	HDL	V	HDL-4190-V	17.000	19.000	0.812	HDL	V
HDL-3057-R	16.250	18.000	1.000	HDL	R	HDL-4191-R *	17.000	19.250	0.812	HDL	R
HDL-3057-H	16.250	18.000	1.000	HDL	H	HDL-4191-H *	17.000	19.250	0.812	HDL	H
HDL-3057-V	16.250	18.000	1.000	HDL	V	HDL-4191-V *	17.000	19.250	0.812	HDL	V
HDL-9892-R *	16.250	18.250	0.687	HDL	R	HDL-3750-R	17.000	19.500	0.812	HDL	R
HDL-9892-H *	16.250	18.250	0.687	HDL	H	HDL-3750-H	17.000	19.500	0.812	HDL	H
HDL-9892-V *	16.250	18.250	0.687	HDL	V	HDL-3750-V	17.000	19.500	0.812	HDL	V
HDL-4174-R *	16.250	18.500	0.812	HDL	R	HDL-3751-R	17.250	18.750	0.687	HDL	R
HDL-4174-H *	16.250	18.500	0.812	HDL	H	HDL-3751-H	17.250	18.750	0.687	HDL	H
HDL-4174-V *	16.250	18.500	0.812	HDL	V	HDL-3751-V	17.250	18.750	0.687	HDL	V
HDL-4179-R	16.375	17.875	0.687	HDL	R	HDL-3751-R *	17.250	18.750	0.750	HDL	R
HDL-4179-H	16.375	17.875	0.687	HDL	H	HDL-6967-H *	17.250	18.750	0.750	HDL	H
HDL-4179-V	16.375	17.875	0.687	HDL	V	HDL-6967-V *	17.250	18.750	0.750	HDL	V
HDL-9863-R *	16.500	18.000	0.687	HDL	R	HDL-4194-R	17.500	19.000	0.687	HDL	R
HDL-9863-H *	16.500	18.000	0.687	HDL	H	HDL-4194-H	17.500	19.000	0.687	HDL	H
HDL-9863-V *	16.500	18.000	0.687	HDL	V	HDL-4194-V	17.500	19.000	0.687	HDL	V
HDL-4187-R	16.500	18.500	0.687	HDL	R	HDL-5054-R	17.500	19.250	0.687	HDL	R
HDL-4187-H	16.500	18.500	0.687	HDL	H	HDL-5054-H	17.500	19.250	0.687	HDL	H
HDL-4187-V	16.500	18.500	0.687	HDL	V	HDL-5054-V	17.500	19.250	0.687	HDL	V
HDL-4186-R	16.500	18.500	0.812	HDL	R	HDL-3005-R	17.500	19.250	1.000	HDL	R
HDL-4186-H	16.500	18.500	0.812	HDL	H	HDL-3005-H	17.500	19.250	1.000	HDL	H
HDL-4186-V	16.500	18.500	0.812	HDL	V	HDL-3005-V	17.500	19.250	1.000	HDL	V
HDL-4183-R *	16.500	19.000	0.812	HDL	R	HDL-4198-R	17.500	19.500	0.687	HDL	R
HDL-4183-H *	16.500	19.000	0.812	HDL	H	HDL-4198-H	17.500	19.500	0.687	HDL	H
HDL-4183-V *	16.500	19.000	0.812	HDL	V	HDL-4198-V	17.500	19.500	0.687	HDL	V
HDL-1929-R *	16.535	18.504	0.875	HDL	R	HDL-4197-R *	17.500	19.750	0.812	HDL	R
HDL-1929-H *	16.535	18.504	0.875	HDL	H	HDL-4197-H *	17.500	19.750	0.812	HDL	H
HDL-1929-V *	16.535	18.504	0.875	HDL	V	HDL-4197-V *	17.500	19.750	0.812	HDL	V
HDL-3744-R *	16.750	18.250	0.687	HDL	R	HDL-4199-R	17.625	19.250	0.687	HDL	R
HDL-3744-H *	16.750	18.250	0.687	HDL	H	HDL-4199-H	17.625	19.250	0.687	HDL	H
HDL-3744-V *	16.750	18.250	0.687	HDL	V	HDL-4199-V	17.625	19.250	0.687	HDL	V
HDL-8862-R *	16.750	18.500	0.687	HDL	R	HDL-6850-R *	17.625	19.625	0.687	HDL	R
HDL-8862-H *	16.750	18.500	0.687	HDL	H	HDL-6850-H *	17.625	19.625	0.687	HDL	H
HDL-8862-V *	16.750	18.500	0.687	HDL	V	HDL-6850-V *	17.625	19.625	0.687	HDL	V
HDL-3748-R *	16.750	19.000	0.812	HDL	R	HDL-4200-R *	17.750	19.750	0.812	HDL	R
HDL-3748-H *	16.750	19.000	0.812	HDL	H	HDL-4200-H *	17.750	19.750	0.812	HDL	H
HDL-3748-V *	16.750	19.000	0.812	HDL	V	HDL-4200-V *	17.750	19.750	0.812	HDL	V

LDS section - HDL inch size listing - (cont.)

Stock no.	Shaft	Inch bore	Width	Type and style	Lip	Stock no.	Shaft	Inch bore	Width	Type and style	Lip
HDL-9084-R *	17.750	20.078	0.875	HDL	R	HDL-4215-R	18.375	20.000	0.750	HDL	R
HDL-9084-H *	17.750	20.078	0.875	HDL	H	HDL-4215-H	18.375	20.000	0.750	HDL	H
HDL-9084-V *	17.750	20.078	0.875	HDL	V	HDL-4215-V	18.375	20.000	0.750	HDL	V
HDL-4204-R	17.875	19.875	0.812	HDL	R	HDL-6740-R *	18.375	20.375	0.812	HDL	R
HDL-4204-H	17.875	19.875	0.812	HDL	H	HDL-6740-H *	18.375	20.375	0.812	HDL	H
HDL-4204-V	17.875	19.875	0.812	HDL	V	HDL-6740-V *	18.375	20.375	0.812	HDL	V
HDL-4206-R	18.000	19.500	0.687	HDL	R	HDL-3767-R *	18.375	20.500	0.750	HDL	R
HDL-4206-H	18.000	19.500	0.687	HDL	H	HDL-3767-H *	18.375	20.500	0.750	HDL	H
HDL-4206-V	18.000	19.500	0.687	HDL	V	HDL-3767-V *	18.375	20.500	0.750	HDL	V
HDL-5728-R *	18.000	19.750	0.687	HDL	R	HDL-3768-R *	18.500	20.000	0.687	HDL	R
HDL-5728-H *	18.000	19.750	0.687	HDL	H	HDL-3768-H *	18.500	20.000	0.687	HDL	H
HDL-5728-V *	18.000	19.750	0.687	HDL	V	HDL-3768-V *	18.500	20.000	0.687	HDL	V
HDL-4203-R *	18.000	19.875	0.687	HDL	R	HDL-3772-R *	18.500	20.250	0.687	HDL	R
HDL-4203-H *	18.000	19.875	0.687	HDL	H	HDL-3772-H *	18.500	20.250	0.687	HDL	H
HDL-4203-V *	18.000	19.875	0.687	HDL	V	HDL-3772-V *	18.500	20.250	0.687	HDL	V
HDL-4209-R *	18.000	20.000	0.750	HDL	R	HDLA-3068-R	18.500	20.500	0.812	HDLA	R
HDL-4209-H *	18.000	20.000	0.750	HDL	H	HDLA-3068-H	18.500	20.500	0.812	HDLA	H
HDL-4209-V *	18.000	20.000	0.750	HDL	V	HDLA-3068-V	18.500	20.500	0.812	HDLA	V
HDL-4210-R	18.000	20.000	0.875	HDL	R	HDL-4216-R	18.500	20.500	0.875	HDL	R
HDL-4210-H	18.000	20.000	0.875	HDL	H	HDL-4216-H	18.500	20.500	0.875	HDL	H
HDL-4210-V	18.000	20.000	0.875	HDL	V	HDL-4216-V	18.500	20.500	0.875	HDL	V
HDL-3752-R *	18.000	20.500	0.875	HDL	R	HDL-4218-R	19.000	20.500	0.750	HDL	R
HDL-3752-H *	18.000	20.500	0.875	HDL	H	HDL-4218-H	19.000	20.500	0.750	HDL	H
HDL-3752-V *	18.000	20.500	0.875	HDL	V	HDL-4218-V	19.000	20.500	0.750	HDL	V
HDL-3753-R *	18.000	21.000	0.875	HDL	R	HDL-4219-R	19.000	21.000	0.875	HDL	R
HDL-3753-H *	18.000	21.000	0.875	HDL	H	HDL-4219-H	19.000	21.000	0.875	HDL	H
HDL-3753-V *	18.000	21.000	0.875	HDL	V	HDL-4219-V	19.000	21.000	0.875	HDL	V
HDL-3754-R *	18.120	20.500	0.875	HDL	R	HDL-3773-R *	19.000	21.500	0.875	HDL	R
HDL-3754-H *	18.120	20.500	0.875	HDL	H	HDL-3773-H *	19.000	21.500	0.875	HDL	H
HDL-3754-V *	18.120	20.500	0.875	HDL	V	HDL-3773-V *	19.000	21.500	0.875	HDL	V
HDL-3756-R *	18.125	20.500	0.875	HDL	R	HDL-4617-R	19.250	20.750	0.750	HDL	R
HDL-3756-H *	18.125	20.500	0.875	HDL	H	HDL-4617-H	19.250	20.750	0.750	HDL	H
HDL-3756-V *	18.125	20.500	0.875	HDL	V	HDL-4617-V	19.250	20.750	0.750	HDL	V
HDL-3757-R *	18.250	19.750	0.687	HDL	R	HDL-3777-R *	19.250	21.000	0.750	HDL	R
HDL-3757-H *	18.250	19.750	0.687	HDL	H	HDL-3777-H *	19.250	21.000	0.750	HDL	H
HDL-3757-V *	18.250	19.750	0.687	HDL	V	HDL-3777-V *	19.250	21.000	0.750	HDL	V
HDL-3765-R *	18.250	19.875	0.687	HDL	R	HDL-5485-R *	19.250	21.250	0.750	HDL	R
HDL-3765-H *	18.250	19.875	0.687	HDL	H	HDL-5485-H *	19.250	21.250	0.750	HDL	H
HDL-3765-V *	18.250	19.875	0.687	HDL	V	HDL-5485-V *	19.250	21.250	0.750	HDL	V
HDL-4213-R	18.375	19.875	0.687	HDL	R	HDL-3778-R *	19.375	21.000	0.750	HDL	R
HDL-4213-H	18.375	19.875	0.687	HDL	H	HDL-3778-H *	19.375	21.000	0.750	HDL	H
HDL-4213-V	18.375	19.875	0.687	HDL	V	HDL-3778-V *	19.375	21.000	0.750	HDL	V
HDL-7103-R *	18.375	19.937	0.687	HDL	R	HDL-3779-R *	19.500	21.000	0.750	HDL	R
HDL-7103-H *	18.375	19.937	0.687	HDL	H	HDL-3779-H *	19.500	21.000	0.750	HDL	H
HDL-7103-V *	18.375	19.937	0.687	HDL	V	HDL-3779-V *	19.500	21.000	0.750	HDL	V

\* Contact SKF for availability

## LDS section - HDL inch size listing - (cont.)

Stock no.	Shaft	Inch bore	Width	Type and style	Lip	Stock no.	Shaft	Inch bore	Width	Type and style	Lip
HDL-4221-R	19.500	21.500	0.875	HDL	R	HDL-4240-R *	20.250	22.250	0.875	HDL	R
HDL-4221-H	19.500	21.500	0.875	HDL	H	HDL-4240-H *	20.250	22.250	0.875	HDL	H
HDL-4221-V	19.500	21.500	0.875	HDL	V	HDL-4240-V *	20.250	22.250	0.875	HDL	V
HDL-3783-R *	19.500	21.688	0.875	HDL	R	HDL-4241-R *	20.250	22.375	0.750	HDL	R
HDL-3783-H *	19.500	21.688	0.875	HDL	H	HDL-4241-H *	20.250	22.375	0.750	HDL	H
HDL-3783-V *	19.500	21.688	0.875	HDL	V	HDL-4241-V *	20.250	22.375	0.750	HDL	V
HDL-4228-R	19.750	21.750	0.875	HDL	R	HDL-8770-R *	20.250	22.500	0.875	HDL	R
HDL-4228-H	19.750	21.750	0.875	HDL	H	HDL-8770-H *	20.250	22.500	0.875	HDL	H
HDL-4228-V	19.750	21.750	0.875	HDL	V	HDL-8770-V *	20.250	22.500	0.875	HDL	V
HDL-7400-R *	19.750	22.125	0.875	HDL	R	HDL-4242-R *	20.438	22.500	0.812	HDL	R
HDL-7400-H *	19.750	22.125	0.875	HDL	H	HDL-4242-H *	20.438	22.500	0.812	HDL	H
HDL-7400-V *	19.750	22.125	0.875	HDL	V	HDL-4242-V *	20.438	22.500	0.812	HDL	V
HDL-3785-R *	19.750	22.250	0.875	HDL	R	HDL-4619-R	20.500	22.000	0.750	HDL	R
HDL-3785-H *	19.750	22.250	0.875	HDL	H	HDL-4619-H	20.500	22.000	0.750	HDL	H
HDL-3785-V *	19.750	22.250	0.875	HDL	V	HDL-4619-V	20.500	22.000	0.750	HDL	V
HDL-3788-R *	19.875	22.000	0.875	HDL	R	HDL-4245-R *	20.500	22.250	0.812	HDL	R
HDL-3788-H *	19.875	22.000	0.875	HDL	H	HDL-4245-H *	20.500	22.250	0.812	HDL	H
HDL-3788-V *	19.875	22.000	0.875	HDL	V	HDL-4245-V *	20.500	22.250	0.812	HDL	V
HDL-4233-R	19.937	21.687	0.625	HDL	R	HDL-4246-R	20.500	22.500	0.875	HDL	R
HDL-4233-H	19.937	21.687	0.625	HDL	H	HDL-4246-H	20.500	22.500	0.875	HDL	H
HDL-4233-V	19.937	21.687	0.625	HDL	V	HDL-4246-V	20.500	22.500	0.875	HDL	V
HDL-3789-R *	19.938	21.500	0.750	HDL	R	HDL-6287-R *	20.500	22.750	0.875	HDL	R
HDL-3789-H *	19.938	21.500	0.750	HDL	H	HDL-6287-H *	20.500	22.750	0.875	HDL	H
HDL-3789-V *	19.938	21.500	0.750	HDL	V	HDL-6287-V *	20.500	22.750	0.875	HDL	V
HDL-4235-R	20.000	21.500	0.750	HDL	R	HDL-9893-R *	20.625	22.625	0.812	HDL	R
HDL-4235-H	20.000	21.500	0.750	HDL	H	HDL-9893-H *	20.625	22.625	0.812	HDL	H
HDL-4235-V	20.000	21.500	0.750	HDL	V	HDL-9893-V *	20.625	22.625	0.812	HDL	V
HDL-4236-R	20.000	21.750	0.750	HDL	R	HDL-4248-R	20.750	22.750	0.875	HDL	R
HDL-4236-H	20.000	21.750	0.750	HDL	H	HDL-4248-H	20.750	22.750	0.875	HDL	H
HDL-4236-V	20.000	21.750	0.750	HDL	V	HDL-4248-V	20.750	22.750	0.875	HDL	V
HDL-4237-R	20.000	22.000	0.875	HDL	R	HDL-4243-R *	20.750	23.000	0.812	HDL	R
HDL-4237-H	20.000	22.000	0.875	HDL	H	HDL-4243-H *	20.750	23.000	0.812	HDL	H
HDL-4237-V	20.000	22.000	0.875	HDL	V	HDL-4243-V *	20.750	23.000	0.812	HDL	V
HDL-3790-R *	20.000	22.500	0.875	HDL	R	HDL-4250-R *	20.875	22.875	0.875	HDL	R
HDL-3790-H *	20.000	22.500	0.875	HDL	H	HDL-4250-H *	20.875	22.875	0.875	HDL	H
HDL-3790-V *	20.000	22.500	0.875	HDL	V	HDL-4250-V *	20.875	22.875	0.875	HDL	V
HDL-3792-R *	20.143	22.250	0.875	HDL	R	HDL-6417-R *	20.875	23.228	0.875	HDL	R
HDL-3792-H *	20.143	22.250	0.875	HDL	H	HDL-6417-H *	20.875	23.228	0.875	HDL	H
HDL-3792-V *	20.143	22.250	0.875	HDL	V	HDL-6417-V *	20.875	23.228	0.875	HDL	V
HDL-4239-R	20.250	21.750	0.750	HDL	R	HDL-5259-R	21.000	22.500	0.750	HDL	R
HDL-4239-H	20.250	21.750	0.750	HDL	H	HDL-5259-H	21.000	22.500	0.750	HDL	H
HDL-4239-V	20.250	21.750	0.750	HDL	V	HDL-5259-V	21.000	22.500	0.750	HDL	V
HDL-8231-R *	20.250	22.245	0.875	HDL	R	HDL-5312-R	21.000	22.750	0.750	HDL	R
HDL-8231-H *	20.250	22.245	0.875	HDL	H	HDL-5312-H	21.000	22.750	0.750	HDL	H
HDL-8231-V *	20.250	22.245	0.875	HDL	V	HDL-5312-V	21.000	22.750	0.750	HDL	V

LDS section - HDL inch size listing - (cont.)

Stock no.	Shaft	Inch bore	Width	Type and style	Lip	Stock no.	Shaft	Inch bore	Width	Type and style	Lip
HDL-6535-R *	21.000	23.000	0.812	HDL	R	HDL-4265-R	21.750	23.750	0.875	HDL	R
HDL-6535-H *	21.000	23.000	0.812	HDL	H	HDL-4265-H	21.750	23.750	0.875	HDL	H
HDL-6535-V *	21.000	23.000	0.812	HDL	V	HDL-4265-V	21.750	23.750	0.875	HDL	V
HDL-4253-R	21.000	23.000	0.875	HDL	R	HDL-5276-R *	21.750	24.000	0.875	HDL	R
HDL-4253-H	21.000	23.000	0.875	HDL	H	HDL-5276-H *	21.750	24.000	0.875	HDL	H
HDL-4253-V	21.000	23.000	0.875	HDL	V	HDL-5276-V *	21.750	24.000	0.875	HDL	V
HDL-4251-R *	21.000	23.250	0.812	HDL	R	HDL-8675-R *	21.750	24.250	0.875	HDL	R
HDL-4251-H *	21.000	23.250	0.812	HDL	H	HDL-8675-H *	21.750	24.250	0.875	HDL	H
HDL-4251-V *	21.000	23.250	0.812	HDL	V	HDL-8675-V *	21.750	24.250	0.875	HDL	V
HDL-9772-R *	21.000	23.500	0.875	HDL	R	HDL-4260-R *	21.750	24.500	0.875	HDL	R
HDL-9772-H *	21.000	23.500	0.875	HDL	H	HDL-4260-H *	21.750	24.500	0.875	HDL	H
HDL-9772-V *	21.000	23.500	0.875	HDL	V	HDL-4260-V *	21.750	24.500	0.875	HDL	V
HDL-4255-R	21.250	23.000	0.750	HDL	R	HDL-4262-R *	21.750	24.750	0.875	HDL	R
HDL-4255-H	21.250	23.000	0.750	HDL	H	HDL-4262-H *	21.750	24.750	0.875	HDL	H
HDL-4255-V	21.250	23.000	0.750	HDL	V	HDL-4262-V *	21.750	24.750	0.875	HDL	V
HDL-4254-R	21.250	23.250	0.875	HDL	R	HDL-4269-R	22.000	23.500	0.750	HDL	R
HDL-4254-H	21.250	23.250	0.875	HDL	H	HDL-4269-H	22.000	23.500	0.750	HDL	H
HDL-4254-V	21.250	23.250	0.875	HDL	V	HDL-4269-V	22.000	23.500	0.750	HDL	V
HDL-4256-R *	21.437	23.187	0.750	HDL	R	HDL-4270-R	22.000	24.000	0.875	HDL	R
HDL-4256-H *	21.437	23.187	0.750	HDL	H	HDL-4270-H	22.000	24.000	0.875	HDL	H
HDL-4256-V *	21.437	23.187	0.750	HDL	V	HDL-4270-V	22.000	24.000	0.875	HDL	V
HDL-4257-R *	21.500	23.250	0.750	HDL	R	HDL-9082-R *	22.000	24.250	0.812	HDL	R
HDL-4257-H *	21.500	23.250	0.750	HDL	H	HDL-9082-H *	22.000	24.250	0.812	HDL	H
HDL-4257-V *	21.500	23.250	0.750	HDL	V	HDL-9082-V *	22.000	24.250	0.812	HDL	V
HDL-7407-R *	21.500	23.500	0.812	HDL	R	HDL-3763-R *	22.000	24.250	0.875	HDL	R
HDL-7407-H *	21.500	23.500	0.812	HDL	H	HDL-3763-H *	22.000	24.250	0.875	HDL	H
HDL-7407-V *	21.500	23.500	0.812	HDL	V	HDL-3763-V *	22.000	24.250	0.875	HDL	V
HDL-4259-R	21.500	23.500	0.875	HDL	R	HDL-6295-R *	22.000	24.500	0.875	HDL	R
HDL-4259-H	21.500	23.500	0.875	HDL	H	HDL-6295-H *	22.000	24.500	0.875	HDL	H
HDL-4259-V	21.500	23.500	0.875	HDL	V	HDL-6295-V *	22.000	24.500	0.875	HDL	V
HDL-6493-R *	21.500	23.625	0.875	HDL	R	HDL-3764-R	22.250	24.250	0.875	HDL	R
HDL-6493-H *	21.500	23.625	0.875	HDL	H	HDL-3764-H	22.250	24.250	0.875	HDL	H
HDL-6493-V *	21.500	23.625	0.875	HDL	V	HDL-3764-V	22.250	24.250	0.875	HDL	V
HDL-6779-R *	21.500	24.000	0.875	HDL	R	HDL-4268-R *	22.375	24.250	0.750	HDL	R
HDL-6779-H *	21.500	24.000	0.875	HDL	H	HDL-4268-H *	22.375	24.250	0.750	HDL	H
HDL-6779-V *	21.500	24.000	0.875	HDL	V	HDL-4268-V *	22.375	24.250	0.750	HDL	V
HDL-4261-R *	21.625	23.375	0.750	HDL	R	HDL-6999-R *	22.375	24.375	0.750	HDL	R
HDL-4261-H *	21.625	23.375	0.750	HDL	H	HDL-6999-H *	22.375	24.375	0.750	HDL	H
HDL-4261-V *	21.625	23.375	0.750	HDL	V	HDL-6999-V *	22.375	24.375	0.750	HDL	V
HDL-4263-R	21.625	23.625	0.875	HDL	R	HDL-2576-R *	22.375	24.375	0.875	HDL	R
HDL-4263-H	21.625	23.625	0.875	HDL	H	HDL-2576-H *	22.375	24.375	0.875	HDL	H
HDL-4263-V	21.625	23.625	0.875	HDL	V	HDL-2576-V *	22.375	24.375	0.875	HDL	V
HDL-4621-R	21.750	23.250	0.750	HDL	R	HDL-4275-R	22.437	24.000	0.750	HDL	R
HDL-4621-H	21.750	23.250	0.750	HDL	H	HDL-4275-H	22.437	24.000	0.750	HDL	H
HDL-4621-V	21.750	23.250	0.750	HDL	V	HDL-4275-V	22.437	24.000	0.750	HDL	V

\* Contact SKF for availability



## LDS section - HDL inch size listing - (cont.)

Stock no.	Shaft	Inch bore	Width	Type and style	Lip	Stock no.	Shaft	Inch bore	Width	Type and style	Lip
HDL-4276-R *	22.437	24.250	0.750	HDL	R	HDL-4285-R	23.000	25.500	0.875	HDL	R
HDL-4276-H *	22.437	24.250	0.750	HDL	H	HDL-4285-H	23.000	25.500	0.875	HDL	H
HDL-4276-V *	22.437	24.250	0.750	HDL	V	HDL-4285-V	23.000	25.500	0.875	HDL	V
HDL-6480-R	22.437	24.437	0.750	HDL	R	HDL-4286-R *	23.250	25.000	0.750	HDL	R
HDL-6480-H	22.437	24.437	0.750	HDL	H	HDL-4286-H *	23.250	25.000	0.750	HDL	H
HDL-6480-V	22.437	24.437	0.750	HDL	V	HDL-4286-V *	23.250	25.000	0.750	HDL	V
HDL-1915-R *	22.437	24.437	0.875	HDL	R	HDL-9371-R *	23.250	25.250	0.750	HDL	R
HDL-1915-H *	22.437	24.437	0.875	HDL	H	HDL-9371-H *	23.250	25.250	0.750	HDL	H
HDL-1915-V *	22.437	24.437	0.875	HDL	V	HDL-9371-V *	23.250	25.250	0.750	HDL	V
HDL-9840-R *	22.437	24.500	0.750	HDL	R	HDL-6910-R *	23.250	25.250	0.812	HDL	R
HDL-9840-H *	22.437	24.500	0.750	HDL	H	HDL-6910-H *	23.250	25.250	0.812	HDL	H
HDL-9840-V *	22.437	24.500	0.750	HDL	V	HDL-6910-V *	23.250	25.250	0.812	HDL	V
HDL-4271-R	22.500	24.000	0.750	HDL	R	HDL-4287-R *	23.375	25.375	0.875	HDL	R
HDL-4271-H	22.500	24.000	0.750	HDL	H	HDL-4287-H *	23.375	25.375	0.875	HDL	H
HDL-4271-V	22.500	24.000	0.750	HDL	V	HDL-4287-V *	23.375	25.375	0.875	HDL	V
HDL-4272-R *	22.500	24.250	0.750	HDL	R	HDL-3033-R	23.500	24.681	0.591	HDL	R
HDL-4272-H *	22.500	24.250	0.750	HDL	H	HDL-3033-H	23.500	24.681	0.591	HDL	H
HDL-4272-V *	22.500	24.250	0.750	HDL	V	HDL-3033-V	23.500	24.681	0.591	HDL	V
HDL-4279-R	22.500	24.500	0.875	HDL	R	HDL-5547-R *	23.500	25.250	0.750	HDL	R
HDL-4279-H	22.500	24.500	0.875	HDL	H	HDL-5547-H *	23.500	25.250	0.750	HDL	H
HDL-4279-V	22.500	24.500	0.875	HDL	V	HDL-5547-V *	23.500	25.250	0.750	HDL	V
HDL-4273-R *	22.500	24.750	0.875	HDL	R	HDL-4288-R	23.500	25.500	0.875	HDL	R
HDL-4273-H *	22.500	24.750	0.875	HDL	H	HDL-4288-H	23.500	25.500	0.875	HDL	H
HDL-4273-V *	22.500	24.750	0.875	HDL	V	HDL-4288-V	23.500	25.500	0.875	HDL	V
HDL-4274-R *	22.500	25.000	0.875	HDL	R	HDL-4290-R *	23.562	25.250	0.750	HDL	R
HDL-4274-H *	22.500	25.000	0.875	HDL	H	HDL-4290-H *	23.562	25.250	0.750	HDL	H
HDL-4274-V *	22.500	25.000	0.875	HDL	V	HDL-4290-V *	23.562	25.250	0.750	HDL	V
HDL-4281-R	22.750	24.750	0.875	HDL	R	HDL-4291-R	23.562	25.375	0.750	HDL	R
HDL-4281-H	22.750	24.750	0.875	HDL	H	HDL-4291-H	23.562	25.375	0.750	HDL	H
HDL-4281-V	22.750	24.750	0.875	HDL	V	HDL-4291-V	23.562	25.375	0.750	HDL	V
HDL-6843-R *	22.750	25.000	0.875	HDL	R	HDL-4292-R	23.625	26.000	0.875	HDL	R
HDL-6843-H *	22.750	25.000	0.875	HDL	H	HDL-4292-H	23.625	26.000	0.875	HDL	H
HDL-6843-V *	22.750	25.000	0.875	HDL	V	HDL-4292-V	23.625	26.000	0.875	HDL	V
HDL-4283-R	23.000	24.500	0.750	HDL	R	HDL-6239-R	23.750	25.250	1.000	HDL	R
HDL-4283-H	23.000	24.500	0.750	HDL	H	HDL-6239-H	23.750	25.250	1.000	HDL	H
HDL-4283-V	23.000	24.500	0.750	HDL	V	HDL-6239-V	23.750	25.250	1.000	HDL	V
HDL-5421-R *	23.000	24.750	0.750	HDL	R	HDL-4293-R	23.875	26.000	0.875	HDL	R
HDL-5421-H *	23.000	24.750	0.750	HDL	H	HDL-4293-H	23.875	26.000	0.875	HDL	H
HDL-5421-V *	23.000	24.750	0.750	HDL	V	HDL-4293-V	23.875	26.000	0.875	HDL	V
HDL-4284-R	23.000	25.000	0.875	HDL	R	HDL-4623-R	24.000	25.500	0.750	HDL	R
HDL-4284-H	23.000	25.000	0.875	HDL	H	HDL-4623-H	24.000	25.500	0.750	HDL	H
HDL-4284-V	23.000	25.000	0.875	HDL	V	HDL-4623-V	24.000	25.500	0.750	HDL	V
HDL-4277-R *	23.000	25.375	0.875	HDL	R	HDL-9988-R	24.000	26.000	0.750	HDL	R
HDL-4277-H *	23.000	25.375	0.875	HDL	H	HDL-9988-H	24.000	26.000	0.750	HDL	H
HDL-4277-V *	23.000	25.375	0.875	HDL	V	HDL-9988-V	24.000	26.000	0.750	HDL	V

LDS section - HDL inch size listing - (cont.)

Stock no.	Shaft	Inch bore	Width	Type and style	Lip	Stock no.	Shaft	Inch bore	Width	Type and style	Lip
HDL-4295-R	24.000	26.000	0.812	HDL	R	HDL-5997-R *	25.000	27.482	0.875	HDL	R
HDL-4295-H	24.000	26.000	0.812	HDL	H	HDL-5997-H *	25.000	27.482	0.875	HDL	H
HDL-4295-V	24.000	26.000	0.812	HDL	V	HDL-5997-V *	25.000	27.482	0.875	HDL	V
HDL-4294-R	24.000	26.000	0.875	HDL	R	HDL-3047-R	25.125	26.750	0.875	HDL	R
HDL-4294-H	24.000	26.000	0.875	HDL	H	HDL-3047-H	25.125	26.750	0.875	HDL	H
HDL-4294-V	24.000	26.000	0.875	HDL	V	HDL-3047-V	25.125	26.750	0.875	HDL	V
HDL-6293-R *	24.000	26.250	0.875	HDL	R	HDL-4311-R	25.187	26.875	0.750	HDL	R
HDL-6293-H *	24.000	26.250	0.875	HDL	H	HDL-4311-H	25.187	26.875	0.750	HDL	H
HDL-6293-V *	24.000	26.250	0.875	HDL	V	HDL-4311-V	25.187	26.875	0.750	HDL	V
HDL-4297-R *	24.000	26.500	0.875	HDL	R	HDL-5994-R *	25.187	26.937	0.750	HDL	R
HDL-4297-H *	24.000	26.500	0.875	HDL	H	HDL-5994-H *	25.187	26.937	0.750	HDL	H
HDL-4297-V *	24.000	26.500	0.875	HDL	V	HDL-5994-V *	25.187	26.937	0.750	HDL	V
HDL-5644-R *	24.000	27.000	0.875	HDL	R	HDL-4299-R	25.250	27.250	0.750	HDL	R
HDL-5644-H *	24.000	27.000	0.875	HDL	H	HDL-4299-H	25.250	27.250	0.750	HDL	H
HDL-5644-V *	24.000	27.000	0.875	HDL	V	HDL-4299-V	25.250	27.250	0.750	HDL	V
HDL-4301-R	24.250	26.250	0.875	HDL	R	HDL-3022-R	25.500	26.750	0.750	HDL	R
HDL-4301-H	24.250	26.250	0.875	HDL	H	HDL-3022-H	25.500	26.750	0.750	HDL	H
HDL-4301-V	24.250	26.250	0.875	HDL	V	HDL-3022-V	25.500	26.750	0.750	HDL	V
HDL-3770-R *	24.250	26.250	1.000	HDL	R	HDL-4300-R	25.500	27.000	0.875	HDL	R
HDL-3770-H *	24.250	26.250	1.000	HDL	H	HDL-4300-H	25.500	27.000	0.875	HDL	H
HDL-3770-V *	24.250	26.250	1.000	HDL	V	HDL-4300-V	25.500	27.000	0.875	HDL	V
HDL-4302-R	24.437	26.000	0.750	HDL	R	HDL-4318-R	25.500	27.500	0.875	HDL	R
HDL-4302-H	24.437	26.000	0.750	HDL	H	HDL-4318-H	25.500	27.500	0.875	HDL	H
HDL-4302-V	24.437	26.000	0.750	HDL	V	HDL-4318-V	25.500	27.500	0.875	HDL	V
HDL-4304-R *	24.437	26.437	0.750	HDL	R	HDL-6998-R *	25.750	27.500	0.750	HDL	R
HDL-4304-H *	24.437	26.437	0.750	HDL	H	HDL-6998-H *	25.750	27.500	0.750	HDL	H
HDL-4304-V *	24.437	26.437	0.750	HDL	V	HDL-6998-V *	25.750	27.500	0.750	HDL	V
HDL-9990-R	24.437	26.935	1.000	HDL	R	HDL-4303-R *	25.875	28.000	0.875	HDL	R
HDL-9990-H	24.437	26.935	1.000	HDL	H	HDL-4303-H *	25.875	28.000	0.875	HDL	H
HDL-9990-V	24.437	26.935	1.000	HDL	V	HDL-4303-V *	25.875	28.000	0.875	HDL	V
HDL-4305-R	24.500	26.500	0.875	HDL	R	HDL-4306-R *	25.988	27.625	0.750	HDL	R
HDL-4305-H	24.500	26.500	0.875	HDL	H	HDL-4306-H *	25.988	27.625	0.750	HDL	H
HDL-4305-V	24.500	26.500	0.875	HDL	V	HDL-4306-V *	25.988	27.625	0.750	HDL	V
HDL-4308-R	25.000	26.500	0.750	HDL	R	HDL-5921-R	26.000	27.625	0.750	HDL	R
HDL-4308-H	25.000	26.500	0.750	HDL	H	HDL-5921-H	26.000	27.625	0.750	HDL	H
HDL-4308-V	25.000	26.500	0.750	HDL	V	HDL-5921-V	26.000	27.625	0.750	HDL	V
HDL-3774-R *	25.000	27.000	0.875	HDL	R	HDL-4325-R	26.000	28.000	0.875	HDL	R
HDL-3774-H *	25.000	27.000	0.875	HDL	H	HDL-4325-H	26.000	28.000	0.875	HDL	H
HDL-3774-V *	25.000	27.000	0.875	HDL	V	HDL-4325-V	26.000	28.000	0.875	HDL	V
HDL-4309-R *	25.000	27.000	1.000	HDL	R	HDL-9402-R *	26.000	28.125	0.875	HDL	R
HDL-4309-H *	25.000	27.000	1.000	HDL	H	HDL-9402-H *	26.000	28.125	0.875	HDL	H
HDL-4309-V *	25.000	27.000	1.000	HDL	V	HDL-9402-V *	26.000	28.125	0.875	HDL	V
HDL-6421-R *	25.000	27.250	0.875	HDL	R	HDL-4794-R *	26.000	28.500	0.875	HDL	R
HDL-6421-H *	25.000	27.250	0.875	HDL	H	HDL-4794-H *	26.000	28.500	0.875	HDL	H
HDL-6421-V *	25.000	27.250	0.875	HDL	V	HDL-4794-V *	26.000	28.500	0.875	HDL	V

\* Contact SKF for availability

## LDS section - HDL inch size listing - (cont.)

Stock no.	Shaft	Inch bore	Width	Type and style	Lip	Stock no.	Shaft	Inch bore	Width	Type and style	Lip
HDL-4329-R	26.125	27.625	0.750	HDL	R	HDL-4341-R *	27.875	29.812	0.875	HDL	R
HDL-4329-H	26.125	27.625	0.750	HDL	H	HDL-4341-H *	27.875	29.812	0.875	HDL	H
HDL-4329-V	26.125	27.625	0.750	HDL	V	HDL-4341-V *	27.875	29.812	0.875	HDL	V
HDL-4330-R	26.125	28.125	0.875	HDL	R	HDL-4343-R	28.000	29.500	0.750	HDL	R
HDL-4330-H	26.125	28.125	0.875	HDL	H	HDL-4343-H	28.000	29.500	0.750	HDL	H
HDL-4330-V	26.125	28.125	0.875	HDL	V	HDL-4343-V	28.000	29.500	0.750	HDL	V
HDL-4307-R *	26.375	28.188	0.875	HDL	R	HDL-7828-R	28.000	29.625	0.750	HDL	R
HDL-4307-H *	26.375	28.188	0.875	HDL	H	HDL-7828-H	28.000	29.625	0.750	HDL	H
HDL-4307-V *	26.375	28.188	0.875	HDL	V	HDL-7828-V	28.000	29.625	0.750	HDL	V
HDL-4312-R *	26.375	28.250	0.875	HDL	R	HDL-4316-R *	28.000	29.813	0.750	HDL	R
HDL-4312-H *	26.375	28.250	0.875	HDL	H	HDL-4316-H *	28.000	29.813	0.750	HDL	H
HDL-4312-V *	26.375	28.250	0.875	HDL	V	HDL-4316-V *	28.000	29.813	0.750	HDL	V
HDL-4533-R	26.500	28.000	0.750	HDL	R	HDL-4344-R	28.000	30.000	0.875	HDL	R
HDL-4533-H	26.500	28.000	0.750	HDL	H	HDL-4344-H	28.000	30.000	0.875	HDL	H
HDL-4533-V	26.500	28.000	0.750	HDL	V	HDL-4344-V	28.000	30.000	0.875	HDL	V
HDL-4313-R	26.500	28.500	0.875	HDL	R	HDL-4320-R *	28.000	30.250	0.812	HDL	R
HDL-4313-H	26.500	28.500	0.875	HDL	H	HDL-4320-H *	28.000	30.250	0.812	HDL	H
HDL-4313-V	26.500	28.500	0.875	HDL	V	HDL-4320-V *	28.000	30.250	0.812	HDL	V
HDL-4333-R	27.000	29.000	0.875	HDL	R	HDL-3878-R	28.000	30.500	0.875	HDL	R
HDL-4333-H	27.000	29.000	0.875	HDL	H	HDL-3878-H	28.000	30.500	0.875	HDL	H
HDL-4333-V	27.000	29.000	0.875	HDL	V	HDL-3878-V	28.000	30.500	0.875	HDL	V
HDL-8031-R *	27.000	29.500	0.875	HDL	R	HDL-5998-R	28.000	31.000	0.875	HDL	R
HDL-8031-H *	27.000	29.500	0.875	HDL	H	HDL-5998-H	28.000	31.000	0.875	HDL	H
HDL-8031-V *	27.000	29.500	0.875	HDL	V	HDL-5998-V	28.000	31.000	0.875	HDL	V
HDL-9984-R	27.000	30.000	0.875	HDL	R	HDL-4321-R *	28.438	31.000	0.875	HDL	R
HDL-9984-H	27.000	30.000	0.875	HDL	H	HDL-4321-H *	28.438	31.000	0.875	HDL	H
HDL-9984-V	27.000	30.000	0.875	HDL	V	HDL-4321-V *	28.438	31.000	0.875	HDL	V
HDL-4626-R	27.250	29.250	0.875	HDL	R	HDL-4346-R	28.500	30.500	0.875	HDL	R
HDL-4626-H	27.250	29.250	0.875	HDL	H	HDL-4346-H	28.500	30.500	0.875	HDL	H
HDL-4626-V	27.250	29.250	0.875	HDL	V	HDL-4346-V	28.500	30.500	0.875	HDL	V
HDL-4315-R	27.500	29.000	0.750	HDL	R	HDL-4534-R *	28.500	31.000	0.875	HDL	R
HDL-4315-H	27.500	29.000	0.750	HDL	H	HDL-4534-H *	28.500	31.000	0.875	HDL	H
HDL-4315-V	27.500	29.000	0.750	HDL	V	HDL-4534-V *	28.500	31.000	0.875	HDL	V
HDL-4339-R	27.500	29.500	0.875	HDL	R	HDL-4628-R	28.750	30.750	0.875	HDL	R
HDL-4339-H	27.500	29.500	0.875	HDL	H	HDL-4628-H	28.750	30.750	0.875	HDL	H
HDL-4339-V	27.500	29.500	0.875	HDL	V	HDL-4628-V	28.750	30.750	0.875	HDL	V
HDL-3046-R	27.500	30.063	0.750	HDL	R	HDL-4347-R	29.000	30.500	0.750	HDL	R
HDL-3046-H	27.500	30.063	0.750	HDL	H	HDL-4347-H	29.000	30.500	0.750	HDL	H
HDL-3046-V	27.500	30.063	0.750	HDL	V	HDL-4347-V	29.000	30.500	0.750	HDL	V
HDL-5001-R *	27.625	29.625	0.750	HDL	R	HDL-4348-R	29.000	31.000	0.875	HDL	R
HDL-5001-H *	27.625	29.625	0.750	HDL	H	HDL-4348-H	29.000	31.000	0.875	HDL	H
HDL-5001-V *	27.625	29.625	0.750	HDL	V	HDL-4348-V	29.000	31.000	0.875	HDL	V
HDL-4336-R	27.626	29.500	0.750	HDL	R	HDL-8793-R *	29.000	31.500	1.000	HDL	R
HDL-4336-H	27.626	29.500	0.750	HDL	H	HDL-8793-H *	29.000	31.500	1.000	HDL	H
HDL-4336-V	27.626	29.500	0.750	HDL	V	HDL-8793-V *	29.000	31.500	1.000	HDL	V

LDS section - HDL inch size listing - (cont.)

Stock no.	Shaft	Inch bore	Width	Type and style	Lip	Stock no.	Shaft	Inch bore	Width	Type and style	Lip
HDL-4537-R *	29.000	32.000	0.875	HDL	R	HDL-4360-R *	30.000	33.000	0.875	HDL	R
HDL-4537-H *	29.000	32.000	0.875	HDL	H	HDL-4360-H *	30.000	33.000	0.875	HDL	H
HDL-4537-V *	29.000	32.000	0.875	HDL	V	HDL-4360-V *	30.000	33.000	0.875	HDL	V
HDL-4352-R	29.500	31.500	0.875	HDL	R	HDL-4906-R *	30.250	32.500	0.875	HDL	R
HDL-4352-H	29.500	31.500	0.875	HDL	H	HDL-4906-H *	30.250	32.500	0.875	HDL	H
HDL-4352-V	29.500	31.500	0.875	HDL	V	HDL-4906-V *	30.250	32.500	0.875	HDL	V
HDL-3791-R	29.500	31.500	1.000	HDL	R	HDL-4361-R *	30.312	32.375	0.875	HDL	R
HDL-3791-H	29.500	31.500	1.000	HDL	H	HDL-4361-H *	30.312	32.375	0.875	HDL	H
HDL-3791-V	29.500	31.500	1.000	HDL	V	HDL-4361-V *	30.312	32.375	0.875	HDL	V
HDL-4538-R *	29.500	32.000	0.875	HDL	R	HDL-4365-R	30.500	32.500	0.875	HDL	R
HDL-4538-H *	29.500	32.000	0.875	HDL	H	HDL-4365-H	30.500	32.500	0.875	HDL	H
HDL-4538-V *	29.500	32.000	0.875	HDL	V	HDL-4365-V	30.500	32.500	0.875	HDL	V
HDL-4322-R *	29.500	32.250	0.875	HDL	R	HDL-8577-R	30.500	33.000	0.875	HDL	R
HDL-4322-H *	29.500	32.250	0.875	HDL	H	HDL-8577-H	30.500	33.000	0.875	HDL	H
HDL-4322-V *	29.500	32.250	0.875	HDL	V	HDL-8577-V	30.500	33.000	0.875	HDL	V
HDL-4539-R *	29.500	32.500	0.875	HDL	R	HDL-8230-R *	30.500	33.500	0.875	HDL	R
HDL-4539-H *	29.500	32.500	0.875	HDL	H	HDL-8230-H *	30.500	33.500	0.875	HDL	H
HDL-4539-V *	29.500	32.500	0.875	HDL	V	HDL-8230-V *	30.500	33.500	0.875	HDL	V
HDL-3048-R	30.000	31.496	0.591	HDL	R	HDL-5739-R *	31.000	32.500	0.750	HDL	R
HDL-3048-H	30.000	31.496	0.591	HDL	H	HDL-5739-H *	31.000	32.500	0.750	HDL	H
HDL-3048-V	30.000	31.496	0.591	HDL	V	HDL-5739-V *	31.000	32.500	0.750	HDL	V
HDL-4356-R *	30.000	31.500	0.750	HDL	R	HDL-4367-R	31.000	33.000	0.875	HDL	R
HDL-4356-H *	30.000	31.500	0.750	HDL	H	HDL-4367-H	31.000	33.000	0.875	HDL	H
HDL-4356-V *	30.000	31.500	0.750	HDL	V	HDL-4367-V	31.000	33.000	0.875	HDL	V
HDL-5000-R *	30.000	31.616	0.750	HDL	R	HDL-4540-R *	31.000	33.500	0.875	HDL	R
HDL-5000-H *	30.000	31.616	0.750	HDL	H	HDL-4540-H *	31.000	33.500	0.875	HDL	H
HDL-5000-V *	30.000	31.616	0.750	HDL	V	HDL-4540-V *	31.000	33.500	0.875	HDL	V
HDL-7870-R *	30.000	31.625	0.750	HDL	R	HDL-4541-R *	31.000	34.000	0.875	HDL	R
HDL-7870-H *	30.000	31.625	0.750	HDL	H	HDL-4541-H *	31.000	34.000	0.875	HDL	H
HDL-7870-V *	30.000	31.625	0.750	HDL	V	HDL-4541-V *	31.000	34.000	0.875	HDL	V
HDL-4357-R	30.000	32.000	0.875	HDL	R	HDL-4631-R *	31.250	32.750	0.750	HDL	R
HDL-4357-H	30.000	32.000	0.875	HDL	H	HDL-4631-H *	31.250	32.750	0.750	HDL	H
HDL-4357-V	30.000	32.000	0.875	HDL	V	HDL-4631-V *	31.250	32.750	0.750	HDL	V
HDL-4323-R *	30.000	32.250	0.875	HDL	R	HDL-5033-R	31.250	33.250	0.750	HDL	R
HDL-4323-H *	30.000	32.250	0.875	HDL	H	HDL-5033-H	31.250	33.250	0.750	HDL	H
HDL-4323-V *	30.000	32.250	0.875	HDL	V	HDL-5033-V	31.250	33.250	0.750	HDL	V
HDL-4358-R	30.000	32.500	0.875	HDL	R	HDL-5016-R *	31.750	33.750	0.875	HDL	R
HDL-4358-H *	30.000	32.500	0.875	HDL	H	HDL-5016-H *	31.750	33.750	0.875	HDL	H
HDL-4358-V *	30.000	32.500	0.875	HDL	V	HDL-5016-V *	31.750	33.750	0.875	HDL	V
HDL-3797-R *	30.000	32.500	1.000	HDL	R	HDL-3023-R	32.000	33.500	0.750	HDL	R
HDL-3797-H *	30.000	32.500	1.000	HDL	H	HDL-3023-H	32.000	33.500	0.750	HDL	H
HDL-3797-V *	30.000	32.500	1.000	HDL	V	HDL-3023-V	32.000	33.500	0.750	HDL	V
HDL-4359-R *	30.000	32.750	0.875	HDL	R	HDL-4632-R	32.000	34.000	0.875	HDL	R
HDL-4359-H *	30.000	32.750	0.875	HDL	H	HDL-4632-H	32.000	34.000	0.875	HDL	H
HDL-4359-V *	30.000	32.750	0.875	HDL	V	HDL-4632-V	32.000	34.000	0.875	HDL	V

\* Contact SKF for availability

## LDS section - HDL inch size listing - (cont.)

Stock no.	Shaft	Inch bore	Width	Type and style	Lip	Stock no.	Shaft	Inch bore	Width	Type and style	Lip
HDL-8407-R *	32.000	34.500	0.875	HDL	R	HDL-4544-R	33.000	35.500	0.875	HDL	R
HDL-8407-H *	32.000	34.500	0.875	HDL	H	HDL-4544-H	33.000	35.500	0.875	HDL	H
HDL-8407-V *	32.000	34.500	0.875	HDL	V	HDL-4544-V	33.000	35.500	0.875	HDL	V
HDL-3002-R	32.125	34.125	0.750	HDL	R	HDL-9504-R *	33.500	35.000	0.875	HDL	R
HDL-3002-H	32.125	34.125	0.750	HDL	H	HDL-9504-H *	33.500	35.000	0.875	HDL	H
HDL-3002-V	32.125	34.125	0.750	HDL	V	HDL-9504-V *	33.500	35.000	0.875	HDL	V
HDL-4371-R	32.125	34.125	0.875	HDL	R	HDL-4389-R	33.500	35.500	0.875	HDL	R
HDL-4371-H	32.125	34.125	0.875	HDL	H	HDL-4389-H	33.500	35.500	0.875	HDL	H
HDL-4371-V	32.125	34.125	0.875	HDL	V	HDL-4389-V	33.500	35.500	0.875	HDL	V
HDL-7537-R *	32.125	34.625	0.875	HDL	R	HDL-4327-H *	33.500	35.625	0.875	HDL	H
HDL-7537-H *	32.125	34.625	0.875	HDL	H	HDL-4327-V *	33.500	35.625	0.875	HDL	V
HDL-7537-V *	32.125	34.625	0.875	HDL	V	HDL-4548-H *	33.500	35.625	0.875	HDL	H
HDL-4373-R	32.312	34.500	0.875	HDL	R	HDL-4548-V *	33.500	35.625	0.875	HDL	V
HDL-4373-H	32.312	34.500	0.875	HDL	H	HDL-4327-R *	33.500	35.625	0.875	HDL	R
HDL-4373-V	32.312	34.500	0.875	HDL	V	HDL-4548-R *	33.500	35.625	0.875	HDL	R
HDL-4377-R	32.500	34.500	0.875	HDL	R	HDL-4549-R *	33.500	35.750	0.875	HDL	R
HDL-4377-H	32.500	34.500	0.875	HDL	H	HDL-4549-H *	33.500	35.750	0.875	HDL	H
HDL-4377-V	32.500	34.500	0.875	HDL	V	HDL-4549-V *	33.500	35.750	0.875	HDL	V
HDL-4542-R *	32.750	34.250	0.750	HDL	R	HDL-4550-R	33.500	36.000	0.875	HDL	R
HDL-4542-H *	32.750	34.250	0.750	HDL	H	HDL-4550-H	33.500	36.000	0.875	HDL	H
HDL-4542-V *	32.750	34.250	0.750	HDL	V	HDL-4550-V	33.500	36.000	0.875	HDL	V
HDL-8289-R *	32.750	35.000	0.875	HDL	R	HDL-4552-R *	33.500	36.417	0.875	HDL	R
HDL-8289-H *	32.750	35.000	0.875	HDL	H	HDL-4552-H *	33.500	36.417	0.875	HDL	H
HDL-8289-V *	32.750	35.000	0.875	HDL	V	HDL-4552-V *	33.500	36.417	0.875	HDL	V
HDL-4380-R	32.996	34.685	0.787	HDL	R	HDL-4328-R *	33.625	35.625	0.875	HDL	R
HDL-4380-H	32.996	34.685	0.787	HDL	H	HDL-4328-H *	33.625	35.625	0.875	HDL	H
HDL-4380-V	32.996	34.685	0.787	HDL	V	HDL-4328-V *	33.625	35.625	0.875	HDL	V
HDL-4381-R	33.000	34.500	0.750	HDL	R	HDL-4331-R *	34.000	35.625	0.875	HDL	R
HDL-4381-H	33.000	34.500	0.750	HDL	H	HDL-4331-H *	34.000	35.625	0.875	HDL	H
HDL-4381-V	33.000	34.500	0.750	HDL	V	HDL-4331-V *	34.000	35.625	0.875	HDL	V
HDL-6787-R	33.000	34.625	0.750	HDL	R	HDL-4399-R	34.000	36.000	0.875	HDL	R
HDL-6787-H	33.000	34.625	0.750	HDL	H	HDL-4399-H	34.000	36.000	0.875	HDL	H
HDL-6787-V	33.000	34.625	0.750	HDL	V	HDL-4399-V	34.000	36.000	0.875	HDL	V
HDL-4634-R	33.000	34.650	0.787	HDL	R	HDL-3056-R	34.000	36.500	0.750	HDL	R
HDL-4634-H	33.000	34.650	0.787	HDL	H	HDL-3056-H	34.000	36.500	0.750	HDL	H
HDL-4634-V	33.000	34.650	0.787	HDL	V	HDL-3056-V	34.000	36.500	0.750	HDL	V
HDL-6152-R *	33.000	34.687	0.750	HDL	R	HDL-4400-R	34.000	36.500	0.875	HDL	R
HDL-6152-H *	33.000	34.687	0.750	HDL	H	HDL-4400-H	34.000	36.500	0.875	HDL	H
HDL-6152-V *	33.000	34.687	0.750	HDL	V	HDL-4400-V	34.000	36.500	0.875	HDL	V
HDL-4382-R	33.000	35.000	0.875	HDL	R	HDL-4332-R *	34.000	37.000	0.875	HDL	R
HDL-4382-H	33.000	35.000	0.875	HDL	H	HDL-4332-H *	34.000	37.000	0.875	HDL	H
HDL-4382-V	33.000	35.000	0.875	HDL	V	HDL-4332-V *	34.000	37.000	0.875	HDL	V
HDL-4326-R	33.000	35.250	0.875	HDL	R	HDL-3017-R	34.250	36.000	0.750	HDL	R
HDL-4326-H	33.000	35.250	0.875	HDL	H	HDL-3017-H	34.250	36.000	0.750	HDL	H
HDL-4326-V	33.000	35.250	0.875	HDL	V	HDL-3017-V	34.250	36.000	0.750	HDL	V

LDS section - HDL inch size listing - (cont.)

Stock no.	Shaft	Inch bore	Width	Type and style	Lip	Stock no.	Shaft	Inch bore	Width	Type and style	Lip
HDL-4401-R *	34.250	36.250	0.875	HDL	R	HDL-3001-R	35.496	37.996	0.984	HDL	R
HDL-4401-H *	34.250	36.250	0.875	HDL	H	HDL-3001-H	35.496	37.996	0.984	HDL	H
HDL-4401-V *	34.250	36.250	0.875	HDL	V	HDL-3001-V	35.496	37.996	0.984	HDL	V
HDL-4335-R *	34.250	36.750	0.875	HDL	R	HDL-4553-R	35.500	37.500	0.875	HDL	R
HDL-4335-H *	34.250	36.750	0.875	HDL	H	HDL-4553-H	35.500	37.500	0.875	HDL	H
HDL-4335-V *	34.250	36.750	0.875	HDL	V	HDL-4553-V	35.500	37.500	0.875	HDL	V
HDL-4338-R *	34.250	37.500	0.875	HDL	R	HDL-3003-R	35.827	38.077	0.687	HDL	R
HDL-4338-H *	34.250	37.500	0.875	HDL	H	HDL-3003-H	35.827	38.077	0.687	HDL	H
HDL-4338-V *	34.250	37.500	0.875	HDL	V	HDL-3003-V	35.827	38.077	0.687	HDL	V
HDL-6908-R *	34.500	36.000	0.750	HDL	R	HDL-4421-R	36.000	38.000	0.875	HDL	R
HDL-6908-H *	34.500	36.000	0.750	HDL	H	HDL-4421-H	36.000	38.000	0.875	HDL	H
HDL-6908-V *	34.500	36.000	0.750	HDL	V	HDL-4421-V	36.000	38.000	0.875	HDL	V
HDL-4405-R	34.500	36.500	0.875	HDL	R	HDL-9993-R	36.000	38.500	1.000	HDL	R
HDL-4405-H	34.500	36.500	0.875	HDL	H	HDL-9993-H	36.000	38.500	1.000	HDL	H
HDL-4405-V	34.500	36.500	0.875	HDL	V	HDL-9993-V	36.000	38.500	1.000	HDL	V
HDL-3021-R	34.500	36.500	1.000	HDL	R	HDL-7770-R *	36.220	37.717	0.750	HDL	R
HDL-3021-H	34.500	36.500	1.000	HDL	H	HDL-7770-H *	36.220	37.717	0.750	HDL	H
HDL-3021-V	34.500	36.500	1.000	HDL	V	HDL-7770-V *	36.220	37.717	0.750	HDL	V
HDL-4338-R *	34.500	37.500	0.875	HDL	R	HDL-4429-R *	36.500	38.000	0.750	HDL	R
HDL-4338-H *	34.500	37.500	0.875	HDL	H	HDL-4429-H *	36.500	38.000	0.750	HDL	H
HDL-4338-V *	34.500	37.500	0.875	HDL	V	HDL-4429-V *	36.500	38.000	0.750	HDL	V
HDL-3831-R *	34.750	36.750	0.875	HDL	R	HDL-4430-R	36.500	38.500	0.875	HDL	R
HDL-3831-H *	34.750	36.750	0.875	HDL	H	HDL-4430-H	36.500	38.500	0.875	HDL	H
HDL-3831-V *	34.750	36.750	0.875	HDL	V	HDL-4430-V	36.500	38.500	0.875	HDL	V
HDL-3835-R	35.000	37.000	0.875	HDL	R	HDL-4432-R *	36.750	38.750	0.875	HDL	R
HDL-3835-H	35.000	37.000	0.875	HDL	H	HDL-4432-H *	36.750	38.750	0.875	HDL	H
HDL-3835-V	35.000	37.000	0.875	HDL	V	HDL-4432-V *	36.750	38.750	0.875	HDL	V
HDL-3836-R	35.000	37.500	0.875	HDL	R	HDL-7428-R	36.750	39.250	0.875	HDL	R
HDL-3836-H	35.000	37.500	0.875	HDL	H	HDL-7428-H	36.750	39.250	0.875	HDL	H
HDL-3836-V	35.000	37.500	0.875	HDL	V	HDL-7428-V	36.750	39.250	0.875	HDL	V
HDL-3837-R	35.000	38.000	0.875	HDL	R	HDL-4434-R	37.000	39.000	0.875	HDL	R
HDL-3837-H	35.000	38.000	0.875	HDL	H	HDL-4434-H	37.000	39.000	0.875	HDL	H
HDL-3837-V	35.000	38.000	0.875	HDL	V	HDL-4434-V	37.000	39.000	0.875	HDL	V
HDL-4416-R	35.250	37.250	0.875	HDL	R	HDL-4436-R	37.250	39.250	0.875	HDL	R
HDL-4416-H	35.250	37.250	0.875	HDL	H	HDL-4436-H	37.250	39.250	0.875	HDL	H
HDL-4416-V	35.250	37.250	0.875	HDL	V	HDL-4436-V	37.250	39.250	0.875	HDL	V
HDL-4647-R *	35.250	38.250	0.812	HDL	R	HDL-4425-R *	37.374	39.500	0.875	HDL	R
HDL-4647-H *	35.250	38.250	0.812	HDL	H	HDL-4425-H *	37.374	39.500	0.875	HDL	H
HDL-4647-V *	35.250	38.250	0.812	HDL	V	HDL-4425-V *	37.374	39.500	0.875	HDL	V
HDL-4417-R	35.375	37.375	0.875	HDL	R	HDL-3847-R *	37.437	39.500	0.875	HDL	R
HDL-4417-H	35.375	37.375	0.875	HDL	H	HDL-3847-H *	37.437	39.500	0.875	HDL	H
HDL-4417-V	35.375	37.375	0.875	HDL	V	HDL-3847-V *	37.437	39.500	0.875	HDL	V
HDL-9079-R *	35.437	38.583	0.875	HDL	R	HDL-9411-R *	37.500	39.000	0.750	HDL	R
HDL-9079-H *	35.437	38.583	0.875	HDL	H	HDL-9411-H *	37.500	39.000	0.750	HDL	H
HDL-9079-V *	35.437	38.583	0.875	HDL	V	HDL-9411-V *	37.500	39.000	0.750	HDL	V

\* Contact SKF for availability



## LDS section - HDL inch size listing - (cont.)

Stock no.	Shaft	Inch bore	Width	Type and style	Lip	Stock no.	Shaft	Inch bore	Width	Type and style	Lip
HDL-4438-R	37.500	39.500	0.875	HDL	R	HDL-7538-R	39.750	42.250	0.875	HDL	R
HDL-4438-H	37.500	39.500	0.875	HDL	H	HDL-7538-H	39.750	42.250	0.875	HDL	H
HDL-4438-V	37.500	39.500	0.875	HDL	V	HDL-7538-V	39.750	42.250	0.875	HDL	V
HDL-3004-R	38.000	39.500	0.750	HDL	R	HDL-4467-R	40.000	42.000	0.875	HDL	R
HDL-3004-H	38.000	39.500	0.750	HDL	H	HDL-4467-H	40.000	42.000	0.875	HDL	H
HDL-3004-V	38.000	39.500	0.750	HDL	V	HDL-4467-V	40.000	42.000	0.875	HDL	V
HDL-4448-R	38.000	40.000	0.875	HDL	R	HDL-8791-R *	40.000	42.500	0.875	HDL	R
HDL-4448-H	38.000	40.000	0.875	HDL	H	HDL-8791-H *	40.000	42.500	0.875	HDL	H
HDL-4448-V	38.000	40.000	0.875	HDL	V	HDL-8791-V *	40.000	42.500	0.875	HDL	V
HDL-4340-R *	38.000	41.000	0.875	HDL	R	HDL-8599-R *	40.000	42.500	1.000	HDL	R
HDL-4340-H *	38.000	41.000	0.875	HDL	H	HDL-8599-H *	40.000	42.500	1.000	HDL	H
HDL-4340-V *	38.000	41.000	0.875	HDL	V	HDL-8599-V *	40.000	42.500	1.000	HDL	V
HDL-4454-R	38.250	40.250	0.875	HDL	R	HDL-4468-R *	40.500	42.500	0.875	HDL	R
HDL-4454-H	38.250	40.250	0.875	HDL	H	HDL-4468-H *	40.500	42.500	0.875	HDL	H
HDL-4454-V	38.250	40.250	0.875	HDL	V	HDL-4468-V *	40.500	42.500	0.875	HDL	V
HDL-4567-R *	38.250	40.750	0.875	HDL	R	HDL-7300-R *	40.500	43.000	0.875	HDL	R
HDL-4567-H *	38.250	40.750	0.875	HDL	H	HDL-7300-H *	40.500	43.000	0.875	HDL	H
HDL-4567-V *	38.250	40.750	0.875	HDL	V	HDL-7300-V *	40.500	43.000	0.875	HDL	V
HDL-4569-R *	38.250	41.250	0.875	HDL	R	HDL-1964-R *	40.500	43.020	0.875	HDL	R
HDL-4569-H *	38.250	41.250	0.875	HDL	H	HDL-1964-H *	40.500	43.020	0.875	HDL	H
HDL-4569-V *	38.250	41.250	0.875	HDL	V	HDL-1964-V *	40.500	43.020	0.875	HDL	V
HDL-4342-R *	38.258	40.750	0.875	HDL	R	HDL-4635-R	41.500	43.500	0.875	HDL	R
HDL-4342-H *	38.258	40.750	0.875	HDL	H	HDL-4635-H	41.500	43.500	0.875	HDL	H
HDL-4342-V *	38.258	40.750	0.875	HDL	V	HDL-4635-V	41.500	43.500	0.875	HDL	V
HDL-4349-R *	38.500	41.000	0.875	HDL	R	HDL-8628-R	41.875	43.500	1.000	HDL	R
HDL-4349-H *	38.500	41.000	0.875	HDL	H	HDL-8628-H	41.875	43.500	1.000	HDL	H
HDL-4349-V *	38.500	41.000	0.875	HDL	V	HDL-8628-V	41.875	43.500	1.000	HDL	V
HDL-4456-R *	38.750	40.750	0.875	HDL	R	HDL-4470-R	42.248	44.248	1.000	HDL	R
HDL-4456-H *	38.750	40.750	0.875	HDL	H	HDL-4470-H	42.248	44.248	1.000	HDL	H
HDL-4456-V *	38.750	40.750	0.875	HDL	V	HDL-4470-V	42.248	44.248	1.000	HDL	V
HDL-4570-R	38.750	41.000	0.875	HDL	R	HDL-5555-R *	42.500	44.250	0.875	HDL	R
HDL-4570-H	38.750	41.000	0.875	HDL	H	HDL-5555-H *	42.500	44.250	0.875	HDL	H
HDL-4570-V	38.750	41.000	0.875	HDL	V	HDL-5555-V *	42.500	44.250	0.875	HDL	V
HDL-4462-R *	38.937	41.000	0.875	HDL	R	HDL-4473-R	42.500	45.000	0.875	HDL	R
HDL-4462-H *	38.937	41.000	0.875	HDL	H	HDL-4473-H	42.500	45.000	0.875	HDL	H
HDL-4462-V *	38.937	41.000	0.875	HDL	V	HDL-4473-V	42.500	45.000	0.875	HDL	V
HDL-4465-R	39.000	41.000	0.875	HDL	R	HDL-6269-R *	42.500	45.500	0.875	HDL	R
HDL-4465-H	39.000	41.000	0.875	HDL	H	HDL-6269-H *	42.500	45.500	0.875	HDL	H
HDL-4465-V	39.000	41.000	0.875	HDL	V	HDL-6269-V *	42.500	45.500	0.875	HDL	V
HDL-4350-R *	39.000	41.500	0.875	HDL	R	HDL-7189-R *	43.000	45.500	0.875	HDL	R
HDL-4350-H *	39.000	41.500	0.875	HDL	H	HDL-7189-H *	43.000	45.500	0.875	HDL	H
HDL-4350-V *	39.000	41.500	0.875	HDL	V	HDL-7189-V *	43.000	45.500	0.875	HDL	V
HDL-4577-R *	39.000	42.250	0.875	HDL	R	HDL-9994-R	43.000	45.500	1.000	HDL	R
HDL-4577-H *	39.000	42.250	0.875	HDL	H	HDL-9994-H	43.000	45.500	1.000	HDL	H
HDL-4577-V *	39.000	42.250	0.875	HDL	V	HDL-9994-V	43.000	45.500	1.000	HDL	V

LDS section - HDL inch size listing - (cont.)

Stock no.	Shaft	Inch bore	Width	Type and style	Lip	Stock no.	Shaft	Inch bore	Width	Type and style	Lip
HDL-4637-R	43.500	45.500	0.875	HDL	R	HDL-4578-H *	46.500	48.500	0.875	HDL	H
HDL-4637-H	43.500	45.500	0.875	HDL	H	HDL-4578-V *	46.500	48.500	0.875	HDL	V
HDL-4637-V	43.500	45.500	0.875	HDL	V	HDL-8317-R	46.850	48.819	0.875	HDL	R
HDL-4638-R	43.750	45.750	0.875	HDL	R	HDL-8317-H	46.850	48.819	0.875	HDL	H
HDL-4638-H	43.750	45.750	0.875	HDL	H	HDL-8317-V	46.850	48.819	0.875	HDL	V
HDL-4638-V	43.750	45.750	0.875	HDL	V	HDL-8579-R *	48.000	50.000	0.875	HDL	R
HDL-7087-R *	44.000	46.000	0.875	HDL	R	HDL-8579-H *	48.000	50.000	0.875	HDL	H
HDL-7087-H *	44.000	46.000	0.875	HDL	H	HDL-8579-V *	48.000	50.000	0.875	HDL	V
HDL-7087-V *	44.000	46.000	0.875	HDL	V	HDL-4639-R	48.250	50.250	0.875	HDL	R
HDL-4475-R	44.000	46.500	0.875	HDL	R	HDL-4639-H	48.250	50.250	0.875	HDL	H
HDL-4475-H	44.000	46.500	0.875	HDL	H	HDL-4639-V	48.250	50.250	0.875	HDL	V
HDL-4475-V	44.000	46.500	0.875	HDL	V	HDL-6747-R	51.248	53.289	0.875	HDL	R
HDL-3024-R	44.000	46.500	1.000	HDL	R	HDL-6747-H	51.248	53.289	0.875	HDL	H
HDL-3024-H	44.000	46.500	1.000	HDL	H	HDL-6747-V	51.248	53.289	0.875	HDL	V
HDL-3024-V	44.000	46.500	1.000	HDL	V	HDL-1914-R *	51.250	53.300	0.875	HDL	R
HDL-4563-R	44.500	46.000	0.750	HDL	R	HDL-1914-H *	51.250	53.300	0.875	HDL	H
HDL-4563-H	44.500	46.000	0.750	HDL	H	HDL-1914-V *	51.250	53.300	0.875	HDL	V
HDL-4563-V	44.500	46.000	0.750	HDL	V	HDL-5482-R	59.000	61.000	0.875	HDL	R
HDL-8903-R	45.000	46.625	1.000	HDL	R	HDL-5482-H	59.000	61.000	0.875	HDL	H
HDL-8903-H	45.000	46.625	1.000	HDL	H	HDL-5482-V	59.000	61.000	0.875	HDL	V
HDL-8903-V	45.000	46.625	1.000	HDL	V	HDL-8557-R	63.327	65.748	0.787	HDL	R
HDL-3006-R	46.004	47.500	0.750	HDL	R	HDL-8557-H	63.327	65.748	0.787	HDL	H
HDL-3006-H	46.004	47.500	0.750	HDL	H	HDL-8557-V	63.327	65.748	0.787	HDL	V
HDL-3006-V	46.004	47.500	0.750	HDL	V						
HDL-4578-R *	46.500	48.500	0.875	HDL	R						

\* Contact SKF for availability

## LDS section - HDL metric size listing

Stock no.	Shaft	Metric bore	Width	Type and style	Lip	Stock no.	Shaft	Metric bore	Width	Type and style	Lip
HDL-3013-R	200.00	240.00	20.00	HDL	R	HDL-8504-R *	420.00	460.00	17.45	HDL	R
HDL-3013-H	200.00	240.00	20.00	HDL	H	HDL-8504-H *	420.00	460.00	17.45	HDL	H
HDL-3013-V	200.00	240.00	20.00	HDL	V	HDL-8504-V *	420.00	460.00	17.45	HDL	V
HDL-3069-R	220.00	250.00	15.00	HDL	R	HDL-3010-R	420.00	460.00	20.00	HDL	R
HDL-3069-H	220.00	250.00	15.00	HDL	H	HDL-3010-H	420.00	460.00	20.00	HDL	H
HDL-3069-V	220.00	250.00	15.00	HDL	V	HDL-3010-V	420.00	460.00	20.00	HDL	V
HDL-3039-V	220.00	250.00	18.00	HDL	R	HDL-8792-R *	420.00	470.00	17.45	HDL	R
HDL-3039-H	220.00	250.00	18.00	HDL	H	HDL-8792-H *	420.00	470.00	17.45	HDL	H
HDL-3039-V	220.00	250.00	18.00	HDL	V	HDL-8792-V *	420.00	470.00	17.45	HDL	V
HDL-3040-R	240.00	270.00	15.00	HDL	R	HDL-4192-R	440.00	480.00	20.00	HDL	R
HDL-3040-H	240.00	270.00	15.00	HDL	H	HDL-4192-H	440.00	480.00	20.00	HDL	H
HDL-3040-V	240.00	270.00	15.00	HDL	V	HDL-4192-V	440.00	480.00	20.00	HDL	V
HDL-3015-R	240.00	280.00	20.00	HDL	R	HDL-3029-R	470.00	520.00	22.00	HDL	R
HDL-3015-H	240.00	280.00	20.00	HDL	H	HDL-3029-H	470.00	520.00	22.00	HDL	H
HDL-3015-V	240.00	280.00	20.00	HDL	V	HDL-3029-V	470.00	520.00	22.00	HDL	V
HDL-7769-R *	270.00	308.00	17.45	HDL	R	HDL-3062-R	470.00	530.00	20.00	HDL	R
HDL-7769-H *	270.00	308.00	17.45	HDL	H	HDL-3062-H	470.00	530.00	20.00	HDL	H
HDL-7769-V *	270.00	308.00	17.45	HDL	V	HDL-3062-V	470.00	530.00	20.00	HDL	V
HDLA-3035-R	270.00	310.00	20.00	HDLA	R	HDL-7281-R *	480.00	520.00	20.00	HDL	R
HDLA-3035-H	270.00	310.00	20.00	HDLA	H	HDL-7281-H *	480.00	520.00	20.00	HDL	H
HDLA-3035-V	270.00	310.00	20.00	HDLA	V	HDL-7281-V *	480.00	520.00	20.00	HDL	V
HDL-7391-R *	280.00	320.00	19.98	HDL	R	HDL-4220-R	485.00	535.00	19.00	HDL	R
HDL-7391-H *	280.00	320.00	19.98	HDL	H	HDL-4220-H	485.00	535.00	19.00	HDL	H
HDL-7391-V *	280.00	320.00	19.98	HDL	V	HDL-4220-V	485.00	535.00	19.00	HDL	V
HDL-4039-R	280.00	340.00	20.62	HDL	R	HDL-4232-R	500.00	550.00	19.00	HDL	R
HDL-4039-H	280.00	340.00	20.62	HDL	H	HDL-4232-H	500.00	550.00	19.00	HDL	H
HDL-4039-V	280.00	340.00	20.62	HDL	V	HDL-4232-V	500.00	550.00	19.00	HDL	V
HDL-3007-R	330.00	370.00	18.00	HDL	R	HDL-4238-R *	508.00	560.00	25.00	HDL	R
HDL-3007-H	330.00	370.00	18.00	HDL	H	HDL-4238-H *	508.00	560.00	25.00	HDL	H
HDL-3007-V	330.00	370.00	18.00	HDL	V	HDL-4238-V *	508.00	560.00	25.00	HDL	V
HDLA-3036-R	340.00	380.00	18.00	HDLA	R	HDL-9997-R	513.00	543.00	16.00	HDL	R
HDLA-3036-H	340.00	380.00	18.00	HDLA	H	HDL-9997-H	513.00	543.00	16.00	HDL	H
HDLA-3036-V	340.00	380.00	18.00	HDLA	V	HDL-9997-V	513.00	543.00	16.00	HDL	V
HDL-9996-R	360.00	404.00	17.45	HDL	R	HDL-3025-R	520.00	560.00	18.00	HDL	R
HDL-9996-H	360.00	404.00	17.45	HDL	H	HDL-3025-H	520.00	560.00	18.00	HDL	H
HDL-9996-V	360.00	404.00	17.45	HDL	V	HDL-3025-V	520.00	560.00	18.00	HDL	V
HDL-4616-R	390.00	430.00	16.00	HDL	R	HDL-3027-R	520.00	570.00	22.00	HDL	R
HDL-4616-H	390.00	430.00	16.00	HDL	H	HDL-3027-H	520.00	570.00	22.00	HDL	H
HDL-4616-V	390.00	430.00	16.00	HDL	V	HDL-3027-V	520.00	570.00	22.00	HDL	V
HDL-3038-R	400.00	440.00	20.00	HDL	R	HDL-4244-R	530.00	580.00	20.62	HDL	R
HDL-3038-H	400.00	440.00	20.00	HDL	H	HDL-4244-H	530.00	580.00	20.62	HDL	H
HDL-3038-V	400.00	440.00	20.00	HDL	V	HDL-4244-V	530.00	580.00	20.62	HDL	V
HDL-4169-R *	400.00	450.00	17.45	HDL	R	HDL-3044-R	540.00	578.00	15.00	HDL	R
HDL-4169-H *	400.00	450.00	17.45	HDL	H	HDL-3044-H	540.00	578.00	15.00	HDL	H
HDL-4169-V *	400.00	450.00	17.45	HDL	V	HDL-3044-V	540.00	578.00	15.00	HDL	V

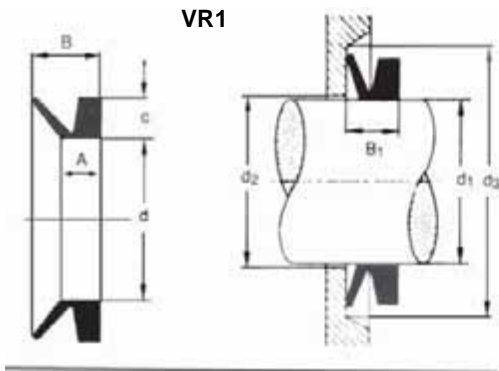
LDS section - HDL metric size listing - (cont.)

Stock no.	Shaft	Metric bore	Width	Type and style	Lip	Stock no.	Shaft	Metric bore	Width	Type and style	Lip
HDL-7393-R	540.00	590.00	24.98	HDL	R	HDL-3032-R	780.00	844.00	25.00	HDL	R
HDL-7393-H	540.00	590.00	24.98	HDL	H	HDL-3032-H	780.00	844.00	25.00	HDL	H
HDL-7393-V	540.00	590.00	24.98	HDL	V	HDL-3032-V	780.00	844.00	25.00	HDL	V
HDL-7266-R *	560.00	610.00	20.00	HDL	R	HDL-6666-R	790.00	854.00	25.00	HDL	R
HDL-7266-H *	560.00	610.00	20.00	HDL	H	HDL-6666-H	790.00	854.00	25.00	HDL	H
HDL-7266-V *	560.00	610.00	20.00	HDL	V	HDL-6666-V	790.00	854.00	25.00	HDL	V
HDL-9995-R	565.00	601.00	20.00	HDL	R	HDL-3009-R	837.00	889.00	22.22	HDL	R
HDL-9995-H	565.00	601.00	20.00	HDL	H	HDL-3009-H	837.00	889.00	22.22	HDL	H
HDL-9995-V	565.00	601.00	20.00	HDL	V	HDL-3009-V	837.00	889.00	22.22	HDL	V
HDL-3061-R	570.00	630.00	20.00	HDL	R	HDL-3034-R	840.00	904.00	25.00	HDL	R
HDL-3061-H	570.00	630.00	20.00	HDL	H	HDL-3034-H	840.00	904.00	25.00	HDL	H
HDL-3061-V	570.00	630.00	20.00	HDL	V	HDL-3034-V	840.00	904.00	25.00	HDL	V
HDL-3053-R	580.00	620.00	20.00	HDL	R	HDL-3065-V	905.00	955.00	22.00	HDL	R
HDL-3053-H	580.00	620.00	20.00	HDL	H	HDL-3065-H	905.00	955.00	22.00	HDL	H
HDL-3053-V	580.00	620.00	20.00	HDL	V	HDL-3065-V	905.00	955.00	22.00	HDL	V
HDL-8624-R	600.00	640.00	20.00	HDL	R	HDL-3026-R	930.00	980.00	22.22	HDL	R
HDL-8624-H	600.00	640.00	20.00	HDL	H	HDL-3026-H	930.00	980.00	22.22	HDL	H
HDL-8624-V	600.00	640.00	20.00	HDL	V	HDL-3026-V	930.00	980.00	22.22	HDL	V
HDL-3020-R	630.00	670.00	20.00	HDL	R	HDL-9998-R	990.00	1040.00	25.00	HDL	R
HDL-3020-V	630.00	670.00	20.00	HDL	V	HDL-9998-H	990.00	1040.00	25.00	HDL	H
HDL-3020-H	630.00	670.00	20.00	HDL	H	HDL-9998-V	990.00	1040.00	25.00	HDL	V
HDL-3059-R	630.00	690.00	20.00	HDL	R	HDL-1073-R *	1000.00	1050.00	22.22	HDL	R
HDL-3059-H	630.00	690.00	20.00	HDL	H	HDL-1073-H *	1000.00	1050.00	22.22	HDL	H
HDL-3059-V	630.00	690.00	20.00	HDL	V	HDL-1073-V *	1000.00	1050.00	22.22	HDL	V
HDL-3019-R	640.00	680.00	20.00	HDL	R	HDL-3012-R	1055.00	1100.00	25.00	HDL	R
HDL-3019-H	640.00	680.00	20.00	HDL	H	HDL-3012-H	1055.00	1100.00	25.00	HDL	H
HDL-3019-V	640.00	680.00	20.00	HDL	V	HDL-3012-V	1055.00	1100.00	25.00	HDL	V
HDL-3016-R	650.00	714.00	25.00	HDL	R	HDL-4640-R	1105.00	1160.00	22.00	HDL	R
HDL-3016-H	650.00	714.00	25.00	HDL	H	HDL-4640-H	1105.00	1160.00	22.00	HDL	H
HDL-3016-V	650.00	714.00	25.00	HDL	V	HDL-4640-V	1105.00	1160.00	22.00	HDL	V
HDL-9992-R	668.00	706.00	25.40	HDL	R	HDL-7065-R *	1350.00	1414.00	22.00	HDL	R
HDL-9992-H	668.00	706.00	25.40	HDL	H	HDL-7065-H *	1350.00	1414.00	22.00	HDL	H
HDL-9992-V	668.00	706.00	25.40	HDL	V	HDL-7065-V *	1350.00	1414.00	22.00	HDL	V
HDL-3054-R	690.00	730.00	20.00	HDL	R	HDL-3028-R	1350.00	1415.00	25.00	HDL	R
HDL-3054-H	690.00	730.00	20.00	HDL	H	HDL-3028-H	1350.00	1415.00	25.00	HDL	H
HDL-3054-V	690.00	730.00	20.00	HDL	V	HDL-3028-V	1350.00	1415.00	25.00	HDL	V
HDL-4629-R	750.00	814.00	25.00	HDL	R	HDL-8594-R	1380.00	1440.00	25.00	HDL	R
HDL-4629-H	750.00	814.00	25.00	HDL	H	HDL-8594-H	1380.00	1440.00	25.00	HDL	H
HDL-4629-V	750.00	814.00	25.00	HDL	V	HDL-8594-V	1380.00	1440.00	25.00	HDL	V
HDL-3037-R	760.00	804.00	18.00	HDL	R	HDL-9010-R	1890.00	1954.00	25.00	HDL	R
HDL-3037-H	760.00	804.00	18.00	HDL	H	HDL-9010-H	1890.00	1954.00	25.00	HDL	H
HDL-3037-V	760.00	804.00	18.00	HDL	V	HDL-9010-V	1890.00	1954.00	25.00	HDL	V
HDL-3048-V	762.00	800.00	15.00	HDL	R						
HDL-3048-H	762.00	800.00	15.00	HDL	H						
HDL-3048-H	762.00	800.00	15.00	HDL	H						

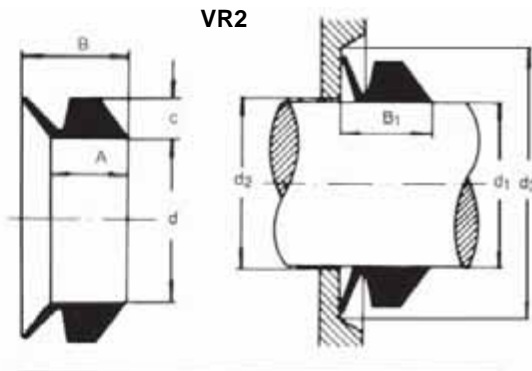
\* Contact SKF for availability

## V-Ring size listing

VR1



VR2

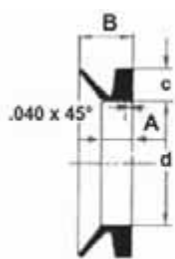


Profile dimensions

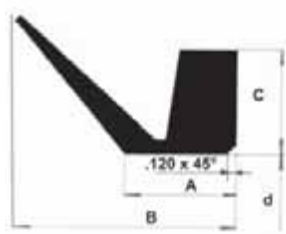
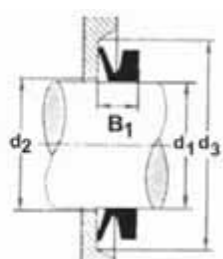
Assembly dimensions

Profile dimensions

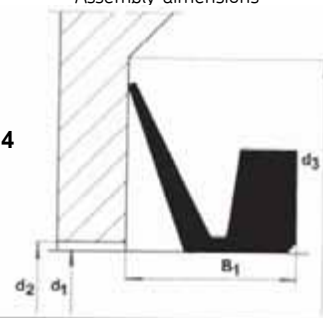
Assembly dimensions



VR3

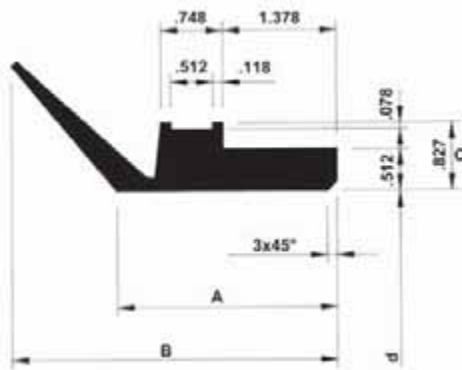


VR4

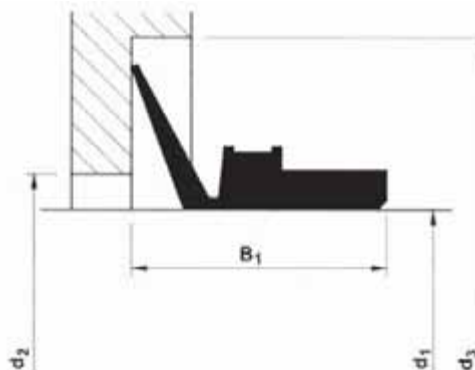


Profile dimensions

Assembly dimensions

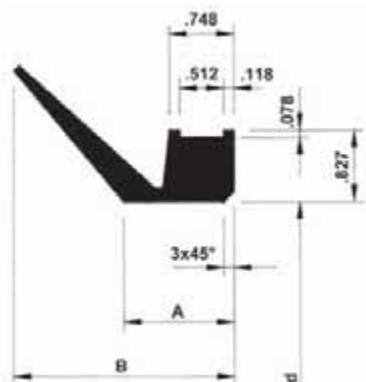


VR5

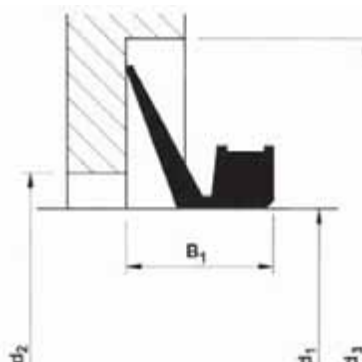


Profile dimensions

Assembly dimensions



VR6



V-Ring size listing - (cont.)

SKF stock no.	Shaft diameter $d_1$ (Range)	Inside diameter $d$	Height $c$	Dimension A	Free width B	Maximum $d_2 = (d_1 +)$	Minimum $d_3 = (d_1 +)$	Fitted width $B_1$	Construction	Lip code	Reference metric shaft size
400030	0.110-0.140	.100	.060	.080	.120	.040	.160	.100±.012	VR1	R	3mm
400034	0.110-0.140	.100	.060	.080	.120	.040	.160	.100±.012	VR1	V	3mm
400040	0.140-0.180	.130	.080	.090	.150	.040	.240	.120±.016	VR1	R	4mm
400044	0.140-0.180	.130	.080	.090	.150	.040	.240	.120±.016	VR1	V	4mm
400050	0.180-0.210	.160	.080	.090	.150	.040	.240	.120±.016	VR1	R	5mm
400054	0.180-0.210	.160	.080	.090	.150	.040	.240	.120±.016	VR1	V	5mm
400051	0.180-0.210	.160	.080	.150	.200	.040	.240	.180±.016	VR2	R	5mm
400055	0.180-0.210	.160	.080	.150	.200	.040	.240	.180±.016	VR2	V	5mm
400060	0.210-0.260	.200	.080	.090	.150	.040	.240	.120±.016	VR1	R	6mm
400064	0.210-0.260	.200	.080	.090	.150	.040	.240	.120±.016	VR1	V	6mm
400061	0.210-0.260	.200	.080	.150	.200	.040	.240	.180±.016	VR2	R	6mm
400065	0.210-0.260	.200	.080	.150	.200	.040	.240	.180±.016	VR2	V	6mm
400070	0.260-0.315	.240	.080	.090	.150	.040	.240	.120±.016	VR1	R	7mm
400074	0.260-0.315	.240	.080	.090	.150	.040	.240	.120±.016	VR1	V	7mm
400071	0.260-0.315	.240	.080	.150	.200	.040	.240	.180±.016	VR2	R	7mm
400075	0.260-0.315	.240	.080	.150	.200	.040	.240	.180±.016	VR2	V	7mm
400080	0.315-0.370	.280	.080	.090	.150	.040	.240	.120±.016	VR1	R	8mm
400084	0.315-0.370	.280	.080	.090	.150	.040	.240	.120±.016	VR1	V	8mm
400081	0.315-0.370	.280	.080	.150	.200	.040	.240	.180±.016	VR2	R	8mm
400085	0.315-0.370	.280	.080	.150	.200	.040	.240	.180±.016	VR2	V	8mm
400100	0.370-0.450	.350	.120	.130	.220	.080	.350	.180±.020	VR1	R	10mm
400104	0.370-0.450	.350	.120	.130	.220	.080	.350	.180±.020	VR1	V	10mm
400101	0.370-0.450	.350	.120	.220	.300	.080	.350	.260±.020	VR2	R	10mm
400105	0.370-0.450	.350	.120	.220	.300	.080	.350	.260±.020	VR2	V	10mm
400120	0.450-0.530	.410	.120	.130	.220	.080	.350	.180±.020	VR1	R	12mm
400124	0.450-0.530	.410	.120	.130	.220	.080	.350	.180±.020	VR1	V	12mm
400121	0.450-0.530	.410	.120	.220	.300	.080	.350	.260±.020	VR2	R	12mm
400125	0.450-0.530	.410	.120	.220	.300	.080	.350	.260±.020	VR2	V	12mm
400130	0.490-0.570	.450	.120	.130	.220	.080	.350	.180±.020	VR1	R	13mm
400134	0.490-0.570	.450	.120	.130	.220	.080	.350	.180±.020	VR1	V	13mm
400140	0.530-0.413	.490	.120	.130	.220	.080	.350	.180±.020	VR1	R	14mm
400144	0.530-0.413	.490	.120	.130	.220	.080	.350	.180±.020	VR1	V	14mm
400141	0.530-0.413	.490	.120	.220	.300	.080	.350	.260±.020	VR2	R	14mm
400145	0.530-0.413	.490	.120	.220	.300	.080	.350	.260±.020	VR2	V	14mm
400160	0.413-0.690	.550	.120	.130	.220	.080	.350	.180±.020	VR1	R	16mm
400164	0.413-0.690	.550	.120	.130	.220	.080	.350	.180±.020	VR1	V	16mm
400161	0.413-0.690	.550	.120	.220	.300	.080	.350	.260±.020	VR2	R	16mm
400165	0.413-0.690	.550	.120	.220	.300	.080	.350	.260±.020	VR2	V	16mm
400180	0.690-0.748	.630	.120	.130	.220	.080	.350	.180±.020	VR1	R	18mm
400184	0.690-0.748	.630	.120	.130	.220	.080	.350	.180±.020	VR1	V	18mm
400181	0.690-0.770	.630	.120	.220	.300	.080	.350	.260±.020	VR2	R	18mm
400185	0.690-0.770	.630	.120	.220	.300	.080	.350	.260±.020	VR2	V	18mm
400200	0.748-0.827	.710	.160	.190	.300	.080	.470	.240±.030	VR1	R	20mm
400204	0.748-0.827	.710	.160	.190	.300	.080	.470	.240±.030	VR1	V	20mm
400201	0.770-0.827	.710	.160	.310	.410	.080	.470	.354±.030	VR2	R	20mm

Select the larger V-Ring when the dimension  $d_1$  is on the boundary between two sizes of V-Ring.

Purple dot on V-Ring indicates LongLife material.

Sizes under .787 (20mm) shaft are brown with no dot.

\* Check for availability & pricing

# Indicates non-standard compounds for specific applications



## V-Ring size listing - (cont.)

SKF stock no.	Shaft diameter $d_1$ (Range)	Inside diameter d	Height c	Dimension A	Free width B	Maximum $d_2$ $=(d_1+)$	Minimum $d_3$ $=(d_1+)$	Fitted width $B_1$	Construction	Lip code	Reference metric shaft size
400205	0.770-0.827	.710	.160	.310	.410	.080	.470	.354±.030	VR2	V	20mm
400220	0.827-0.950	.790	.160	.190	.300	.080	.470	.240±.030	VR1	R	22mm
400224	0.827-0.950	.790	.160	.190	.300	.080	.470	.240±.030	VR1	V	22mm
400221	0.827-0.950	.790	.160	.310	.410	.080	.470	.354±.030	VR2	R	22mm
400225	0.827-0.950	.790	.160	.310	.410	.080	.470	.354±.030	VR2	V	22mm
400250	0.950-1.070	.788	.160	.190	.300	.080	.470	.240±.030	VR1	R	25mm
400254	0.950-1.070	.788	.160	.190	.300	.080	.470	.240±.030	VR1	V	25mm
400251	0.950-1.070	.788	.160	.310	.410	.080	.470	.354±.030	VR2	R	25mm
400255	0.950-1.070	.788	.160	.310	.410	.080	.470	.354±.030	VR2	V	25mm
400280	1.070-1.140	.980	.160	.190	.300	.120	.470	.240±.030	VR1	R	28mm
400284	1.070-1.140	.980	.160	.190	.300	.120	.470	.240±.030	VR1	V	28mm
400281	1.070-1.140	.980	.160	.310	.410	.120	.470	.354±.030	VR2	R	28mm
400285	1.070-1.140	.980	.160	.310	.410	.120	.470	.354±.030	VR2	V	28mm
400300	1.140-1.220	1.060	.160	.190	.300	.120	.470	.240±.030	VR1	R	30mm
400304	1.140-1.220	1.060	.160	.190	.300	.120	.470	.240±.030	VR1	V	30mm
400301	1.140-1.220	1.060	.160	.310	.410	.120	.470	.354±.030	VR2	R	30mm
400305	1.140-1.220	1.060	.160	.310	.410	.120	.470	.354±.030	VR2	V	30mm
400320	1.220-1.300	1.140	.160	.190	.300	.120	.470	.240±.030	VR1	R	32mm
400324	1.220-1.300	1.140	.160	.190	.300	.120	.470	.240±.030	VR1	V	32mm
400321	1.220-1.300	1.140	.160	.310	.410	.120	.470	.354±.030	VR2	R	32mm
400325	1.220-1.300	1.140	.160	.310	.410	.120	.470	.354±.030	VR2	V	32mm
400350	1.300-1.420	1.220	.160	.190	.300	.120	.470	.240±.030	VR1	R	35mm
400354	1.300-1.420	1.220	.160	.190	.300	.120	.470	.240±.030	VR1	V	35mm
400351	1.300-1.420	1.220	.160	.310	.410	.120	.470	.354±.030	VR2	R	35mm
400355	1.300-1.420	1.220	.160	.310	.410	.120	.470	.354±.030	VR2	V	35mm
400380	1.420-1.500	1.340	.160	.190	.300	.120	.470	.240±.030	VR1	R	38mm
400384	1.420-1.500	1.340	.160	.190	.300	.120	.470	.240±.030	VR1	V	38mm
400381	1.420-1.500	1.340	.160	.310	.410	.120	.470	.354±.030	VR2	R	38mm
400385	1.420-1.500	1.340	.160	.310	.410	.120	.470	.354±.030	VR2	V	38mm
400400	1.500-1.700	1.420	.200	.220	.350	.120	.590	.280±.039	VR1	R	40mm
400404	1.500-1.700	1.420	.200	.220	.350	.120	.590	.280±.039	VR1	V	40mm
400401	1.500-1.700	1.420	.200	.370	.510	.120	.590	.433±.039	VR2	R	40mm
400405	1.500-1.700	1.420	.200	.370	.510	.120	.590	.433±.039	VR2	V	40mm
400450	1.700-1.889	1.570	.200	.220	.350	.120	.590	.280±.039	VR1	R	45mm
400454	1.700-1.889	1.570	.200	.220	.350	.120	.590	.280±.039	VR1	V	45mm
400451	1.700-1.889	1.570	.200	.370	.510	.120	.590	.433±.039	VR2	R	45mm
400455	1.700-1.889	1.570	.200	.370	.510	.120	.590	.433±.039	VR2	V	45mm
400500	1.889-2.090	1.772	.200	.220	.350	.120	.590	.280±.039	VR1	R	50mm
400504	1.889-2.090	1.772	.200	.220	.350	.120	.590	.280±.039	VR1	V	50mm
400501	1.889-2.090	1.772	.200	.370	.510	.120	.590	.433±.039	VR2	R	50mm
400505	1.889-2.090	1.772	.200	.370	.510	.120	.590	.433±.039	VR2	V	50mm
400550	2.090-2.290	1.930	.200	.220	.350	.120	.590	.280±.039	VR1	R	55mm
400554	2.090-2.290	1.930	.200	.220	.350	.120	.590	.280±.039	VR1	V	55mm
400551	2.090-2.290	1.930	.200	.370	.510	.120	.590	.433±.039	VR2	R	55mm
400555	2.090-2.290	1.930	.200	.370	.510	.120	.590	.433±.039	VR2	V	55mm

Select the larger V-Ring when the dimension  $d_1$  is on the boundary between two sizes of V-Ring.

Purple dot on V-Ring indicates LongLife material.

Sizes under .787 (20mm) shaft are brown with no dot.

\* Check for availability & pricing

# Indicates non-standard compounds for specific applications

V-Ring size listing - (cont.)

SKF stock no.	Shaft diameter d <sub>1</sub> (Range)	Inside diameter d	Height c	Dimension A	Free width B	Maximum d <sub>2</sub> =(d <sub>1</sub> +)	Minimum d <sub>3</sub> =(d <sub>1</sub> -)	Fitted width B <sub>1</sub>	Construction	Lip code	Reference metric shaft size
400600	2.290-2.480	2.130	.200	.220	.350	.120	.590	.280±.039	VR1	R	60mm
400604	2.290-2.480	2.130	.200	.220	.350	.120	.590	.280±.039	VR1	V	60mm
400601	2.290-2.480	2.130	.200	.370	.510	.120	.590	.433±.039	VR2	R	60mm
400605	2.290-2.480	2.130	.200	.370	.510	.120	.590	.433±.039	VR2	V	60mm
400650	2.480-2.680	2.280	.200	.220	.350	.120	.590	.280±.039	VR1	R	65mm
400654	2.480-2.680	2.280	.200	.220	.350	.120	.590	.280±.039	VR1	V	65mm
400659	2.480-2.680	2.280	.200	.220	.350	.120	.590	.280±.039	VR1-SPL	R	65mm
400651	2.480-2.680	2.280	.200	.370	.510	.120	.590	.433±.039	VR2	R	65mm
400655	2.480-2.680	2.280	.200	.370	.510	.120	.590	.433±.039	VR2	V	65mm
400700	2.680-2.874	2.480	.240	.270	.430	.160	.710	.354±.047	VR1	R	70mm
400704	2.680-2.874	2.480	.240	.270	.430	.160	.710	.354±.047	VR1	V	70mm
400701	2.680-2.874	2.480	.240	.440	.610	.160	.710	.530±.047	VR2	R	70mm
400705	2.680-2.874	2.480	.240	.440	.610	.160	.710	.530±.047	VR2	V	70mm
400750	2.874-3.070	2.640	.240	.270	.430	.160	.710	.354±.047	VR1	R	75mm
400754	2.874-3.070	2.640	.240	.270	.430	.160	.710	.354±.047	VR1	V	75mm
400751	2.874-3.070	2.640	.240	.440	.610	.160	.710	.530±.047	VR2	R	75mm
400755	2.874-3.070	2.640	.240	.440	.610	.160	.710	.530±.047	VR2	V	75mm
400800	3.070-3.270	2.787	.240	.270	.430	.160	.710	.354±.047	VR1	R	80mm
400804	3.070-3.270	2.787	.240	.270	.430	.160	.710	.354±.047	VR1	V	80mm
400801	3.070-3.270	2.787	.240	.440	.610	.160	.710	.530±.047	VR2	R	80mm
400805	3.070-3.270	2.787	.240	.440	.610	.160	.710	.530±.047	VR2	V	80mm
400851	3.270-3.472	2.940	.240	.440	.610	.160	.710	.530±.047	VR2	R	85mm
400855	3.270-3.472	2.940	.240	.440	.610	.160	.710	.530±.047	VR2	V	85mm
400850	3.270-3.472	2.990	.240	.270	.430	.160	.710	.354±.047	VR1	R	85mm
400854	3.270-3.472	2.990	.240	.270	.430	.160	.710	.354±.047	VR1	V	85mm
400900	3.472-3.660	3.190	.240	.270	.430	.160	.710	.354±.047	VR1	R	90mm
400904	3.472-3.660	3.190	.240	.270	.430	.160	.710	.354±.047	VR1	V	90mm
400901	3.472-3.660	3.190	.240	.440	.610	.160	.710	.530±.047	VR2	R	90mm
400905	3.472-3.660	3.190	.240	.440	.610	.160	.710	.530±.047	VR2	V	90mm
400950	3.660-3.787	3.350	.240	.270	.430	.160	.710	.354±.047	VR1	R	95mm
400954	3.660-3.787	3.350	.240	.270	.430	.160	.710	.354±.047	VR1	V	95mm
400951	3.660-3.787	3.350	.240	.440	.610	.160	.710	.530±.047	VR2	R	95mm
400955	3.660-3.787	3.350	.240	.440	.610	.160	.710	.530±.047	VR2	V	95mm
401000	3.787-4.140	3.540	.240	.270	.430	.160	.710	.354±.047	VR1	R	100mm
401004	3.787-4.140	3.540	.240	.270	.430	.160	.710	.354±.047	VR1	V	100mm
401001	3.787-4.140	3.540	.240	.440	.610	.160	.710	.530±.047	VR2	R	100mm
401005	3.787-4.140	3.540	.240	.440	.610	.160	.710	.530±.047	VR2	V	100mm
401100	4.140-4.528	3.900	.280	.310	.500	.160	.787	.413±.059	VR1	R	110mm
401104	4.140-4.528	3.900	.280	.310	.500	.160	.787	.413±.059	VR1	V	110mm
401101	4.140-4.528	3.900	.280	.520	.710	.160	.787	.610±.059	VR2	R	110mm
401105	4.140-4.528	3.900	.280	.520	.710	.160	.787	.610±.059	VR2	V	110mm
401200	4.528-4.920	4.250	.280	.310	.500	.160	.787	.413±.059	VR1	R	120mm
401204	4.528-4.920	4.250	.280	.310	.500	.160	.787	.413±.059	VR1	V	120mm
401208	4.528-4.917	4.250	.280	.310	.500	.160	.787	.413±.059	VR1-SPL	#	120mm
401201	4.528-4.920	4.250	.280	.520	.710	.160	.787	.610±.059	VR2	R	120mm

Select the larger V-Ring when the dimension d<sub>1</sub> is on the boundary between two sizes of V-Ring.

Purple dot on V-Ring indicates LongLife material.

Sizes under .787 (20mm) shaft are brown with no dot.

\* Check for availability & pricing

# Indicates non-standard compounds for specific applications

## V-Ring size listing - (cont.)

SKF stock no.	Shaft diameter $d_1$ (Range)	Inside diameter d	Height c	Dimension A	Free width B	Maximum $d_2 = (d_1 +)$	Minimum $d_3 = (d_1 +)$	Fitted width $B_1$	Construction	Lip code	Reference metric shaft size
401205	4.528-4.920	4.250	.280	.520	.710	.160	.787	.610±.059	VR2	V	120mm
401202*	4.528-4.920	4.250	.260	.240	.410	.200	.787	.315±.059	VR3	R	120mm
401206*	4.528-4.920	4.250	.260	.240	.410	.200	.787	.315±.059	VR3	V	120mm
401300	4.920-5.320	4.610	.280	.310	.500	.160	.787	.413±.059	VR1	R	130mm
401304	4.920-5.320	4.610	.280	.310	.500	.160	.787	.413±.059	VR1	V	130mm
401301	4.920-5.320	4.610	.280	.520	.710	.160	.787	.610±.059	VR2	R	130mm
401305	4.920-5.320	4.610	.280	.520	.710	.160	.787	.610±.059	VR2	V	130mm
401400	5.320-5.709	4.960	.280	.310	.500	.160	.787	.413±.059	VR1	R	140mm
401404	5.320-5.709	4.960	.280	.310	.500	.160	.787	.413±.059	VR1	V	140mm
401401	5.320-5.709	4.960	.280	.520	.710	.160	.787	.610±.059	VR2	R	140mm
401405	5.320-5.709	4.960	.280	.520	.710	.160	.787	.610±.059	VR2	V	140mm
401402	5.320-5.709	4.960	.260	.240	.410	.197	.787	.315±.059	VR3	R	140mm
401406	5.320-5.709	4.960	.260	.240	.410	.197	.787	.315±.059	VR3	V	140mm
401500	5.709-6.102	5.310	.280	.310	.500	.160	.787	.413±.059	VR1	R	150mm
401504	5.709-6.102	5.310	.280	.310	.500	.160	.787	.413±.059	VR1	V	150mm
401501	5.709-6.102	5.310	.280	.520	.710	.160	.787	.610±.059	VR2	R	150mm
401505	5.709-6.102	5.310	.280	.520	.710	.160	.787	.610±.059	VR2	V	150mm
401502	5.709-6.102	5.310	.260	.240	.410	.197	.787	.315±.059	VR3	R	150mm
401506	5.709-6.102	5.310	.260	.240	.410	.197	.787	.315±.059	VR3	V	150mm
401600	6.102-6.496	5.670	.310	.350	.570	.157	.940	.472±.070	VR1	R	160mm
401604	6.102-6.496	5.670	.310	.350	.570	.157	.940	.472±.070	VR1	V	160mm
401608	6.102-6.496	5.670	.310	.350	.570	.157	.940	.472±.070	VR1-SPL	#	160mm
401601	6.102-6.496	5.670	.310	.590	.787	.157	.940	.709±.070	VR2	R	160mm
401605	6.102-6.496	5.670	.310	.590	.787	.157	.940	.709±.070	VR2	V	160mm
401602	6.102-6.496	5.670	.260	.240	.410	.197	.787	.315±.059	VR3	R	160mm
401606	6.102-6.496	5.670	.260	.240	.410	.197	.787	.315±.059	VR3	V	160mm
401700	6.496-6.890	6.020	.310	.350	.570	.157	.940	.472±.070	VR1	R	170mm
401704	6.496-6.890	6.020	.310	.350	.570	.157	.940	.472±.070	VR1	V	170mm
401701	6.496-6.890	6.020	.310	.590	.787	.157	.940	.709±.070	VR2	R	170mm
401705	6.496-6.890	6.020	.310	.590	.787	.157	.940	.709±.070	VR2	V	170mm
401702	6.496-6.890	6.020	.260	.240	.410	.197	.787	.315±.059	VR3	R	170mm
401706	6.496-6.890	6.020	.260	.240	.410	.197	.787	.315±.059	VR3	V	170mm
401800	6.890-7.283	6.380	.310	.350	.570	.157	.940	.472±.070	VR1	R	180mm
401804	6.890-7.283	6.380	.310	.350	.570	.157	.940	.472±.070	VR1	V	180mm
401801	6.890-7.283	6.380	.310	.590	.787	.157	.940	.709±.070	VR2	R	180mm
401805	6.890-7.283	6.380	.310	.590	.787	.157	.940	.709±.070	VR2	V	180mm
401802	6.890-7.283	6.380	.260	.240	.410	.197	.787	.315±.059	VR3	R	180mm
401806	6.890-7.283	6.380	.260	.240	.410	.197	.787	.315±.059	VR3	V	180mm
401900	7.283-7.680	6.730	.310	.350	.570	.157	.940	.472±.070	VR1	R	190mm
401904	7.283-7.680	6.730	.310	.350	.570	.157	.940	.472±.070	VR1	V	190mm
401901	7.283-7.680	6.730	.310	.590	.787	.157	.940	.709±.070	VR2	R	190mm
401905	7.283-7.680	6.730	.310	.590	.787	.157	.940	.709±.070	VR2	V	190mm
401902	7.283-7.680	6.730	.260	.240	.410	.197	.787	.315±.059	VR3	R	190mm
401906	7.283-7.680	6.730	.260	.240	.410	.197	.787	.315±.059	VR3	V	190mm
401990	7.680-8.270	7.090	.310	.350	.570	.157	.940	.472±.070	VR1	R	199mm

Select the larger V-Ring when the dimension  $d_1$  is on the boundary between two sizes of V-Ring.

Purple dot on V-Ring indicates LongLife material.

Sizes under .787 (20mm) shaft are brown with no dot.

\* Check for availability & pricing

# Indicates non-standard compounds for specific applications

V-Ring size listing - (cont.)

SKF stock no.	Shaft diameter d <sub>1</sub> (Range)	Inside diameter d	Height c	Dimension A	Free width B	Maximum d <sub>2</sub> =(d <sub>1</sub> +)	Minimum d <sub>3</sub> =(d <sub>1</sub> +)	Fitted width B <sub>1</sub>	Construction	Lip code	Reference metric shaft size
401994	7.680-8.270	7.090	.310	.350	.570	.157	.940	.472±.070	VR1	V	199mm
402000	7.480-8.270	7.090	.590	.560	.980	.394	1.772	.787±.157	VR1	R	200mm
402004	7.480-8.270	7.090	.590	.560	.980	.394	1.772	.787±.157	VR1	V	200mm
401991	7.680-8.270	7.090	.310	.590	.787	.157	.940	.709±.070	VR2	R	199mm
401995	7.680-8.270	7.090	.310	.590	.787	.157	.940	.709±.070	VR2	V	199mm
402002	7.680-8.270	7.170	.260	.240	.410	.197	.787	.315±.059	VR3	R	200mm
402006	7.680-8.270	7.170	.260	.240	.410	.197	.787	.315±.059	VR3	V	200mm
402200	8.270-9.250	7.787	.590	.560	.980	.394	1.772	.787±.157	VR1	R	220mm
402204	8.270-9.250	7.787	.590	.560	.980	.394	1.772	.787±.157	VR1	V	220mm
402202	8.270-9.170	7.787	.260	.240	.410	.197	.787	.315±.059	VR3	R	220mm
402206	8.270-9.170	7.787	.260	.240	.410	.197	.787	.315±.059	VR3	V	220mm
402500	9.250-10.433	8.788	.590	.560	.980	.394	1.772	.787±.157	VR1	R	250mm
402504	9.250-10.433	8.788	.590	.560	.980	.394	1.772	.787±.157	VR1	V	250mm
402502	9.170-10.240	8.788	.260	.240	.410	.197	.787	.315±.059	VR3	R	250mm
402506	9.170-10.240	8.788	.260	.240	.410	.197	.787	.315±.059	VR3	V	250mm
402750	10.433-11.420	9.720	.590	.560	.980	.394	1.772	.787±.157	VR1	R	275mm
402754	10.433-11.420	9.720	.590	.560	.980	.394	1.772	.787±.157	VR1	V	275mm
402752	10.240-11.220	9.720	.260	.240	.410	.197	.787	.315±.059	VR3	R	275mm
402756	10.240-11.220	9.720	.260	.240	.410	.197	.787	.315±.059	VR3	V	275mm
403000	11.420-12.200	10.630	.590	.560	.980	.394	1.772	.787±.157	VR1	R	300mm
403004	11.420-12.200	10.630	.590	.560	.980	.394	1.772	.787±.157	VR1	V	300mm
403002	11.220-12.200	10.630	.260	.240	.410	.197	.787	.315±.059	VR3	R	300mm
403006	11.220-12.200	10.630	.260	.240	.410	.197	.787	.315±.059	VR3	V	300mm
403250	12.200-13.189	11.500	.590	.560	.980	.394	1.772	.787±.157	VR1	R	325mm
403254	12.200-13.189	11.500	.590	.560	.980	.394	1.772	.787±.157	VR1	V	325mm
403252	12.200-13.189	11.500	.260	.240	.410	.197	.787	.315±.059	VR3	R	325mm
403256	12.200-13.189	11.500	.260	.240	.410	.197	.787	.315±.059	VR3	V	325mm
403003	11.811-12.008	11.575	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	300mm
470300*	11.811-12.000	11.580	.787	2.660	3.930	.940	4.528	3.346±.472	VR5	R	300mm
403053	12.008-12.205	11.772	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	305mm
403103	12.205-12.402	11.969	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	310mm
403153	12.402-12.598	12.165	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	315mm
403203	12.598-12.795	12.362	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	320mm
403500	13.189-14.370	12.400	.590	.560	.980	.394	1.772	.787±.157	VR1	R	350mm
403504	13.189-14.370	12.400	.590	.560	.980	.394	1.772	.787±.157	VR1	V	350mm
403502	13.189-14.370	12.400	.260	.240	.410	.197	.787	.315±.059	VR3	R	350mm
403506	13.189-14.370	12.400	.260	.240	.410	.197	.787	.315±.059	VR3	V	350mm
403253	12.795-12.992	12.559	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	325mm
403303	12.992-13.189	12.717	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	330mm
403353	13.189-13.386	12.913	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	335mm
403403	13.386-13.583	13.110	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	340mm
403750	14.370-15.354	13.270	.590	.560	.980	.394	1.772	.787±.157	VR1	R	375mm
403754	14.370-15.354	13.270	.590	.560	.980	.394	1.772	.787±.157	VR1	V	375mm
403752	14.370-15.150	13.270	.260	.240	.410	.197	.787	.315±.059	VR3	R	375mm
403756	14.370-15.150	13.270	.260	.240	.410	.197	.787	.315±.059	VR3	V	375mm

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# Indicates non-standard compounds for specific applications

## V-Ring size listing - (cont.)

SKF stock no.	Shaft diameter $d_1$ (Range)	Inside diameter $d$	Height $c$	Dimension A	Free width B	Maximum $d_2 = (d_1 +)$	Minimum $d_3 = (d_1 +)$	Fitted width $B_1$	Construction	Lip code	Reference metric shaft size
403453	13.583-13.780	13.307	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	345mm
403503	13.780-13.976	13.504	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	350mm
403553	13.976-14.173	13.661	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	355mm
403603	14.173-14.370	13.788	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	360mm
403653	14.370-14.567	14.055	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	365mm
404000	15.354-16.930	14.170	.590	.560	.980	.394	1.772	.787±.157	VR1	R	400mm
404004	15.354-16.930	14.170	.590	.560	.980	.394	1.772	.787±.157	VR1	V	400mm
404002	15.150-16.730	14.170	.260	.240	.410	.197	.787	.315±.059	VR3	R	400mm
404006	15.150-16.930	14.170	.260	.240	.410	.197	.787	.315±.059	VR3	V	400mm
403703	14.567-14.764	14.252	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	370mm
403753	14.764-14.961	14.449	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	375mm
403803	14.961-15.157	14.606	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	380mm
470380*	14.961-15.157	14.610	.787	2.660	3.940	.940	4.528	3.346±.472	VR5	R	380mm
470385*	15.354-19.685	14.787	.787	2.660	3.940	.940	4.528	3.346±.472	VR5	R	385mm
403853	15.157-15.354	14.787	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	385mm
403903	15.354-15.551	15.000	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	390mm
404252*	16.142-17.322	15.040	.260	.240	.410	.200	.787	.315±.059	VR3	R	425mm
403953	15.551-15.748	15.197	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	395mm
404003	15.748-15.945	15.394	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	400mm
404053	15.945-16.142	15.591	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	405mm
404103	16.142-16.339	15.787	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	410mm
404500	16.930-18.898	15.940	.590	.560	.980	.394	1.772	.787±.157	VR1	R	450mm
404504	16.930-18.898	15.940	.590	.560	.980	.394	1.772	.787±.157	VR1	V	450mm
404502	16.730-18.700	15.940	.260	.240	.410	.197	.787	.315±.059	VR3	R	450mm
404506	16.730-18.700	15.940	.260	.240	.410	.197	.787	.315±.059	VR3	V	450mm
404153	16.339-16.535	15.945	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	415mm
404203	16.535-16.732	16.142	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	420mm
404253	16.732-16.929	16.339	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	425mm
404303	16.929-17.126	16.535	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	430mm
404353	17.126-17.323	16.732	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	435mm
404403	17.323-17.520	16.788	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	440mm
404453*	17.520-17.717	17.087	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	445mm
404503	17.717-17.913	17.283	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	450mm
404553	17.913-18.110	17.480	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	455mm
404603	18.110-18.307	17.638	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	460mm
405000	18.898-20.866	17.720	.590	.560	.980	.394	1.772	.787±.157	VR1	R	500mm
405004	18.898-20.866	17.720	.590	.560	.980	.394	1.772	.787±.157	VR1	V	500mm
405002	18.898-20.866	17.720	.260	.240	.410	.197	.787	.315±.059	VR3	R	500mm
405006	18.700-20.080	17.720	.260	.240	.410	.197	.790	.315±.059	VR3	R	500mm
404653	18.307-18.504	17.787	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	465mm
404703	18.504-18.701	18.031	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	470mm
404753*	18.701-18.898	18.228	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	475mm
404757*	18.701-18.898	18.228	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	V	475mm
404803	18.898-19.094	18.425	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	480mm
404807*	18.898-19.094	18.425	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	V	480mm

Select the larger V-Ring when the dimension  $d_1$  is on the boundary between two sizes of V-Ring.

Purple dot on V-Ring indicates LongLife material.

Sizes under .787 (20mm) shaft are brown with no dot.

\* Check for availability & pricing

# Indicates non-standard compounds for specific applications

V-Ring size listing - (cont.)

SKF stock no.	Shaft diameter d <sub>1</sub> (Range)	Inside diameter d	Height c	Dimension A	Free width B	Maximum d <sub>2</sub> =(d <sub>1</sub> +)	Minimum d <sub>3</sub> =(d <sub>1</sub> -)	Fitted width B <sub>1</sub>	Construction	Lip code	Reference metric shaft size
405252	20.080-21.260	18.580	.260	.240	.410	.197	.787	.315±.059	VR3	R	525mm
404853	19.094-19.291	18.622	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	485mm
404857*	19.094-19.291	18.622	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	V	485mm
404903	19.291-19.488	18.787	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	490mm
404953	19.488-19.685	19.016	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	495mm
405003	19.685-19.881	19.213	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	500mm
405007*	19.881-20.079	19.409	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	V	505mm
405053	19.881-20.079	19.409	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	505mm
405500	20.866-22.835	19.490	.590	.560	.980	.394	1.772	.787±.157	VR1	R	550mm
405504	20.866-22.835	19.490	.590	.560	.980	.394	1.772	.787±.157	VR1	V	550mm
405502	20-870-22.835	19.490	.260	.240	.410	.197	.787	.315±.059	VR3	R	550mm
405506*	21.560-22.638	19.490	.260	.240	.410	.197	.787	.315±.059	VR3	V	550mm
405103	20.079-20.276	19.567	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	510mm
405153	20.276-20.472	19.764	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	515mm
405203	20.472-20.669	19.961	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	520mm
405253	20.669-20.866	20.157	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	525mm
405303	20.866-21.063	20.354	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	530mm
405353	21.063-21.260	20.512	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	535mm
405403	21.260-21.457	20.709	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	540mm
405453	21.457-21.654	20.906	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	545mm
405503	21.654-21.850	21.102	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	550mm
406000	22.835-24.803	21.260	.590	.560	.980	.394	1.772	.787±.157	VR1	R	600mm
406004	22.835-24.803	21.260	.590	.560	.980	.394	1.772	.787±.157	VR1	V	600mm
406002	22.835-24.803	21.260	.260	.240	.410	.197	.787	.315±.059	VR3	R	600mm
406006*	22.638-24.606	21.260	.260	.240	.410	.197	.787	.315±.059	VR3	V	600mm
405553	21.850-22.047	21.299	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	555mm
405603	22.047-22.244	21.496	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	560mm
405607*	22.047-22.244	21.496	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	V	560mm
405653	22.244-22.441	21.654	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	565mm
405703	22.441-22.638	21.850	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	570mm
405753	22.638-22.835	22.047	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	575mm
405757*	22.638-22.835	22.047	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	V	575mm
405803	22.835-23.031	22.244	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	580mm
405853	23.031-23.228	22.441	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	585mm
405903	23.228-23.622	22.638	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	590mm
406003	23.622-24.016	22.913	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	600mm
406103	24.016-24.409	23.307	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	610mm
406500	24.803-26.180	23.620	.590	.560	.980	.394	1.772	.787±.157	VR1	R	650mm
406504*	24.787-26.187	23.620	.590	.560	.980	.394	1.772	.787±.157	VR1	V	650mm
406203	24.409-24.803	23.701	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	620mm
406303	24.803-25.197	24.094	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	630mm
406403	25.197-25.591	24.449	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	640mm
407000	26.180-27.760	24.787	.590	.560	.980	.394	1.772	.787±.157	VR1	R	700mm
407004*	26.180-27.760	24.787	.590	.560	.980	.394	1.772	.787±.157	VR1	V	700mm
406503	25.591-25.984	24.787	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	650mm

Select the larger V-Ring when the dimension d<sub>1</sub> is on the boundary between two sizes of V-Ring.

Purple dot on V-Ring indicates LongLife material.

Sizes under .787 (20mm) shaft are brown with no dot.

\* Check for availability & pricing

# Indicates non-standard compounds for specific applications



## V-Ring size listing - (cont.)

SKF stock no.	Shaft diameter $d_1$ (Range)	Inside diameter d	Height c	Dimension A	Free width B	Maximum $d_2 = (d_1 +)$	Minimum $d_3 = (d_1 +)$	Fitted width $B_1$	Construction	Lip code	Reference metric shaft size
406507*	25.591-25.984	24.787	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	V	650mm
406603*	25.984-26.378	25.197	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	660mm
406703*	26.378-26.772	25.591	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	670mm
406803*	26.772-27.165	25.984	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	680mm
406903	27.165-27.559	26.378	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	690mm
406907*	27.165-27.559	26.378	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	V	690mm
407250	27.760-29.330	26.380	.590	.560	.980	.394	1.772	.787±.157	VR1	R	725mm
407003	27.559-27.953	26.772	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	700mm
407103*	27.953-28.346	27.126	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	710mm
407203*	28.346-28.740	27.520	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	720mm
407500	29.330-30.910	27.760	.590	.560	.980	.394	1.772	.787±.157	VR1	R	750mm
407504*	29.330-30.900	27.760	.590	.560	.980	.394	1.772	.787±.157	VR1	V	750mm
407303	28.740-29.134	27.913	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	730mm
407307*	28.740-29.134	27.913	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	V	730mm
407403	29.134-29.528	28.268	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	740mm
407503	29.528-29.843	28.661	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	750mm
407603	29.843-30.157	28.937	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	760mm
407703	30.157-30.472	29.252	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	770mm
408000	30.910-32.680	29.330	.590	.560	.980	.394	1.772	.787±.157	VR1	R	800mm
408004*	30.900-32.680	29.330	.590	.560	.980	.394	1.772	.787±.157	VR1	V	800mm
407502*	29.134-30.512	29.530	.260	.240	.410	.197	.787	.315±.059	VR3	R	750mm
407803	30.472-30.827	29.567	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	780mm
407903	30.827-31.181	29.788	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	790mm
408003	31.181-31.535	30.236	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	800mm
408103	31.535-31.889	30.591	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	810mm
408500	32.680-34.450	30.910	.590	.560	.980	.400	1.772	.787±.157	VR1	R	850mm
408203	31.889-32.323	30.945	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	820mm
408303	32.323-32.717	31.339	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	830mm
408403	32.717-33.110	31.693	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	840mm
408503	33.110-33.504	32.047	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	850mm
408603	33.504-33.898	32.441	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	860mm
409000	34.450-36.220	32.480	.590	.560	.980	.394	1.772	.787±.157	VR1	R	900mm
409004*	34.450-36.220	32.480	.590	.560	.980	.394	1.772	.787±.157	VR1	V	900mm
409002*	34.449-36.417	32.480	.260	.240	.410	.197	.787	.315±.059	VR3	R	900mm
408703*	33.898-34.291	32.795	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	870mm
408803	34.291-34.724	33.189	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	880mm
408807*	34.291-34.724	33.189	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	V	880mm
408903	34.724-35.118	33.583	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	890mm
408907*	34.724-35.118	33.583	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	V	890mm
409500	36.220-37.990	34.060	.590	.560	.980	.394	1.772	.787±.157	VR1	R	950mm
409504*	36.220-37.992	34.060	.590	.560	.980	.394	1.772	.787±.157	VR1	V	950mm
470900*	35.118-35.905	34.290	.787	2.660	3.940	.940	4.528	3.346±.472	VR5	R	900mm
409003	35.315-36.102	34.291	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	900mm
409203	35.906-36.299	34.646	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	920mm
409303	36.299-36.732	35.039	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	930mm

Select the larger V-Ring when the dimension  $d_1$  is on the boundary between two sizes of V-Ring.

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Sizes under .787 (20mm) shaft are brown with no dot.

\* Check for availability & pricing

# Indicates non-standard compounds for specific applications

V-Ring size listing - (cont.)

SKF stock no.	Shaft diameter d <sub>1</sub> (Range)	Inside diameter d	Height c	Dimension A	Free width B	Maximum d <sub>2</sub> =(d <sub>1</sub> +)	Minimum d <sub>3</sub> =(d <sub>1</sub> +)	Fitted width B <sub>1</sub>	Construction	Lip code	Reference metric shaft size
470940*	36.730-31.170	35.430	.787	2.660	3.940	.940	4.528	3.346±.472	VR5	R	940mm
409403	36.732-37.165	35.433	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	940mm
410000	37.990-39.960	35.787	.590	.560	.980	.394	1.772	.787±.157	VR1	R	1000mm
410004*	37.990-39.960	35.787	.590	.560	.980	.394	1.772	.787±.157	VR1	V	1000mm
409503	37.165-37.598	35.788	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	950mm
409603	37.598-38.031	36.260	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	960mm
409703	38.031-38.465	36.693	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	970mm
409808	38.465-38.898	37.087	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	980mm
409903	38.898-39.331	37.520	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	990mm
410500	39.960-41.930	37.600	.590	.560	.980	.394	1.772	.787±.157	VR1	R	1050mm
410003	39.331-39.764	37.913	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	1000mm
410203	39.764-40.354	38.307	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	1020mm
410403	40.354-41.142	38.976	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	1040mm
410503	40.748-41.535	39.340	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	1050mm
411000	41.930-43.898	39.370	.590	.560	.980	.394	1.772	.787±.157	VR1	R	1100mm
410603	41.142-41.929	40.433	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	1060mm
411500	43.898-45.866	41.140	.590	.560	.980	.394	1.772	.787±.157	VR1	R	1150mm
411502*	44.290-46.260	41.140	.260	.240	.410	.200	.787	.315±.059	VR3	R	1150mm
410803*	41.929-42.717	41.142	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	1080mm
411003	42.717-43.504	41.929	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	1100mm
411203*	43.504-44.291	41.929	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	1120mm
411403	44.291-45.079	42.677	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	1140mm
471140*	44.291-45.079	42.680	.787	2.660	3.940	.940	4.528	3.346±.472	VR5	R	1140mm
412000	45.866-47.835	42.910	.590	.560	.980	.394	1.772	.787±.157	VR1	R	1200mm
412004*	45.866-47.835	42.910	.590	.560	.980	.394	1.772	.787±.157	VR1	V	1200mm
412002*	46.259-48.238	42.910	.260	.240	.410	.197	.787	.315±.059	VR3	R	1200mm
411503	44.685-45.472	43.060	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	1150mm
411603	45.079-45.866	43.425	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	1160mm
411803	45.866-46.654	44.134	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	1180mm
412500	47.835-50.000	44.690	.590	.560	.980	.394	1.772	.787±.157	VR1	R	1250mm
412504*	47.835-50.000	44.690	.590	.560	.980	.394	1.772	.787±.157	VR1	V	1250mm
412003	46.654-47.441	44.787	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	1200mm
412203	47.441-48.228	45.551	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	1220mm
412403*	48.228-49.016	46.299	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	1240mm
413000	50.000-51.970	46.460	.590	.560	.980	.394	1.772	.787±.157	VR1	R	1300mm
412503	48.622-49.409	46.680	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	1250mm
412603	49.016-50.000	47.047	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	1260mm
412803*	50.000-50.984	47.953	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	1280mm
413500	51.970-53.940	48.230	.590	.560	.980	.394	1.772	.787±.157	VR1	R	1350mm
413502*	52.165-54.134	48.230	.260	.240	.410	.197	.787	.315±.059	VR3	R	1350mm
413003	50.984-51.772	48.787	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	1300mm
413253*	51.772-52.756	49.567	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	1325mm
414000	53.940-55.910	50.000	.590	.560	.980	.394	1.772	.787±.157	VR1	R	1400mm
414006*	54.130-56.102	50.000	.260	.240	.410	.197	.787	.315±.059	VR3	V	1400mm
413503	52.756-53.740	50.433	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	1350mm

Select the larger V-Ring when the dimension d<sub>1</sub> is on the boundary between two sizes of V-Ring.

Purple dot on V-Ring indicates LongLife material.

Sizes under .787 (20mm) shaft are brown with no dot.

\* Check for availability & pricing

# Indicates non-standard compounds for specific applications

## V-Ring size listing - (cont.)

SKF stock no.	Shaft diameter $d_1$ (Range)	Inside diameter d	Height c	Dimension A	Free width B	Maximum $d_2$ $=(d_1+)$	Minimum $d_3$ $=(d_1+)$	Fitted width $B_1$	Construction	Lip code	Reference metric shaft size
413753	53.740-54.724	51.378	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	1375mm
414500	55.910-57.874	51.772	.590	.560	.980	.394	1.772	.787±.157	VR1	R	1450mm
414504*	55.190-57.874	51.772	.590	.560	.980	.394	1.772	.787±.157	VR1	V	1450mm
414003	54.724-55.709	52.283	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	1400mm
414253	55.709-56.693	53.150	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	1425mm
415000	57.874-59.843	53.540	.590	.560	.980	.394	1.772	.787±.157	VR1	R	1500mm
414503	56.693-57.677	54.094	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	1450mm
414753	57.677-58.661	55.000	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	1475mm
415500	59.843-61.811	55.320	.590	.560	.980	.394	1.772	.787±.157	VR1	R	1550mm
415003	58.661-59.646	55.788	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	1500mm
415253	59.646-60.630	56.787	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	1525mm
416000	61.811-63.780	57.090	.590	.560	.980	.394	1.772	.787±.157	VR1	R	1600mm
415503	60.630-61.811	57.756	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	1550mm
415753	61.811-62.992	58.788	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	1575mm
416500	63.780-65.748	58.788	.590	.560	.980	.394	1.772	.787±.157	VR1	R	1650mm
416003	62.992-64.567	60.000	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	1600mm
417000	65.748-67.720	60.630	.590	.560	.980	.394	1.772	.787±.157	VR1	R	1700mm
416503	64.567-66.142	61.378	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	1650mm
417500	67.720-69.690	62.400	.590	.560	.980	.394	1.772	.787±.157	VR1	R	1750mm
417003	66.142-67.717	62.787	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	1700mm
418000	69.690-71.560	64.170	.590	.560	.980	.394	1.772	.787±.157	VR1	R	1800mm
418006*	69.882-71.850	64.170	.260	.240	.410	.197	.787	.315±.059	VR3	V	1800mm
417503	67.717-69.488	64.252	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	1750mm
418003	69.488-71.260	65.787	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	1800mm
418500	71.650-73.620	65.950	.590	.560	.980	.394	1.772	.787±.157	VR1	R	1850mm
418503	71.260-73.031	67.480	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	1850mm
419000	73.620-75.590	67.720	.590	.560	.980	.394	1.772	.787±.157	VR1	R	1900mm
419003	73.031-75.000	69.016	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	1900mm
419500	75.590-77.560	69.490	.590	.560	.980	.394	1.772	.787±.157	VR1	R	1950mm
419503	75.000-76.969	70.630	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	1950mm
419990	77.560-79.530	71.260	.590	.560	.980	.394	1.772	.787±.157	VR1	R	2000mm
421000*	79.530-83.460	72.240	.590	.560	.980	.395	1.772	.787±.157	VR1	R	2100mm
419993	76.969-79.134	72.598	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	2000mm
420503	79.134-81.496	74.567	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	2050mm
421503*	83.646-86.417	78.661	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	2150mm
472201*	86.417-89.209	80.910	.787	2.660	3.940	.940	4.528	3.346±.472	VR5	R	2200mm
425000*	97.358-99.543	86.020	.590	.560	.980	.400	1.772	.787±.157	VR1	R	2500mm
425003*	96.063-100.000	89.567	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	2500mm
432503*	126.260-129.670	113.740	1.180	1.280	2.560	.940	4.528	1.969±.472	VR4	R	3250mm
433003*	127.953-131.889	115.394	1.181	1.280	2.559	.945	4.528	1.969±.472	VR4	R	3300mm

Select the larger V-Ring when the dimension  $d_1$  is on the boundary between two sizes of V-Ring.

Purple dot on V-Ring indicates LongLife material.

Sizes under .787 (20mm) shaft are brown with no dot.

\* Check for availability & pricing

# Indicates non-standard compounds for specific applications

Pressure seals size listing

Bore dia.	Seal O.D.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Seal O.D.	Width of seal	Stock no.	Type and style	Lip code
<b>.313 SHAFT</b>						<b>.875 SHAFT (Cont.)</b>					
.686	.690	.313	<b>▲3094</b>	CRWA5	R	1.497	1.501	.313	<b>▲8694</b>	† CRWA5	V
.749	.753	.250	<b>▲3101</b>	CRWA5	R	W/STAINLESS STEEL SPRING					
.749	.753	.250	<b>3103</b>	CRWA5	V	<b>.984 SHAFT</b>					
.999	1.003	.313	<b>▲3171</b>	CRWA5	R	1.596	1.600	.250	<b>▲9700</b>	† CRWA5	R
<b>.375 SHAFT</b>						1.752	1.756	.313	<b>▲9805</b>	† CRWA5	V
.749	.753	.250	<b>3689</b>	CRW5	R	W/SS CASE & SPRING					
W/SS CASE & SPRING						<b>1.000 SHAFT</b>					
1.124	1.128	.375	<b>3807</b>	† CRW5	V			.313	<b>99100</b>	SSLEEVE	
<b>.500 SHAFT</b>						1.375	1.379	.250	<b>▲9814</b>	† CRWA5	R
		.250	<b>99050</b>	SSLEEVE		1.499	1.503	.250	<b>▲9843</b>	† CRWA5	R
.500	.875	.313	<b>4941</b>	† CRWA5	V	1.499	1.503	.250	<b>9855</b>	CRW5	R
.875	.879	.313	<b>4940</b>	† CRWA5	R	W/SS CASE & SPRING					
.999	1.003	.250	<b>4991</b>	† CRWA5	V	1.499	1.503	.250	<b>9858</b>	† CRWA5	V
W/STAINLESS STEEL SPRING						1.500	1.505	.250	<b>9863</b>	† CRWA5	R
.999	1.003	.313	<b>4996</b>	† CRWA5	R	1.752	1.756	.313	<b>9967</b>	† CRWA5	R
1.124	1.128	.250	<b>5069</b>	† CRWA5	R	2.000	2.004	.313	<b>10131</b>	† CRWA5	R
1.124	1.128	.250	<b>5072</b>	† CRWA5	V	<b>1.125 SHAFT</b>					
<b>.625 SHAFT</b>								.313	<b>99112</b>	SSLEEVE	
		.313	<b>99062</b>	SSLEEVE				.375	<b>99116</b>	SSLEEVE	
.999	1.003	.250	<b>6151</b>	† CRWA5	R	1.626	1.630	.250	<b>11139</b>	† CRWA5	V
1.124	1.128	.250	<b>6191</b>	† CRW5	R	<b>1.250 SHAFT</b>					
1.124	1.128	.374	<b>6231</b>	† CRWA5	V			.313	<b>99125</b>	SSLEEVE	
1.124	1.128	.375	<b>6184</b>	† CRWHA5	R	1.687	1.691	.313	<b>12333</b>	† CRWA5	R
W/SS CASE & SPRING						1.750	1.754	.250	<b>12339</b>	† CRWA5	V
1.124	1.128	.375	<b>▲6229</b>	† CRWA5	R	1.750	1.754	.250	<b>▲12360</b>	† CRWA5	R
1.126	1.130	.250	<b>▲6232</b>	† CRW5	R	1.997	2.003	.438	<b>▲12438</b>	† CRWA5	V
W/SS CASE & SPRING						W/STAINLESS STEEL SPRING					
1.250	1.254	.313	<b>▲6280</b>	CRWA5	R	2.328	2.332	.500	<b>12609</b>	† CRWA5	R
W/SS CASE & SPRING						W/STAINLESS STEEL SPRING					
1.250	1.254	.313	<b>6285</b>	CRWA5	V	2.502	2.506	.500	<b>12640</b>	† CRWA5	R
W/SS CASE & SPRING						W/STAINLESS STEEL SPRING					
1.375	1.379	.250	<b>6371</b>	† CRW5	P	<b>1.438 SHAFT</b>					
1.375	1.379	.375	<b>6388</b>	† CRWA5	R			.563	<b>99143</b>	SSLEEVE	
W/SS CASE & SPRING								.375	<b>99144</b>	SSLEEVE	
1.500	1.504	.313	<b>6393</b>	† CRW5	V	1.875	1.881	.250	<b>▲14208</b>	† CRWAR5	V
W/STAINLESS STEEL SPRING						W/STAINLESS STEEL SPRING					
<b>.750 SHAFT</b>						2.003	2.007	.313	<b>▲14211</b>	CRWAR5	V
		.313	<b>99076</b>	SSLEEVE		W/STAINLESS STEEL SPRING					
1.250	1.254	.250	<b>7434</b>	† CRWA5	R	2.003	2.007	.313	<b>14384</b>	CRWAR5	R
1.250	1.254	.375	<b>▲7449</b>	† CRWA5	R	<b>1.500 SHAFT</b>					
1.375	1.379	.250	<b>7509</b>	† CRWA5	V			.563	<b>99149</b>	SSLEEVE	
<b>.875 SHAFT</b>								.375	<b>99150</b>	SSLEEVE	
		.313	<b>99087</b>	SSLEEVE		1.997	2.003	.250	<b>▲14844</b>	† CRWA5	V
1.250	1.254	.250	<b>8634</b>	† CRWA5	V	W/STAINLESS STEEL SPRING					
1.375	1.379	.250	<b>▲8660</b>	† CRWA5	R	2.064	2.068	.375	<b>14868</b>	CRWA5	V
1.375	1.379	.250	<b>8665</b>	† CRWA5	V	W/STAINLESS STEEL SPRING					

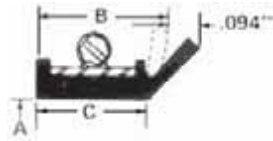
★ Contact manufacturer for availability  
**Bold numbers** are preferred designs

† Includes Bore-Tite on O.D.  
 ▲ WasteWatcher numbers

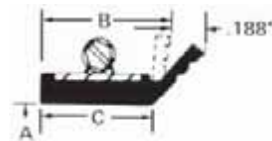
## Pressure seals size listing - (cont.)

Bore dia.	Seal O.D.	Width of seal	Stock no.	Type and style	Lip code	Bore dia.	Seal O.D.	Width of seal	Stock no.	Type and style	Lip code
<b>1.500 SHAFT (Cont.)</b>											
2.311	2.315	.500	<b>14979</b>	CRWA5	V						
				W/STAINLESS STEEL SPRING							
2.328	2.332	.500	<b>14977</b>	+ CRWA5	R						
				W/STAINLESS STEEL SPRING							
<b>1.625 SHAFT</b>											
		.313	<b>99161</b>	SSLEEVE							
		.563	<b>99162</b>	SSLEEVE							
2.125	2.131	.250	<b>16045</b>	+ CRWAR5	V						
				W/STAINLESS STEEL SPRING							
<b>1.750 SHAFT</b>											
		.375	<b>99172</b>	SSLEEVE							
		.563	<b>99174</b>	SSLEEVE							
		.750	<b>99175</b>	SSLEEVE							
		.531	<b>99180</b>	SSLEEVE							
2.502	2.506	.500	<b>17374</b>	+ CRWA5	R						
				W/STAINLESS STEEL SPRING							
<b>1.938 SHAFT</b>											
		.563	<b>99193</b>	SSLEEVE							
2.675	2.679	.250	<b>19213</b>	+ CRWA5	R						
2.835	2.839	.250	<b>19278</b>	+ CRWA5	R						
<b>2.500 SHAFT</b>											
		.500	<b>99248</b>	SSLEEVE							
		.781	<b>99250</b>	SSLEEVE							
		.555	<b>99253</b>	SSLEEVE							
3.251	3.256	.350	<b>24892</b>	+ CRWA5	R						
				W/SS CASE & SPRING W/GROUND O.D.							

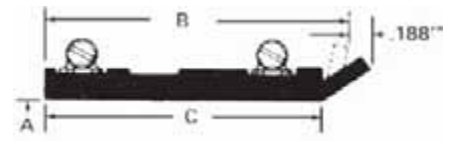
Axial clamp size listing



Style 1



Style 3



Style 4

Shoulder dia. A	Oper. WD. B	Shoulder width C	Style no.	Part no.	Shoulder dia. A	Oper. WD. B	Shoulder width C	Style no.	Part no.
6.000	0.875	0.687	*3	<b>596161</b>	14.000	1.375	0.938	*1	<b>593037</b>
6.250	1.437	1.000	1	<b>595079</b>	14.000	1.500	1.063	*1	<b>530733</b>
6.625	1.125	0.688	*1	<b>529489</b>	14.961	1.500	1.063	*1	<b>593171</b>
6.625	1.125	0.688	1	<b>594334</b>	15.000	1.125	0.688	1	<b>594025</b>
7.000	1.500	1.063	*1	<b>594648</b>	15.250	1.125	0.688	*1	<b>594954</b>
7.000	1.500	1.063	1	<b>523586</b>	15.250	1.125	0.688	1	<b>594250</b>
7.086	0.876	0.688	*3	<b>595109</b>	15.313	0.875	0.688	*3	<b>593526</b>
7.283	1.181	0.984	*1	<b>593637</b>	15.313	0.938	0.750	*3	<b>594653</b>
8.000	0.875	0.688	*3	<b>528035</b>	15.313	0.938	0.750	3	<b>524383</b>
8.000	0.875	0.688	3	<b>528745</b>	15.313	0.875	0.688	3	<b>524382</b>
8.250	1.125	0.688	*1	<b>527820</b>	15.354	1.000	0.813	3	<b>594190</b>
8.500	1.000	0.813	*3	<b>594343</b>	15.500	0.875	0.688	3	<b>594432</b>
8.625	1.125	0.688	*1	<b>529490</b>	16.000	0.875	0.688	*3	<b>529760</b>
8.875	0.875	0.688	*3	<b>530096</b>	16.142	0.938	0.500	*1	<b>595110</b>
8.875	0.875	0.688	3	<b>524375</b>	16.250	1.250	0.813	1	<b>595322</b>
8.938	1.125	0.688	1	<b>531635</b>	16.250	3.500	3.063	4	<b>592934</b>
9.000	1.125	0.688	*1	<b>527819</b>	16.313	0.875	0.688	3	<b>524386</b>
9.000	1.125	0.688	1	<b>524204</b>	16.750	1.313	0.875	1	<b>524815</b>
9.016	1.150	0.713	1	<b>528631</b>	16.750	1.250	0.813	1	<b>523826</b>
9.449	1.125	0.938	*3	<b>595464</b>	16.813	1.000	0.813	*3	<b>594681</b>
9.449	1.125	0.938	3	<b>594780</b>	17.000	1.500	1.063	1	<b>528535</b>
9.500	1.500	1.063	*1	<b>595604</b>	17.000	1.000	0.813	3	<b>524360</b>
9.500	1.125	0.688	1	<b>595613</b>	17.313	0.875	0.688	3	<b>524388</b>
10.000	1.125	0.688	*1	<b>527806</b>	17.500	1.375	0.938	*1	<b>525737</b>
10.000	1.125	0.688	1	<b>524205</b>	17.500	1.375	0.938	1	<b>523547</b>
10.000	1.000	0.813	3	<b>528780</b>	17.500	1.250	0.813	1	<b>522679</b>
10.188	0.875	0.688	3	<b>524434</b>	17.688	0.938	0.750	*3	<b>594654</b>
10.438	1.500	1.063	1	<b>596110</b>	17.688	3.750	3.313	*4	<b>528070</b>
10.750	1.125	0.688	*1	<b>594369</b>	17.688	0.938	0.750	3	<b>524389</b>
11.000	1.250	0.813	1	<b>524928</b>	18.500	1.250	0.813	1	<b>526192</b>
11.000	1.125	0.688	1	<b>524206</b>	18.500	1.125	0.688	1	<b>525708</b>
11.750	1.125	0.688	*1	<b>593629</b>	18.750	1.250	0.813	*1	<b>595637</b>
11.811	0.945	0.757	*3	<b>594814</b>	18.875	0.938	0.750	*3	<b>595943</b>
11.811	0.945	0.757	3	<b>594734</b>	19.500	1.125	0.688	1	<b>594181</b>
11.968	0.875	0.688	*3	<b>528036</b>	20.000	1.250	0.813	1	<b>524587</b>
12.000	0.875	0.688	3	<b>524380</b>	20.313	0.938	0.750	*3	<b>595455</b>
12.000	1.500	1.063	1	<b>525582</b>	20.313	0.938	0.750	3	<b>525030</b>
12.000	1.250	0.813	1	<b>524208</b>	20.500	1.000	0.813	*3	<b>596571</b>
12.625	1.500	1.063	*1	<b>596098</b>	20.500	1.000	0.813	3	<b>530468</b>
13.000	1.125	0.688	1	<b>524209</b>	20.875	0.875	0.688	3	<b>528536</b>
13.000	1.500	1.063	1	<b>523587</b>	20.984	1.250	0.813	1	<b>594241</b>
13.125	0.875	0.687	*3	<b>596435</b>	21.500	1.250	0.813	1	<b>524599</b>
13.125	0.875	0.688	3	<b>524381</b>	21.500	1.000	0.813	3	<b>524362</b>
13.563	0.875	0.688	3	<b>525029</b>	21.500	3.750	3.313	4	<b>526741</b>
13.813	1.500	1.063	*1	<b>594110</b>	21.813	1.250	0.813	1	<b>524210</b>

\* w/Butt Joint



## Axial clamp size listing - (cont.)

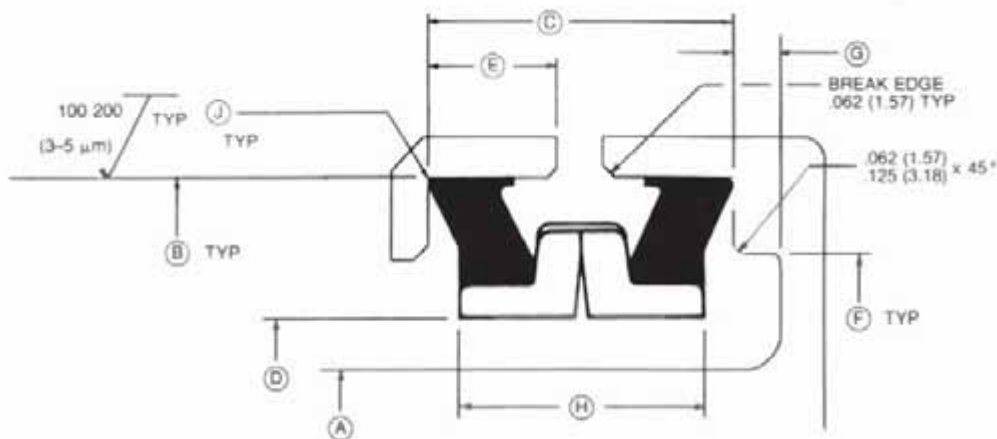
Shoulder dia. A	Oper. WD. B	Shoulder width C	Style no.	Part no.	Shoulder dia. A	Oper. WD. B	Shoulder width C	Style no.	Part no.
21.938	1.125	0.688	1	524211	33.063	1.250	0.813	1	526867
22.000	1.000	0.813	3	524363	33.250	1.250	0.813	*1	595636
22.000	1.250	0.813	1	524347	33.688	1.250	0.813	1	524219
22.500	1.250	0.813	1	524212	34.500	1.500	1.063	1	523063
22.559	1.259	0.748	1	594874	35.000	1.250	0.813	1	524220
22.750	1.375	0.938	*1	596570	35.125	0.875	0.688	3	531069
22.750	1.375	0.938	1	524657	35.438	1.250	0.813	1	524221
23.250	1.250	0.813	*1	595635	35.500	1.500	1.063	1	524222
23.375	1.375	0.938	1	525627	36.000	1.250	0.813	*1	530466
23.438	1.125	0.688	1	525031	36.000	1.125	0.688	*1	593606
23.500	1.375	0.938	1	524364	36.000	1.188	0.750	1	524223
23.622	1.181	0.744	1	594431	36.000	1.125	0.688	1	528416
23.750	1.375	0.938	*1	525637	36.000	1.500	1.063	1	524224
23.750	1.813	1.375	*4	528267	36.563	0.875	0.815	*1	595670
23.750	1.000	0.813	3	530589	36.563	2.960	2.523	4	594202
23.750	1.250	0.813	1	524365	36.563	1.125	0.688	1	593285
23.750	1.813	1.375	4	528651	36.750	1.500	1.063	1	595016
23.750	1.375	0.938	1	523184	36.875	1.375	0.938	1	523154
24.000	1.000	0.813	*3	594059	37.000	1.000	0.813	3	526245
24.250	1.000	0.813	3	526277	37.000	1.500	1.063	1	525320
24.250	1.875	1.438	4	529276	37.000	1.250	0.813	1	526246
24.750	1.250	0.813	1	524213	37.125	1.250	0.813	1	524768
25.125	1.375	0.938	1	524214	37.250	1.250	0.813	1	524368
25.787	1.575	1.138	4	594784	37.500	1.250	0.813	1	526582
26.000	1.375	0.938	1	524591	37.875	1.250	0.813	1	524225
26.875	1.000	0.813	3	529823	38.000	1.250	0.813	1	524226
26.911	2.875	2.438	4	593604	39.500	1.250	0.813	1	526806
26.938	1.125	0.688	1	524215	39.500	1.125	0.688	1	529452
27.000	1.000	0.813	3	528926	39.875	1.500	1.063	1	529379
27.250	1.375	0.938	1	524592	39.875	1.375	0.938	1	523584
27.750	2.375	1.938	4	528268	40.000	1.438	1.000	1	525035
27.750	1.375	0.938	1	524216	40.000	1.500	1.063	1	527903
28.000	1.250	0.813	1	527232	40.063	2.156	1.718	4	530396
28.000	1.000	0.813	3	524366	40.250	1.250	0.813	1	525426
28.188	0.875	0.688	3	531719	40.500	1.500	1.063	1	528532
28.813	1.125	0.688	*1	525032	40.875	1.500	1.063	1	525633
29.000	1.750	1.313	4	528269	41.000	1.500	1.063	1	524227
29.000	1.500	1.063	1	524940	41.125	1.500	1.063	1	525036
29.000	0.875	0.688	3	594856	41.250	0.875	0.688	*3	594395
29.375	1.500	1.063	1	524853	41.375	1.313	0.875	1	530448
29.375	1.563	1.125	4	528270	41.500	1.250	0.813	1	527474
29.750	1.500	1.063	1	524973	41.500	1.500	1.063	1	524228
29.750	1.500	1.063	1	524218	41.875	1.625	1.188	4	528272
29.750	1.375	0.938	1	524217	41.969	2.500	2.063	4	528271
30.063	1.125	0.688	1	525033	42.000	1.500	1.063	*4	594494
31.000	1.250	0.813	1	525212	42.000	3.750	3.313	*4	596400
31.500	1.250	0.813	1	528210	42.500	1.125	0.688	1	523133
31.750	0.875	0.688	3	526244	42.563	1.000	0.813	*3	593564
31.750	1.250	0.813	1	526715	43.375	1.250	0.813	1	524909
32.188	1.250	0.813	1	525034	43.500	1.500	1.063	1	524369
32.250	1.250	0.813	1	524294	44.000	1.375	0.938	1	528415
32.375	1.250	0.813	*1	593949	44.000	1.750	1.313	4	528273
32.480	1.125	0.688	*1	594785	44.000	1.750	1.313	4	528002
32.500	0.688	0.500	*3	594799	44.000	1.500	1.063	1	524229
32.500	1.250	0.813	1	524367	44.000	1.250	0.813	1	524370

*Axial clamp size listing - (cont.)*

Shoulder dia. A	Oper. WD. B	Shoulder width C	Style no.	Part no.	Shoulder dia. A	Oper. WD. B	Shoulder width C	Style no.	Part no.
44.000	1.500	1.063	1	<b>593180</b>	57.000	1.250	0.813	1	<b>528525</b>
44.875	1.500	1.063	1	<b>522676</b>	59.000	1.625	1.188	*4	<b>594163</b>
46.500	1.250	0.813	1	<b>529086</b>	63.465	1.000	0.813	3	<b>595373</b>
47.000	1.500	1.063	*1	<b>527211</b>	63.500	1.250	0.813	1	<b>526808</b>
47.500	1.188	0.750	*1	<b>530606</b>	67.750	1.250	0.813	1	<b>528975</b>
47.500	1.500	1.063	1	<b>524230</b>	70.000	1.250	0.813	1	<b>526809</b>
47.500	1.250	0.813	1	<b>525091</b>	71.000	1.250	0.813	1	<b>524373</b>
47.500	1.375	0.938	1	<b>526021</b>	73.000	1.500	1.063	1	<b>531456</b>
47.625	1.500	1.063	1	<b>522677</b>	75.750	1.250	0.813	1	<b>525092</b>
48.000	1.000	0.812	*3	<b>596327</b>	77.500	3.375	2.938	*4	<b>596405</b>
48.000	1.000	0.813	3	<b>530441</b>	77.500	1.250	0.813	1	<b>529517</b>
48.250	1.500	1.063	1	<b>524231</b>	98.425	1.004	0.816	*3	<b>596289</b>
48.865	1.500	1.063	1	<b>524371</b>	100.000	1.500	1.063	1	<b>522856</b>
49.000	1.250	0.813	1	<b>522828</b>	103.000	1.250	0.813	*1	<b>594083</b>
50.000	1.000	0.813	*3	<b>593525</b>	150.000	1.250	0.813	*3	<b>596050</b>
50.000	1.375	0.938	1	<b>529129</b>	156.690	1.004	0.816	*3	<b>596290</b>
50.625	1.250	0.813	*1	<b>525953</b>	163.078	1.250	0.813	*1	<b>594082</b>
51.250	1.375	0.938	1	<b>529130</b>					
51.500	1.375	0.938	1	<b>530661</b>					
51.500	1.500	1.063	1	<b>524232</b>					
51.500	1.250	0.813	1	<b>524372</b>					
52.000	1.500	1.063	1	<b>528927</b>					
53.000	1.000	0.813	3	<b>594396</b>					
53.000	1.250	0.813	1	<b>528526</b>					
55.000	1.250	0.813	1	<b>526807</b>					

\* w/Butt Joint

## Heavy Duty (HDDF) size listing



I Service kit no.	II Field repair kit. no.	Lip	A Shaft (Max.)	B Bore	C Operating range	D Seal I.D. (Min.)	E Bore depth (Ref.)	F Recommended shoulder dia.		G Undercut (Min.)	H Length (Max.)	J Radius (Max.)
								(Max.)	(Min.)			
									Only w/ undercut			
16904	16906	R	1.688 (42.88)	2.760 .003 (70.09 0.06)	.974 .038 (24.74 0.97)	1.760 (44.70)	.453 (11.51)	2.282 (57.96)			.846 (21.49)	.037 (0.94)
18259	18257	R	1.813 (46.05)	3.003 .003 (76.26 0.06)	.892 .031 (22.66 0.79)	1.910 (48.51)	.416 (10.57)	2.475 (62.86)			.790 (20.07)	.042 (1.07)
21306	21307	R	2.125 (53.98)	3.250 .003 (82.55 0.06)	.900 .033 (22.86 0.84)	2.215 (56.26)	.418 (10.62)	2.759 (70.08)			.812 (20.62)	.045 (1.14)
25096	25097	R	2.500 (63.50)	3.761 .003 (95.54 0.06)	.907 .033 (23.04 0.84)	2.580 (65.53)	.422 (10.72)	3.188 (80.98)			.840 (21.34)	.042 (1.07)
27536	27535	R	2.750 (69.85)	4.030 .003 (102.35 0.06)	.918 .035 (23.32 0.89)	2.830 (71.88)	.426 (10.82)	3.480 (88.39)			.810 (20.57)	.042 (1.07)
30651	30654	R	3.063 (77.80)	4.500 .003 (114.30 0.06)	1.016 .035 (25.81 0.89)	3.170 (80.52)	.475 (12.06)	3.833 (97.36)			.912 (23.16)	.042 (1.07)
35076	35079	R	3.500 (88.90)	4.953 .003 (125.81 0.06)	1.096 .043 (27.84 1.09)	3.620 (91.95)	.511 (12.98)	4.296 (109.12)			.962 (24.43)	.035 (0.89)
38740	38741	R	3.875 (98.43)	5.312 .003 (135.00 0.08)	1.102 .024 (28.00 0.61)	4.040 (102.62)	.524 (13.30)	4.750 (120.65)			1.002 (25.45)	.042 (1.07)
38751	38752	R	3.875 (98.43)	5.562 .003 (141.27 0.08)	1.267 .050 (32.18 1.27)	4.040 (102.62)	.594 (15.09)	4.791 (121.69)			1.110 (28.19)	.051 (1.30)
43135	43136	R	4.312 (109.52)	5.823 .003 (148.00 0.08)	1.102 .024 (28.00 0.61)	4.420 (112.27)	.524 (13.30)	5.125 (130.18)			1.002 (25.45)	.042 (1.07)
43150	43149	R	4.312 (109.52)	6.000 .003 (152.40 0.08)	1.320 .040 (33.53 1.02)	4.420 (112.27)	.625 (15.88)	5.173 (131.39)			1.090 (27.69)	.051 (1.30)
46975	46976	R	4.688 (119.08)	6.400 .003 (162.56 0.08)	1.525 .050 (38.74 1.27)	4.795 (121.79)	.722 (18.34)	5.583 (141.81)			1.254 (31.85)	.047 (1.19)
50655	50656	R	5.062 (128.57)	6.750 .003 (171.45 0.08)	1.280 .040 (32.51 1.02)	5.170 (131.32)	.605 (15.37)	5.975 (151.76)			1.150 (29.21)	.057 (1.45)
54000	54001	R	5.400 (137.16)	6.990 .003 (177.55 0.08)	1.310 .030 (33.27 0.76)	5.625 (142.88)	.625 (15.88)	6.625 (168.28)			1.182 (30.02)	.057 (1.45)
56170	56171	R	5.625 (142.88)	7.250 .003 (184.15 0.08)	1.366 .031 (34.70 0.79)	5.825 (147.96)	.650 (16.51)	6.486 (164.74)	6.174 (156.82)	.032 (0.81)	1.300 (33.02)	.057 (1.45)
805544	925544	R	5.625 (142.88)	7.438 .005 (188.93 0.13)	1.406 .031 (35.71 0.79)	5.865 (148.97)	.672 (17.07)					.062 (1.58)
58775	58776	R	5.875 (149.23)	7.641 .003 (194.08 0.08)	1.510 .031 (38.35 0.79)	6.000 (152.40)	.724 (18.39)	6.868 (174.45)	6.548 (166.32)	.056 (1.42)	1.490 (37.85)	.073 (1.85)

Dimensions in parentheses are in millimeters. For sizes not listed, contact SKF.

Heavy Duty (HDDF) size listing - (cont.)

I Service kit no.	II Field repair kit. no.	Lip	A Shaft (Max.)	B Bore	C Operating range	D Seal I.D. (Min.)	E Bore depth (Ref.)	F Recommended Shoulder Dia.		G Undercut (Min.)	H Length (Max.)	J Radius (Max.)
								(Max.)	(Min.)			
									Only w/ undercut			
63796	63797	R	6.375 (161.93)	8.120 .003 (206.25 0.08)	1.265 .040 (32.13 1.02)	6.570 (166.88)	.598 (15.19)	7.555 (191.90)	7.505 (190.63)	.125 (3.18)	1.350 (34.29)	.042 (1.07)
67560	67561	R	6.750 (171.45)	8.620 .004 (218.95 0.10)	1.375 .030 (34.92 0.76)	6.920 (175.77)	.656 (16.66)	7.750 (196.85)			1.260 (32.00)	.042 (1.07)
74310	74311	R	7.438 (188.93)	9.400 .004 (238.76 0.10)	1.656 .040 (42.06 1.02)	7.540 (191.52)	.793 (20.14)	8.431 (214.15)			1.344 (34.14)	.073 (1.85)
78020	78021	R	7.800 (198.12)	10.000 .004 (254.00 0.10)	1.750 .050 (44.45 1.27)	7.940 (201.68)	.835 (21.21)	8.910 (226.31)			1.500 (38.10)	.058 (1.47)
82540	82541	R	8.250 (209.55)	10.062 .004 (255.57 0.10)	1.560 .040 (39.62 1.02)	8.358 (212.29)	.745 (18.92)	9.280 (235.71)	9.220 (234.19)	.071 (1.80)	1.562 (39.67)	.058 (1.47)
86850	86851	R	8.688 (220.68)	10.911 .005 (277.14 0.13)	1.924 .030 (48.87 0.76)	8.790 (223.27)	.932 (23.67)	9.754 (247.75)			1.642 (41.71)	.058 (1.47)
93115	93116	R	9.312 (236.52)	11.000 .005 (279.40 0.13)	1.437 .032 (36.50 0.81)	9.410 (239.01)	.687 (17.45)	10.360 (263.14)	10.260 (260.60)	.090 (2.29)	1.510 (38.35)	.050 (1.27)
93125	93126	R	9.312 (236.52)	11.625 .005 (295.28 0.13)	1.754 .050 (44.55 1.27)	9.410 (239.01)	.837 (21.26)	10.750 (273.05)			1.510 (38.35)	.089 (2.26)
95620	95621	R	9.562 (242.87)	11.859 .005 (301.22 0.13)	1.949 .069 (49.50 1.75)	9.660 (245.36)	.925 (23.50)	10.703 (271.86)			1.700 (43.18)	.074 (1.88)
108710	108711	R	10.875 (276.23)	12.969 .005 (329.41 0.13)	1.540 .050 (39.12 1.27)	11.060 (280.92)	.730 (18.54)	12.100 (307.34)	12.000 (304.80)	.143 (3.63)	1.670 (42.42)	.043 (1.09)
116500	116501	R	11.625 (295.28)	13.250 .005 (336.55 0.13)	1.290 .030 (32.77 0.76)	11.780 (299.21)	.615 (15.62)	12.780 (324.61)			1.210 (30.73)	.045 (1.14)
124020	124021	R	12.400 (314.96)	14.375 .005 (365.12 0.13)	1.656 .050 (42.06 1.27)	12.500 (317.50)	.788 (20.02)	13.530 (343.66)	13.470 (342.14)	.060 (1.52)	1.610 (40.89)	.057 (1.45)
137570	137571	R	13.750 (349.25)	15.817 .005 (401.75 0.13)	1.875 .032 (47.62 0.81)	13.910 (353.31)	.906 (23.01)	14.985 (380.62)			1.670 (42.42)	.089 (2.26)
806715		R	14.750 (374.65)	16.695 .005 (424.05 0.13)	1.875 .032 (47.62 0.81)	14.950 379.73	.906 (23.01)	15.863 402.92			1.670 (42.42)	.062 (1.58)
807115		V	14.750 (374.65)	16.695 .005 (424.05 0.13)	1.875 .032 (47.62 0.81)	14.950 379.73	.906 (23.01)	15.863 402.92			1.670 (42.42)	.062 (1.58)
171025	171026	R	17.125 (434.98)	19.240 .006 (488.70 0.15)	1.531 .053 (38.89 1.35)	17.280 (438.91)	.724 (18.39)	18.400 (467.36)	18.300 (464.82)	.140 (3.56)	1.659 (42.14)	.043 (1.09)
191022	191021	R	19.125 (485.78)	21.500 .006 (546.10 0.15)	1.640 .042 (41.66 1.07)	19.250 (488.95)	.784 (19.91)	20.950 (532.13)	20.850 (529.59)	.175 (4.44)	1.832 (46.53)	.057 (1.45)
238020	238021	R	23.875 (606.43)	26.875 .006 (682.62 0.15)	2.125 .059 (53.98 1.50)	24.280 (616.71)	1.018 (25.86)	25.550 (648.97)			1.851 (47.02)	.089 (2.26)

Dimensions in parentheses are in millimeters. For sizes not listed, contact SKF.

Service kit/Field repair kit

I. Service kit contents:

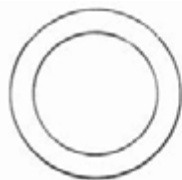
- 1 - Seal assembly  
(Includes Belleville washers)
- 2 - Lint-free wipers
- 1 - Instruction sheet

II. Field repair kit contents:

- 2 - Belleville washers only
- 2 - Lint-free Wipers
- 1 - Instruction sheet

Metal sealing rings can be reused even if the rubber Belleville washers are damaged. Simply purchase a field repair kit (listed next to the service kit number) and fit the new washers to the sealing rings, using the instructions provided.

## Axle flange gaskets size listing



STYLE 1



STYLE 5



STYLE 6

No. bolt holes	Hole dia.	Bolt circle	Gasket O.D.	Gasket I.D.	Stock no. *	Used in kit	Style no.
—	—	—	3.188	2.781	450163	21814	1
—	—	—	3.188	2.781	450163	21820	1
4	.328	3.000	3.688	2.250	450166	15243	6
6	.469	4.000	4.688	3.188	450194	20766	1
6	.469	5.250	6.200	3.875	450189	27630	1
6	.406	4.000	4.563	2.688	450176	20168	1
7	.718	6.875	8.125	5.781	450154	31369	1
8	.531	5.047	5.750	4.313	450431	31361	1
8	.516	5.125	5.938	4.406	450024	23870	1
8	.531	5.313	6.203	4.484	450023	25160	1
8	.688	7.000	8.188	6.000	450447	1240	1
8	.688	7.000	8.188	6.000	450447	31378	1
8	.688	7.000	8.188	6.000	450447	31393	1
8	.688	7.000	8.250	6.031	450155	31385	1
8	.688	7.000	8.250	6.031	450155	32630	1
8	.688	7.000	8.250	6.031	450155	32640	1
10	.656	7.250	8.250	5.813	450158	31390	1
12	.563	6.500	7.500	5.719	450153	31364	1
12	.625	10.250	11.250	8.750	450173	75090	1







\* Check SKF for availability

## Felt washers — Size listing

Inside diameter	Outside diameter	Width	Type	SKF no.	Inside diameter	Outside diameter	Width	Type	SKF no.
<b>In sequence by size</b>					<b>In sequence by SKF number</b>				
.938	1.500	.375	F†	671	2.188	3.063	.250	F†	515
1.938	3.000	.375	F	573	2.563	3.531	.344	F	528
2.000	3.125	.500	F	596	1.938	3.000	.375	F	573
2.188	3.063	.250	F†	515	2.000	3.125	.500	F	596
2.188	3.500	.250	F	668	4.125	5.750	.438	F	633
2.281	3.500	.313	F	645	2.281	3.500	.313	F	645
2.563	3.531	.344	F	528	4.688	6.000	.375	F	653
2.563	3.625	.313	F	654	2.563	3.625	.313	F	654
2.688	3.500	.219	F†	662	2.688	3.500	.219	F†	662
2.906	3.813	.313	F†	663	2.906	3.813	.313	F†	663
4.125	5.750	.438	F	633	2.188	3.500	.250	F	668
4.688	6.000	.375	F	653	.938	1.500	.375	F†	671

† Laminated Sirvene and Felt

## Type-J seal size listing

Illustration	Flange dia.	Largest step dia.	Overall width	No. of holes	Hole dia.	Circle dia.	Type	Lip style	Stock no.	Lip code
	<b>1.181 SHAFT</b>									
	3.543	2.452	.433	4	.256	2.913	J2	HMSA	11703	#
	<b>1.250 SHAFT</b>									
	4.310	1.953	.484	4	.484	*	J6	HMA	12685	R
	4.560	1.953	.474	4	.406	*	J6	HMA	12688	R
	<b>1.372 SHAFT</b>									
	4.560	2.328	.547	4	.375	*	J8	HMSA	13508	R
	<b>1.375 SHAFT</b>									
	4.582	2.000	.259	4	.401	4.000	J5	<b>Special</b> HMS	13955	R
	4.582	2.000	.259	1	.438	4.000	J5	<b>Special</b> HMS	13956	R
	<b>1.500 SHAFT</b>									
	3.625	2.063	.563	4	.328	3.000	J6	CRW	15243 ■	R
	<b>1.772 SHAFT</b>									
	3.661	2.841	.307	4	.256	3.189	J6	HMA	17792	R
	<b>1.875 SHAFT</b>									
4.812	3.375	.313	12	.469	4.000	J2	HMS	18961	R	
	<b>2.000 SHAFT</b>									
	4.563	2.656	.563	6	.406	4.000	J2	HM	20168 ■	R
	4.563	2.656	.563	1	.438	3.750	J2	HM	20168 ■	R
	<b>2.063 SHAFT</b>									
	4.688	3.125	.348	6	.469	4.000	J2	CRWH	20766 ■	R
	<b>2.375 SHAFT</b>									
	5.875	3.563	.275	8	.500	5.125	J1	CRW	23870 ■	R
	<b>2.500 SHAFT</b>									
	6.125	4.500	.438	8	.563	5.312	J1	CRW	25160 ■	R
	<b>2.750 SHAFT</b>									
6.200	3.859	.500	6	.469	5.250	J2	CRWHA	27630 ■	R	
	<b>3.109 SHAFT</b>									
	5.750	4.060	.325	8	.500	5.047	J2	CRW	31361 ■	R
	7.500	5.500	.328	12	.563	6.500	J1	CRW	31364 ■	R
	8.125	5.781	.500	7	.688	6.875	J1	CRW	31369 ■	R
	8.250	5.500	.953	8	.688	7.000	J1	CRW	1240 ■	R
	8.250	5.781	.500	5	.781	7.063	J1	CRW	31374 ■	R
	8.250	5.500	1.016	8	.688	7.000	J1	CRW	31378 ■	P
	8.250	5.781	.500	8	.688	7.000	J1	CRW	31385 ■	R
	8.250	5.781	.500	10	.625	7.250	J1	CRW	31390 ■	R
	<b>3.125 SHAFT</b>									
8.250	5.500	1.003	8	.688	7.000	J2	CRSH	31372	R	
<b>3.234 SHAFT</b>										
8.250	5.906	.500	8	.688	7.000	J1	CRW	32640 ■	R	
<b>5.938 SHAFT</b>										
9.032	6.806	1.125	12	.563	8.250	J2	HMSA	59380	R	
<b>7.500 SHAFT</b>										
11.260	8.431	1.918	12	.625	10.250	J1	CRW	75090 ■	P	

■ Also see kit section



## Kits - miscellaneous

Kit no.	Contents			Kit no.	Contents			Kit no.	Contents		
	Qty.	Part no.	Description		Qty.	Part no.	Description		Qty.	Part no.	Description
101	2	187933	Half Seal	218	1	49960	Seal	1322	1	39436	Seal
103	2	187520	Half Seal		1	99499	Sleeve		1	86206	Sleeve
104	2	453635	Half Seal	220	2	188144	Half Seal	1330	1	100075	Seal
107	2	450146	Rope Seal		2	501582	Seal		1	76360	Sleeve
138	2	450433	Rope Seal	229	2	501582	Seal	1725	1	522928	Seal
	2	450001	Wedge	285	2	501473	Seal		1	84239	Sleeve
140	2	187944	Half Seal	287	2	501446	Seal	7566	1	8702	Seal
144	1	450791	Half Seal	900	1	37330	Seal		1	89495	Sleeve
155	2	450433	Rope Seal		1	99372	Sleeve	10781	1	11908	Seal
	2	450026	Wedge	901	1	8691	Seal		1	89483	Sleeve
162	1	36314	Seal		1	99086	Sleeve	11377	1	12551	Seal
	1	879991	O Ring	1200	1	48065	Seal		1	89519	Sleeve
185	2	450277	Rope Seal		1	80184	Sleeve	11904	1	11905	Seal
187	2	181614	Half Seal	1201	1	48075	Seal		1	86190	Sleeve
191	2	450275	Wedge		1	80184	Sleeve	12392	1	12355	Seal
	2	450276	Rope Seal	1202	1	13021	Seal		1	12371	Seal
192	2	538305	Half Seal		1	450010	Sleeve		2	450692	Steel Washer
194	1	505863	Half Seal	1206	1	40036	Seal		1	450693	Retainer
	1	505864	Half Seal		1	450014	Sleeve	12578	1	13676	Seal
196	2	450433	Rope	1211	1	54629	Seal		1	86191	Sleeve
197	2	450006	Rope Seal		1	68016	Sleeve	14731	2	14730	Seal
	2	450275	Wedge	1212	1	54940	Seal		1	508	Felt Washer
198	2	181613	Half Seal		1	68016	Sleeve	15243	1	531585	Seal
199	2	528000	Half Seal	1213	1	55170	Seal		1	450166	Gasket
200	1	181387	Half Seal		1	68016	Sleeve	15696	1	16814	Seal
	1	181388	Half Seal	1214	1	40360	Seal		1	89496	Sleeve
201	2	181386	Half Seal		1	450018	Sleeve	17459	1	17458	Seal
204	2	181391	Half Seal	1215	1	50640	Seal		1	87614	Retainer
205	2	181392	Half Seal		1	450022	Sleeve	18550	1	18549	Seal
206	2	181393	Half Seal	1219	1	40360	Seal		1	879996	O Ring
	2	450001	Wedge		1	450013	Sleeve	18551	1	18552	Seal
207	2	181394	Half Seal	1240	1	502081	Seal		1	879996	O Ring
	2	450026	Wedge		1	502234	Sleeve	19011	1	19010	Seal
208	1	181395	Half Seal		1	450447	Gasket		1	450002	Retainer
	1	181396	Half Seal	1243	1	29867	Seal		1	879997	O Ring
209	1	181397	Half Seal		1	81474	Sleeve	19012	1	19010	Seal
	1	181398	Half Seal	1244	1	24949	Seal		1	450002	Retainer
210	1	60000	Seal		1	81473	Sleeve		1	879982	O Ring
	1	99599	Sleeve	1245	1	25146	Seal	19286	1	19300	Seal
211	2	181729	Half Seal		1	81471	Sleeve		1	19306	Seal
212	1	187942	Half Seal	1303	1	524564	Seal	19305	1	19298	Seal
	1	187943	Half Seal		1	71895	Sleeve		1	86187	Sleeve
214	2	181783	Half Seal	1306	1	32710	Seal	20108	1	537826	Seal
216	2	182673	Half Seal		1	77811	Sleeve		1	89510	Sleeve
217	16	717134	Valve Seal	1307	1	35810	Seal	20146	1	20127	Seal
					1	77810	Sleeve		1	99198	Sleeve
				1308	1	40210	Seal	20168	1	530086	Seal
					1	77801	Sleeve		1	450176	Gasket
				1321	1	40582	Seal	20446	1	20431	Seal
					1	86207	Sleeve		1	22037	Seal
									1	87443	Dust Cover

*Kits - miscellaneous - (cont.)*

Kit no.	Contents			Kit no.	Contents			Kit no.	Contents		
	Qty.	Part no.	Description		Qty.	Part no.	Description		Qty.	Part no.	Description
20501	1	20421	Seal	26196	1	27269	Seal	36944	1	36943	Seal
	1	22030	Seal		1	87030	Sleeve		1	86179	Sleeve
	1	27705	Seal		27630	1	503699		Seal	41152	1
20526	1	20525	Seal	1		450189	Gasket	1	86185		Sleeve
	1	879999	O Ring	31361		1	500959	Seal	45001		1
20766	1	542144	Seal		2	450431	Gasket	1		86542	Sleeve
	1	450194	Gasket	31364	1	502185	Seal	47385	1	47379	Seal
21070	1	21069	Seal		2	450153	Gasket		1	84041	Sleeve
	1	879998	O Ring	1	502198	Sleeve	47587	1	48768	Seal	
21294	1	400558	V-Ring	31369	1	502253		Seal	1	88883	Sleeve
	1	87532	Dust Shield		2	450154	Gasket	48697	1	48698	Seal
21814	1	541934	Seal	31374	1	502198	Sleeve		1	86074	Sleeve
	1	450163	Gasket		2	502075	Seal	49921	1	49920	Seal
21820	1	541746	Seal	1	450152	Gasket	1		77500	Sleeve	
	1	450163	Gasket	31378	1	502198	Sleeve	51242	1	51243	Seal
21962	1	21952	Seal		2	450447	Gasket		1	86383	Sleeve
	1	84476	Sleeve	1	502198	Sleeve	54930	1	54929	Seal	
22075	1	20431	Seal	31385	1	502256		Seal	1	70171	Sleeve
	1	22037	Seal		2	450155	Gasket	54935	1	54940	Seal
	1	87443	Dust Cover		1	502198	Sleeve		1	70171	Sleeve
22562	1	22449	Seal	31390	1	502073	Seal	55165	1	55170	Seal
	1	99229	Sleeve		2	450158	Gasket		1	70171	Sleeve
22587	1	22586	Seal	32630	1	502198	Sleeve	56103	1	56104	Seal
	1	86178	Sleeve		1	502255	Seal		1	86151	Sleeve
23279	1	533853	Seal	32640	2	450155	Gasket	59997	1	59998	Seal
	1	89504	Sleeve		1	502199	Sleeve		1	453677	Inst. Sleeve
23483	1	26500	Seal	32640	1	502252	Seal	70037	1	70038	Seal
	1	86208	Sleeve		2	450155	Gasket		1	86188	Sleeve
23870	1	500625	Seal	33251	1	34408	Seal	75090	1	540693	Seal
	2	450024	Gasket		1	89507	Sleeve		1	450173	Gasket
	1	503513	Sleeve		1	33660	Seal				
24466	1	25714	Seal	33659	1	33660	Seal				
	1	86184	Sleeve		1	86193	Sleeve				
25160	1	530459	Seal	36381	1	36384	Seal				
	2	450023	Gasket		1	86189	Sleeve				
	1	500488	Sleeve								

*S-series sleeves numerical listing*

SKF no.	Outside diam. B	Diam. C	Diam. A (shaft)	Width D	Width E	Type style	Component of kit number(s)	Illustration
68016	5.500	4.766	4.766	0.688	0.875	S3	1211, 1212, 1213	
70171	5.500	4.832	4.824	0.688	0.875	S2	54930, 54935, 55165	
71895	2.420	2.156	2.342		0.625	S7	1303	
76360	10.000		9.875		0.750	S1	1330	
77500	5.000		4.841		0.750	S1	49921	
77801	4.012	4.314	3.875	0.893	0.968	S6	1308	
77810	3.566	3.874	3.438	0.675	0.750	S6	1307	
77811	3.254	3.562	3.125	0.675	0.750	S6	1306	
80184	4.806		4.688		1.240	S1	1200, 1201	
81473	2.506		2.375		1.000	S1	1244, 1245	
81474	2.995		2.875		0.625	S1	1243	
81774	4.894	5.203	4.766	0.938	1.012	S6		
84041	4.750		4.644		0.625	S1	47385, 47388	
86074	4.875		4.750		0.750	S1	48697	
86151	5.603	5.812	5.500	0.801	0.875	S6	56103	
86178	2.230	2.437	2.125	0.695	0.750	S6	22587	
86179	3.666	3.825	3.562	0.644	0.718	S6	36944	
86183	3.229	3.437	3.125	0.820	0.875	S6	32548	
86184	2.562	2.750	2.437	0.690	0.750	S6	24466	
86185	4.110	4.312	4.000	0.663	0.718	S6	41152	
86188	7.000	7.187	6.875	0.926	1.000	S6	70037	
86189	3.625	3.937	3.500	0.644	0.718	S6	36381	
86190	1.174	1.437	1.062	0.570	0.625	S6	11904	
86191	1.362	1.562	1.250	0.676	0.750	S6	12578	
86193	3.354	3.625	3.250	0.695	0.750	S6	33659	
86206	4.000	4.182	3.937		0.750	S6	1322	
86207	4.066		3.938		0.875	S6	1321	
86383	5.125		5.000		0.750	S1	51242	
88883	4.852	5.500	4.750		0.812	S6	47587	
99086	0.877	1.093	0.859	0.363	0.375	S6	901	
99372	3.770	4.031	3.753	0.863	0.875	S6	900	
99599	6.015	6.375	5.999	1.234	1.250	S6	210	
450010	1.307		1.175		0.422	S1	1202	
450013	4.042	4.375	3.930	0.781	0.844	S6	1219	
450014	3.980	4.312	3.868	0.813	0.844	S6	1206	
450018	4.042	4.500	3.868	0.813	0.906	S6	1214	
450022	5.062		4.766		0.922	S1	1215	
500488	2.505	2.062	2.415	0.313	0.453	S4	25160	
500625	See Type J Section						23870	
500959	See Type J Section						31361	
502073	See Type J Section						31390	
502075	See Type J Section						31374	
502081	See Type J Section						31378	
502185	See Type J Section						31364	
502198	3.110	2.688	3.010	0.313	0.453	S4	31364, 31369, 31374	

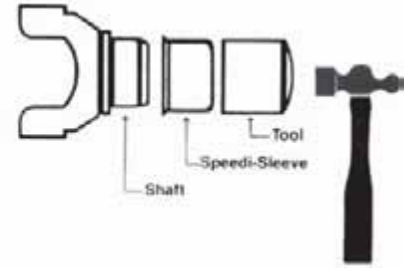
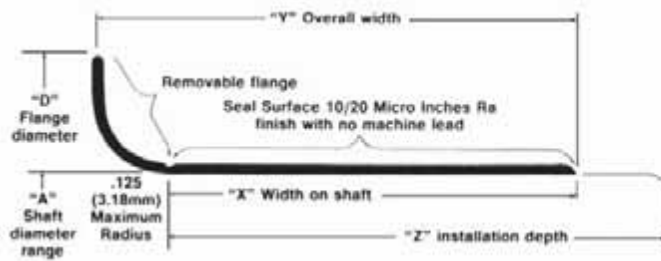
*S-series sleeves numerical listing - (cont.)*

SKF no.	Outside diam. B	Diam. C	Diam. A (shaft)	Width D	Width E	Type style	Component of kit number(s)	Illustration
502199	3.235	2.688	3.129	0.313	0.453	S4	32630, 32640	
502234	3.110	2.578	3.010	0.331	0.625	S5	1240	
502252	See Type J Section						32640	
502253	See Type J Section						31369	
502256	See Type J Section						31385	
530086	See Type J Section						20168	
503513	2.375	2.000	2.289	0.328	0.524	S4	23870	
530459	See Type J Section						25160	
531585	See Type J Section						15243	
540693	See Type J Section						75090	
542144	See Type J Section						20766	

*Speedi-Sleeve grease seal kit size listing*

SKF Kit no.	Kit dimensions			Kit components	
	Shaft	Bore	Width	Speedi-Sleeve no.	Seal no.
480050	.500	.750	.250	99050	4912
480074	.750	.999	.313	99076	7410
901	.859	1.437	.250	99086	8691
480097	1.000	1.250	.313	99100	9815
480098	1.000	1.499	.313	99100	9876
480099	1.000	1.499	.313	99100	9878
480125	1.250	2.000	.313	99125	12456
480148	1.500	2.372	.563	99149	14978
480149	1.500	2.254	.563	99149	14966
480150	1.500	2.377	.563	99149	15041
480151	1.500	2.502	.563	99149	15141
480152	1.500	2.374	.563	99149	15005
480168	1.688	2.502	.835	99168	16725
480173	1.750	2.374	.563	99174	17271
480176	1.750	2.718	.563	99174	17617
480177	1.766	2.412	.563	99176	17286
480184	1.868	2.518	.889	99186	18492
480185	1.875	2.561	.563	99187	18548
480186	1.875	2.561	.563	99187	18546
480187	1.875	2.760	.563	99187	18692
480198	2.000	2.745	.563	99199	19807
20146	1.980	3.371	.563	99198	20127
480219	2.188	3.188	.781	99218	21938
22562	2.250	3.251	.500	99229	22449
480233	2.328	3.000	.750	99233	23300
480249	2.500	3.500	.781	99250	24988
480250	2.500	3.251	.781	99250	24910
480260	2.625	3.623	.781	99262	26220
480261	2.625	4.438	.781	99262	26368
480262	2.625	4.563	.781	99262	26373
480273	2.750	3.543	.781	99274	27295
480274	2.750	3.751	.781	99274	27377
480275	2.750	3.876	.781	99274	27452
480278	2.750	4.249	.781	99274	27601
480293	2.938	3.938	.781	99293	29275
480294	2.938	4.003	.781	99293	29322
480299	3.000	3.751	.813	99300	29872
480300	3.000	4.003	.813	99300	29925
480303	3.000	4.249	.813	99300	30055
480325	3.250	4.249	.813	99325	32385
480350	3.500	4.501	.813	99350	34891
900	3.750	4.501	.688	99372	37330
480450	4.500	5.501	.813	99450	44967
218	5.000	6.126	.813	99499	49960
210	6.000	6.750	1.000	99599	60000

Speedi-Sleeve size listing - Inches



Nominal shaft diameter	"A" Shaft diameter range		Stock number	"X" Width on shaft (Inches .031)	"Y" Overall width (Inches .031)	"D" Flange diameter (Inches .063)	"Z" Installation depth
	Minimum Inches	Maximum Inches					
0.472	0.469	0.475	99049	0.236	0.331	0.610	1.875
0.500	0.498	0.502	99050	0.250	0.344	0.610	2.000
0.551	0.547	0.551	99055	0.250	0.391	0.750	1.831
0.563	0.560	0.566	99056	0.250	0.391	0.750	1.831
0.591	0.589	0.593	99059	0.197	0.354	0.750	1.862
0.625	0.623	0.627	99810 *	0.313	0.406	0.750	2.000
0.625	0.623	0.627	99062	0.313	0.406	0.750	2.000
0.630	0.626	0.630	99058	0.313	0.438	0.718	2.000
0.669	0.667	0.671	99068	0.315	0.433	0.875	2.000
0.684	0.682	0.686	99060	0.313	0.438	0.900	2.000
0.709	0.704	0.709	99082	0.315	0.433	0.962	1.811
0.750	0.748	0.752	99811 *	0.313	0.438	0.945	2.000
0.750	0.748	0.752	99076	0.313	0.438	0.945	2.000
0.760	0.759	0.761	99081	0.313	0.438	0.938	2.000
0.781	0.780	0.784	99080	0.313	0.438	0.935	2.000
0.787	0.785	0.789	99078	0.315	0.433	0.930	2.000
0.813	0.812	0.815	99083	0.375	0.563	0.000	3.000
0.859	0.857	0.861	99086	0.250	0.375	1.155	2.000
0.866	0.861	0.866	99084	0.259	0.359	1.188	1.856
0.866	0.861	0.866	99085	0.315	0.472	1.188	1.812
0.875	0.873	0.877	99812 *	0.313	0.438	1.094	2.000
0.875	0.873	0.877	99087	0.313	0.438	1.094	2.000
0.910	0.908	0.912	99860 *	0.313	0.438	1.218	1.847
0.910	0.908	0.912	99091	0.313	0.438	1.218	1.847
0.945	0.940	0.945	99092	0.313	0.438	1.130	2.000
0.969	0.966	0.970	99094	0.313	0.438	1.130	2.000
0.969	0.966	0.970	99096	0.625	0.719	1.130	2.000
0.984	0.982	0.986	99813 *	0.313	0.433	1.300	2.000
0.984	0.982	0.986	99098	0.313	0.433	1.300	2.000
1.000	0.998	1.002	99814 *	0.313	0.438	1.219	2.000
1.000	0.998	1.002	99100	0.313	0.438	1.219	2.000
1.024	1.019	1.024	99103	0.315	0.472	1.313	1.813
1.063	1.060	1.064	99815 *	0.313	0.438	1.320	1.843
1.063	1.060	1.064	99106	0.313	0.438	1.320	1.843
1.089	1.087	1.091	99108	0.313	0.438	1.406	0.625
1.102	1.100	1.104	99866 *	0.375	0.500	1.375	1.843
1.102	1.100	1.104	99111	0.375	0.500	1.375	1.843
1.125	1.123	1.127	99816 *	0.313	0.438	1.500	0.688
1.125	1.123	1.127	99112	0.313	0.438	1.500	0.688
1.125	1.123	1.127	99116	0.375	0.500	1.500	0.688
1.156	1.154	1.158	99865 *	0.375	0.500	1.350	0.688
1.156	1.154	1.158	99120	0.375	0.500	1.350	0.688
1.175	1.173	1.178	99122	0.313	0.438	1.400	0.688
1.181	1.179	1.184	99114	0.315	0.433	1.400	0.688
1.188	1.185	1.190	99118	0.313	0.438	1.400	0.688
1.219	1.216	1.222	99123	0.313	0.433	1.563	0.625
1.240	1.237	1.243	99141	0.315	0.438	1.540	0.688
1.250	1.247	1.253	99817 *	0.313	0.438	1.500	0.688

★ Indicates Speedi-Sleeve Gold product



## Speedi-Sleeve size listing - Inches (Cont.)

Nominal shaft diameter	"A" Shaft diameter range		Stock number	"X" Width on shaft (Inches .031)	"Y" Overall width (Inches .031)	"D" Flange diameter (Inches .063)	"Z" Installation depth
	Minimum Inches	Maximum Inches					
1.250	1.247	1.253	<b>99871</b> *	0.625	0.750	1.500	2.000
1.250	1.247	1.253	<b>99125</b>	0.313	0.438	1.500	0.688
1.260	1.257	1.263	<b>99128</b>	0.315	0.438	1.500	0.688
1.299	1.297	1.301	<b>99121</b>	0.591	0.709	1.594	1.000
1.313	1.310	1.316	<b>99818</b> *	0.500	0.625	1.594	0.813
1.313	1.308	1.314	<b>99129</b>	0.250	0.375	1.600	0.813
1.313	1.310	1.316	<b>99131</b>	0.500	0.625	1.594	0.813
1.339	1.333	1.339	<b>99134</b>	0.500	0.625	1.625	0.813
1.375	1.371	1.377	<b>99819</b> *	0.500	0.625	1.638	0.813
1.375	1.375	1.381	<b>99820</b> *	0.512	0.630	1.638	0.813
1.375	1.371	1.377	<b>99133</b>	0.313	0.438	1.638	0.813
1.375	1.371	1.377	<b>99138</b>	0.500	0.625	1.638	0.813
1.375	1.375	1.381	<b>99139</b>	0.512	0.630	1.638	0.813
1.417	1.411	1.417	<b>99146</b>	0.512	0.669	1.781	0.984
1.438	1.432	1.438	<b>99821</b> *	0.563	0.688	1.781	1.016
1.438	1.432	1.438	<b>99143</b>	0.563	0.688	1.781	1.016
1.438	1.435	1.441	<b>99144</b>	0.375	0.500	1.781	1.016
1.496	1.490	1.496	<b>99147</b>	0.512	0.669	1.781	0.984
1.500	1.497	1.503	<b>99822</b> *	0.563	0.688	1.781	1.016
1.500	1.497	1.503	<b>99823</b> *	0.375	0.500	1.781	1.016
1.500	1.497	1.503	<b>99149</b>	0.563	0.688	1.781	1.016
1.500	1.497	1.503	<b>99150</b>	0.375	0.500	1.781	1.016
1.523	1.520	1.526	<b>99152</b>	0.438	0.563	1.859	1.016
1.552	1.549	1.555	<b>99155</b>	0.438	0.563	1.859	1.016
1.563	1.559	1.565	<b>99824</b> *	0.563	0.688	1.859	1.016
1.563	1.559	1.565	<b>99156</b>	0.563	0.688	1.859	1.016
1.569	1.566	1.572	<b>99159</b>	0.625	0.750	1.859	1.016
1.575	1.569	1.575	<b>99153</b>	0.390	0.509	1.850	1.000
1.578	1.572	1.578	<b>99825</b> *	0.512	0.630	1.850	1.023
1.578	1.572	1.578	<b>99157</b>	0.512	0.630	1.850	1.023
1.605	1.602	1.608	<b>99160</b>	0.500	0.641	1.938	1.000
1.614	1.608	1.614	<b>99163</b>	0.500	0.625	1.938	1.016
1.625	1.622	1.628	<b>99826</b> *	0.563	0.688	1.875	0.813
1.625	1.622	1.628	<b>99161</b>	0.313	0.438	1.875	1.016
1.625	1.622	1.628	<b>99162</b>	0.563	0.688	1.875	0.813
1.650	1.647	1.654	<b>99166</b>	0.445	0.571	2.087	0.846
1.650	1.647	1.654	<b>99169</b>	0.563	0.689	2.087	0.827
1.654	1.647	1.654	<b>99873</b> *	0.563	0.689	2.087	0.827
1.656	1.653	1.659	<b>99165</b>	0.550	0.689	2.087	0.827
1.688	1.685	1.691	<b>99167</b>	0.313	0.438	1.906	0.875
1.688	1.684	1.690	<b>99168</b>	0.563	0.688	1.906	0.875
1.693	1.687	1.693	<b>99182</b>	0.500	0.625	1.906	0.844
1.719	1.715	1.721	<b>99171</b>	0.563	0.688	2.031	0.813
1.739	1.736	1.742	<b>99170</b>	0.375	0.500	2.063	0.813
1.750	1.747	1.753	<b>99827</b> *	0.563	0.688	2.063	0.813
1.750	1.747	1.753	<b>99828</b> *	0.750	0.875	2.063	0.813
1.750	1.747	1.753	<b>99172</b>	0.375	0.500	2.055	0.813
1.750	1.747	1.753	<b>99174</b>	0.563	0.688	2.063	0.813
1.750	1.747	1.753	<b>99175</b>	0.750	0.875	2.063	0.813
1.750	1.747	1.753	<b>99180</b>	0.531	0.625	2.063	0.878
1.766	1.761	1.767	<b>99829</b> *	0.563	0.688	2.063	0.813
1.766	1.761	1.767	<b>99176</b>	0.563	0.688	2.063	0.813
1.772	1.769	1.775	<b>99830</b> *	0.551	0.669	2.087	0.812
1.772	1.769	1.775	<b>99177</b>	0.551	0.669	2.087	0.812
1.781	1.778	1.784	<b>99179</b>	0.667	0.800	2.125	1.062
1.813	1.809	1.815	<b>99831</b> *	0.563	0.688	2.090	1.000
1.813	1.809	1.815	<b>99181</b>	0.563	0.688	2.090	1.000
1.859	1.857	1.863	<b>99185</b>	0.563	0.688	2.156	1.000
1.868	1.866	1.872	<b>99186</b>	0.889	1.025	2.188	1.000
1.875	1.872	1.878	<b>99832</b> *	0.563	0.688	2.203	1.000

**Speedi-Sleeve size listing - Inches (Cont.)**

Nominal shaft diameter	"A" Shaft diameter range		Stock number	"X" Width on shaft (Inches .031)	"Y" Overall width (Inches .031)	"D" Flange diameter (Inches .063)	"Z" Installation depth
	Minimum Inches	Maximum Inches					
1.875	1.872	1.878	99184	0.375	0.516	2.203	1.050
1.875	1.872	1.878	99187	0.563	0.688	2.203	1.000
1.875	1.872	1.878	99188	0.295	0.415	2.203	0.744
1.875	1.872	1.878	99190	0.175	0.295	2.203	0.744
1.891	1.887	1.893	99189	0.551	0.668	2.205	0.984
1.912	1.909	1.915	99192	0.375	0.500	2.219	1.000
1.938	1.934	1.940	99833 *	0.563	0.688	2.219	1.000
1.938	1.934	1.940	99193	0.563	0.688	2.219	1.000
1.969	1.965	1.971	99196	0.551	0.668	2.244	0.984
1.980	1.977	1.983	99198	0.563	0.704	2.313	1.050
2.000	1.997	2.003	99834 *	0.563	0.688	2.406	1.006
2.000	1.997	2.003	99835 *	0.875	1.000	2.406	1.000
2.000	1.997	2.003	99199	0.563	0.688	2.406	1.000
2.000	1.997	2.003	99200	0.875	1.000	2.406	1.000
2.047	2.040	2.047	99204	0.500	0.625	2.469	1.359
2.063	2.057	2.063	99205	0.781	0.938	2.469	1.375
2.125	2.124	2.130	99836 *	0.781	0.938	2.422	1.375
2.125	2.123	2.128	99210	0.500	0.750	2.422	1.281
2.125	2.124	2.130	99212	0.781	0.938	2.422	1.375
2.165	2.162	2.169	99863 *	0.787	0.905	2.441	1.250
2.165	2.162	2.168	99215	0.787	0.905	2.441	1.250
2.188	2.186	2.192	99218	0.781	0.938	2.500	1.313
2.205	2.198	2.205	99220	0.500	0.625	2.531	1.313
2.230	2.227	2.233	99861 *	0.500	0.625	2.531	1.313
2.230	2.227	2.233	99229	0.500	0.625	2.531	1.313
2.230	2.227	2.233	99230	0.781	0.906	2.531	1.250
2.240	2.237	2.243	99226	0.764	0.900	2.563	1.250
2.250	2.249	2.255	99837 *	0.781	0.938	2.531	1.313
2.250	2.249	2.255	99838 *	0.313	0.438	2.531	1.313
2.250	2.249	2.255	99225	0.781	0.938	2.531	1.313
2.250	2.249	2.255	99227	0.313	0.438	2.531	1.313
2.283	2.280	2.286	99219	0.787	0.938	2.598	1.375
2.313	2.309	2.315	99231	0.781	0.938	2.688	1.375
2.328	2.327	2.333	99233	0.750	0.875	2.750	1.500
2.362	2.359	2.365	99869 *	0.787	0.905	2.785	1.375
2.362	2.359	2.365	99235	0.787	0.905	2.785	1.375
2.362	2.359	2.365	99241	0.370	0.450	2.785	1.471
2.375	2.374	2.380	99839 *	0.781	0.938	2.750	1.375
2.375	2.374	2.380	99237	0.781	0.938	2.750	1.375
2.375	2.372	2.378	99238	0.594	0.750	2.750	1.375
2.375	2.374	2.380	99240	0.526	0.683	2.750	1.375
2.438	2.435	2.441	99242	0.500	0.625	2.828	1.425
2.438	2.434	2.440	99243	0.781	0.938	2.828	1.393
2.441	2.434	2.441	99244	0.500	0.625	2.828	1.425
2.492	2.489	2.495	99249	0.781	0.938	2.875	1.393
2.500	2.500	2.506	99840 *	0.781	0.938	2.820	1.375
2.500	2.500	2.506	99248	0.500	0.656	2.828	1.393
2.500	2.500	2.506	99250	0.781	0.938	2.820	1.375
2.500	2.497	2.503	99253	0.555	0.650	2.820	0.890
2.516	2.510	2.516	99251	0.781	0.906	2.828	1.438
2.559	2.556	2.562	99841 *	0.787	0.905	2.850	1.375
2.559	2.556	2.562	99254	0.787	0.905	2.850	1.375
2.563	2.560	2.566	99256	0.781	0.938	2.891	1.375
2.598	2.595	2.601	99259	0.781	0.938	2.990	1.250
2.621	2.618	2.624	99261	0.781	0.938	3.047	1.375
2.625	2.625	2.631	99842 *	0.781	0.938	3.047	1.375
2.625	2.622	2.628	99260	0.500	0.625	3.047	1.375
2.625	2.625	2.631	99262	0.781	0.938	3.047	1.375
2.625	2.621	2.627	99264	0.781	0.906	3.047	1.375
2.677	2.670	2.677	99266	0.750	0.875	3.125	1.688

★ Indicates Speedi-Sleeve Gold product

## Speedi-Sleeve size listing - Inches (Cont.)

Nominal shaft diameter	"A" Shaft diameter range		Stock number	"X" Width on shaft (Inches .031)	"Y" Overall width (Inches .031)	"D" Flange diameter (Inches .063)	"Z" Installation depth
	Minimum Inches	Maximum Inches					
2.730	2.727	2.733	<b>99268</b>	0.781	0.906	3.125	1.313
2.743	2.740	2.746	<b>99273</b>	0.781	0.938	3.065	1.250
2.750	2.745	2.751	<b>99843 *</b>	0.781	0.938	3.125	1.250
2.750	2.750	2.756	<b>99844 *</b>	0.781	0.938	3.125	1.250
2.750	2.747	2.753	<b>99267</b>	1.438	1.625	3.075	1.625
2.750	2.750	2.756	<b>99269</b>	1.125	1.250	3.125	1.312
2.750	2.750	2.756	<b>99272</b>	0.406	0.563	3.125	1.250
2.750	2.745	2.751	<b>99274</b>	0.781	0.938	3.125	1.250
2.750	2.750	2.756	<b>99275</b>	0.781	0.938	3.125	1.250
2.756	2.753	2.759	<b>99276</b>	0.787	0.945	3.125	1.250
2.813	2.809	2.815	<b>99281</b>	0.594	0.688	3.188	1.250
2.835	2.827	2.835	<b>99870 *</b>	0.750	0.875	3.225	1.343
2.835	2.828	2.835	<b>99284</b>	0.750	0.875	3.225	1.343
2.838	2.838	2.844	<b>99845 *</b>	0.500	0.656	3.225	1.250
2.838	2.838	2.844	<b>99282</b>	0.500	0.656	3.225	1.250
2.869	2.866	2.872	<b>99286</b>	0.781	0.938	3.188	1.250
2.875	2.873	2.879	<b>99846 *</b>	0.781	0.938	3.219	1.250
2.875	2.873	2.879	<b>99287</b>	0.781	0.938	3.219	1.250
2.938	2.937	2.943	<b>99847 *</b>	0.781	0.938	3.344	1.313
2.938	2.937	2.943	<b>99290</b>	0.500	0.641	3.344	1.331
2.940	2.937	2.943	<b>99293</b>	0.781	0.938	3.344	1.313
2.953	2.950	2.956	<b>99875 *</b>	0.866	1.024	3.305	1.313
2.953	2.950	2.956	<b>99289</b>	0.594	0.690	3.273	1.083
2.953	2.950	2.956	<b>99294</b>	0.866	1.024	3.305	1.313
2.974	2.972	2.976	<b>99292</b>	0.813	1.000	3.235	1.250
2.993	2.990	2.996	<b>99291</b>	0.484	0.625	3.359	1.331
2.993	2.990	2.996	<b>99298</b>	0.563	0.688	3.359	1.375
2.993	2.990	2.996	<b>99299</b>	0.813	1.000	3.350	1.281
3.000	3.000	3.006	<b>99848 *</b>	0.813	1.000	3.235	1.281
3.000	2.997	3.003	<b>99296</b>	0.813	0.938	3.240	1.375
3.000	3.000	3.006	<b>99300</b>	0.813	1.000	3.235	1.281
3.000	3.000	3.006	<b>99303</b>	0.625	0.813	3.345	1.280
3.011	3.008	3.014	<b>99301</b>	0.500	0.625	3.355	2.000
3.071	3.064	3.071	<b>99306</b>	0.750	0.875	3.468	2.056
3.125	3.120	3.126	<b>99849 *</b>	0.813	1.000	3.531	2.000
3.125	3.124	3.132	<b>99307</b>	0.551	0.709	3.525	2.031
3.125	3.120	3.126	<b>99311</b>	0.688	0.813	3.531	2.000
3.125	3.120	3.126	<b>99312</b>	0.813	1.000	3.531	2.000
3.150	3.142	3.150	<b>99313</b>	0.750	0.886	3.540	1.375
3.150	3.146	3.153	<b>99315</b>	0.827	0.945	3.543	1.375
3.150	3.146	3.153	<b>99317</b>	0.433	0.591	3.543	1.375
3.228	3.225	3.231	<b>99328</b>	0.660	0.848	3.585	1.750
3.250	3.250	3.256	<b>99850 *</b>	0.595	0.719	3.575	1.375
3.250	3.250	3.256	<b>99851 *</b>	0.813	1.000	3.585	1.375
3.250	3.247	3.253	<b>99322</b>	0.813	1.000	3.594	1.375
3.250	3.250	3.256	<b>99324</b>	0.595	0.719	3.575	1.375
3.250	3.250	3.256	<b>99325</b>	0.813	1.000	3.585	1.375
3.250	3.250	3.256	<b>99326</b>	0.688	0.875	3.585	1.250
3.310	3.307	3.313	<b>99331</b>	0.813	1.000	3.688	1.375
3.342	3.337	3.347	<b>99332</b>	0.669	0.827	3.700	1.378
3.342	3.337	3.347	<b>99333</b>	0.827	0.984	3.700	1.378
3.346	1.247	1.253	<b>99872 *</b>	0.827	0.984	3.700	1.378
3.346	3.338	3.346	<b>99334</b>	0.399	0.499	3.580	1.431
3.375	3.373	3.379	<b>99337</b>	0.813	1.000	3.695	1.375
3.375	3.373	3.379	<b>99338</b>	0.375	0.500	3.688	1.410
3.438	3.435	3.441	<b>99339</b>	0.781	0.906	3.844	1.406
3.480	3.477	3.483	<b>99340</b>	0.781	0.906	3.835	1.406
3.500	3.500	3.506	<b>99852 *</b>	0.813	1.000	3.844	1.347
3.500	3.497	3.503	<b>99346</b>	0.625	0.813	3.844	1.347
3.500	3.500	3.506	<b>99347</b>	0.313	0.500	3.825	1.347

*Speedi-Sleeve size listing - Inches (Cont.)*

Nominal shaft diameter	"A" Shaft diameter range		Stock number	"X" Width on shaft (Inches .031)	"Y" Overall width (Inches .031)	"D" Flange diameter (Inches .063)	"Z" Installation depth
	Minimum Inches	Maximum Inches					
3.500	3.500	3.506	99350	0.813	1.000	3.844	1.347
3.504	3.501	3.507	99349	0.625	0.813	3.844	1.348
3.543	3.540	3.546	99351	0.710	0.906	4.000	1.813
3.543	3.540	3.546	99352	0.438	0.538	4.000	1.813
3.543	3.540	3.546	99353	0.526	0.667	4.000	1.750
3.543	3.540	3.546	99354	0.906	1.102	4.000	1.750
3.563	3.560	3.566	99356	0.813	1.000	3.900	1.750
3.621	3.618	3.624	99360	0.813	1.000	4.031	1.750
3.625	3.623	3.629	99362	0.813	1.000	4.031	1.750
3.625	3.623	3.629	99363	0.500	0.625	4.025	1.750
3.688	3.685	3.691	99365	0.813	0.938	4.025	1.800
3.688	3.684	3.690	99368	0.313	0.438	4.031	0.875
3.730	3.727	3.733	99359	0.469	0.594	4.016	1.800
3.730	3.727	3.733	99366	0.781	0.906	4.025	1.800
3.740	3.737	3.743	99369	0.827	0.945	4.025	1.800
3.743	3.740	3.746	99364	0.469	0.594	4.035	1.800
3.743	3.740	3.746	99374	0.344	0.500	4.031	1.800
3.749	3.746	3.752	99376	0.563	0.688	4.025	1.800
3.750	3.750	3.756	99853 *	0.688	0.875	4.020	1.800
3.753	3.750	3.756	99367	0.344	0.500	4.025	1.800
3.753	3.750	3.756	99372	0.688	0.875	4.020	1.800
3.871	3.868	3.874	99386	0.813	1.000	4.185	1.875
3.875	3.873	3.879	99387	0.813	1.000	4.219	1.875
3.938	3.935	3.941	99854 *	0.813	1.000	4.313	2.050
3.938	3.935	3.941	99393	0.813	1.000	4.313	2.050
4.000	3.998	4.006	99855 *	0.813	1.000	4.375	2.050
4.000	3.998	4.006	99395	0.600	0.725	4.375	2.050
4.000	3.998	4.006	99399	0.813	1.000	4.375	2.050
4.000	3.998	4.006	99400	0.650	0.775	4.375	1.375
4.000	3.998	4.006	99401	0.500	0.625	4.375	2.066
4.094	4.090	4.098	99409	0.787	0.945	4.438	1.417
4.125	4.122	4.130	99412	0.813	1.000	4.470	1.375
4.134	4.130	4.138	99413	0.787	0.913	4.470	1.378
4.188	4.183	4.191	99418	0.813	1.000	4.500	1.375
4.234	4.226	4.234	99423	0.781	0.906	4.610	1.438
4.250	4.248	4.256	99424	0.813	1.000	4.610	1.438
4.328	4.327	4.335	99435	0.509	0.650	4.921	1.250
4.331	4.322	4.331	99434	0.448	0.589	4.921	1.297
4.375	4.370	4.378	99437	0.813	1.000	4.750	1.650
4.409	4.401	4.409	99438	0.750	0.886	4.750	1.300
4.438	4.434	4.442	99439	1.000	1.142	4.813	1.313
4.500	4.496	4.504	99856 *	0.813	1.000	4.900	1.250
4.500	4.496	4.504	99450	0.813	1.000	4.850	1.250
4.528	4.523	4.531	99452	0.813	0.938	5.000	1.250
4.625	4.621	4.629	99463	1.000	1.250	5.063	1.375
4.625	4.621	4.629	99465	0.438	0.625	5.000	1.375
4.688	4.685	4.693	99468	0.813	1.000	5.063	1.375
4.724	4.720	4.728	99471	0.315	0.433	5.110	1.323
4.724	4.720	4.728	99473	0.787	0.984	5.110	1.260
4.750	4.746	4.754	99475	0.500	0.750	5.000	1.500
4.803	4.799	4.807	99472	0.787	0.945	5.177	1.260
4.843	4.839	4.847	99484	0.787	0.984	5.229	1.244
4.875	4.871	4.879	99487	0.625	0.750	5.250	1.438
4.921	4.917	4.925	99490	0.394	0.551	5.400	1.438
4.921	4.917	4.925	99492	1.024	1.260	5.400	1.438
5.000	4.998	5.006	99857 *	0.688	0.875	5.400	1.438
5.000	4.998	5.006	99858 *	0.813	1.000	5.390	1.438
5.000	4.998	5.006	99498	0.688	0.875	5.400	1.438
5.000	4.998	5.006	99499	0.813	1.000	5.390	1.438
5.000	4.998	5.006	99501	0.540	0.681	5.400	1.438

★ Indicates Speedi-Sleeve Gold product

## Speedi-Sleeve size listing - Inches (Cont.)

Nominal shaft diameter	"A" Shaft diameter range		Stock number	"X" Width on shaft (Inches .031)	"Y" Overall width (Inches .031)	"D" Flange diameter (Inches .063)	"Z" Installation depth
	Minimum Inches	Maximum Inches					
5.114	5.110	5.118	<b>99494</b>	0.750	0.938	5.493	1.181
5.118	5.117	5.125	<b>99874 *</b>	0.866	0.996	5.493	1.280
5.125	5.117	5.125	<b>99491</b>	0.866	0.996	5.493	1.280
5.125	5.120	5.128	<b>99513</b>	0.813	1.000	5.500	1.250
5.250	5.246	5.254	<b>99525</b>	0.813	1.000	5.560	1.250
5.311	5.307	5.315	<b>99533</b>	0.807	1.000	5.735	1.250
5.375	5.371	5.379	<b>99537</b>	0.813	1.000	5.875	1.250
5.438	5.434	5.442	<b>99548</b>	1.500	1.688	5.750	1.875
5.476	5.472	5.480	<b>99547</b>	0.563	0.750	5.900	1.234
5.500	5.498	5.506	<b>99859 *</b>	0.813	1.000	5.938	1.250
5.500	5.498	5.506	<b>99549</b>	0.813	1.000	5.938	1.250
5.500	5.498	5.506	<b>99550</b>	0.518	0.705	5.938	1.250
5.512	5.508	5.516	<b>99552</b>	0.807	1.000	5.945	1.250
5.625	5.621	5.629	<b>99560</b>	0.875	1.000	6.188	1.812
5.709	5.699	5.709	<b>99571</b>	0.750	0.875	6.100	1.812
5.734	5.726	5.734	<b>99562</b>	0.563	0.750	6.100	1.938
5.750	5.746	5.754	<b>99575</b>	0.813	1.000	6.180	1.750
5.875	5.871	5.879	<b>99862 *</b>	1.000	1.250	6.188	1.313
5.875	5.871	5.879	<b>99587</b>	1.000	1.250	6.188	1.313
5.905	5.896	5.906	<b>99595</b>	1.024	1.181	6.260	1.280
5.938	5.934	5.942	<b>99596</b>	1.000	1.125	6.375	1.875
6.000	5.995	6.003	<b>99599</b>	1.000	1.250	6.375	1.750
6.000	5.995	6.003	<b>99601</b>	0.500	0.750	6.360	1.750
6.063	6.058	6.068	<b>99605</b>	1.024	1.181	6.375	1.299
6.097	6.092	6.102	<b>99606</b>	1.024	1.181	6.575	1.299
6.203	6.198	6.208	<b>99620</b>	0.813	1.063	6.625	1.750
6.250	6.245	6.255	<b>99625</b>	1.031	1.250	6.625	1.750
6.299	6.289	6.299	<b>99630</b>	1.000	1.250	6.750	1.375
6.500	6.495	6.505	<b>99650</b>	1.000	1.250	7.000	1.375
6.688	6.683	6.693	<b>99640</b>	1.250	1.496	7.188	1.750
6.750	6.745	6.755	<b>99675</b>	0.813	1.063	7.125	1.750
6.890	6.880	6.890	<b>99687</b>	1.102	1.260	7.362	1.378
7.000	6.995	7.005	<b>99864 *</b>	1.000	1.250	7.475	1.688
7.000	6.995	7.005	<b>99700</b>	1.000	1.250	7.475	1.688
7.087	7.077	7.087	<b>99721</b>	1.299	1.496	7.500	1.752
7.250	7.244	7.254	<b>99725</b>	1.250	1.500	7.760	2.175
7.278	7.273	7.283	<b>99726</b>	1.260	1.496	7.760	2.165
7.453	7.444	7.454	<b>99745</b>	0.813	1.000	7.860	1.250
7.500	7.495	7.505	<b>99750</b>	0.813	1.000	7.875	1.250
7.750	7.745	7.755	<b>99775</b>	1.000	1.313	8.270	1.875
7.875	7.869	7.879	<b>99787</b>	1.359	1.500	8.375	1.750
7.938	7.933	7.943	<b>99799</b>	1.000	1.250	8.375	1.750
8.000	7.995	8.005	<b>99800</b>	1.000	1.250	8.375	1.750

Speedi-Sleeve size listing - Metric

Shaft diameter	"A" Shaft diameter range		Stock number	"X"	"Y"	"D"	"Z"
	Minimum MM	Maximum MM		Width on shaft 0.8 MM	Overall width 0.8 MM	Flange diameter 1.6 MM	Installation depth MM
12.00	11.91	12.07	99049	6.00	8.40	15.50	47.60
12.70	12.65	12.75	99050	6.35	9.93	19.05	46.51
14.00	13.89	14.00	99055	6.35	9.93	19.05	46.51
14.30	14.22	14.38	99056	6.35	9.93	19.05	46.51
15.00	14.96	15.06	99059	5.00	8.99	19.05	47.29
15.88	15.82	15.93	99810 *	7.95	10.31	19.05	50.80
15.88	15.83	15.93	99062	7.95	10.31	19.05	50.80
16.00	15.89	16.00	99058	7.95	11.10	18.24	50.80
17.00	16.94	17.04	99068	7.95	11.00	22.23	50.80
17.37	17.32	17.42	99060	7.95	11.13	22.86	50.80
18.00	17.87	18.00	99082	8.00	11.00	24.43	46.00
19.00	19.00	19.10	99811 *	7.95	11.13	24.00	50.80
19.00	19.00	19.10	99076	7.95	11.13	24.00	50.80
19.30	19.27	19.33	99081	7.95	11.13	23.83	50.80
19.86	19.81	19.91	99080	7.95	11.13	23.75	50.80
20.00	19.94	20.04	99078	8.00	11.00	23.62	50.80
20.65	20.62	20.70	99083	9.52	14.30	0.00	76.20
21.82	21.77	21.87	99086	6.35	9.52	29.34	50.80
22.00	21.87	22.00	99084	6.58	9.09	30.20	47.09
22.00	21.87	22.00	99085	8.00	11.99	30.17	46.05
22.23	22.17	22.28	99812 *	7.95	11.13	27.79	50.80
22.23	22.18	22.28	99087	7.95	11.13	27.79	50.80
23.11	23.06	23.16	99091	7.95	11.13	30.94	46.91
23.11	23.06	23.17	99860 *	7.95	11.13	30.94	46.91
24.00	23.87	24.00	99092	7.95	11.10	28.70	50.80
24.59	24.54	24.64	99094	7.95	11.13	28.70	50.80
24.59	24.54	24.64	99096	15.88	18.26	28.70	50.80
25.00	24.94	25.04	99813 *	7.95	11.00	33.02	50.80
25.00	24.94	25.04	99098	7.95	11.00	33.02	50.80
25.40	25.35	25.45	99814 *	7.95	11.13	30.96	50.80
25.40	25.35	25.45	99100	7.95	11.13	30.96	50.80
26.00	25.88	26.01	99103	8.00	11.99	33.35	46.05
27.00	26.92	27.03	99815 *	7.95	11.13	33.53	46.81
27.00	26.92	27.02	99106	7.95	11.13	33.53	46.81
27.66	27.61	27.71	99108	7.95	11.13	35.71	15.88
28.00	27.94	28.04	99866 *	9.52	12.70	34.92	46.81
28.00	27.94	28.04	99111	9.52	12.70	34.92	46.81
28.58	28.52	28.63	99816 *	7.95	11.13	38.10	17.48
28.58	28.53	28.63	99112	7.95	11.13	38.10	17.48
28.58	28.53	28.63	99116	9.52	12.70	38.10	17.48
29.36	29.31	29.41	99120	9.52	12.70	34.29	17.48
29.36	29.31	29.41	99865 *	9.52	12.70	34.29	17.48
29.85	29.80	29.93	99122	7.95	11.13	35.56	17.48
30.00	29.95	30.08	99114	8.00	11.00	35.56	17.48
30.15	30.10	30.23	99118	7.95	11.13	35.56	17.48
31.00	30.88	31.04	99123	7.95	11.00	39.70	15.88
31.50	31.42	31.58	99141	8.00	11.10	39.12	17.48
31.75	31.67	31.83	99817 *	7.95	11.13	38.10	17.48
31.75	31.67	31.83	99871 *	15.88	19.05	38.10	50.80
31.75	31.67	31.83	99125	7.95	11.13	38.10	17.48
32.00	31.92	32.08	99128	8.00	11.13	38.10	17.48
33.00	32.94	33.04	99121	15.01	18.00	40.49	20.65
33.30	33.22	33.38	99129	6.35	9.50	40.64	20.65
33.35	33.27	33.43	99818 *	12.70	15.90	40.49	20.65
33.35	33.27	33.43	99131	12.70	15.88	40.49	20.65
34.00	33.86	34.01	99134	12.70	15.90	41.28	20.70
34.90	34.82	34.98	99133	7.95	11.13	41.60	20.65
34.90	34.82	34.98	99138	12.70	15.88	41.60	20.65
34.92	34.82	34.98	99819 *	12.70	15.88	41.60	20.65
35.00	34.92	35.08	99820 *	13.01	16.00	41.60	20.65

★ Indicates Speedi-Sleeve Gold product



*Speedi-Sleeve size listing - Metric (Cont.)*

Shaft diameter	"A" Shaft diameter range		Stock number	"X"	"Y"	"D"	"Z"
	Minimum MM	Maximum MM		Width on shaft 0.8 MM	Overall width 0.8 MM	Flange diameter 1.6 MM	Installation depth MM
35.00	34.92	35.08	99139	13.01	16.00	41.60	20.65
36.00	35.85	36.00	99146	13.01	16.99	45.24	24.99
36.45	36.37	36.53	99143	14.30	17.48	45.24	25.81
36.53	36.37	36.53	99821 *	14.30	17.48	45.24	25.81
36.53	36.45	36.61	99144	9.52	12.70	45.24	25.81
38.00	37.85	38.00	99147	13.01	16.99	45.24	24.99
38.10	38.02	38.18	99822 *	14.30	17.48	45.24	25.81
38.10	38.02	38.18	99823 *	9.52	12.70	45.24	25.81
38.10	38.02	38.18	99149	14.30	17.48	45.24	25.81
38.10	38.02	38.18	99150	9.52	12.70	45.24	25.81
38.68	38.60	38.76	99152	11.13	14.30	47.22	25.81
39.42	39.34	39.50	99155	11.13	14.30	47.22	25.81
39.67	39.59	39.75	99156	14.30	17.48	47.22	25.81
39.70	39.60	39.75	99824 *	14.30	17.48	47.22	25.81
39.85	39.77	39.93	99159	15.88	19.05	47.22	25.81
40.00	39.93	40.08	99825 *	13.01	16.00	46.99	25.98
40.00	39.84	40.00	99153	9.91	12.93	46.99	25.40
40.00	39.93	40.09	99157	13.01	16.00	46.99	25.98
40.77	40.69	40.85	99160	12.70	16.28	49.22	25.40
41.00	40.84	41.00	99163	12.70	15.88	49.20	25.81
41.28	41.20	41.35	99826 *	14.30	17.48	47.63	20.65
41.28	41.20	41.36	99161	7.95	11.13	47.63	25.81
41.28	41.20	41.36	99162	14.30	17.48	47.63	20.65
42.00	41.84	42.00	99873 *	14.00	18.00	53.01	21.01
42.00	41.84	42.00	99166	11.30	14.50	53.01	21.49
42.00	41.84	42.00	99169	14.30	17.50	53.01	21.01
42.06	41.98	42.14	99165	13.97	17.50	53.01	21.01
42.85	42.78	42.93	99168	14.30	17.48	48.41	22.23
42.88	42.80	42.96	99167	7.95	11.13	48.41	22.23
43.00	42.84	43.00	99182	12.70	15.88	48.41	21.41
43.64	43.56	43.72	99171	14.30	17.48	51.59	20.65
44.17	44.09	44.25	99170	9.52	12.70	52.40	20.65
44.45	44.37	44.53	99827 *	14.30	17.48	52.40	20.65
44.45	44.37	44.53	99828 *	19.05	22.23	52.40	20.65
44.45	44.37	44.53	99172	9.52	12.70	52.20	20.65
44.45	44.37	44.53	99174	14.30	17.48	52.40	20.65
44.45	44.37	44.53	99175	19.05	22.23	52.40	20.65
44.45	44.37	44.53	99180	13.49	15.88	52.40	22.23
44.81	44.73	44.89	99176	13.99	16.99	53.01	20.65
44.86	44.73	44.88	99829 *	14.30	17.48	52.40	20.65
45.00	44.93	45.08	99830 *	16.87	20.32	53.97	26.98
45.00	44.93	45.09	99177	13.99	16.99	53.01	20.63
45.24	45.16	45.32	99179	14.30	17.48	53.09	25.40
46.05	45.95	46.10	99831 *	14.30	17.48	54.76	25.40
46.05	45.94	46.10	99181	14.30	17.48	53.09	25.40
47.24	47.16	47.32	99185	22.58	17.48	55.58	25.40
47.45	47.39	47.55	99186	22.58	26.03	55.95	25.40
47.63	47.55	47.70	99832 *	14.30	17.48	55.96	25.40
47.63	47.55	47.71	99184	9.53	13.11	55.96	26.67
47.63	47.55	47.71	99187	14.30	17.48	55.96	25.40
47.63	47.55	47.71	99188	7.49	10.54	55.96	18.90
47.63	47.55	47.71	99190	4.45	7.49	55.96	18.90
48.00	47.93	48.09	99189	14.00	16.97	56.01	24.99
48.56	48.48	48.64	99192	9.53	12.70	56.36	25.40
49.20	49.12	49.28	99193	14.30	17.48	56.36	25.40
49.22	49.12	49.28	99833 *	14.30	17.48	56.36	25.40
50.00	49.91	50.07	99196	14.00	17.00	57.00	24.99
50.30	50.21	50.37	99198	14.30	17.88	58.75	26.67
50.80	50.72	50.88	99834 *	14.30	17.48	61.11	25.40
50.80	50.72	50.88	99835 *	22.23	25.40	61.11	25.40

**Speedi-Sleeve size listing - Metric (Cont.)**

Shaft diameter	"A" Shaft diameter range		Stock number	"X"	"Y"	"D"	"Z"
	Minimum MM	Maximum MM		Width on shaft 0.8 MM	Overall width 0.8 MM	Flange diameter 1.6 MM	Installation depth MM
50.80	50.72	50.88	99199	14.30	17.48	61.11	25.40
50.80	50.72	50.88	99200	22.23	25.40	61.11	25.40
52.00	51.81	52.00	99204	12.70	15.88	62.71	34.52
52.32	52.24	52.40	99205	19.84	23.83	62.71	34.93
54.00	53.95	54.10	99836 *	19.84	23.83	61.52	34.92
54.00	53.92	54.06	99210	12.70	19.05	61.52	32.54
54.00	53.95	54.11	99212	19.84	23.83	61.52	34.93
54.99	54.92	55.09	99863 *	19.99	22.99	62.00	31.75
55.00	54.91	55.07	99215	19.99	22.99	62.00	31.75
55.60	55.52	55.68	99218	19.84	23.83	63.50	33.35
56.00	55.81	56.00	99220	12.70	15.88	64.29	33.35
56.64	56.56	56.72	99229	12.70	15.88	64.29	33.35
56.64	56.56	56.72	99230	19.84	23.01	64.29	31.75
56.64	56.57	56.72	99861 *	12.70	15.88	64.29	33.35
56.90	56.82	56.98	99226	19.41	22.86	65.10	31.75
57.15	57.13	57.28	99837 *	19.84	23.83	64.29	33.35
57.15	57.13	57.28	99838 *	7.95	11.13	64.29	33.35
57.20	57.12	57.28	99225	19.84	23.83	64.29	33.35
57.20	57.12	57.28	99227	7.95	11.13	64.29	33.35
58.00	57.91	58.06	99219	19.84	23.83	65.99	34.92
58.72	58.64	58.80	99231	19.84	23.83	68.28	34.93
59.18	59.10	59.26	99233	19.05	22.23	69.85	38.10
60.00	59.91	60.07	99869 *	20.00	23.00	70.74	34.93
60.00	59.91	60.07	99235	20.00	23.00	70.74	34.93
60.00	59.92	60.08	99241	9.40	11.43	70.74	37.36
60.33	60.30	60.45	99839 *	19.84	23.83	69.85	34.92
60.33	60.25	60.41	99238	15.09	19.05	69.85	34.93
60.38	60.30	60.46	99237	19.84	23.83	69.85	34.93
60.38	60.30	60.46	99240	13.36	17.35	69.85	34.93
61.90	61.82	61.98	99243	19.84	23.83	71.83	35.38
62.00	61.85	62.01	99242	12.70	15.88	71.83	36.20
62.00	61.81	62.00	99244	12.70	15.88	71.83	36.20
63.30	63.22	63.38	99249	19.84	23.83	73.03	35.38
63.50	63.50	63.65	99840 *	19.84	23.83	71.63	34.92
63.50	63.50	63.66	99248	12.70	16.66	71.83	35.38
63.50	63.50	63.66	99250	19.84	23.83	71.63	34.93
63.50	63.42	63.58	99253	14.10	16.51	71.63	22.61
63.83	63.75	63.91	99251	19.84	23.01	71.83	36.53
65.00	64.92	65.07	99841 *	20.00	23.00	72.39	34.92
65.00	64.92	65.08	99254	19.99	22.99	72.39	34.93
65.10	65.02	65.18	99256	19.84	23.83	73.43	34.93
66.00	65.91	66.07	99259	19.84	23.83	75.95	31.75
66.57	66.49	66.65	99261	19.84	23.83	77.39	34.93
66.65	66.57	66.73	99264	19.84	23.01	77.39	34.93
66.68	66.68	66.83	99842 *	19.84	23.83	77.39	34.92
66.68	66.60	66.76	99260	12.70	15.88	77.39	34.93
66.75	66.67	66.83	99262	19.84	23.83	77.39	34.93
68.00	67.81	68.00	99266	19.05	22.23	79.38	42.88
69.34	69.26	69.42	99268	19.84	23.01	79.38	33.35
69.67	69.59	69.75	99273	19.84	23.83	77.85	31.75
69.80	69.72	69.88	99274	19.84	23.83	79.38	31.75
69.85	69.72	69.88	99843 *	19.84	23.83	79.38	31.75
69.85	69.77	69.93	99267	36.53	41.28	78.11	41.28
70.00	69.85	70.00	99844 *	19.84	23.83	79.38	31.75
70.00	69.85	70.01	99269	28.58	31.75	79.38	33.32
70.00	69.85	70.01	99272	10.31	14.30	79.38	31.75
70.00	69.85	70.01	99275	19.84	23.83	79.38	31.75
70.00	69.92	70.08	99276	19.99	24.00	79.38	31.75
71.42	71.34	71.50	99281	15.09	17.48	80.98	31.75
72.00	71.81	72.01	99870 *	19.05	22.23	81.92	34.11

★ Indicates Speedi-Sleeve Gold product

*Speedi-Sleeve size listing - Metric (Cont.)*

Shaft diameter	"A" Shaft diameter range		Stock number	"X"	"Y"	"D"	"Z"
	Minimum MM	Maximum MM		Width on shaft 0.8 MM	Overall width 0.8 MM	Flange diameter 1.6 MM	Installation depth MM
72.00	71.81	72.00	<b>99284</b>	19.05	22.23	81.92	34.11
72.08	72.08	72.24	<b>99845 *</b>	12.70	16.66	81.92	31.75
72.16	72.08	72.24	<b>99282</b>	12.70	16.66	81.92	31.75
72.87	72.79	72.95	<b>99286</b>	19.84	23.83	80.98	31.75
73.00	72.97	73.13	<b>99846 *</b>	19.84	23.83	81.76	31.75
73.00	72.97	73.13	<b>99287</b>	19.84	23.83	81.76	31.75
74.63	74.60	74.75	<b>99847 *</b>	19.84	23.83	84.94	33.35
74.68	74.60	74.76	<b>99290</b>	12.70	16.28	84.94	33.81
74.68	74.60	74.75	<b>99293</b>	19.84	23.83	84.94	33.35
75.00	74.93	75.09	<b>99875 *</b>	22.00	26.01	83.95	33.35
75.00	74.93	75.09	<b>99289</b>	15.09	17.53	83.13	27.51
75.00	74.93	75.09	<b>99294</b>	22.00	26.01	83.95	33.35
75.54	75.49	75.59	<b>99292</b>	20.62	25.40	82.17	31.75
76.00	75.94	76.10	<b>99298</b>	14.30	17.48	85.32	34.93
76.00	75.94	76.10	<b>99299</b>	20.65	25.40	85.09	32.54
76.02	75.94	76.10	<b>99291</b>	12.29	15.88	85.32	33.81
76.20	76.20	76.35	<b>99848 *</b>	20.65	25.40	82.17	32.54
76.20	76.12	76.28	<b>99296</b>	20.65	23.83	82.30	34.93
76.28	76.20	76.36	<b>99300</b>	20.65	25.40	82.17	32.54
76.28	76.20	76.36	<b>99303</b>	15.88	20.65	84.96	32.51
76.48	76.40	76.56	<b>99301</b>	12.70	15.88	85.22	50.80
78.00	77.81	78.00	<b>99306</b>	19.05	22.23	88.04	52.22
79.32	79.24	79.40	<b>99311</b>	17.48	20.65	89.69	50.80
79.38	79.25	79.40	<b>99849 *</b>	20.65	25.40	89.69	50.80
79.38	79.24	79.40	<b>99312</b>	20.65	25.40	89.69	50.80
79.38	79.35	79.55	<b>99307</b>	14.00	18.01	89.54	51.59
80.00	79.81	80.01	<b>99313</b>	19.05	22.50	89.92	34.93
80.00	79.91	80.08	<b>99315</b>	21.01	24.00	89.99	34.93
80.00	79.90	80.08	<b>99317</b>	11.00	15.01	89.99	34.93
82.00	81.91	82.07	<b>99328</b>	16.76	21.54	91.06	44.45
82.50	82.50	82.70	<b>99850 *</b>	15.11	18.26	90.81	34.92
82.55	82.55	82.70	<b>99851 *</b>	20.65	25.40	91.06	34.92
82.55	82.47	82.63	<b>99322</b>	20.65	25.40	91.29	34.93
82.63	82.55	82.71	<b>99324</b>	15.11	18.26	90.81	34.93
82.63	82.55	82.71	<b>99325</b>	20.65	25.40	91.06	34.93
82.63	82.55	82.71	<b>99326</b>	17.48	22.23	91.06	31.75
84.00	84.00	84.15	<b>99331</b>	20.65	25.40	93.68	34.93
85.00	31.67	31.83	<b>99872 *</b>	21.00	25.00	93.98	35.00
85.00	84.76	85.02	<b>99332</b>	16.99	21.00	93.98	35.00
85.00	84.76	85.02	<b>99333</b>	21.01	24.99	93.98	35.00
85.00	84.78	85.00	<b>99334</b>	10.13	12.67	90.93	36.35
85.75	85.67	85.83	<b>99337</b>	20.65	25.40	93.85	34.93
85.75	85.67	85.83	<b>99338</b>	9.53	12.70	93.67	35.81
87.33	87.25	87.41	<b>99339</b>	19.84	23.01	97.64	35.71
88.39	88.31	88.47	<b>99340</b>	19.84	23.01	97.41	35.71
88.98	88.82	88.98	<b>99346</b>	15.88	20.65	97.64	34.21
89.00	88.90	89.05	<b>99852 *</b>	20.65	25.40	97.64	34.21
89.00	88.90	89.06	<b>99347</b>	7.95	12.70	97.16	34.21
89.00	88.92	89.08	<b>99349</b>	15.88	20.65	97.64	34.24
89.00	88.90	89.06	<b>99350</b>	20.65	25.40	97.64	34.21
90.00	89.91	90.07	<b>99351</b>	18.03	23.01	101.60	46.05
90.00	89.91	90.07	<b>99352</b>	11.13	13.67	101.60	46.05
90.00	89.91	90.07	<b>99353</b>	13.36	16.94	101.60	44.45
90.00	89.91	90.07	<b>99354</b>	23.01	27.99	101.60	44.45
90.50	90.42	90.58	<b>99356</b>	20.65	25.40	99.06	44.45
92.00	91.89	92.05	<b>99360</b>	20.65	25.40	102.39	44.45
92.10	92.02	92.18	<b>99362</b>	20.65	25.40	102.39	44.45
92.10	92.02	92.18	<b>99363</b>	12.70	15.87	102.24	44.45
93.65	93.57	93.73	<b>99368</b>	7.95	11.13	102.39	22.23
93.68	93.60	93.76	<b>99365</b>	20.65	23.83	102.24	45.72

**Speedi-Sleeve size listing - Metric (Cont.)**

Shaft diameter	"A" Shaft diameter range		Stock number	"X"	"Y"	"D"	"Z"
	Minimum MM	Maximum MM		Width on shaft 0.8 MM	Overall width 0.8 MM	Flange diameter 1.6 MM	Installation depth MM
94.74	94.66	94.82	<b>99359</b>	11.91	15.09	102.01	45.72
94.74	94.66	94.82	<b>99366</b>	19.84	23.01	102.24	45.72
95.00	94.99	95.15	<b>99364</b>	11.91	15.09	102.49	45.72
95.00	94.92	95.08	<b>99369</b>	21.01	24.00	102.24	45.72
95.00	94.99	95.15	<b>99374</b>	8.74	12.70	102.39	45.72
95.22	95.14	95.30	<b>99376</b>	14.30	17.48	102.24	45.72
95.25	95.25	95.40	<b>99853 *</b>	17.48	22.23	102.11	45.72
95.33	95.25	95.41	<b>99367</b>	8.74	12.70	102.24	45.72
95.33	95.25	95.41	<b>99372</b>	17.48	22.23	102.11	45.72
98.32	98.24	98.40	<b>99386</b>	20.65	25.40	106.30	47.63
98.45	98.37	98.53	<b>99387</b>	20.65	25.40	107.16	47.63
100.00	99.95	100.10	<b>99854 *</b>	20.65	25.40	109.55	52.07
100.00	99.95	100.11	<b>99393</b>	20.65	25.40	109.55	52.07
101.60	101.55	101.75	<b>99855 *</b>	20.65	25.40	111.13	52.07
101.65	101.55	101.75	<b>99395</b>	15.24	18.42	111.13	52.07
101.65	101.55	101.75	<b>99399</b>	20.65	25.40	111.13	52.07
101.65	101.55	101.75	<b>99400</b>	16.51	19.69	111.13	34.93
101.65	101.55	101.75	<b>99401</b>	12.70	15.88	111.13	52.48
104.00	103.89	104.09	<b>99409</b>	19.99	24.00	112.72	35.99
104.80	104.70	104.90	<b>99412</b>	20.65	25.40	113.54	34.93
105.00	104.90	105.10	<b>99413</b>	19.99	23.19	113.54	35.00
106.35	106.25	106.45	<b>99418</b>	20.65	25.40	114.30	34.93
107.44	107.34	107.54	<b>99423</b>	19.84	23.01	117.09	36.53
108.00	107.90	108.10	<b>99424</b>	20.65	25.40	117.09	36.53
110.00	109.78	110.00	<b>99434</b>	11.38	14.96	124.99	32.94
110.00	109.91	110.11	<b>99435</b>	12.93	16.51	124.99	31.75
111.10	111.00	111.20	<b>99437</b>	20.65	25.40	120.65	41.91
112.00	111.78	112.00	<b>99438</b>	19.05	22.50	120.70	33.02
112.72	112.63	112.83	<b>99439</b>	25.40	29.01	122.25	33.35
114.30	114.20	114.40	<b>99856 *</b>	20.65	25.40	124.46	31.75
114.30	114.20	114.40	<b>99450</b>	20.65	25.40	123.19	31.75
115.00	114.89	115.09	<b>99452</b>	20.65	23.83	127.00	31.75
117.48	117.38	117.58	<b>99463</b>	25.40	31.75	128.60	34.93
117.48	117.38	117.58	<b>99465</b>	11.13	15.88	127.00	34.93
119.00	119.00	119.20	<b>99468</b>	20.65	25.40	128.60	34.93
120.00	119.89	120.09	<b>99471</b>	8.00	11.00	129.79	33.60
120.00	119.89	120.09	<b>99473</b>	19.99	24.99	129.79	32.00
120.65	120.55	120.75	<b>99475</b>	12.70	19.05	127.00	38.10
122.00	121.90	122.10	<b>99472</b>	19.99	24.00	131.49	32.00
123.00	122.91	123.11	<b>99484</b>	19.99	24.99	132.82	31.60
123.83	123.73	123.93	<b>99487</b>	15.88	19.05	133.35	36.53
125.00	124.90	125.10	<b>99490</b>	10.00	14.00	137.16	36.53
125.00	124.89	125.09	<b>99492</b>	26.01	32.00	137.16	36.53
127.00	126.95	127.15	<b>99857 *</b>	17.48	22.23	137.16	36.53
127.00	126.95	127.15	<b>99858 *</b>	20.65	25.40	139.91	36.53
127.00	126.95	127.15	<b>99498</b>	17.48	22.23	137.16	36.50
127.00	126.95	127.15	<b>99499</b>	20.65	25.40	136.91	36.53
127.00	126.95	127.15	<b>99501</b>	13.72	17.30	137.16	36.53
130.00	129.97	130.17	<b>99874 *</b>	22.00	25.30	139.52	32.51
130.00	129.97	130.17	<b>99491</b>	22.00	25.30	139.52	32.51
130.00	129.80	130.00	<b>99494</b>	19.05	23.83	139.52	30.00
130.15	130.05	130.25	<b>99513</b>	20.65	25.40	139.70	31.75
133.35	133.25	133.45	<b>99525</b>	20.65	25.40	141.22	31.75
135.00	134.80	135.00	<b>99533</b>	20.50	25.40	145.67	31.75
136.53	136.43	136.63	<b>99537</b>	20.65	25.40	149.23	31.75
138.13	138.03	138.23	<b>99548</b>	38.10	42.88	146.05	47.63
139.00	138.99	139.19	<b>99547</b>	14.30	19.05	149.86	31.34
139.70	139.65	139.85	<b>99859 *</b>	20.65	25.40	150.82	31.75
139.75	139.65	139.85	<b>99549</b>	20.65	25.40	150.83	31.75
139.75	139.65	139.85	<b>99550</b>	13.16	17.91	150.83	31.75

★ Indicates Speedi-Sleeve Gold product

*Speedi-Sleeve size listing - Metric (Cont.)*

Shaft diameter	"A" Shaft diameter range		Stock number	"X"	"Y"	"D"	"Z"
	Minimum MM	Maximum MM		Width on shaft 0.8 MM	Overall width 0.8 MM	Flange diameter 1.6 MM	Installation depth MM
140.00	139.90	140.11	<b>99552</b>	20.50	25.40	151.00	31.75
142.88	142.77	142.98	<b>99560</b>	22.23	25.40	157.18	46.02
145.00	144.75	145.00	<b>99571</b>	19.05	22.23	154.94	46.02
145.54	145.44	145.64	<b>99562</b>	14.30	19.05	154.94	49.23
146.05	145.95	146.15	<b>99575</b>	20.65	25.40	156.97	44.45
149.23	149.12	149.33	<b>99862 *</b>	25.40	31.75	157.18	33.35
149.23	149.13	149.33	<b>99587</b>	25.40	31.75	157.18	33.35
150.00	149.75	150.00	<b>99595</b>	26.01	30.00	159.00	32.51
150.83	150.73	150.93	<b>99596</b>	25.40	28.58	161.93	47.63
152.37	152.27	152.47	<b>99599</b>	25.40	31.75	161.93	44.45
152.37	152.27	152.47	<b>99601</b>	12.70	19.05	161.54	44.45
154.00	153.87	154.13	<b>99605</b>	26.01	30.00	161.93	32.99
155.00	154.75	155.00	<b>99606</b>	26.01	30.00	167.01	32.99
157.56	157.43	157.69	<b>99620</b>	20.65	27.00	168.28	44.45
158.75	158.62	158.88	<b>99625</b>	26.19	31.75	168.28	44.45
160.00	159.74	160.00	<b>99630</b>	25.40	31.75	171.45	34.93
165.10	164.97	165.23	<b>99650</b>	25.40	31.75	177.80	34.93
170.00	169.75	170.01	<b>99640</b>	31.75	38.00	182.57	44.45
171.45	171.32	171.58	<b>99675</b>	20.65	27.00	180.98	44.45
175.00	174.75	175.01	<b>99687</b>	27.99	32.00	187.00	35.00
177.80	177.67	177.93	<b>99864 *</b>	25.40	31.75	189.87	42.88
177.80	177.67	177.93	<b>99700</b>	25.40	31.75	189.87	42.88
180.00	179.75	180.01	<b>99721</b>	32.99	38.00	190.50	44.50
184.00	183.99	184.25	<b>99725</b>	31.75	38.10	197.10	55.25
185.00	184.75	185.00	<b>99726</b>	32.00	38.00	197.10	54.99
189.20	189.07	189.33	<b>99745</b>	20.65	25.40	199.64	31.75
190.50	190.37	190.63	<b>99750</b>	20.65	25.40	200.03	31.75
196.85	196.72	196.98	<b>99775</b>	25.40	33.35	210.06	47.63
200.00	199.87	200.13	<b>99787</b>	34.52	38.10	212.73	44.45
201.63	201.50	201.76	<b>99799</b>	25.40	31.75	212.73	44.45
203.20	203.07	203.33	<b>99800</b>	25.40	31.75	212.73	44.45

Hydraulic/Pneumatic size listing

Rod	Bore	Width	Block	Block	Block	Back-up- Washers Vellumoid	Double lip rod		Wiper- Scrapers R	Type HM shaft seals R	
			Veas R	Veas D	Veas V		R	V			
.125	.313	.063 .094	711800	721578	721523	451486					
.188	.375	.063 .094	711801		721519						
		.438	.063 .125	711802							
	.500	.125								1850	
.196	.354	.109	700005*								
.250	.500	.063 .125	711803	721579*	721526						
		.188								2450	
.258	.449	.109	700036								
.278	.437	.125	700042*								
.313	.500	.094	700054								
		.563	.063 .125	711804		721512					
		.626	.156								3060
		.749	.250								3140
.375	.625	.063 .125	711805	721521	721502	451056					
		.438	.688	.063 .125	700101	721510	721527				
.500	.750	.063 .125	711806	721518	721513	451225					
		.781	.125	710932*							
		.802	.203					709001			
.563	.813	.063 .125	710696	721557	721569						
		.836	.188								4231
		.999	.250								4340
.625	.875	.063 .125	710212	721520	721503 712130	451081					
		.802	.203					709002	712120		
		.933	.188								6125
		.937	.188								6130
		1.000	.125								6152
		1.124	.250 .281								6225
		1.250	.250							504261	6323
1.375	.250								6370		
.650	.925	.115	710889*								

\* Made-to-order. Contact SKF for availability.  
See pages 51A- 56A for additional information.



## Hydraulic/Pneumatic size listing - (cont.)

Rod	Bore	Width	Block	Block	Block	Back-up- Washers Vellumoid	Double lip rod wipers		Wiper- Scrapers R	Type HM shaft seals R								
			Veas R	Veas D	Veas V		R	V										
.688	.938	.063	711807		721570	451284												
		.125																
	.990	.203												709003				
	.999	.188															6720	
	1.124	.250															6759	
1.375	.250								6920									
.750	1.000	.063	711825	721516		451245				7410								
		.125																
	1.052	.203												709004				
	1.124	.156															7415	
	1.250	.250 .281														504262	7464	
1.375	.250								7536									
.813	1.063	.063	711809	721506	721507	451246												
		.125																
		1.250	.375							8019								
.875	1.125	.063	711810	721524	721514	451242				8620								
		.125																
	1.240	.219												709005				
	1.251	.188															8627	
	1.255	.188															8632	
	1.308	.250															8637	
	1.312	.250															8645	
1.375	.188 .281							504263	8677									
.938	1.188	.063	711811			451032												
		.125																
	1.250	.063 .156									711812*		721528	451285*				
	1.375	.250															9243	
		1.499	.250							9298								
1.000	1.250	.125	711080		721558					9815								
		.063																
	1.313	.125 .156												451047				9818
											701084	721529						
	1.365	.219													709006	712121		
	1.375	.188																9820
	1.500	.188 .250 .281									712589						504264	9859
	1.516	.250																9900
	1.625	.250																9932
1.781	.469								10034									
1.938	.250								10112									
2.000	.250								10153									
1.063	1.375	.063	711814															
		.156																

Hydraulic/Pneumatic size listing - (cont.)

Rod	Bore	Width	Block	Block	Block	Back-up- Washers Vellumoid	Double lip rod wipers		Wiper- Scrapers R	Type HM shaft seals R
			Veas R	Veas D	Veas V		R	V		
1.125	1.375	.125								11050
	1.438	.063 .156 .203	711816	721508	721530	451286				11055
	1.490	.219					709007			
	1.499	.188								11060
	1.624	.250 .281							504265	11130
	1.781	.250								11161
1.188	1.500	.063 .156		711817	721531	451063				
	2.000	.250								11836
1.250	1.500	.125								12330
	1.563	.063 .156	710989		721532	451080				
	1.615	.219					709008			
	1.686	.188								12334
	1.752	.250 .281							504266	12369
	1.979	.250								12407
	1.938	.250								12437
	2.000	.250								12481
	2.125	.250								12565
1.313	1.625	.063								
		.156	711818		721559*					
	2.281	.350								13165
1.375	1.688	.063 .156		711826	721533	451094				
	1.740	.219					709009	712122		
	1.750	.197								13529
	1.874	.250 .281							504267	13548
	2.000	.250								13573
	2.437	.250								13796
1.438	1.750	.063 .156	711820		721571	451079				
	2.437	.250								14359
1.500	1.813	.156	711878							
	1.865	.219					709010			
	1.875	.063 .188 .250	711822		721556	451487				14810
	1.983	.188								14840
	2.000	.250 .281							504268	14857
	2.062	.210								14863
	2.250	.250								14960
	2.623	.250								15190

\* Made-to-order. Contact SKF for availability.  
See pages 51A- 56A for additional information.

## Hydraulic/Pneumatic size listing - (cont.)

Rod	Bore	Width	Block	Block	Block	Back-up- Washers Vellumoid	Double lip rod wipers		Wiper- Scrapers R	Type HM shaft seals R
			Veas R	Veas D	Veas V		R	V		
1.625	1.990	.219					709011			
	2.000	.063 .188		711823	721515	451046				
	2.125	.281							504269	
	2.375	.250								16092
	2.502	.250								16270
	2.562	.250								16284
	2.623	.250								16322
	2.750	.250								16362
1.688	2.183	.313							509543	
1.750	2.115	.219					709012	712123		
	2.125	.063 .188		702011	721552	451264				
	2.250	.188 .281							504270	17240
	2.375	.250								17277
	2.437	.250								17310
	2.502	.250								17392
	2.561	.250								17415
	2.623	.250								17461
	3.000	.250								17702
1.875	2.250	.063				451249				
		.188	711824	721509	721560					
	2.375	.281							504271	
	2.502	.250								18558
	2.750	.250								18659
	2.965	.234								18772
	2.997	.250								18808
	3.000	.250								18823
2.000	2.365	.219					709014	712124		
	2.375	.063 .188		702028	721534	451037				
	2.502	.250 .281							504272	19754
	2.562	.227								19753
	2.623	.250 .281							504273	19763
	2.875	.250								19880
	2.997	.250								19965
	3.061	.250								20044
	3.623	.250								20148
	2.125	2.490	.219					709015		
2.500		.063 .188		710087	721535	451069				
2.750		.250								21059
2.875		.250								21101
3.000		.250								21159
3.189		.250								21265

Hydraulic/Pneumatic size listing - (cont.)

Rod	Bore	Width	Block	Block	Block	Back-up- Washers Vellumoid	Double lip rod wipers		Wiper- Scrapers R	Type HM shaft seals R
			Veas R	Veas D	Veas V		R	V		
2.250	2.625	.063	711856		721536	451078				22306
		.188								
	2.745	.281					709016			
	2.750	.281							504275	
	2.875	.250								22325
	2.997	.250								
2.375	2.750	.063	711828		721572					
		.188								
	2.875	.281								
	2.997	.250								23630
	3.000	.250								23640
2.500	2.875	.063	711829	750551	721566	451253				
		.188								
	2.938	.063				451248				
		.219								
	2.995	.281					709018	712125		
	3.000	.250							504277	24863
		.281								
	3.125	.250							505774	24875
		.281								
3.250	.250								24904	
3.500	.250								25007	
3.505	.250								25028	
2.563	3.000	.063		711831	721517	451268				
		.219								
2.688	3.125	.063	711833		721573	451488				
		.219								
2.750	3.188	.063	711832		721537	451290				
		.219								
	3.245	.281					709019			
	3.250	.281							504279	
		.313								27225
3.500	.250								27271	
3.750	.250								27394	
2.813	3.250	.063		711834	721538	451100				
		.219								
2.938	3.375	.063	711835			451489				
		.219								
3.000	3.438	.063		703023	721539	451265				
		.219								
	3.495	.281					709020	712126		
	3.500	.281							504281	
		.313								29840
	3.623	.250								29850
3.750	.250								29863	
4.003	.250								29968	
3.063	3.500	.063	711836			451291				
		.219								

\* Made-to-order. Contact SKF for availability.  
See pages 51A- 56A for additional information.

## Hydraulic/Pneumatic size listing - (cont.)

Rod	Bore	Width	Block	Block	Block	Back-up- Washers Vellumoid	Double lip rod wipers		Wiper- Scrapers R	Type HM shaft seals R
			Veas R	Veas D	Veas V		R	V		
3.250	3.625	.063 .188	711838		721540	451275				
	3.745	.281					709021			
	3.875	.328							504283	
	4.249	.250								32412
	4.501	.250								32510
3.313	3.750	.063 .219	711840			451490				
3.375	3.875	.063 .250	711839		721575	451273				
3.500	3.995	.281					709022	712542		
	4.000	.063 .250 .300		711841	721541	451065				34835
	4.125	.250 .328							504285	34848
	4.500	.250								34967
	4.750	.250								35042
3.750	4.245	.281					709023			
	4.250	.063 .250	711844*		721563*	451068				
	4.375	.250 .328							504287	37320
4.000	4.495	.281					709024	714884		
	4.500	.063 .250	704009		721542	451266				
	4.625	.328							504289	
	4.876	.250								39860
	4.999	.250								39961
4.250	4.745	.281					709025			
	4.750	.063 .250	711845		721564	451276				
	4.875	.328							504291	
	5.250	.250								42470
4.438	5.000	.281			712548					
4.500	4.995	.281					709026	712127		
	5.000	.063 .250		711857	721543	451352				
	5.125	.328							504293	
4.688	5.250	.063 .281	711846			451491				
4.938	5.500	.063 .281	711848							
5.000	5.495	.281					709029	712128		
	5.563	.063 .281								
	6.250	.250							50070	
5.125	5.750	.063 .313				451293				
5.250	5.745	.281					709030			
	6.250	.250							52475	

*Hydraulic/Pneumatic size listing - (cont.)*

Rod	Bore	Width	Block	Block	Block	Back-up- Washers Vellumoid	Double lip rod wipers		Wiper- Scrapers R	Type HM shaft seals R
			Veas R	Veas D	Veas V		R	V		
5.375	6.000	.063 .313		711850	721545					
5.500	5.995	.281					709031	712129		
	6.125	.063 .313		711851*		451495				
	6.127	.359							504297	
6.000	6.495	.281					709034			
	7.000	.359								
	7.500	.250								60075
6.375	7.000	.063 .313		711852	721547	451066				
7.375	8.000	.063 .313		711853	721548	451096				
9.313	1.000	.063 .344			712552	451033				
11.000	12.000	.500			721547*					
11.250	12.000	.063 .375	711566*							
13.000	14.000	.063 .500		711854		451300				
19.062	2.000	.469	714222*							

*Metric wiper scrapers*

Rod	Bore	Width	Wiper- Scrapers
17	27	7.14	527345
30	42	7.14	525327
40	52	7.14	523171
50	65	7.14	522374
56	69	7.14	527664
60	75	7.14	522281
90	110	8.33	522353

\* Made-to-order. Contact SKF for availability.  
See pages 51A- 56A for additional information.



## Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
101	2.900		.450	KIT	P	654	2.563	3.625	.313	FELT	F
		HALF SEAL				662	2.688	3.500	.219	FELT	F
103	3.060		.213	KIT	R	663	2.906	3.813	.313	FELT	F
		HALF SEAL, CCW HELIX				★668	2.188	3.500	.250	FELT	F
★140	2.875		.205	KIT	R	671	.938	1.500	.375	FELT	F
		HALF SEAL, CCW HELIX				682	3.000		.500	SPLIT	F
144	1.937	2.650	.360	KIT	#	★692	2.625		.185	SPLIT	F
		HALF SEAL				900	3.750	4.500	.688	†KIT	P
162	3.625	4.876	.438	KIT	#		SPEEDI-SLEEVE & SEAL KIT				
						901	.859	1.438	.250	KIT	R
187	2.450		.375	KIT	S		SPEEDI-SLEEVE & SEAL KIT				
		HALF SEAL				1200	4.688	5.751	.625	KIT	S
★192	2.645		.386	KIT	V		SEE KIT SECTION				
		HALF SEAL, CCW HELIX				1201	4.688	5.755	.750	KIT	PP
194	2.470		.217	KIT	P		SEE KIT SECTION				
		HALF SEAL				★1202	1.175	1.828	.375	†KIT	P
198	3.500		.206	KIT	R		SEE KIT SECTION				
		HALF SEAL				★1206	3.868	5.376	.844	KIT	R
199	2.430		.375	KIT	S		SEE KIT SECTION				
		W/CCW HELIX FROM AIR SIDE				1211	4.766	6.310	1.188	KIT	R
★200	2.450		.223	KIT	R		SEE KIT SECTION				
		HALF SEAL				1212	4.766	6.500	1.063	KIT	R
201	3.175		.215	KIT	R		SEE KIT SECTION				
		HALF SEAL				1213	4.766	6.998	1.188	KIT	R
204	3.375		.213	KIT	R		SEE KIT SECTION				
205	3.675		.216	KIT	R	1214	3.875	5.501	.550	KIT	R
		SEE KIT SECTION					SEE KIT SECTION				
★206	2.650		.213	KIT	R	1215	4.766	6.310	1.359	KIT	R
		HALF SEAL					SEE KIT SECTION				
★207	2.900		.216	KIT	R	★1219	3.938	5.501	.550	KIT	R
		SEE KIT SECTION					SEE KIT SECTION				
208	2.630		.215	KIT	R	1240	3.010		.953	J1-KIT	R
		HALF SEAL					SEE TYPE J SECTION (CRW LIP)				
★209	2.875		.218	KIT	R	1243	2.875	3.751	.625	KIT	P
		HALF SEAL					SEE KIT SECTION				
210	6.000	6.750	.500	KIT	V	1244	2.375	3.428	1.000	KIT	P
		SEE KIT SECTION					SEE KIT SECTION				
211	3.785		.217	KIT	R	1245	2.375	4.938	1.000	KIT	P
		HALF SEAL					SEE KIT SECTION				
212	2.700		.313	KIT	R	★1303	2.343	3.350	.625	KIT	V
		HALF SEAL, HELIX-CCW					SEE KIT SECTION				
★213	2.900		.315	KIT	R	1306	3.125	4.626	.750	KIT	R
		SEE KIT SECTION HELIX-CCW					SEE KIT SECTION				
214	2.975		.314	KIT	R	1307	3.438	4.758	.750	KIT	R
		HALF SEAL					SEE KIT SECTION				
216	2.690		.380	KIT	S	1308	3.875	5.693	.968	KIT	R
		HALF SEAL					SEE KIT SECTION				
218	5.000	6.126	.813	†KIT	V	1321	3.938	5.373	.500	†KIT	R
		SEE KIT SECTION					SEE KIT SECTION				
★229	2.750		.310	KIT	R	1322	4.000	5.505	.750	†KIT	R
		HALF SEAL					SEE KIT SECTION				
285	3.000	3.600	.322	KIT	V	1330	9.875	12.000	.750	KIT	R
		HALF SEAL					SEE KIT SECTION				
287	2.761		.227	KIT	V	□1574	4.00	12.00	6.00	HMS46	R
		HALF SEAL				1725	3.250	4.364		KIT	P
295	2.625			KIT	V		SEE KIT SECTION				
		W/CCW HELIX FROM AIR SIDE				▲1850	.188	.500	.125	HM1	R
515	2.188	3.063	.250	FELT	F	▲□1960	5.00	16.00	6.00	HMS4	R
528	2.563	3.531	.344	FELT	F	□1972	5.00	15.00	6.00	HMS47	R
573	1.938	3.000	.375	FELT	F	□1975	5.00	19.00	5.00	HMS46	R
★584	2.000	3.125	.375	FELT	F	□1976	5.00	22.00	8.00	HMS46	R
596	2.000	3.125	.500	FELT	F	□2340	6.00	12.00	2.00	HM3	R
633	4.125	5.750	.438	FELT	F	▲□2355	6.00	16.00	5.00	HMS4	R
★645	2.281	3.500	.313	FELT	F	□2357	6.00	16.00	7.00	HMS4	V
653	4.688	6.000	.375	FELT	F						

Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
□2359	6.00	16.00	7.00	HMSA7	V	▲3687	.375	.749	.250	CRW1	R
	W/STAINLESS STEEL SPRING					3688	.375	.749	.250	†CRW1	V
□2360	6.00	16.00	7.00	HMS4	R	3689	.375	.749	.250	CRW5	R
□2362	6.00	16.00	6.00	HMS43	V		W/SS CASE & SPRING				
□2365	6.00	19.00	6.00	HMS47	R	▲3719	.375	.836	.188	†CRW1	P
□2380	6.00	22.00	7.00	HMS4	R	▲3725	.375	.875	.250	†CRW1	R
▲2450	.250	.499	.188	HM14	R	▲3727	.375	.875	.250	HM14	R
2452	.250	.499	.188	HMA14	V	▲3751	.375	.999	.250	CRW1	R
▲2470	.250	.562	.188	†HM14	R	3752	.375	.999	.250	†CRW1	V
▲2490	.250	.626	.250	HM14	R	▲3806	.375	1.124	.250	CRW1	R
2513	.250	.749	.250	CRW1	V	3807	.375	1.124	.375	†CRW5	V
	W/SS CASE & SPRING					□3930	10.00	14.00	3.00	HM4	R
2514	.250	.749	.250	†CRW1	R	□3936	10.00	20.00	6.00	HMSA7	R
	W/SS CASE & SPRING					□3937	10.00	20.00	6.00	HMS4	R
▲2560	.250	.749	.188	HM14	R	□3938	10.00	19.00	7.00	HMSA7	R
□2759	7.00	16.00	7.00	HMSA7	R	□3939	10.00	20.00	7.00	HMSA7	R
▲□2760	7.00	16.00	7.00	HMS4	R	▲□3940	10.00	19.00	7.00	HMS4	R
□2765	7.00	16.00	7.00	HMSA7	V	□3941	10.00	16.00	4.00	HM102	R
	W/STAINLESS STEEL SPRING					□3942	10.00	22.00	7.00	HMS4	V
▲□2770	7.00	20.00	7.00	HMS4	R	▲□3945	10.00	22.00	7.00	HMS4	R
□2772	7.00	20.00	7.00	HMSA7	R	□3947	10.00	22.00	7.00	HMSA7	V
□2780	7.00	22.00	7.00	HMS4	R	▲□3950	10.00	24.00	7.00	HMS4	R
□3030	8.00	12.00	3.00	HM4	R	□3952	10.00	25.00	7.00	HMSA7	R
□3036	8.00	14.00	4.00	HMS1	R	□3953	10.00	22.00	7.00	HMSA7	R
3044	.313	.500	.125	HM4	R	▲□3960	10.00	26.00	7.00	HMS4	R
3050	.313	.626	.203	†HM1	R	□3967	10.00	28.00	7.00	HMS47	R
▲3060	.313	.626	.156	†HM14	R	□3970	10.00	18.00	6.00	HMS4	R
3061	.313	.626	.156	HM14	V	□3972	10.00	30.00	10.00	HMS4	R
▲□3077	8.00	18.00	5.00	HMSA7	R	□3973	10.00	28.00	8.00	HMS4	R
□3078	8.00	18.00	5.00	HMS4	R	□3975	10.00	30.00	7.00	HMS4	R
3080	.313	.633	.141	HM14	R	□3976	10.00	26.00	7.00	HMSA7	R
3086	.313	.862	.250	HM14	R	□3983	10.00	20.00	7.00	HMS4	R
□3088	8.00	22.00	7.00	HMS4	V	□3986	10.00	40.00	7.00	HMS4	R
□3092	8.00	22.00	7.00	HMSA7	V	□3992	10.00	40.00	7.00	HMSA7	R
	W/STAINLESS STEEL SPRING					▲4010	.404	.620	.188	HM14	R
▲3094	.313	.686	.313	CRWA5	R	4012	.404	.862	.250	HM14	R
▲3101	.313	.749	.250	CRWA5	R	4100	.425	.875	.313	CRWH3	R
3103	.313	.749	.250	CRWA5	V	▲4231	.438	.836	.188	HM14	R
▲3140	.313	.749	.250	HM14	R	4247	.438	.875	.313	†HMS1	D
3141	.313	.750	.250	HM3	R		W/SS CASE & SPRING				
▲□3145	8.00	16.00	7.00	HMS4	R	4249	.438	.875	.250	†CRW1	P
□3149	8.00	22.00	7.00	HMSA7	R	▲4251	.438	.875	.250	CRW1	R
▲□3150	8.00	22.00	7.00	HMS4	R	4256	.438	.879	.180	HM8	R
□3155	8.00	24.00	7.00	HMS4	R	4260	.438	.875	.250	CRWA6	R
□3158	8.00	20.00	8.00	HMS46	R	4261	.438	.875	.375	CRWA1	R
□3161	8.00	22.00	8.00	HMS45	R	4262	.438	.875	.375	†CRWA1	V
▲3171	.313	.999	.313	CRWA5	R	□4327	11.00	17.00	4.00	HMS4	R
□3177	8.00	18.00	7.00	HMSA7	R	□4335	11.00	22.00	7.00	HMS4	R
3230	.313	1.250	.375	P1	L	□4338	11.00	22.00	6.00	HMSA7	V
□3526	9.00	13.00	3.00	HM4	R	▲4340	.438	.999	.250	HM14	R
▲□3540	9.00	22.00	7.00	HMS4	R	□4345	11.00	26.00	7.00	HMS4	R
□3541	9.00	17.00	4.50	CRS11	R	▲□4348	11.00	30.00	7.00	HMS4	R
□3542	9.00	22.00	7.00	HMS4	V	▲4355	.438	.999	.375	†CRW1	R
□3543	9.00	18.00	7.00	HMSA7	R	4356	.438	.999	.250	†CRW1	V
□3544	9.00	19.00	5.00	CRS13	R	▲4390	.438	1.124	.250	†CRW1	R
□3545	9.00	22.00	7.00	HMSA7	V	4623	.469	.836	.188	HM14	P
	W/STAINLESS STEEL SPRING					▲4628	.469	.875	.219	HM14	R
□3550	9.00	24.00	7.00	HMS4	R	▲4641	.469	.999	.313	†P2	R
□3560	9.00	26.00	7.00	HMS4	R	□4688	12.00	18.00	3.00	HM4	R
▲3621	.375	.563	.094	HM3	R	□4690	12.00	19.00	3.00	HM4	R
3626	.370	.606	.310	HMSA76	R	□4692	12.00	18.00	3.00	HMS4	R
3632	.375	.628	.197	HMA10	P	□4694	12.00	18.00	3.00	HMSA7	R
▲3645	.375	.687	.156	†HM14	R	□4695	12.00	16.00	3.00	HM4	R
3680	.375	.750	.250	†CRWA1	R	▲□4701	12.00	20.00	5.00	HMS4	R
▲3683	.375	.749	.250	HM14	R	▲□4702	12.00	19.00	5.00	HMS4	R

★Contact manufacturer for availability  
**Bold numbers** are preferred designs

□ Metric numbers

† Includes Bore-Tite on O.D.  
 ▲ WasteWatcher numbers

## Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
□4707	12.00	22.00	7.00	HMSA7	R	4980	.500	.999	.250	†CRW1	V
□4709	12.00	22.00	7.00	†CRW1	V	W/STAINLESS STEEL SPRING					
□4710	12.00	22.00	7.00	†CRW1	R	4982	.500	.999	.250	†CRWA1	P
▲□4711	12.00	22.00	7.00	HMS4	R	▲4984	.500	.999	.250	†CRW1	R
▲□4715	12.00	24.00	7.00	HMS4	R	4985	.500	.999	.250	†CRWA1	R
□4717	12.00	22.00	7.00	HMSA7	V	4990	.500	.999	.250	†HM14	R
▲□4718	12.00	25.00	4.50	HMS4	R	4991	.500	.999	.250	†CRWA5	V
□4719	12.00	22.00	4.00	HM4	R	W/STAINLESS STEEL SPRING					
□4720	12.00	25.00	7.00	†CRW1	R	4996	.500	.999	.313	†CRWA5	R
□4721	12.00	25.00	7.00	HMS4	R	5008	.500	1.010	.204	HMSA7	V
□4723	12.00	18.00	4.50	CRSA11	R	5045	.500	1.124	.250	†CRW1	P
□4725	12.00	20.00	5.00	CRSA1	R	5046	.500	1.124	.313	†CRW1	P
□4729	12.00	22.00	6.00	HMSA7P2	R	5062	.500	1.124	.250	†CRWA1	R
▲□4730	12.00	26.00	7.00	†CRW1	R	5066	.500	1.124	.250	†CRW1	V
□4731	12.00	22.00	8.00	CRSH11	R	5067	.500	1.124	.250	†CRWA1	V
□4738	12.00	24.00	6.00	HMSA7P2	R	▲5068	.500	1.124	.250	†CRW1	R
□4741	12.00	25.00	8.00	HMS45	R	5069	.500	1.124	.250	†CRWA5	R
□4743	12.00	26.00	8.00	HMS4	R	5072	.500	1.124	.250	†CRWA5	V
□4750	12.00	28.00	7.00	†CRW1	R	▲5085	.500	1.124	.250	†HM14	R
□4751	12.00	28.00	7.00	†CRW1	P	□5119	13.00	22.00	5.00	CRS11	R
▲□4752	12.00	28.00	7.00	HMS4	R	□5120	13.00	20.00	4.00	CRS11	R
□4753	12.00	32.00	5.00	CRS11	R	□5123	13.00	25.00	5.00	HMS46	R
□4754	12.00	32.00	7.00	HMSA7	R	5131	.500	1.249	.188	CRWH3	R
□4755	12.00	28.00	7.00	HMS4	V	W/SS CASE & SPRING					
□4756	12.00	32.00	10.00	HMS46	R	▲5133	.500	1.250	.250	†CRW1	R
□4757	12.00	28.00	7.00	HMSA7	V	□5142	13.00	30.00	8.00	HMS4	R
W/STAINLESS STEEL SPRING						▲5150	.500	1.375	.250	†CRW1	R
□4759	12.00	30.00	10.00	HMS46	R	5151	.500	1.375	.250	†CRW1	V
□4761	12.00	35.00	10.00	HMS47	R	▲□5221	13.00	26.00	7.00	HMS4	R
□4763	12.00	30.00	7.00	HMS4	R	□5250	13.00	28.00	7.00	CRS1	R
□4765	12.00	30.00	7.00	HMS4	V	▲□5254	13.00	28.00	7.00	HMS4	R
□4767	12.00	30.00	7.00	HMSA7	V	□5285	13.00	30.00	7.00	HMSA7	R
W/STAINLESS STEEL SPRING						5321	.531	.999	.250	†CRWA1	S
□4768	12.00	30.00	7.00	HMSA7	R	5334	.531	1.124	.313	CRSA1	R
□4770	12.00	32.00	7.00	†CRW1	R	5385	.546	.875	.250	CRW1	P
□4771	12.00	32.00	7.00	†CRW1	V	□5398	14.00	26.00	7.00	†CRW1	V
▲□4772	12.00	32.00	7.00	HMS4	R	▲5399	.551	1.124	.203	†HM21	R
□4773	12.00	24.00	7.00	HMSA7	R	□5402	14.00	20.00	3.00	HM4	R
□4776	12.00	28.00	7.00	HMSA7	R	□5405	14.00	22.00	3.00	HM4	R
□4777	12.00	25.00	5.00	HMSA7	R	□5410	14.00	24.00	6.00	HMSA7	R
□4790	12.00	35.00	7.00	†CRW1	R	▲□5412	14.00	24.00	7.00	HMS4	R
4909	.500	.688	.170	HMS1	R	□5413	14.00	25.00	7.00	HMSA7	P
P.F. WIDTH .100						▲□5414	14.00	25.00	5.00	HMS4	R
▲4911	.500	.688	.094	HM3	R	□5421	14.00	24.00	7.00	HMSA7	R
▲4912	.500	.750	.125	†HM14	R	5425	.561	1.000	.254	HMSA7	P
▲4913	.500	.749	.125	HMS1	R	□5439	14.00	28.00	6.00	HMS4	R
O.A. WIDTH .156						□*5440	14.00	28.00	7.00	†CRW1	R
▲4914	.500	.820	.156	†HM14	R	▲□5441	14.00	28.00	7.00	HMS4	R
▲4923	.500	.843	.250	†HM14	R	□5449	14.00	30.00	7.00	HMSA7	R
4925	.500	.875	.125	HM14	R	▲□5452	14.00	30.00	7.00	HMS4	R
▲4931	.500	.875	.250	†CRW1	R	□5454	14.00	30.00	7.00	HMS4	V
4932	.500	.875	.250	†CRW1	V	□5456	14.00	30.00	7.00	HMSA7	V
4933	.500	.875	.250	†CRWA1	V	W/STAINLESS STEEL SPRING					
4935	.500	.875	.250	†CRWA1	V	□5480	14.00	35.00	7.00	†CRW1	R
W/SS CASE & SPRING						▲□5481	14.00	35.00	7.00	HMS4	R
4936	.500	.875	.250	†CRW1	D	5500	.563	.750	.094	HM3	R
▲4938	.500	.875	.250	HM14	R	5507	.551	1.024	.787	HMSASPL	P
4939	.500	.875	.313	†CRWA1	R	▲5510	.563	.813	.126	HMS1	R
4940	.500	.875	.313	†CRWA5	R	□5521	14.00	26.00	7.00	HMS46	R
4941	.500	.875	.313	†CRWA5	V	▲5522	.563	.875	.188	†HM14	R
▲4943	.500	.987	.250	†CRW1	R	5523	.563	.875	.188	†CRW1	D
4944	.500	.987	.250	HMS1	R	□5528	14.00	30.00	10.00	HMS45	R
W/STAINLESS STEEL SPRING						□5529	14.00	30.00	10.00	CRSH13	R
▲4950	.500	.999	.188	†HM14	R	□5532	14.00	32.00	10.00	HMS46	R
						□5533	14.00	35.00	10.00	HMS46	R

Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
□ 5535	14.00	22.00	4.00	HMS4	R	□ 5969	15.00	32.00	9.00	HMS4	R
□ 5538	14.00	22.00	4.00	HMSA7	R	6103	.591	1.102	.591	HMS15	V
▲ 5541	.563	.999	.256	†CRW1	R	P.F. WIDTH .236 (6MM)					
5542	.563	.999	.250	†CRW1	V	▲ 6105	.625	.812	.094	HM3	R
5543	.563	.999	.250	†CRW1	R	6106	.625	.813	.094	HM3	V
W/SS CASE & SPRING						6113	.630	.827	.157	HMA1	R
5553	.551	.945	.394	D8-SPL	P	6119	.625	.875	.188	HMSA1	R
▲ 5569	.563	.999	.219	†HM14	R	P.F. WIDTH .125					
5605	.554	.999	.250	†CRW1	R	▲ 6120	.625	.875	.188	HMS1	R
W/SS CASE & SPRING						P.F. WIDTH .125					
5606	.563	.999	.250	†CRWA1	R	▲ 6125	.625	.933	.188	†HM14	R
5650	.563	1.124	.250	†CRW1	V	6126	.625	.933	.188	†HM14	V
▲ 5652	.563	1.124	.250	†CRW1	R	▲ 6130	.625	.937	.188	†HM14	R
5662	.563	1.124	.250	†CRWA1	R	6134	.625	.987	.250	†CRW1	R
▲ 5685	.563	1.124	.250	HM14	R	W/STAINLESS STEEL SPRING					
▲ 5707	.563	1.250	.250	†CRW1	R	6139	.625	.999	.250	†CRWA1	V
▲ 5756	.563	1.375	.250	†CRW1	R	W/STAINLESS STEEL SPRING					
□ 5782	15.00	21.00	3.00	HM4	R	6141	.625	.999	.250	†CRWA1	R
□ 5786	15.00	23.00	3.00	HM4	R	▲ 6143	.625	.999	.250	†CRW1	R
▲ □ 5790	15.00	24.00	5.00	HMS4	R	▲ 6147	.625	.999	.250	HMSA11	R
□ 5791	15.00	24.00	5.00	HMSA7	R	W/SS CASE & SPRING					
□ 5801	15.00	25.00	5.00	HMS4	V	6151	.625	.999	.250	†CRWA5	R
□ 5802	15.00	24.00	7.00	HMSA7	R	▲ 6152	.625	1.000	.125	†HM14	P
□ 5803	15.00	25.00	7.00	†CRW1	P	6157	.625	1.063	.250	†CRW1	R
□ 5804	15.00	25.00	5.00	HMA10	R	▲ 6158	.625	1.063	.250	†HM14	R
▲ □ 5806	15.00	26.00	7.00	HMS4	R	6184	.625	1.124	.375	†CRWHA5	R
□ 5807	15.00	26.00	7.00	HMSA7	R	W/SS CASE & SPRING					
▲ □ 5808	15.00	25.00	5.00	HMS4	R	6191	.625	1.124	.250	†CRW5	R
□ 5809	15.00	25.00	5.00	HMSA7	R	▲ 6203	.625	1.124	.250	†CRW1	R
▲ □ 5810	15.00	28.00	7.00	†CRW1	R	6204	.625	1.124	.250	†CRWA1	R
□ 5816	15.00	26.00	6.00	HMS4	R	6213	.625	1.124	.250	†CRW1	V
□ 5817	15.00	26.00	6.00	HMSA7	R	6215	.625	1.124	.250	†CRWA1	V
▲ □ 5821	15.00	30.00	7.00	HMS4	R	▲ 6225	.625	1.124	.250	†HM14	R
□ 5830	15.00	32.00	7.00	†CRW1	R	▲ 6229	.625	1.124	.375	†CRWA5	R
▲ □ 5831	15.00	32.00	7.00	HMS4	R	6231	.625	1.124	.374	†CRWA5	V
□ 5832	15.00	32.00	7.00	†CRW1	V	▲ 6232	.625	1.126	.250	†CRW5	R
□ 5835	15.00	32.00	7.00	HMS4	V	W/SS CASE & SPRING					
□ 5836	15.00	32.00	8.00	HMSA7	R	6243	.624	1.131	.188	†HM14	R
□ 5837	15.00	32.00	7.00	HMSA7	R	▲ 6247	.625	1.181	.250	†CRWA1	R
□ 5839	15.00	32.00	7.00	HMSA7	V	6248	.625	1.181	.256	†CRWA1	V
W/STAINLESS STEEL SPRING						▲ 6280	.625	1.250	.313	CRWA5	R
□ 5840	15.00	35.00	7.00	†CRW1	R	W/SS CASE & SPRING					
□ 5841	15.00	35.00	7.00	†CRW1	P	6285	.625	1.250	.313	CRWA5	V
▲ □ 5842	15.00	35.00	7.00	HMS4	R	W/SS CASE & SPRING					
□ 5845	15.00	35.00	7.00	HMSA7	R	□ 6287	16.00	24.00	5.00	HMSA7	R
□ 5847	15.00	35.00	7.00	HMSA7	V	6293	.630	1.024	.250	HMSA7	P
□ 5848	15.00	35.00	7.00	HMS4	V	6295	.630	1.757	.554	HM-SPL	R
W/STAINLESS STEEL SPRING						□ 6302	16.00	24.00	4.00	HM102	R
▲ □ 5883	15.00	40.00	10.00	HMS4	R	6309	.625	1.250	.250	†CRW1	V
□ 5890	15.00	28.00	7.00	HMS4	R	▲ 6315	.625	1.250	.250	†CRW1	R
□ 5902	15.00	30.00	10.00	HMSA7	R	6316	.625	1.250	.250	†CRWA1	R
5904	.591	.827	.197	HMSA7	P	▲ 6323	.625	1.250	.250	†HM14	R
□ 5912	15.00	24.00	7.00	HMS4	R	▲ 6330	.625	1.259	.250	†HM14	R
□ 5919	15.00	26.00	4.50	HM102	R	□ 6340	16.00	35.00	10.00	HMS46	R
□ ★ 5922	15.00	28.00	7.00	HMS4	R	□ 6342	16.00	40.00	10.00	HMS47	R
□ 5923	15.00	30.00	10.00	HMS4	R	□ 6345	16.00	30.00	10.00	HMS47	R
□ 5924	15.00	30.00	4.50	HMS47	R	6367	.625	1.375	.250	CRWH3	R
▲ 5926	.594	1.124	.313	†CRW1	R	W/SS CASE & SPRING					
□ 5940	15.00	30.00	7.00	HMSA7	R	▲ 6370	.625	1.375	.250	†HM14	R
□ 5942	15.00	32.00	10.00	HMS47	R	6371	.625	1.375	.250	†CRW5	P
▲ 5946	.594	1.124	.250	†HM14	R	▲ 6372	.625	1.375	.250	†CRW1	R
5950	.594	1.250	.313	CRSA1	R	6373	.625	1.375	.250	†CRWA1	R
□ 5951	15.00	35.00	10.00	HMS4	R	6379	.625	1.375	.250	†CRW1	V
□ 5964	15.00	42.00	10.00	HMS47	R	6383	.625	1.375	.250	†CRWA1	V
▲ 5966	.594	1.375	.313	†CRSA1	R	▲ 6386	.625	1.499	.250	†CRW1	R

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 ▲ WasteWatcher numbers

## Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
6388	.625	1.375	.375	†CRWA5	R	□6640	17.00	35.00	7.00	†CRW1	R
	W/SS CASE & SPRING					6641	.669	1.378	.276	HMSA124	P
▲6391	.625	1.377	.250	†CRWHA1	R		W/1.703 FLANGE				
6393	.625	1.500	.313	†CRW5	V	□6642	17.00	35.00	7.00	†CRW1	V
	W/STAINLESS STEEL SPRING					□6643	17.00	35.00	8.00	HMS4	R
□6398	16.00	22.00	3.00	HM4	R	▲□6644	17.00	35.00	7.00	HMS4	R
□6400	16.00	22.00	4.00	HM4	R	□6646	17.00	35.00	7.00	HMS4	V
▲□6403	16.00	24.00	5.00	HMS4	R	□6647	17.00	35.00	7.00	HMSA7	R
□6404	16.00	27.00	6.00	HMS4	P	▲□6653	17.00	37.00	7.00	HMSA7	R
□6405	16.00	24.00	7.00	HMS4	R	□6659	17.00	40.00	8.00	HMS4	R
□6406	16.00	28.00	6.00	HMS4	R	□6660	17.00	40.00	7.00	†CRW1	R
□6407	16.00	28.00	7.00	HMSA7	V	▲□6661	17.00	40.00	7.00	HMS4	R
	W/STAINLESS STEEL SPRING					□6662	17.00	40.00	10.00	HMS4	R
▲□6408	16.00	26.00	7.00	HMS1	R	□6663	17.00	40.00	7.00	HMSA7	R
□6409	16.00	28.00	7.00	HMS4	V	▲□6680	17.00	47.00	7.00	†CRW1	R
□6410	16.00	28.00	7.00	†CRW1	R	□6681	17.00	47.00	10.00	HMS4	R
▲□6411	16.00	28.00	7.00	HMS4	R	□6685	17.00	47.00	8.00	HMSA7	R
□6412	16.00	28.00	7.00	HMSA7	R	□6686	17.00	32.00	8.00	HMSA7	R
	.630	1.102	.595	HMS-SPL	P	□6689	17.00	28.00	6.00	HMSA7	R
□6420	16.00	30.00	7.00	†CRW1	R	□6690	17.00	26.00	6.00	HMS46	R
□6425	16.00	30.00	7.00	HMS4	V	□6695	17.00	28.00	7.00	HMSA7	R
▲□6426	16.00	30.00	7.00	HMS4	R	□6699	17.00	32.00	10.00	HMS46	R
□6428	16.00	30.00	7.00	HMSA7	R	□6706	17.00	34.00	4.00	CRS11	R
□6430	16.00	32.00	7.00	†CRW1	R	□6714	17.00	35.00	10.00	HMS46	R
□6435	16.00	32.00	7.00	HMS4	R	6720	.688	.999	.188	†HM14	R
□6437	16.00	32.00	7.00	HMSA7	R	6728	.669	1.064	.250	†CRW1	R
□6440	16.00	35.00	7.00	†CRW1	R		W/SS CASE & SPRING				
▲□6442	16.00	35.00	7.00	HMS4	R	▲6729	.669	1.064	.250	†CRW1	R
□6444	16.00	35.00	7.00	HMSA7	R	6738	.688	1.124	.190	†CRW1	R
	.630	2.205	.256	J-TYPE	V	▲6741	.688	1.124	.250	†CRW1	R
	W/CW HELIX FROM AIR SIDE					6743	.688	1.124	.250	†CRW1	R
□6473	16.00	38.00	7.00	HMSA7	R		W/SS CASE & SPRING				
▲□6480	16.00	40.00	7.00	†CRW1	R	6745	.688	1.124	.250	†CRW1	V
□6481	16.00	40.00	7.00	†CRWA1	R		W/STAINLESS STEEL SPRING				
▲6521	.656	1.124	.313	†CRW1	R	6751	.688	1.250	.256	†CRWHA1	V
6539	.630	1.220	.787	HMSA12	R	6757	.685	1.181	.276	HMSA7	R
▲6541	.656	1.250	.250	†CRW1	R	▲6759	.688	1.124	.250	†HM14	R
▲6556	.656	1.375	.313	†CRW1	R	6762	.688	1.187	.125	†HM14	R
▲6580	.656	1.575	.250	†CRW1	R	▲6763	.688	1.188	.188	†CRW1	R
□6592	17.00	25.00	4.00	HMS4	R	6765	.688	1.250	.256	†CRWA1	R
□6594	17.00	25.00	4.00	HMSA7	R	▲6767	.688	1.250	.313	†CRW1	R
6595	.669	.999	.188	†CRW1	R	6768	.688	1.250	.313	†CRW1	V
▲6597	.669	1.573	.281	CRW1	V	6769	.688	1.252	.220	†CRWH1	V
	W/SS CASE & SPRING					6770	.688	1.187	.188	†CRW1	V
□6603	17.00	23.00	3.00	HM4	R	▲6806	.669	1.250	.250	†HM14	R
□6608	17.00	27.00	7.00	HMSA7	R	6814	.688	1.375	.250	†CRWA1	R
□6609	17.00	27.03	6.35	†CRW1	R	▲6816	.688	1.375	.313	†CRW1	R
□6610	17.00	28.00	7.00	†CRW1	R	6817	.688	1.375	.313	†CRW1	V
	W/STAINLESS STEEL SPRING					6888	.688	1.250	.256	†CRWA1	S
□6611	17.00	28.00	7.00	†CRW1	V	6915	.688	1.375	.125	HM14	R
□6612	17.00	28.00	7.00	HMS4	V	▲6920	.688	1.375	.250	†HM14	R
▲□6614	17.00	28.00	7.00	HMS4	R	▲6935	.688	1.499	.250	†CRW1	R
□6615	17.00	29.00	5.00	HMS4	R	6990	.688	1.624	.250	†CRWA1	R
□6620	17.00	30.00	7.00	†CRW1	R	6992	.669	1.339	.311	CRSA1	P
□6622	17.00	30.00	7.00	HMSA7	R	□6995	18.00	24.00	3.00	HM4	R
▲□6624	17.00	30.00	7.00	HMS4	R	□7000	18.00	30.00	7.00	†CRW1	R
□6625	17.00	30.00	7.00	HMSA7	V	□7001	18.00	30.00	7.00	†CRW1	V
	W/STAINLESS STEEL SPRING					□7002	18.00	28.00	8.00	HMS4	R
□6626	17.00	30.00	7.00	HMS4	V	□7003	18.00	26.00	4.00	HMA1	R
□6627	17.00	30.00	6.00	HMS4	R	▲□7004	18.00	30.00	7.00	HMS4	R
□6629	17.00	30.00	8.00	HMS4	R	□7005	18.00	32.00	7.00	†CRW1	R
□6630	17.00	32.00	7.00	†CRW1	R	□7006	18.00	32.00	7.00	†CRW1	V
▲□6633	17.00	32.00	7.00	HMS4	R	□7007	18.00	32.00	7.00	HMSA7	R
□6634	17.00	32.00	7.00	HMSA7	R	▲□7009	18.00	32.00	7.00	HMS4	R
						7010	.703	1.160	.250	HMS2	R



Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
□7012	18.00	30.00	7.00	HMSA7	R	□7492	19.00	35.00	9.00	HMSA75	R
□7013	18.00	28.00	6.00	HMS4	R	□7495	19.00	40.00	10.00	HMS4	R
□7015	18.00	35.00	7.00	†CRW1	R	□7497	19.00	40.00	10.00	HMS46	R
▲□7016	18.00	35.00	7.00	HMS4	R	7509	.750	1.375	.250	†CRWA5	V
▲□7018	18.00	28.00	7.00	HMS4	R	▲7512	.750	1.375	.250	†CRW1	R
□7019	18.00	28.00	7.00	HMSA7	R	7513	.750	1.375	.250	†CRWA1	R
□7020	18.00	28.00	7.00	HMS4	V	7515	.750	1.375	.250	†CRW1	V
□7023	18.00	32.00	8.00	HMS4	R	7517	.750	1.375	.250	†CRWA1	V
□7024	18.00	35.00	7.00	HMSA7	R	7533	.750	1.375	.250	†CRWA1	P
□7028	18.00	35.00	7.00	HMS4	V	7535	.750	1.012	.226	CRW1	R
□7032	18.00	35.00	8.00	HMSA7	R	▲7536	.750	1.375	.250	HM14	R
□7061	18.00	37.00	8.00	HMSA7	R	7537	.750	1.375	.250	HM14	P
□7071	18.00	38.00	7.00	HMSA7	R	7539	.787	1.375	.250	CRWH3	R
□7080	18.00	40.00	7.00	†CRW1	R	W/SS CASE & SPRING					
□7081	18.00	40.00	7.00	HMS4	V	7541	.750	1.416	.266	HMS2	S
▲□7082	18.00	40.00	7.00	HMS4	R	7550	.750	1.437	.250	†HM14	R
7089	.709	1.339	.315	CRSA1	P	7566	.747	1.500	.375	KIT	R
□7091	18.00	30.00	6.00	HMSA7P2	R	7567	.750	1.499	.250	†CRW1	V
□7100	18.00	35.00	6.00	HMSA7P2	R	▲7571	.750	1.499	.250	†HM14	R
□7109	18.00	35.00	10.00	HMS45	R	▲7572	.750	1.499	.250	CRW1	R
□7114	18.00	40.00	10.00	HMS46	R	7573	.750	1.499	.250	†CRWA1	R
□7200	19.00	27.00	4.00	HM4	R	▲7591	.750	1.575	.250	†CRW1	R
▲□7202	19.00	27.00	6.00	HMS4	R	★7620	.763	1.177	.390	SPLINSL	V
□7205	19.00	30.00	8.00	HMS4	R	7623	.750	1.624	.250	†CRW1	V
□7210	19.00	32.00	6.35	†CRW1	R	W/STAINLESS STEEL SPRING					
□7220	19.00	35.00	7.00	†CRW1	R	7624	.750	1.624	.250	†CRWA1	V
□7222	19.00	35.00	8.00	HMS4	R	W/STAINLESS STEEL SPRING					
▲□7223	19.00	35.00	10.00	HMS4	R	▲7627	.750	1.624	.250	†CRW1	R
□7225	19.00	35.00	10.00	HMSA7	R	7628	.750	1.624	.250	†CRWA1	R
□7239	19.00	30.00	7.00	HMS4	R	▲7636	.750	1.752	.250	†CRW1	R
7251	.748	1.496	.300	HMSA7	R	7638	.750	1.752	.250	†CRWA1	V
P.F. WIDTH .276 SPECIAL CONST						7661	.750	1.828	.250	†CRW1	R
7400	.736	1.378	.276	HMSA7	R	▲7690	.750	1.874	.250	†CRW1	R
7408	.750	1.000	.125	†HM14	D	▲7693	.750	2.047	.313	†CRW1	R
7409	.750	1.004	.156	HM8	R	▲7740	.787	1.124	.188	†CRW1	R
▲7410	.750	.999	.125	HM14	R	□7745	20.00	34.00	7.00	HMSA7	P
▲7411	.750	1.006	.125	†HM14	R	7750	.762	1.160	.250	HMS2	R
7412	.750	1.031	.313	HMA6	R	▲□7800	19.00	32.00	7.00	HMS4	R
▲7413	.750	1.062	.188	HM14	R	□7803	19.00	32.00	8.00	HMSA7	R
▲7414	.750	1.124	.188	†CRW1	R	□7810	20.00	26.00	4.00	HMS4	R
▲7415	.750	1.124	.156	†HM14	R	□7813	20.00	26.00	4.00	HMSA7	R
7417	.750	1.124	.188	†CRW1	V	7824	.781	1.375	.313	†CRW1	V
▲7421	.750	1.187	.156	HM14	R	▲7829	.781	1.375	.313	CRW1	R
7434	.750	1.250	.250	†CRWA5	R	▲7831	.781	1.375	.197	†HM14	R
7438	.750	1.250	.250	†CRW1	R	▲7849	.781	1.499	.313	†CRW1	R
W/BRASS CASE & SS SPRING						□7854	20.00	26.00	4.00	HM4	R
▲7439	.750	1.250	.188	†CRW1	R	□7855	20.00	28.00	4.00	HM4	R
7440	.750	1.250	.250	†CRW1	R	7861	.787	1.181	.276	HMSA7	R
7443	.750	1.250	.250	†CRWA1	R	W/CW HELIX FROM AIR SIDE					
▲7449	.750	1.250	.375	†CRWA5	R	□7867	20.00	30.00	5.00	HMSA7	R
7450	.750	1.250	.250	†CRW1	V	□7868	20.00	32.00	8.00	HMS4	R
7453	.750	1.250	.250	†CRWA1	V	□7869	20.00	32.00	6.00	HMS4	R
7455	.750	1.250	.250	†CRWA1	V	▲7872	.781	1.624	.313	†CRW1	R
W/SS CASE & SPRING						▲7889	.781	1.828	.250	†CRW1	P
▲7464	.750	1.250	.250	†HM14	R	□7892	20.00	32.00	7.00	HMSA7	R
7465	.750	1.250	.313	CRWA7	R	□7896	20.00	33.00	10.00	HMS47	R
7467	.750	1.249	.188	CRW1	V	▲□7900	20.00	30.00	5.00	HMS4	R
W/STAINLESS STEEL SPRING						▲□7902	20.00	28.00	6.00	HMS4	R
▲7469	.750	1.252	.188	†CRW1	R	□7904	20.00	30.00	5.00	HMS4	V
▲7473	.750	1.260	.250	†CRW1	R	□7905	20.00	30.00	7.00	†CRW1	R
▲7474	.750	1.312	.250	†CRW1	R	□7906	20.00	30.00	5.00	CRS1	R
7475	.750	1.312	.250	†CRWA1	R	□7907	20.00	31.00	7.00	†CRW1	R
7477	.750	1.259	.250	†HM14	R	□7909	20.00	30.00	7.00	CRS1	V
7478	.750	1.250	.188	CRW1	R	W/STAINLESS STEEL SPRING					
7481	.750	1.301	.250	†HM14	R	□7910	20.00	32.00	7.00	†CRW1	R

★Contact manufacturer for availability  
**Bold numbers** are preferred designs

□ Metric numbers

† Includes Bore-Tite on O.D.  
 ▲ WasteWatcher numbers



## Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
□7911	20.00	32.00	7.00	CRS1	V	▲8080	.813	1.375	.234	CRW	R
□7912	20.00	30.00	7.00	HMSA7	R			NO SPRING			
□7913	20.00	32.00	7.00	HMS4	V	▲8088	.813	1.499	.250	CRW1	R
□7914	20.00	30.00	7.00	HMS4	R	▲8178	.813	1.624	.250	†CRW1	V
□7915	20.00	35.00	7.00	†CRW1	R	8213	.781	1.752	.313	CRSHA1	R
□7916	20.00	35.00	7.00	†CRW1	V	▲8215	.813	1.752	.375	†CRW1	R
□7917	20.00	35.00	6.00	HMS4	R	□8271	21.00	30.00	6.50	CRS11	R
▲□7918	20.00	32.00	7.00	HMS4	R	□8273	21.00	32.00	7.00	HMS47	R
□7919	20.00	36.00	7.00	HMS4	R	□8274	21.00	35.00	8.00	HMS46	R
▲□7920	20.00	36.00	7.00	†CRW1	R	□8276	21.00	40.00	10.00	HMS47	R
□7921	20.00	36.00	7.00	†CRW1	V	8278	.827	1.260	.315	HMSA7	R
▲□7922	20.00	35.00	7.00	HMS4	R			W/CW HELIX FROM AIR SIDE			
□7923	20.00	35.00	7.00	HMSA7	R	▲□8305	21.00	35.00	7.00	†CRW1	R
□7924	20.00	36.00	7.00	HMSA7	R	□8306	21.00	35.00	7.00	†CRW1	V
▲□7925	20.00	37.00	7.00	†CRW1	R	□8378	21.00	40.00	7.00	HMSA7	R
□7926	20.00	35.00	8.00	HMSA7	R	□8380	21.00	40.00	8.00	†CRW1	R
□7927	20.00	35.00	10.00	HMS4	R	▲8485	.844	1.828	.313	CRSA1	R
□7929	20.00	35.00	7.00	HMS4	V	□8499	22.00	28.00	4.00	HM1	R
□7930	20.00	38.00	7.00	†CRW1	R	□*8500	22.00	28.00	5.00	HM3	R
▲□7933	20.00	38.00	7.00	HMS4	R	□8501	22.00	28.00	4.00	HMA10	R
□7936	20.00	35.00	10.00	HMSA7	R	□8503	22.00	30.00	4.00	HM4	R
□7940	20.00	40.00	7.00	†CRW1	R	▲□8505	22.00	31.00	7.00	†CRW1	P
□7941	20.00	40.00	7.00	†CRW1	V	□8508	22.00	32.00	7.00	CRS1	V
▲□7942	20.00	40.00	7.00	HMS4	R	□8510	22.00	32.00	7.00	†CRW1	R
□7943	20.00	40.00	10.00	HMS4	R	□8511	22.00	36.00	7.00	HMSA7	R
□7944	20.00	40.00	7.00	HMS4	V	□8512	22.00	32.00	7.00	HMSA7	R
□7945	20.00	40.00	7.00	HMSA7	V	□8513	22.00	35.00	6.00	HMS4	R
				W/STAINLESS STEEL SPRING		□8514	22.00	35.00	5.00	HM14	R
□7947	20.00	37.00	10.00	HMS47	R	□8515	22.00	35.00	7.00	†CRW1	R
□7950	20.00	42.00	7.00	†CRW1	R	□8516	22.00	35.00	7.00	†CRW1	V
□7951	20.00	40.00	10.00	HMSA7	R	▲□8517	22.00	35.00	7.00	HMS4	R
▲□7952	20.00	42.00	7.00	HMS4	R	□8518	22.00	35.00	10.00	HMS4	R
□7953	20.00	42.00	7.00	CRS1	V	▲□8519	22.00	32.00	7.00	HMS4	R
□7954	20.00	42.00	7.00	HMSA7	R	□8522	22.00	35.00	7.00	HMSA7	R
□7956	20.00	40.00	7.00	HMSA7	R	□8525	22.00	35.00	8.00	HMSA7	R
□7965	20.00	47.00	7.00	†CRW1	R	□8526	22.00	40.00	7.00	HMSA7	R
▲□7966	20.00	47.00	7.00	HMS4	R	▲□8540	22.00	38.00	7.00	†CRW1	R
□7967	20.00	47.00	7.00	HMS4	V	□8541	22.00	38.00	7.00	†CRW1	V
□7968	20.00	47.00	7.00	HMSA7	V	□8545	22.00	38.00	8.00	HMSA7	R
				W/STAINLESS STEEL SPRING		□8550	22.00	40.00	6.35	†CRW1	R
□7980	20.00	52.00	7.00	†CRW1	R	▲□8551	22.00	40.00	7.00	HMS4	R
□7981	20.00	52.00	7.00	†CRW1	P	□8552	22.00	40.00	6.35	†CRW1	V
□7982	20.00	52.00	10.00	HMS4	R	□8553	22.00	40.00	10.00	HMS4	R
▲□7983	20.00	52.00	7.00	HMS4	R	□8555	22.00	42.00	7.00	†CRW1	R
□7986	20.00	42.00	10.00	HMSA7	R	□8556	22.00	42.00	10.00	HMSA7	R
□7987	20.00	47.00	7.00	HMSA7	R	□8557	22.00	40.00	7.00	HMS4	V
□7993	20.00	47.00	10.00	HMS4	R			W/STAINLESS STEEL SPRING			
□8000	20.00	38.00	8.00	HMS4	R	□8558	22.00	40.00	7.00	HMSA7	V
□8003	20.00	40.00	8.00	HMSA7	R	▲□8562	22.00	42.00	10.00	HMS4	R
□8005	20.00	42.00	8.00	HMSA7	R	▲□8563	22.00	45.00	7.00	HMS4	R
□8006	20.00	42.00	10.00	HMS4	R	□8564	22.00	42.00	11.00	HMS4	R
8009	.813	1.063	.125	HM3	R	▲□8568	22.00	47.00	7.00	HMS4	R
□8011	20.00	45.00	12.00	HMS4	R	□8570	22.00	47.00	8.00	†CRW1	R
8013	.813	1.187	.313	†CRWA1	V	□8573	22.00	47.00	7.00	HMSA7	R
				W/SS CASE & SPRING		▲□8580	22.00	50.00	8.00	†CRW1	R
▲8017	.813	1.250	.188	CRW1	R	8619	.875	1.125	.125	†HM14	V
8019	.813	1.250	.375	HMS4	R	▲8620	.875	1.125	.125	HM14	R
□8028	20.00	52.00	8.00	HMSA7	R	8621	.875	1.250	.250	†CRW1	V
□8031	20.00	47.00	8.00	HMSA7	R	▲8624	.875	1.250	.188	†CRW1	R
□8032	20.00	52.00	7.00	HMSA7	R	▲8625	.875	1.246	.188	†HM14	R
□8037	20.00	52.00	10.00	HMSA7	R	▲8627	.875	1.251	.188	HM14	R
8046	.787	1.457	.276	†CRW1	V	8631	.875	1.251	.188	HM3	R
8053	.813	1.375	.375	†CRW1	V			W/STAINLESS STEEL CASE			
▲8060	.813	1.375	.375	†CRW1	R	▲8632	.875	1.255	.188	†HM14	R
						8634	.875	1.250	.250	†CRWA5	V

Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
▲8637	.875	1.308	.250	†HM14	R	▲9409	.938	1.828	.250	†CRW1	R
▲8645	.875	1.312	.250	†HM14	R	9420	.942	2.110	.990	END CAP	P
8646	.875	1.375	.250	†CRW1	V	□9445	24.00	32.00	4.00	HM4	R
▲8648	.875	1.375	.256	†CRW1	R	□9449	24.00	35.00	8.00	HMSA7	R
8649	.875	1.308	.250	†CRW1	V	□9451	24.00	32.00	7.00	CRSA11	R
▲8660	.875	1.375	.250	†CRWA5	R	□9455	24.00	36.00	9.00	HMS47	R
8665	.875	1.375	.250	†CRWA5	V	□9456	24.00	36.00	7.00	HMSA75	R
▲8677	.875	1.375	.188	†HM14	R	□9458	24.00	36.00	6.00	CRS11	R
▲8690	.875	1.437	.250	†HM14	R	□9466	24.00	40.00	10.00	HMS47	R
8691	.875	1.437	.250	†CRW1	R	□9471	24.00	47.00	10.00	HMS47	R
▲8694	.875	1.497	.313	†CRWA5	V	□9476	24.00	50.00	10.00	HMS47	R
	W/STAINLESS STEEL SPRING					□9479	24.00	42.00	10.00	HMS4	R
8698	.875	1.499	.313	HMSW87	R	□9480	24.00	52.00	7.00	HMSA7	R
	W/SS CASE & SPRING					▲□9500	24.00	35.00	7.00	HMS4	R
▲8700	.875	1.499	.250	†CRW1	R	□9502	24.00	36.00	7.00	†CRW1	V
8702	.875	1.499	.250	†CRWA1	R	□9503	24.00	35.00	7.00	HMSA7	R
8703	.875	1.499	.313	CRW1	R	□9504	24.00	37.00	7.00	HMS4	R
8704	.875	1.499	.250	†CRW1	V	□9505	24.00	38.00	10.00	CRS1	R
8707	.875	1.499	.250	†CRWA1	V	□9506	24.00	38.00	7.00	†CRW1	V
	W/STAINLESS STEEL SPRING					□9508	24.00	38.00	8.00	HMS4	R
□8739	22.00	37.00	7.00	HMS46	R	9510	.950	2.060	.359	HMS11	P
▲8741	.875	1.499	.250	†HM21	R	□9511	24.00	37.00	7.00	HMSA7	R
□8743	22.00	38.00	7.00	HMS4	R	▲□9514	24.00	40.00	7.00	HMS4	R
▲8748	.875	1.502	.313	†CRWA1	R	9515	.945	1.575	.315	CRS1	R
8749	.875	1.499	.453	†DH2	RR		W/CW HELIX FROM AIR SIDE				
▲8761	.875	1.562	.250	HM14	R	□9516	24.00	40.00	7.00	HMSA7	R
▲8763	.875	1.575	.250	†CRW1	R	□9517	24.00	40.00	7.00	HMS4	V
▲8772	.875	1.575	.250	HM14	R	▲9520	.950	1.358	.275	†CRW1	P
□8776	22.00	47.00	10.00	HMS47	R	□9521	24.00	40.00	7.00	HMSA7	V
□8781	22.00	33.00	7.00	HMS4	R	▲□9533	24.00	42.00	8.00	HMS4	R
8782	.875	1.624	.250	†CRWA1	R	▲□9558	24.00	47.00	7.00	HMS4	R
8786	.875	1.375	.246	†CRWA1	R	□9560	24.00	47.00	8.00	†CRW1	R
8795	.875	1.624	.250	†CRW1	V	▲9604	.969	1.406	.250	†CRWA1	P
▲8796	.875	1.624	.250	†CRW1	R	9611	.969	1.499	.313	†CRW1	V
8802	.875	1.624	.188	HM8	R	▲9613	.969	1.499	.313	CRW1	R
▲8821	.875	1.752	.250	†CRW1	R	▲9646	.969	1.624	.250	†CRW1	R
▲8842	.875	1.828	.250	†CRW1	R	9647	.969	1.624	.250	†CRW1	V
▲8860	.875	1.874	.250	†CRW1	R	□9652	25.00	37.00	8.50	HMS4	R
▲8870	.875	2.000	.250	†CRW1	R	□9655	25.00	37.00	8.50	HMSA7	R
8871	.875	2.050	.375	†CRWH1	V	9663	.969	1.686	.313	†CRWA1	R
▲8885	.875	2.060	.359	W28	P	▲9664	.969	1.686	.313	†CRW1	R
★8891	.878	1.249	.188	CRWH3	R	▲9667	.969	1.752	.250	†CRW1	R
	W/SS CASE & SPRING					□9668	25.00	38.00	7.00	HMSA7	R
9000	.882	2.088	.313	†CRWHA1	R	□9677	25.00	37.00	7.00	HMSA7	R
□9005	23.00	32.00	5.50	HM1	R	▲9681	.969	1.828	.313	†CRW1	R
9006	.906	1.339	.256	HMS4	R	★9684	.969	1.828	.578	†E3	RR
□9009	23.00	35.00	6.00	HMA10	R	▲9686	.984	1.499	.250	†CRW1	V
□9015	23.00	42.00	11.00	HMS4	R		W/SS CASE & SPRING				
□9055	23.00	40.00	8.00	HMS4	R	9688	.969	2.048	.375	†CRS1	R
□9058	23.00	40.00	10.00	HMSA7	R	□9691	25.00	32.00	4.00	HM4	R
□9060	23.00	40.00	10.00	HMS4	R	□9693	25.00	33.00	4.00	HM4	R
9065	.906	1.338	.315	HMSA7	R	□9694	25.00	35.00	4.00	HM4	R
	W/CCW HELIX FROM AIR SIDE					□9695	25.00	35.00	6.00	HMSA7	R
9068	.906	1.575	.276	HMSA7	P	□9696	25.00	32.00	7.00	CRSA1	R
	W/CCW HELIX FROM AIR SIDE					□9699	25.00	40.00	5.00	HMS4	R
9176	.917	1.476	.236	HMSH4	R	▲9700	.984	1.596	.250	†CRWA5	R
▲9243	.938	1.375	.250	†HM14	R	9701	.984	1.496	.236	HMSA7	V
▲9244	.938	1.375	.250	†CRWA1	R		W/CW HELIX FROM AIR SIDE				
▲9298	.938	1.499	.250	†HM14	R	□9702	25.00	42.00	10.00	HMSA7	V
▲9303	.938	1.500	.250	†CRW1	R		W/STAINLESS STEEL SPRING				
9304	.938	1.500	.250	†CRW1	V	□9703	25.00	40.00	7.00	HMS4	V
▲9307	.938	1.624	.250	†CRW1	R	□9704	25.00	42.00	10.00	HMS4	V
9308	.938	1.624	.250	†CRW1	V	□9705	25.00	35.00	7.00	†CRW1	R
▲9347	.938	1.752	.250	†CRW1	R	□9706	25.00	35.00	7.00	†CRW1	V
9354	.938	1.734	.250	†HM14	R	▲□9708	25.00	35.00	7.00	HMS4	R

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**Bold numbers** are preferred designs

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 ▲ WasteWatcher numbers



Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
□9992	25.00	42.00	7.00	HMS4	V	▲10515	1.063	1.499	.250	†CRW1	R
▲9995	1.000	1.752	.250	†HM21	R	10518	1.063	1.499	.250	†CRW1	V
▲9997	1.000	1.752	.250	†CRW1	R	10523	1.062	1.507	.374	J-TYPE	R
9998	1.000	1.752	.250	†CRWA1	R	▲□10579	27.00	37.00	7.00	HMS4	R
□10009	25.00	43.00	10.00	HMS45	R	▲10581	1.063	1.561	.250	†CRW1	R
□10012	25.00	32.00	4.00	HMS4	R	▲10583	1.063	1.577	.250	†CRW1	R
□10015	25.00	32.00	4.00	HMSA7	R	10584	1.063	1.575	.315	HMSA7	V
□10028	25.00	46.00	7.00	HMS4	R	W/CCW HELIX FROM AIR SIDE					
□10032	25.00	47.00	6.00	HMSA7P2	R	▲10598	1.063	1.624	.250	†CRW1	R
▲10034	1.000	1.781	.469	†HM14	R	▲□10625	27.00	42.00	7.00	†CRW1	R
▲10035	1.000	1.781	.469	†HM18	R	□10627	27.00	42.00	7.00	†CRW1	V
CLEARANCE D .265						□10628	27.00	41.00	10.00	CRSH1	R
□10039	25.00	47.00	8.00	HMS45	R	□10629	27.00	42.00	10.00	HMS4	V
10046	1.000	1.828	.250	†CRW1	V	□10630	27.00	42.00	10.00	HMS4	R
10047	1.000	1.828	.250	†CRW1	P	▲10632	1.063	1.686	.250	†CRW1	R
▲10049	1.000	1.828	.250	†CRW1	R	□10633	27.00	47.00	10.00	HMSA7	R
10050	1.000	1.828	.250	†CRWA1	R	10634	1.063	1.693	.355	HMSA7	P
W/STAINLESS STEEL SPRING						W/CCW HELIX FROM AIR SIDE					
▲10071	1.000	1.851	.250	†CRW1	R	▲□10640	27.00	43.00	8.00	†CRW1	V
▲10074	1.000	1.851	.250	†HM14	R	□10644	27.00	47.00	7.00	HMS4	R
▲10075	1.000	1.874	.250	†CRW1	R	□10648	27.00	52.00	8.00	HMS46	R
□10085	25.00	52.00	12.00	CRSA13	R	□10649	27.00	52.00	10.00	HMS46	R
□10091	25.00	45.00	7.00	HMS4	R	▲10653	1.063	1.752	.250	†CRW1	R
□10094	25.00	45.00	10.00	HMSA7	R	10655	1.063	1.752	.250	†CRW1	V
□10098	25.00	52.00	8.00	HMSA7	R	10661	1.063	1.693	.355	HMSA7	R
▲10104	1.000	1.938	.250	†CRW1	R	W/CW HELIX FROM AIR SIDE					
10111	1.000	1.983	.250	†CRWA1	V	□10663	27.00	45.00	8.00	HMS4	R
▲10112	1.000	1.938	.250	†HM14	R	□10666	27.00	45.00	8.00	†CRW1	V
▲10114	1.000	1.983	.313	†CRWA1	R	▲10681	1.063	1.828	.250	†CRW1	R
▲10123	1.000	2.000	.250	†CRW1	R	□*10683	27.00	47.00	8.00	HMS4	R
10124	1.000	2.000	.250	†CRWA1	R	□10685	27.00	47.00	11.00	†HMS1	R
10127	1.000	2.000	.250	†CRWA1	R	▲□10689	27.00	47.00	10.00	HMS4	R
W/SS CASE & SPRING						▲10700	1.063	1.874	.250	†CRW1	R
10128	1.000	2.000	.250	†CRW1	V	10728	1.063	1.979	.250	†CRW1	R
10129	1.000	2.000	.250	†CRWA1	V	▲10733	1.063	1.983	.250	†CRW1	R
10131	1.000	2.000	.313	†CRWA5	R	▲10740	1.063	2.000	.250	†CRW1	R
▲10153	1.000	2.000	.250	†HM21	R	□10758	27.00	52.00	8.00	†CRW1	R
▲10157	1.000	2.047	.250	†CRWA1	R	10766	1.063	2.062	.250	†CRW1	R
▲10158	1.000	2.062	.250	†CRW1	R	10781	1.062	2.125	.313	†KIT	R
□10166	26.00	34.00	4.00	HM4	R	□10915	28.00	35.00	4.00	HM4	R
□10168	26.00	38.00	8.00	HMS4	R	□10916	28.00	42.00	7.00	HMSA7	R
▲10169	1.000	2.250	.250	†CRW1	R	□10917	28.00	42.00	7.00	HMS4	R
□10170	26.00	38.00	5.00	HMSA7	R	□10918	28.00	37.00	4.00	HM4	R
10172	1.000	2.250	.250	†HM14	R	□10920	28.00	38.00	7.00	HMSA7	R
□10173	26.00	38.00	7.00	HMS1	R	□10921	28.00	42.00	8.00	HMS4	R
▲□10177	26.00	37.00	7.00	HMS4	R	□10922	28.00	42.00	8.00	HMSA7	R
▲10178	1.000	2.441	.375	HMSA7	R	□10923	28.00	40.00	7.00	HMSA7	V
□10179	26.00	38.00	7.00	HMSA7	R	▲□10924	28.00	38.00	7.00	HMS4	R
▲□10181	26.00	40.00	8.00	HMS1	R	10927	1.102	1.693	.315	HMSA7	R
□10182	26.00	38.00	7.00	HMS4	R	W/CW HELIX FROM AIR SIDE					
□10183	26.00	40.00	7.00	HMSA7	R	□10929	28.00	40.00	7.00	HMS4	V
▲□10188	26.00	42.00	7.00	HMS4	R	□10930	28.00	40.00	7.00	†CRW1	R
□10191	26.00	42.00	8.00	CRS1	R	□10931	28.00	42.00	7.00	†CRW1	R
□10193	26.00	42.00	10.00	HMSA7	R	□10932	28.00	40.00	7.00	†CRW1	V
10205	1.024	1.811	.276	†HMS1	P	□10934	28.00	42.00	7.00	†CRW1	V
W/CW HELIX FROM AIR SIDE						□10936	28.00	42.50	8.00	HMS4	R
▲□10218	26.00	47.00	7.00	HMS4	R	□10937	28.00	44.00	6.00	HMSA7	P
□10242	26.00	35.00	7.00	CRS1	R	10938	1.102	1.732	.354	HMSH78	P
□10243	26.00	36.00	7.00	HMS47	R	W/CW HELIX FROM AIR SIDE					
▲□10253	26.00	52.00	8.00	HMS4	R	▲□10939	28.00	40.00	7.00	HMS4	R
□10268	26.00	45.00	10.00	CRS12	R	▲□10942	28.00	42.00	10.00	HMS4	R
□10278	26.00	40.00	8.00	HMS4	R	▲□10943	28.00	45.00	8.00	HMS4	R
□10281	26.00	40.00	8.00	HMSA7	R	10944	1.102	1.614	.276	HMSA7	P
10494	1.063	1.693	.276	HMSA7	P	W/CCW HELIX FROM AIR SIDE					
W/CW HELIX FROM AIR SIDE						□10946	28.00	45.00	7.00	†CRW1	V

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## Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
□10947	28.00	40.00	8.00	HMSA7	R	11171	1.125	1.828	.250	†CRWA1	R
□10948	28.00	40.00	7.00	HMSA7	R	11172	1.125	1.828	.250	†CRW1	V
□★10951	28.00	40.00	8.00	HMS4	R	11175	1.125	1.828	.250	†CRWA1	V
□10952	28.00	42.00	10.00	HMSA7	R	11180	1.125	1.781	.406	†HMSA7	R
10956	1.102	1.913	.315	HMS	P	▲11191	1.125	1.828	.250	HM21	R
	W/CW HELIX FROM AIR SIDE					11194	1.125	1.781	.469	HM18	R
□10957	28.00	47.00	7.00	†CRW1	V		CLEARANCE D .265				
□10958	28.00	47.00	8.00	†CRW1	R	▲11197	1.125	1.852	.313	†CRWH1	R
▲□10959	28.00	47.00	7.00	HMS4	R	11200	1.125	1.852	.313	†CRWHA1	R
□10961	28.00	47.00	7.00	HMSA7	R	11207	1.125	1.874	.250	†CRW1	V
□10964	28.00	48.00	8.00	HMSA7	R	11208	1.125	1.874	.250	†CRWA1	V
10966	1.102	1.890	.550	D3	P	▲11209	1.125	1.874	.250	†CRW1	R
□10967	28.00	48.00	11.00	HMS4	R	11223	1.125	1.874	.250	†CRWA1	R
□10969	28.00	47.00	10.00	HMS4	R	▲11269	1.125	1.938	.343	HM14	R
▲□10973	28.00	52.00	7.00	HMS4	R		CLEARANCE D .352				
□10974	28.00	52.00	7.00	HMS4	V	▲11284	1.125	1.938	.625	HD2	R
□10975	28.00	52.00	8.00	†CRW1	R		CLEARANCE D .415				
□10976	28.00	52.00	10.00	HMSA7	R	▲11299	1.125	1.983	.250	†CRW1	R
□10977	28.00	52.00	7.00	HMSA7	V	▲11334	1.125	2.000	.250	†HM21	R
□10979	28.00	52.00	10.00	HMS4	R	▲11340	1.125	2.000	.256	†CRW1	R
10983	1.102	2.087	.378	HMSA96S	P	11343	1.125	2.000	.375	†CRWA1	R
□10984	28.00	38.00	8.00	HMS4	R	11344	1.125	2.000	.250	†CRW1	V
□10988	28.00	38.00	8.00	HMSA7	R	▲11352	1.125	2.047	.250	†HM21	R
11000	1.100	2.205	.394	HMSA7	P	▲11353	1.125	2.047	.313	†CRWA1	R
□11020	28.00	35.00	6.00	HM102	R	▲11366	1.125	2.062	.313	†CRW1	R
□11026	28.00	40.00	10.00	CRS13	R	11368	1.125	2.062	.250	†CRWA1	V
□11031	28.00	43.00	10.00	HMS4	R	▲11372	1.125	2.125	.313	†CRW1	R
□11036	28.00	47.00	10.00	CRSA11	R	11377	1.125	2.125	.375	†KIT	R
□11041	28.00	47.00	5.00	HMS46	R	▲11378	1.125	2.250	.250	†CRW1	R
□11043	28.00	50.00	10.00	HMS47	R	▲11392	1.125	2.441	.250	†CRW1	R
▲11050	1.125	1.375	.125	HM14	R	11405	1.125	2.835	.375	†CRSA1	R
11052	1.125	1.375	.125	†HM14	V	□11407	29.00	37.44	5.00	HMS4	R
□11054	28.00	62.00	12.00	CRSH1	R	11410	1.125	2.875	.469	†CRSH1	R
▲11055	1.125	1.438	.203	†HM14	R	11417	1.142	1.614	.236	HMSA7	P
▲11060	1.125	1.499	.188	†HM14	R		W/CW HELIX FROM AIR SIDE				
▲11061	1.125	1.499	.188	CRW1	R	□11420	29.00	43.00	7.00	HMS47	R
11065	1.125	1.562	.188	HM8	R	□11421	29.00	47.00	10.00	CRSH11	R
11066	1.125	1.561	.250	†CRW1	P	11422	1.142	1.693	.315	HMSA7	P
▲11067	1.125	1.561	.250	†CRW1	R		W/CCW HELIX FROM AIR SIDE				
11071	1.125	1.561	.250	†CRW1	V	□11423	29.00	50.00	10.00	CRSH11	R
11076	1.102	1.969	.315	HMSA7	P	□11424	29.00	52.00	10.00	CRSH11	R
▲11081	1.125	1.562	.250	HM14	R	11429	1.142	1.772	.315	HMSA7	R
11082	1.125	1.565	.250	†CRW1	R		W/CCW HELIX FROM AIR SIDE				
▲11086	1.126	1.575	.236	†CRWA1	R	□11507	30.00	40.00	4.00	HMS4	R
11096	1.250	1.625	.188	HM14	R	□11510	30.00	40.00	4.00	HMSA7	R
11111	1.125	1.624	.250	†CRW1	P	11512	1.156	1.686	.313	CRWA6	V
11122	1.122	1.624	.236	HMSA7	P		W/STAINLESS STEEL SPRING				
	W/CW HELIX FROM AIR SIDE					11513	1.156	1.686	.312	CRWA6	R
▲11123	1.125	1.624	.250	†CRW1	R	▲11514	1.156	1.752	.250	†CRWA1	R
11124	1.125	1.624	.256	†CRWA1	R	▲11518	1.156	1.686	.250	†CRWA1	R
▲11130	1.125	1.624	.250	†HM21	R	▲11524	1.156	1.874	.250	†CRW1	R
11133	1.125	1.624	.250	†CRW1	V	11536	1.156	1.875	.375	CRWA1	R
11134	1.125	1.624	.256	†CRWA1	V		W/SS CASE & SPRING				
11136	1.125	1.693	.256	HMSA1	R	11544	1.156	2.000	.250	†CRW1	R
▲11138	1.125	1.752	.250	†CRW1	R	▲11545	1.156	2.000	.250	†CRWA1	R
11139	1.125	1.626	.250	†CRWA5	V	11550	1.156	2.000	.250	†CRW1	V
11143	1.125	1.630	.313	HMS4N	R	▲11553	1.175	2.031	.500	†CRW1	R
11144	1.125	1.752	.250	†CRW1	V	▲11557	1.156	2.062	.313	†CRW1	R
▲11150	1.125	1.750	.250	†HM14	R	▲11566	1.156	2.125	.438	†CRSH1	R
11152	1.398	1.950	.276	HMSA7	R	▲11585	1.188	1.875	.375	†CRW1	R
	W/CW HELIX FROM AIR SIDE					□11586	30.00	44.00	7.00	HMSA7	R
▲11161	1.125	1.781	.250	†HM21	R	11589	1.181	1.772	.276	HMSA7	P
▲11164	1.125	1.781	.469	HM18	R	□11591	30.00	45.00	5.00	HMSA7	R
	CLEARANCE D .265					□11592	30.00	45.00	8.00	HMSA7	R
▲11170	1.125	1.828	.250	†CRW1	R	□11594	30.00	37.00	4.00	HM4	R



Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
□11595	30.00	37.00	4.00	HMS4	R	□11666	30.00	62.00	7.00	†CRW1	V
□11596	30.00	37.00	4.00	HMSA7	R	□11667	30.00	62.00	10.00	HMS4	R
□11597	30.00	40.00	4.00	HM4	R	□11668	30.00	62.00	7.00	HMSA7	R
□11599	30.00	42.00	7.00	HMSA7	R	□11669	30.00	42.00	7.00	HMS4	V
▲□11600	30.00	40.00	7.00	HMS4	R	▲□11671	30.00	46.00	7.00	HMSA7	R
□11601	30.00	40.00	7.00	HMS4	V						
	W/STAINLESS STEEL SPRING										
□11602	30.00	40.00	7.00	HMSA7	R	11672	1.181	1.693	.315	HMSA7	V
□11603	30.00	40.00	7.00	HMSA7	V						
□11605	30.00	40.00	7.00	†CRW1	R	11673	1.181	2.126	.354	HMSA7	P
□11606	30.00	40.00	7.00	†CRW1	V						
□11607	30.00	40.00	10.00	HMS4	R	*11674	1.181	2.126	.354	HMSA7	R
▲□11608	30.00	42.00	7.00	HMS4	R						
□11609	30.00	45.00	8.00	CRS1	V	□11676	30.00	62.00	8.00	HMSA7	R
▲□11610	30.00	42.00	7.00	†CRW1	R	□11677	30.00	48.00	10.00	HMS46	R
□11611	30.00	42.00	7.00	†CRW1	V	□11678	30.00	52.00	7.00	HMSA7	R
11612	1.181	1.732	.276	HMSA7	P	□11682	30.00	47.00	8.00	HMS4	R
	W/CW HELIX FROM AIR SIDE					□11684	30.00	72.00	12.00	†CRWA1	V
▲□11614	30.00	44.00	7.00	HMSA1	R	▲□11685	30.00	72.00	8.00	†CRW1	R
□11615	30.00	45.00	8.00	†CRW1	R	□11686	30.00	72.00	10.00	HMS4	R
□11616	30.00	44.00	10.00	HMS4	R	□11688	30.00	48.00	8.00	HMSA7	R
□11617	30.00	45.00	8.00	†CRW1	P	□11689	30.00	72.00	10.00	HMSA7	R
11618	1.181	1.772	1.181	HMSA90	P	11690	1.181	2.283	.315	†HMSHA4	P
	W/CW HELIX FROM AIR SIDE					□11692	30.00	45.00	10.00	HMS4	R
11619	1.181	1.772	.313	HMSA93	P	□11694	30.00	52.00	10.00	HMSA7	R
	W/CCW HELIX FROM AIR SIDE					□11695	30.00	45.00	10.00	HMSA7	R
▲□11622	30.00	45.00	8.00	HMS4	R	□11697	30.00	55.00	7.00	HMSA7	R
▲□11623	30.00	47.00	7.00	HMS4	R	11700	1.175	1.771	.275	†HMS1	R
□11624	30.00	47.00	7.00	HMSA7	R						
□11625	30.00	47.00	7.00	†CRW1	R						
□11626	30.00	47.00	8.00	†CRW1	V	□11701	30.00	62.00	10.00	HMSA7	R
□11627	30.00	47.00	7.00	HMS4	V	▲11702	1.181	2.563	1.331	†HMSW108	R
□11628	30.00	47.00	10.00	HMS4	R						
□11629	30.00	47.00	7.00	HMSA7	V	11703	1.181	2.440	.315	J2	#
	W/STAINLESS STEEL SPRING										
□11630	30.00	48.00	8.00	†CRW1	R	□11704	30.00	62.00	8.00	HMS4	R
▲□11631	30.00	50.00	7.00	HMS4	R	▲11710	1.188	1.561	.313	CRW1	V
□11632	30.00	47.00	8.00	HMSA7	R						
□11633	30.00	48.00	8.00	HMS4	R	11711	1.188	1.687	.250	CRWH3	R
□11634	30.00	50.00	8.00	HMS4	R						
□11635	30.00	50.00	8.00	†CRW1	R	11728	1.188	1.686	.250	†CRW1	P
□11636	30.00	50.00	8.00	†CRW1	V	▲11730	1.188	1.687	.250	†CRW1	R
□11637	30.00	50.00	10.00	HMS4	R	11733	1.188	1.716	.270	HMS2	R
▲□11638	30.00	52.00	7.00	HMS4	R	▲11734	1.188	1.752	.250	†CRW1	R
□11639	30.00	52.00	8.00	HMSA7	R	11736	1.188	1.752	.250	†CRW1	V
□11640	30.00	52.00	8.00	†CRW1	R	▲11740	1.188	1.828	.375	†CRW1	R
□11641	30.00	52.00	10.00	HMS4	V	11763	1.188	1.875	.250	†CRW1	P
□11643	30.00	52.00	10.00	HMS4	R	11764	1.188	1.875	.250	CRW7	R
□11644	30.00	52.00	10.00	HMSA7	V	11771	1.188	1.996	.250	HD1	R
	W/STAINLESS STEEL SPRING										
□11646	30.00	55.00	10.00	HMSA7	R	▲11776	1.188	1.983	.250	†CRW1	R
□11647	30.00	55.00	10.00	HMSA7	V	11777	1.188	1.983	.250	†CRWA1	R
	W/STAINLESS STEEL SPRING					11778	1.177	2.448	.500	CRSA4	V
11650	1.178	2.073	.335	†CRW1	S						
□11652	30.00	55.00	7.00	†CRW1	R	▲11800	1.188	2.000	.250	†CRW1	R
▲□11654	30.00	56.00	8.00	†CRW1	R	11801	1.188	2.000	.250	†CRWA1	R
□11655	30.00	58.00	8.00	†CRWA1	R	11804	1.181	1.772	.276	HMSA7	P
▲□11656	30.00	55.00	7.00	HMS4	R						
□11658	30.00	55.00	10.00	HMS4	R	11806	1.188	2.000	.250	†CRW1	V
□11659	30.00	47.00	6.00	HMS4	R	□11807	30.00	47.00	10.00	HMSA7	R
▲□11660	30.00	60.00	8.00	†CRW1	R	□11817	30.00	42.00	6.00	HMSA7P2	R
□11662	30.00	50.00	10.00	HMSA7	R	□11823	30.00	42.00	8.00	HMSA7	R
□11663	30.00	50.00	11.00	HMSA7	R	▲11836	1.188	2.000	.250	HM1	R
▲□11664	30.00	62.00	7.00	HMS4	R	□11842	30.00	52.00	8.00	HMS4	R
□11665	30.00	62.00	7.00	†CRW1	R	▲11846	1.190	1.996	.250	†HM1	R
						□11849	30.00	52.00	12.00	CRS12	R
						□11851	30.00	52.00	9.00	CRSH1	R

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**Bold numbers** are preferred designs

□ Metric numbers

† Includes Bore-Tite on O.D.  
 ▲ WasteWatcher numbers



## Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
□11867	30.00	56.00	10.00	HMS47	R	▲12399	1.250	1.968	.469	+HM18	R
□11868	30.00	60.00	10.00	HMS4	R					CLEARANCE D .254	
▲11878	1.188	2.062	.250	+CRW1	R	12404	1.250	1.979	.406	+HM14	R
▲11879	1.188	2.062	.250	+CRW1	P	▲12407	1.250	1.979	.250	+HM21	R
□11889	30.00	52.00	12.00	HMS4	R	▲12411	1.250	1.979	.406	HM18	R
□11891	30.00	50.00	8.00	HMSA7	R					CLEARANCE D .200	
□11892	30.00	50.00	7.00	HMSA7	R	▲12427	1.250	1.983	.250	+CRW1	R
□11893	30.00	55.00	12.00	HMS4	R	12428	1.250	1.983	.250	+CRWA1	R
11899	1.192	2.122	.350	HMSH87	R	12432	1.250	1.983	.250	+CRW1	V
				W/AXIAL SLINGER		▲12437	1.250	1.983	.250	HM21	R
□11902	30.00	60.00	10.00	HMSA7	R	▲12438	1.250	1.997	.438	+CRWA5	V
★11904	1.063	2.125	.625	KIT	P					W/STAINLESS STEEL SPRING	
				SEE KIT SECTION		12445	1.250	2.000	.250	+CRW1	V
▲11907	1.188	2.125	.313	+CRW1	R	12446	1.250	2.000	.250	+CRWA1	V
11908	1.190	2.125	.313	+CRWHA1	R					W/STAINLESS STEEL SPRING	
11911	1.188	2.165	.250	+CRW1	R	▲12456	1.250	2.000	.250	+CRW1	R
▲11914	1.188	2.250	.256	+CRW1	R	12458	1.250	2.000	.250	+CRWA1	R
▲11923	1.188	2.437	.250	+CRW1	R	12459	1.250	2.000	.625	+D7	RR
▲11930	1.188	2.441	.250	+CRW1	R	▲12481	1.250	2.000	.250	+HM21	R
□★12011	31.00	44.00	6.50	HMS42	R	12483	1.250	2.000	.438	+CRW1	P
12124	1.219	1.979	.406	+HM14	R	12494	1.248	2.044	.378	HMSA16	R
12131	1.219	2.000	.438	+CRSH1	R					W/3M BEAD ON O.D.	
▲12165	1.219	1.979	.475	+HMA85	D	12506	1.250	1.980	.406	+HMA22	R
				P.F. WIDTH .375		▲12508	1.250	2.062	.250	+HM21	R
12187	1.220	2.402	.354	HMSA92S	R	▲12530	1.250	2.062	.438	+CRWH1	R
				W/AXIAL DIRT LIP		12531	1.250	2.062	.250	+CRWA1	V
□12201	31.00	47.00	7.00	HMS44	R	12533	1.250	2.062	.433	+CRWHA1	V
□12208	31.00	44.00	6.50	HMS4	R	12536	1.250	2.100	.460	CRSH	R
12220	1.220	1.969	.315	HMSA7	V	12544	1.250	2.125	.250	+CRW1	V
□12250	31.00	42.00	8.00	HMS4	V	▲12545	1.250	2.125	.250	+CRW1	R
12301	1.221	1.811	.315	HMSA7	R	12551	1.250	2.125	.250	+CRWA1	R
				W/CW HELIX FROM AIR SIDE		□12560	32.00	52.00	10.00	HMSA7	R
12320	1.250	2.402	.382	HMSA12	R	▲12565	1.250	2.125	.250	+HM21	R
▲12325	1.250	1.624	.250	+HM14	R	▲12577	1.250	2.250	.250	+CRW1	R
12327	1.250	1.751	.290	DL	D	12578	1.250	2.250	.313	+KIT	R
▲12329	1.250	1.625	.188	+CRW1	R	▲12582	1.250	2.250	.250	+HM14	R
▲12330	1.250	1.500	.125	+HM14	R	12587	1.260	2.402	.551	UNITIZED	P
12333	1.250	1.687	.313	+CRWA5	R	12590	1.234	2.250	.250	+CRW1	R
▲12334	1.250	1.686	.188	+HM14	R	12595	1.260	1.842	.276	HMS4	V
▲12335	1.250	1.687	.250	+CRW1	V					W/CW HELIX FROM AIR SIDE	
▲12336	1.250	1.687	.250	+CRW1	R	□12598	32.00	47.00	10.00	HMS4	R
12337	1.250	1.687	.250	+CRWA1	V	□12601	32.00	52.00	8.00	HMSA7	S
12339	1.250	1.750	.250	+CRWA5	V					W/CW HELIX FROM AIR SIDE	
12340	1.250	1.752	.250	+CRW1	V	□12602	32.00	42.00	7.00	HMS4	R
12343	1.250	1.752	.250	+CRWA1	V	12609	1.250	2.328	.500	+CRWA5	R
12350	1.250	1.687	.313	+CRWA1	R					W/STAINLESS STEEL SPRING	
12355	1.250	1.752	.391	HMSA7	R	▲12610	1.250	2.327	.500	+CRW1	R
▲12360	1.250	1.750	.250	+CRWA5	R	12611	1.250	2.328	.500	+HM18	R
▲12361	1.250	1.752	.188	+HM21	R					CLEARANCE D .286	
▲12363	1.250	1.752	.250	+CRW1	R	12612	1.250	2.374	.315	+CRW1	V
12364	1.250	1.752	.250	+CRWA1	R	▲12613	1.250	2.374	.313	+CRW1	R
12369	1.250	1.752	.250	HM21	R	12614	1.250	2.374	.313	+CRWA1	R
▲12371	1.250	1.752	.313	HMS4	R	▲12621	1.250	2.437	.250	+CRW1	R
▲12375	1.250	1.828	.188	HM8	R	▲12631	1.250	2.441	.250	+CRW1	R
▲12379	1.250	1.874	.250	+HM21	R	▲12637	1.250	2.502	.313	+CRW1	R
12382	1.250	1.874	.250	+CRW1	P	12638	1.250	2.500	.310	+CRW1	V
12383	1.250	1.874	.250	+CRWA1	V	□12639	32.00	50.00	7.00	HMS43	V
▲12384	1.250	1.874	.250	+CRW1	R	12640	1.250	2.502	.500	+CRWA5	R
12386	1.250	1.874	.250	+CRWA1	R					W/STAINLESS STEEL SPRING	
▲12391	1.250	1.938	.250	+CRW1	R	□12643	32.00	52.00	10.00	HMS46	R
12392	1.250	1.752	.968	KIT	RR	□12648	32.00	52.00	5.00	HMS46	R
				SEE KIT SECTION		□12649	32.00	52.00	9.00	CRSH12	R
▲12396	1.250	1.955	.250	+CRWA1	R	12655	1.250	2.561	.500	CRSH1	R
12398	1.250	1.968	.438	+HM14	R	12660	1.250	2.713	.469	+CRSH1	R
						□12662	32.00	56.00	12.00	CRSH11	R

Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
□12665	32.00	62.00	7.00	HMS46	R	□12759	32.00	58.00	8.00	HMS4	R
□12667	32.00	72.00	12.00	CRSH11	R	□12760	32.00	56.00	8.00	†CRW1	R
▲12668	1.250	2.835	.375	HMSA7	R	▲□12763	32.00	56.00	10.00	HMS4	R
□12671	32.00	42.00	8.00	HMSA7	R	□12764	32.00	56.00	10.00	HMSA7	R
□12672	32.00	40.00	7.00	HMS4	R	□12766	32.00	58.00	8.00	HMSA7	R
□12674	32.00	52.00	8.00	HMS4	R	□★12770	32.00	60.00	8.00	†HMSA27	R
□12675	32.00	52.00	8.00	HMSA7	R	□12773	32.00	60.00	8.00	HMSA7	R
▲12678	1.250	3.156	.500	CRSH1	R	□12777	32.00	62.00	8.00	HMSA7	R
12679	1.260	2.047	.394	HMSA7	R	□12780	32.00	62.00	6.35	†CRW1	R
	W/CW HELIX FROM AIR SIDE					▲□12782	32.00	62.00	10.00	HMS4	R
12685	1.250	4.305	.484	J6	R	□12785	32.00	65.00	12.00	HMSA1	P
	SEE TYPE J SECTION (HMA LIP)					□12790	32.00	72.00	9.53	HMSA7	R
□12691	32.00	42.00	4.00	HM4	R	□12810	33.00	44.00	8.00	HMSA1	R
12693	1.266	1.632	.500	CRWASPL	P	12812	1.299	1.810	.276	HMSA7	R
	BORE LISTED IS PRESSFIT I.D.						W/CW HELIX FROM AIR SIDE				
□12695	32.00	43.00	7.00	HMSA7	R	12817	1.272	1.890	.270	HMSASPL	R
□12697	32.00	42.00	7.00	HMSA7	R		W/CW HELIX FROM AIR SIDE				
12698	1.260	1.654	.394	HMSA6	V	▲12830	1.281	2.000	.375	HMSA7	R
▲□12700	32.00	42.00	7.00	†CRW1	R	□12883	33.00	50.00	6.00	HMSA7	R
□12701	32.00	42.00	7.00	†CRW1	V	12886	1.299	1.850	.313	HMSA7	P
□12705	32.00	44.00	9.00	HMS4	R		W/CW HELIX FROM AIR SIDE				
	W/STAINLESS STEEL SPRING					12900	1.299	1.969	.472	HMSA7	R
12706	1.260	1.732	.236	HMSA7	P	▲□12901	33.00	50.00	10.00	HMS4	R
	W/CW HELIX FROM AIR SIDE					12905	1.301	2.000	.438	CRSA1	P
▲□12709	32.00	45.00	7.00	HMS4	R	▲12907	1.301	2.046	.492	†CRWA1	R
□12710	32.00	45.00	8.00	†CRW1	R	12912	1.299	2.205	.315	HMSA35	P
□12711	32.00	45.00	7.00	HMSA7	R	▲12925	1.301	2.621	1.331	†HMSW108	R
□12713	32.00	48.00	7.00	HMS4	R		P.F. WIDTH .315 & 3.125 FLANGE				
□12715	32.00	50.00	8.00	HMSA7	R	12975	1.298	2.093	.286	HMS4	V
12718	1.260	1.811	.236	HMSA7	P	□12989	33.00	45.00	7.00	HMSA7	R
	W/CW HELIX FROM AIR SIDE					□12992	33.00	50.00	8.00	HMS46	R
□12719	32.00	46.00	8.00	CRS1	R	□12995	33.00	45.00	7.00	HMS4	R
□12723	32.00	48.00	5.00	HMS4	R	□12996	33.00	52.00	10.00	HMS46	R
12724	1.260	1.850	.236	HMSA7	R	□12998	33.00	52.00	6.00	HMS47	R
	W/CW HELIX FROM AIR SIDE					▲13005	1.299	2.323	.669	HMSA92	P
□12726	32.00	48.00	5.00	HMSA7	R		P.F. WIDTH .315 & 3.125 FLANGE				
□12729	32.00	47.00	7.00	HMSA7	R	▲13021	1.313	1.828	.375	†CRW1	P
□12730	32.00	47.00	8.00	†CRW1	R	▲13027	1.313	1.874	.375	†CRSA1	R
□12731	32.00	47.00	8.00	†CRW1	V	13037	1.313	2.000	.313	CRSA1	R
▲□12733	32.00	47.00	7.00	HMS4	R	▲13050	1.313	2.062	.313	†CRW1	R
▲□12734	32.00	48.00	8.00	HMSA7	R	13052	1.313	2.062	.313	†CRWA1	R
□12735	32.00	48.00	8.00	†CRW1	R	13054	1.313	2.062	.313	†CRW1	V
□12736	32.00	48.00	8.00	†CRW1	V	▲13060	1.313	2.063	.250	HM3	R
□12738	32.00	50.00	10.00	HMS4	R	13084	1.313	2.106	.375	†CRSA1	R
□12739	32.00	50.00	10.00	HMSA7	V	▲13092	1.313	2.125	.313	†CRW1	R
	W/STAINLESS STEEL SPRING					▲13112	1.313	2.250	.313	†CRW1	R
□12740	32.00	50.00	8.00	†CRW1	R	13144	1.312	1.627	.331	CRS-SPL	R
□12741	32.00	50.00	8.00	†CRW1	V		HUB SEAL				
□12742	32.00	52.00	7.00	HMSA7	R	13157	1.313	2.282	.250	†CRWA1	R
□12743	32.00	52.00	10.00	HMS4	V	▲13165	1.313	2.281	.906	†HMS15	R
▲□12744	32.00	52.00	7.00	HMS4	R		P.F. WIDTH .350				
□12745	32.00	52.00	8.00	†CRW1	R	13168	1.313	2.281	1.150	HMS15	R
□12746	32.00	52.00	8.00	†CRW1	V		P.F. WIDTH .350				
12747	1.260	2.087	.276	HMSA7	P	▲13246	1.313	2.620	1.281	HMS15	R
	W/CW HELIX FROM AIR SIDE						P.F. WIDTH .350 W/SLINGER				
□12748	32.00	52.00	11.00	HMSA7	R	13275	1.313	2.996	.500	†CRSH1	R
□12749	32.00	48.00	8.00	HMS4	R	▲13350	1.328	2.061	.313	†CRW1	R
12751	1.260	2.126	.394	HMSA12	P	□13386	34.00	45.00	8.00	HMSA7	R
	W/2.677 FLANGE					□13388	34.00	46.00	8.00	HMSA7	R
▲□12752	32.00	50.00	8.00	HMS4	R	□13390	34.00	45.00	7.00	CRS15	R
□12753	32.00	54.00	10.00	HMSA7	R	□13392	34.00	47.00	9.00	CRS11	R
12754	1.260	1.890	.354	HMSA92	R	□13396	34.00	50.00	10.00	HMS46	R
12756	1.260	1.969	.315	HMSA7	V	□13398	34.00	52.00	10.00	CRS1	R
	W/CW HELIX FROM AIR SIDE					□13403	34.00	58.00	13.00	CRSH11	R
□12757	32.00	55.00	10.00	HMS4	R	□13405	34.00	72.00	12.00	CRSH11	R

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Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
<b>13415</b>	1.328	2.031	.313	CRW1	R	<b>13582</b>	1.375	2.062	.313	†CRW1	V
▲ <b>13418</b>	1.328	2.227	.313	†CRW1	R	▲ <b>13585</b>	1.375	2.062	.313	CRW1	R
13419	1.328	2.312	.433	†CRS1	R	<b>13588</b>	1.375	2.062	.313	†CRWA1	P
▲ <b>13421</b>	1.344	2.106	.313	†CRW1	R	<b>13596</b>	1.375	2.063	.375	HMS4	R
□ <b>13423</b>	34.00	44.00	8.00	HMSA7	R	▲ <b>13598</b>	1.365	2.081	.313	†CRW1	R
□ <b>13424</b>	34.00	50.00	7.00	HMS4	R	<b>13602</b>	1.375	2.106	.313	CRWA1	R
□ <b>13425</b>	34.00	48.00	8.00	†CRW1	R	13612	1.375	2.106	.250	†HM21	R
□ <b>13426</b>	34.00	48.00	8.00	†CRW1	V	▲ <b>13614</b>	1.375	2.106	.313	†CRW1	P
<b>13427</b>	1.339	1.929	.315	HMSA7	P	13627	1.367	3.319	.496	HMSA97	P
	W/CW HELIX FROM AIR SIDE						W/BI-DIR HELIX FROM AIR SIDE				
<b>13429</b>	1.339	1.889	.315	HMSA7	R	▲ <b>13649</b>	1.375	2.125	.313	†CRW1	R
	W/CW HELIX FROM AIR SIDE					<b>13650</b>	1.375	2.125	.313	†CRWA1	R
□★ <b>13431</b>	34.00	52.00	8.00	HMSA7	R	<b>13661</b>	1.375	2.125	.313	†CRWA1	V
□ <b>13433</b>	34.00	52.00	8.00	HMS4	R	▲ <b>13662</b>	1.375	2.125	.250	†HM21	R
<b>13435</b>	1.339	2.087	.315	HMSA7	R	<b>13663</b>	1.375	2.125	.313	†CRW1	V
▲ <b>13437</b>	1.344	2.125	.313	†CRW1	R	★ <b>13668</b>	1.375	2.162	.578	†HMSHA4	S
□ <b>13438</b>	34.00	54.00	11.00	CRS1	R		P.F. WIDTH .350 W/SLINGER				
13439	1.339	2.126	.354	HMSA92	P	▲ <b>13671</b>	1.375	2.250	.313	†CRW1	R
	W/AXIAL DIRT LIP					<b>13676</b>	1.375	2.250	.313	†CRWA1	R
□ <b>13440</b>	34.00	54.00	9.00	HMSA7	R	▲ <b>13685</b>	1.375	2.250	.386	CRSA3	R
13441	1.339	2.126	.354	HMSA92	V		P.F. WIDTH .433" W/BOOT 1.188"				
▲□ <b>13445</b>	34.00	55.00	8.00	†CRW1	R	<b>13688</b>	1.375	2.250	.313	†CRW1	V
□ <b>13447</b>	34.00	55.00	9.00	HMSA7	R	▲ <b>13689</b>	1.375	2.250	.250	†HM14	R
□ <b>13450</b>	34.00	56.00	8.00	†CRW1	R	<b>13691</b>	1.375	2.250	.313	†CRWA1	V
13451	1.344	2.250	.500	†P1	L	<b>13698</b>	1.375	2.250	.250	†CRWA1	R
□ <b>13452</b>	34.00	56.00	8.00	†CRW1	V	▲ <b>13700</b>	1.365	2.261	.313	†CRW1	R
□ <b>13475</b>	34.00	62.00	8.00	†CRW1	R	13703	1.378	2.126	.315	HMSA92	V
▲ <b>13478</b>	1.339	2.480	.361	HMSA92	P		W/BI-DIR HELIX FROM AIR SIDE				
	HELIX-CCW, P.F. WIDTH .354					13704	1.387	2.295	.559	HMSA16	P
□ <b>13483</b>	34.00	62.00	10.00	HMS4	R		W/BI-DIR HELIX & PARTIAL OD RUBBER COVERED				
13484	1.339	2.559	.460	HMSA24	P	<b>13709</b>	1.378	1.890	.315	HMSA7	V
▲ <b>13492</b>	1.350	2.571	.540	CRW90	R		W/CW HELIX FROM AIR SIDE				
13495	1.358	2.756	1.602	CRS-SPL	P	▲ <b>13710</b>	1.375	2.282	.250	†HM14	R
13499	1.359	2.188	.375	†HMSA30	R	▲ <b>13711</b>	1.375	2.328	.406	HM18	R
	P.F. WIDTH .250 & SS CASE						CLEARANCE D .188				
▲ <b>13500</b>	1.362	2.191	.250	CRS1	P	□ <b>13715</b>	35.00	47.00	5.00	HMS4	R
▲ <b>13508</b>	1.375	4.555	.547	J8	R	□ <b>13718</b>	35.00	47.00	5.00	HMSA7	R
	SEE TYPE J SECTION (HMSA LIP)					13720	1.378	2.159	.354	HMSA92	R
<b>13509</b>	1.375	1.750	.197	†HM14	V	□ <b>13723</b>	35.00	47.00	6.00	HMS4	R
<b>13510</b>	1.375	1.828	.250	†CRWA1	V	□ <b>13724</b>	35.00	47.00	6.00	HMSA7	R
<b>13511</b>	1.375	1.873	.313	†CRWA1	V	13725	1.378	2.480	.394	HMSA35	P
<b>13512</b>	1.375	1.874	.250	†CRW1	P		W/BI-DIR HELIX FROM AIR SIDE				
▲ <b>13514</b>	1.375	1.750	.250	†CRW1	R	13726	1.378	2.283	.315	HMSA92	R
	W/STAINLESS STEEL SPRING						W/CW HELIX FROM AIR SIDE				
▲ <b>13527</b>	1.375	1.955	.433	†CRWA1	P	13729	1.378	3.268	.320	†HMSHA4	R
▲ <b>13529</b>	1.375	1.750	.197	HM14	R	★ <b>13731</b>	1.377	2.874	.693	HMSA97	R
▲ <b>13533</b>	1.375	1.834	.188	†HM8	R		W/BI-DIR HELIX FROM AIR SIDE				
▲ <b>13534</b>	1.375	1.874	.256	†CRW1	R	<b>13734</b>	1.375	2.374	.313	†CRW1	V
<b>13535</b>	1.375	1.874	.313	†CRWA1	R	13735	1.378	2.244	.601	HMSA16	R
▲ <b>13536</b>	1.375	1.835	.250	†CRW1	R	▲ <b>13738</b>	1.375	2.374	.313	†CRW1	R
▲ <b>13537</b>	1.375	1.828	.313	†CRW1	R	<b>13739</b>	1.375	2.374	.313	†CRWA1	R
<b>13538</b>	1.375	1.874	.256	†CRW1	V	13741	1.378	2.205	.315	HMSA92	R
▲ <b>13543</b>	1.375	1.874	.188	HM14	R	13742	1.378	2.638	.472	HMSA57	R
<b>13545</b>	1.375	1.874	.250	†HM14	P		W/CCW HELIX FROM AIR SIDE				
<b>13548</b>	1.375	1.874	.250	†HM14	R	<b>13744</b>	1.378	2.126	.315	HMSA7	V
▲ <b>13552</b>	1.375	1.938	.250	†CRWA1	R		W/CW HELIX FROM AIR SIDE				
▲ <b>13556</b>	1.375	1.938	.250	†HM14	R	<b>13745</b>	1.378	1.811	.276	HMSA7	P
▲ <b>13557</b>	1.375	1.983	.313	†CRW1	P	13748	1.378	2.677	.354	HMSA35	P
<b>13562</b>	1.375	2.000	.313	†CRWA1	P	13750	1.375	2.162	.578	†HMSHA4	E
▲ <b>13568</b>	1.375	2.000	.313	†CRW1	R	13757	1.380	2.282	.354	HMSA97	V
<b>13569</b>	1.375	2.000	.313	†CRWA1	R	▲ <b>13758</b>	1.375	2.374	.250	†HM21	R
<b>13571</b>	1.375	2.000	.313	†CRWH1	R	13759	1.375	2.244	.374	HMSA123	P
▲ <b>13573</b>	1.375	2.000	.250	†HM21	R		W/BOOT				
<b>13579</b>	1.375	2.000	.313	†CRW1	V	<b>13760</b>	1.379	2.047	.236	HMS4	P
<b>13581</b>	1.375	2.000	.313	†CRWA1	V	□ <b>13762</b>	35.00	47.00	5.00	HM4	R

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Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
□13776	35.00	42.00	4.00	HM4	R	▲13920	1.375	2.835	.313	+CRW1	R
□13779	35.00	45.00	4.00	HM4	R	□13923	35.00	72.00	8.00	+CRW1	V
13780	1.378	2.165	.209	X-SPL	R	13925	1.375	2.835	.313	+CRWA1	P
	O.D. LISTED IS PRESSFIT I.D.					13926	1.378	2.835	.313	+CRWA1	V
13792	1.378	2.283	.394	ALH1	R	W/STAINLESS STEEL SPRING					
13794	1.378	2.008	.472	HMSA123	P	▲□13927	35.00	45.00	7.00	HMS4	R
	W/CCW HELIX FROM AIR SIDE					□13928	35.00	68.00	10.00	HMS4	R
▲13796	1.375	2.437	.250	+HM21	R	13929	1.375	2.875	.313	+CRWA1	P
▲13797	1.375	2.437	.250	+CRW1	R	□13930	35.00	52.00	7.00	HMSA7	R
□13805	35.00	47.00	10.00	CRS13	R	▲13931	1.378	1.890	.591	HMSA12	P
13807	1.375	2.438	.250	X15	R	W/2.165 FLANGE					
	O.D. LISTED IS PRESSFIT I.D.					▲□13932	35.00	47.00	7.00	HMS4	R
▲13810	1.375	2.441	.313	+CRW1	R	▲□13933	35.00	50.00	7.00	HMS4	R
13812	1.375	2.441	.313	+CRWA1	R	13934	1.375	3.350	.469	+CRSH1	R
□13829	35.00	52.00	6.00	HMSA7P2	R	13936	1.375	3.125	.500	CRSH1	R
▲13839	1.375	2.500	.328	HMSA36	R	13937	1.375	3.000	.500	CRSHA1	R
13845	1.378	1.929	.295	HMSA92	R	□13938	35.00	47.00	7.00	+CRW1	R
	W/EXCLUDER LIP					□13939	35.00	47.00	7.00	+CRW1	V
13849	1.378	2.992	.315	HMSA92	P	W/STAINLESS STEEL SPRING					
	W/CW HELIX FROM AIR SIDE					□13940	35.00	55.00	11.00	HMS4	R
13850	1.378	1.969	.472	HMSASPL	P	▲□13941	35.00	48.00	8.00	+CRW1	R
	W/CCW HELIX FROM AIR SIDE					□13942	35.00	48.00	8.00	+CRW1	V
13853	1.378	2.874	.655	+HMSHA4	R	▲13943	1.378	1.969	.275	HMS4	S
□13854	35.00	52.00	9.00	CRSHA13	R	W/CW HELIX FROM AIR SIDE					
13857	1.378	1.929	.236	HMSA7	R	□13944	35.00	50.00	8.00	+CRW1	R
	W/CW HELIX FROM AIR SIDE					□13945	35.00	47.00	7.00	HMSA7	R
13858	1.378	2.480	.354	HMSA92	R	□13946	35.00	50.00	8.00	+CRW1	V
□13860	35.00	50.00	10.00	HMSA7	R	□13947	35.00	52.00	8.00	+CRWA1	P
□13861	35.00	55.00	8.00	HMSA7	R	▲□13948	35.00	52.00	7.00	HMS4	R
▲13862	1.375	2.502	.250	+HM21	R	□13949	35.00	52.00	8.00	+CRW1	R
□13863	35.00	80.00	12.00	HMSA7	R	□13951	35.00	52.00	8.00	+CRWA1	R
▲13865	1.375	2.502	.313	+CRW1	R	□13952	35.00	54.00	7.00	+CRW1	R
13867	1.375	2.502	.313	+CRW1	V	▲13953	1.378	2.097	.315	HMSA7	P
□13868	35.00	65.00	10.00	HMS4	R	W/CW HELIX FROM AIR SIDE					
13869	1.375	2.250	.313	+CRW1	P	□13954	35.00	55.00	8.00	+CRW1	R
▲13875	1.375	2.562	.375	+CRW1	R	13955	1.375	4.577	.259	J5	R
13876	1.375	2.562	.375	+CRWA1	R	SEE TYPE J SECTION (HMS LIP)					
13878	1.375	2.562	.375	+CRWA1	V	13956	1.375	4.577	.259	J5	R
▲13882	1.375	2.623	.313	+CRWA1	V	SEE TYPE J SECTION (HMS LIP)					
□13884	35.00	48.00	8.00	HMSA7	R	□13957	35.00	54.00	8.00	+CRW1	V
□13885	35.00	50.00	8.00	HMSA7	R	13958	1.378	1.983	1.549	HMSA122	P
□13887	35.00	50.00	8.00	HMS4	R	W/HELIX-CCW & P.F. WIDTH .368					
□13888	35.00	52.00	8.00	HMS4	R	▲13959	1.378	2.240	.875	+CRWA21	S
□13890	35.00	55.00	10.00	HMS4	V	P.F. WIDTH .420 W/2.540 FLANGE					
□13891	35.00	55.00	10.00	HMSA7	V	□13960	35.00	55.00	10.00	HMS4	R
	W/STAINLESS STEEL SPRING					▲□13961	35.00	56.00	8.00	+CRW1	R
▲13892	1.375	2.686	.500	+CRW1	R	□13962	35.00	56.00	8.00	+CRW1	V
□13893	35.00	55.00	10.00	HMSA7	R	□13963	35.00	55.00	8.00	CRW1	V
▲□13894	35.00	58.00	10.00	HMS4	R	▲□13966	35.00	62.00	7.00	HMS4	R
□13895	35.00	65.00	12.00	CRSA1	R	▲□13967	35.00	60.00	10.00	HMS4	R
□13896	35.00	72.00	10.00	HMSA7	R	□13969	35.00	62.00	8.00	+CRW1	V
13897	1.378	2.126	.315	HMSA56	R	□13970	35.00	62.00	8.00	+CRW1	R
	W/2.667 FLANGE O.D.					13971	1.378	2.638	.472	HMSA96	P
▲13900	1.375	2.716	.313	+CRW1	R	W/CW HELIX FROM AIR SIDE					
□13903	35.00	52.00	10.00	HMSA7	R	▲□13972	35.00	64.00	8.00	+CRW1	R
13906	1.375	2.750	.500	+CRSH1	R	▲□13973	35.00	65.00	8.00	+CRW1	R
□13907	35.00	50.00	7.00	HMSA7	R	▲□13974	35.00	68.00	8.00	+CRW1	R
□13908	35.00	46.00	8.00	HMSA7	R	□13975	35.00	69.00	8.00	+CRW1	R
□13909	35.00	48.00	9.00	HMS4	R	□13976	35.00	68.00	8.00	+CRW1	V
13911	1.378	1.614	.359	HMS41	R	13978	1.378	2.638	.709	HMSA35	P
	P.F. WIDTH .217					W/HELIX-CW P.F. WIDTH .472					
13912	1.375	2.812	.375	+CRWHA1	R	□13979	35.00	72.00	8.00	+CRW1	R
13916	1.375	2.835	.594	+TL8	R	□13980	35.00	72.00	8.00	+CRWA1	R
	SPECIAL CONST.					▲13981	1.378	2.992	.492	HMSA92	P
13918	1.375	2.835	.313	+CRWA1	R	W/CCW HELIX FROM AIR SIDE					

★Contact manufacturer for availability  
**Bold numbers** are preferred designs

□ Metric numbers

† Includes Bore-Tite on O.D.  
 ▲ WasteWatcher numbers



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Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
□13984	35.00	78.00	8.00	†CRW1	R	□14050	36.00	62.00	8.00	†CRW1	R
▲13985	1.365	1.956	.438	†CRW1	R	▲□14052	36.00	62.00	7.00	HMS4	R
▲□13986	35.00	80.00	8.00	†CRW1	R	14054	1.417	2.520	.748	HMSA56	R
□13987	35.00	50.00	10.00	HMS4	R		P.F. WIDTH .433 W/SLINGER				
13988	1.399	2.252	.313	CRWA6	P	□14055	36.00	65.00	8.00	†CRW1	R
□13989	35.00	52.00	10.00	HMS4	R	14057	1.417	2.559	.472	HMSA96	P
▲13990	1.399	2.292	.500	†CRSA1	R		W/CW HELIX FROM AIR SIDE				
	W/BI-DIR HELIX FROM AIR SIDE					14058	1.417	1.732	.197	HMSA7	R
13992	1.399	2.292	.469	†CRSA1	R	□14065	36.00	68.00	8.00	†CRW1	R
	W/BI-DIR HELIX FROM AIR SIDE					▲□14068	36.00	54.00	8.00	HMS4	R
▲□13993	35.00	55.00	8.00	HMS4	R	□14077	35.00	62.00	12.00	HMSA77	R
□13994	35.00	56.00	10.00	HMS4	R	14087	1.417	3.543	.394	HMSA7SP	R
13995	1.399	2.292	.500	D8	R		W/CW HELIX FROM AIR SIDE				
	W/BI-DIR & 2.750 FLG & SS SPG					14092	1.417	2.616	.313	†CRW1	R
□13996	35.00	62.00	10.00	HMS4	R	□14093	35.00	70.00	12.00	CRSH13	R
□13997	35.00	62.00	8.00	HMSA7	R	□14096	35.00	72.00	7.00	HMSA48	R
□13998	35.00	62.00	10.00	HMSA7	R	□14105	35.00	52.00	12.00	HMS4	R
▲□13999	35.00	72.00	10.00	HMS4	R	□14107	36.00	68.00	10.00	HMS4	R
□14000	35.00	72.00	12.00	HMS4	R	□14108	35.00	52.00	8.00	HMSA7	R
□14001	35.00	60.00	14.00	HMSA7	R	□14111	35.00	55.00	12.00	HMSA7	R
14002	1.399	2.283	.500	†HMSA16	R	□14113	35.00	62.00	7.00	HMSA7	R
	P.F. WIDTH .310					□14114	35.00	60.00	10.00	HMSA7	R
□14003	35.00	47.00	7.00	HMS4	V	□14115	36.00	50.00	7.00	HMSA1	R
□14004	36.00	46.00	9.00	CRS1	R	14116	1.142	2.047	.433	HMSA7	R
▲□14005	36.00	47.00	7.00	HMS4	R		W/BI-DIR HELIX FROM AIR SIDE				
14006	1.378	2.204	.354	HMSA92	P	□14118	35.00	45.00	7.00	HMSA7	R
14007	1.378	2.205	.630	HMSA92S	V	14119	1.400	2.282	.547	HMSA25	V
	P.F. WIDTH .394 W/2.507 FLANGE O.D., W/ROCK GUARD						W/BI-DIR HELIX FROM AIR SIDE				
14008	1.417	1.929	.276	HMSA7	P	□14121	35.00	58.00	10.00	HMSA7	R
	W/CW HELIX FROM AIR SIDE					□14123	35.00	72.00	12.00	HMSA7	R
□14009	36.00	50.00	7.00	†CRW1	R	14125	1.378	2.126	.315	HMSA7	R
□14010	36.00	50.00	8.00	†CRW1	R		W/CCW HELIX FROM AIR SIDE				
▲□14011	36.00	50.00	7.00	HMS4	R	14129	1.378	2.204	.354	HMSA92S	P
□14012	36.00	52.00	7.00	HMS4	V	□14133	35.00	80.00	10.00	HMS4	R
▲□14013	36.00	52.00	7.00	HMS4	R	□14135	35.00	80.00	10.00	HMSA7	R
14014	1.417	1.892	.906	HMSASPL	P	□14157	36.00	47.00	7.00	HMSA7	R
	P.F. WIDTH .472					□14163	36.00	52.00	7.00	HMSA7	R
□14016	36.00	52.00	8.00	†CRW1	R	□14166	36.00	50.00	7.00	HMSA7	R
□14017	36.00	52.00	8.00	†CRW1	V	□14173	36.00	50.00	10.00	HMS46	R
14018	1.378	2.441	.394	HMSA92	P	□14176	36.00	52.00	9.00	CRSH11	R
14020	1.377	2.126	.276	HMSA92	P	□14177	36.00	54.00	7.00	HMS47	R
	W/BI-DIR HELIX FROM AIR SIDE					□14183	36.00	62.00	10.00	CRSH11	R
14021	1.378	2.165	.354	HMSA92	P	□14184	36.00	72.00	12.00	CRSH11	R
	W/BI-DIR HELIX FROM AIR SIDE					14190	3.228	3.937	.394	HMSA7	P
□★14023	36.00	54.00	7.50	HMS4	R		W/CW HELIX FROM AIR SIDE				
□14024	36.00	54.00	8.00	†CRW1	R	▲14208	1.438	1.875	.250	†CRWAR5	V
□14027	36.00	54.00	8.00	†CRW1	V		W/STAINLESS STEEL SPRING				
14028	1.417	2.126	.354	HMSASPL	R	14209	1.438	2.000	.125	HM4	R
	W/EXCLUDER BOOT,W/BI-DIR HELIX					▲14211	1.438	2.003	.313	CRWAR5	V
□★14030	36.00	55.00	8.00	†HMSA27	R		W/STAINLESS STEEL SPRING				
14032	1.417	1.950	.395	HMSA33	P	14212	1.438	2.062	.313	CRW1	V
	W/CW HELIX FROM AIR SIDE					▲14214	1.438	2.062	.313	†CRWA1	R
14033	1.417	1.811	.394	HMSA7	P	14215	1.437	2.012	.312	HMSA7SP	V
	W/CCW HELIX FROM AIR SIDE					▲14223	1.438	2.125	.313	†CRW1	R
□14034	35.00	55.00	7.00	HMSA73	V	14225	1.438	2.125	.313	†CRWA1	V
14035	1.414	2.250	.250	†CRSA1	R	14234	1.502	2.132	1.080	CRSA3	R
□14037	36.00	56.00	10.00	HMS4	R	14247	1.438	2.250	.313	†CRWA1	R
□14039	36.00	58.00	10.00	HMSA7	R	14257	1.438	2.250	.250	†HM14	R
□14040	36.00	58.00	8.00	†CRW1	R	14259	1.438	2.250	.313	†CRWA1	V
▲□14043	36.00	58.00	10.00	HMS4	R	14260	1.438	2.250	.313	†CRW1	V
□14044	36.00	58.00	12.00	HMS4	R	▲14262	1.438	2.250	.313	†CRW1	R
□14045	36.00	60.00	8.00	†CRW1	R	▲14282	1.438	2.374	.313	†CRW1	R
□14046	36.00	60.00	8.00	†CRW1	V	14283	1.438	2.374	.313	†CRWA1	R
□14047	35.00	52.00	9.00	HMS4	R	▲14359	1.438	2.437	.250	†HM21	R
□14048	35.00	56.00	12.00	HMS46	R	▲14363	1.438	2.437	.313	†CRW1	R

Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
▲14381	1.400	2.484	.550	†HMSA16	R	□14712	38.00	54.00	10.00	HMS4	R
	P.F. WIDTH .500 & 2.672 FLANGE					<b>14713</b>	1.496	1.969	.315	HMSA7	S
▲14383	1.438	2.502	.313	†CRW1	R	W/CW HELIX FROM AIR SIDE					
▲14384	1.438	2.003	.313	CRWAR5	R	□14714	38.00	50.00	8.00	HMSA7	R
14387	1.399	2.482	.536	†HMSA16	V	□14716	38.00	50.00	7.00	HMSA7	R
	P.F. WIDTH .500 & 2.672 FLANGE					□14717	38.00	52.00	7.00	HMSA7	R
14391	1.438	2.003	.313	CRWAR5	H	□14718	38.00	55.00	7.00	HMSA7	R
	W/STAINLESS STEEL SPRING					▲□14719	38.00	55.00	7.00	HMS4	R
▲14393	1.399	2.484	.515	HMSA16	V	□14720	38.00	55.00	8.00	†CRW1	R
	P.F. WIDTH .280 & 2.672 FLANGE					□14721	38.00	55.00	8.00	†CRW1	V
▲14404	1.438	2.623	.313	†CRW1	R	14722	1.496	2.166	.512	HMSA122	P
▲14423	1.438	2.686	.313	†CRW1	R	W/CCW HELIX FROM AIR SIDE					
▲14458	1.438	2.750	.313	†CRW1	R	□14724	38.00	56.00	8.00	†CRW1	V
□14469	37.00	47.00	4.00	HMS4	R	□14725	38.00	56.00	8.00	†CRW1	R
□14471	37.00	47.00	4.00	HMSA7	R	□14726	38.00	62.00	10.00	HMS4	R
□14476	37.00	47.00	4.00	HM4	R	□14727	38.00	56.00	10.00	HMS4	R
14477	1.437	1.987	.276	HMSA7	S	▲□14730	38.00	58.00	8.00	†CRW1	R
	W/CW HELIX FROM AIR SIDE					14731	1.496	2.283	.315	KIT	R
14484	1.457	3.071	.472	HMS4SPL	R	SEE KIT SECTION					
	W/BI-DIR HELIX FROM AIR SIDE					□14732	38.00	58.00	8.00	†CRW1	V
□14489	37.00	52.00	8.00	HMS4	R	▲□14733	38.00	62.00	7.00	HMS4	R
□14494	37.00	55.00	10.00	CRSH1	R	□14737	38.00	62.00	10.00	HMSA7	R
14496	1.457	1.650	.315	ENDCAP	P	14738	1.496	2.323	.354	HMSA6	P
14500	1.457	2.441	.483	HMSA92	R	W/CW HELIX FROM AIR SIDE					
14502	1.457	2.441	.276	HMA12	P	14739	1.496	2.362	.315	HMSA92	V
14510	1.457	2.441	.492	ALH1	P	HELIX-CW/OVERALL WIDTH 14.58					
14514	1.457	2.165	.315	HMSA96	P	▲□14740	38.00	60.00	8.00	†CRW1	R
14520	1.457	2.402	.315	HMSA35	P	□14741	38.00	60.00	8.00	†CRW1	V
14560	1.377	1.949	.276	HMSA7	P	□14742	38.00	62.00	8.00	†CRW1	R
	W/CW HELIX FROM AIR SIDE					□14743	38.00	62.00	8.00	†CWA1	R
14566	1.457	2.205	.354	HMS4	R	□14744	38.00	62.00	8.00	†CRW1	V
14569	1.457	2.378	.433	CRSA3	P	□14746	38.00	60.00	10.00	HMS4	R
	W/BOOT					14747	1.496	2.283	.394	HMSA92	R
□14571	37.00	52.00	10.00	CRSH13	R	□14748	38.00	65.00	12.00	HMSA35	P
□14572	37.00	58.00	13.00	CRSH11	R	14749	1.496	2.480	.394	HMSA29	P
□14573	37.00	62.00	9.00	CRSH13	R	W/AXIAL DIRT LIP					
□14574	37.00	62.00	10.00	HMS46	R	▲□14750	38.00	65.00	8.00	†CRW1	R
□14575	37.00	62.00	12.00	CRSH11	R	□14751	38.00	62.00	10.00	HMS4	V
14600	1.457	2.047	.328	HMA11	R	□14752	38.00	62.00	10.00	HMSA7	V
	P.F. WD .228 W/AXIAL DIRT LIP					W/STAINLESS STEEL SPRING					
14631	1.473	1.971	.563	HMA10	R	□14753	38.00	58.00	11.00	HMSA3	R
14634	1.475	2.509	.350	CRS-SPL	R	▲□14755	38.00	68.00	8.00	†CRW1	R
	HUB SEAL					14756	1.496	2.362	.433	HMSA-SP	S
14635	1.465	2.372	1.508	CRSA3	P	W/BI-DIR HELIX FROM AIR SIDE					
	W/AUX DIRT BOOT & P.F. .433					14758	1.496	2.559	.394	HMSA29	P
▲14641	1.469	2.374	.375	†CRSA1	R	W/AXIAL DIRT LIP					
14652	1.465	2.372	.433	HMS-SPL	R	14759	1.496	2.087	.304	HMSHA7	V
□14671	37.00	50.00	6.00	HMSA7	P	HELIX-CCW & INNER CASE					
	CW HELIX FROM AIR SIDE					□14760	38.00	70.00	8.00	†CRW1	R
□14691	38.00	54.00	8.00	HMSA92	R	▲□14761	38.00	72.00	10.00	HMS4	R
14694	1.470	2.913	1.688	†HMS-SPL	#	14762	1.575	2.835	.433	HMSA92	P
□14695	38.00	47.00	7.00	HMSA1	R	□14763	38.00	58.00	8.00	HMSA3	R
□14697	38.00	48.00	4.00	HM4	R	□14764	38.00	72.00	8.00	†CRW1	R
14700	1.479	2.563	.470	†HM79	R	□14765	38.00	73.00	8.00	†CRW1	R
□14701	38.00	50.00	7.00	†CRW1	R	14766	1.496	2.913	.433	HMSA29	P
□14702	38.00	51.00	7.50	HMSA1	R	W/AXIAL DIRT LIP					
□14703	38.00	50.00	7.00	†CRW1	V	▲□14767	38.00	74.00	11.00	†CWA1	R
□14704	38.00	52.00	8.00	†CRW1	R	□14768	38.00	74.00	11.00	†CRW1	V
□14705	38.00	52.00	8.00	†CWA1	R	□14771	38.00	62.00	7.00	HMSA7	R
□14706	38.00	52.00	8.00	†CRW1	V	□14772	38.00	55.00	8.50	HMSA1	R
▲□14707	38.00	50.00	7.00	HMS4	R	14773	1.496	1.937	.354	HMSA1	P
▲□14708	38.00	53.00	8.00	†CRW1	R	□14774	38.00	80.00	8.00	†CRW1	R
▲□14709	38.00	52.00	7.00	HMS4	R	★14775	1.496	2.047	.236	†WP2	R
▲□14710	38.00	54.00	7.00	CRW1	P	□14776	38.00	70.00	10.00	HMS4	R
□14711	38.00	52.00	8.00	HMS4	R	□14778	38.00	60.00	10.00	HMSA7	R

★Contact manufacturer for availability  
**Bold numbers** are preferred designs

□ Metric numbers

† Includes Bore-Tite on O.D.  
 ▲ WasteWatcher numbers



## Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
▲14780	1.491	2.191	.250	CRSA1	R	<b>14968</b>	1.500	2.260	.406	†CRW1	R
14782	1.417	2.165	.433	ALA1	R	▲14970	1.500	2.286	.270	X15	R
▲□14785	38.00	90.00	8.00	†CRWA1	R		O.D. LISTED IS PRESSFIT I.D.				
14787	1.457	2.205	.354	HMSASPL	V	14971	1.500	2.286	.420	XH15	R
	W/BI-DIR HELIX FROM AIR SIDE						O.D. LISTED IS PRESSFIT I.D.				
▲14789	1.494	2.060	.270	†CRW1	R	<b>14972</b>	1.500	2.328	.500	†HM14	R
14790	1.496	2.008	.512	HMSA25	P	▲14974	1.500	2.328	.500	HM18	R
14804	1.500	1.874	.188	HM14	R		CLEARANCE D .286				
▲14807	1.500	1.874	.250	CRW1	R	▲14975	1.500	2.328	.390	HM18	R
	W/STAINLESS STEEL SPRING						CLEARANCE D .188				
14808	1.500	1.874	.188	†HM14	V	<b>14977</b>	1.500	2.328	.500	†CRWA5	R
14809	1.500	1.918	.250	CRW1	V		W/STAINLESS STEEL SPRING				
	W/STAINLESS STEEL SPRING					▲14978	1.500	2.372	.375	†CRWA41	R
▲14810	1.500	1.874	.250	†HM14	R		W/EXTENDED RADIAL DIRT LIP				
▲14816	1.500	1.938	.250	†HM14	R	<b>14979</b>	1.500	2.311	.500	†CRWA5	V
14821	1.500	1.983	.250	†CRW1	V		W/STAINLESS STEEL SPRING				
14824	1.500	1.983	.250	†CRWA1	R	14982	1.500	2.372	1.500	†KIT	R
▲14832	1.500	1.983	.313	†CRW1	R	□14984	38.00	50.00	10.00	CRS11	R
14834	1.500	1.983	.250	†CRWA1	V	<b>14992</b>	1.500	2.374	.313	†CRW1	V
▲14840	1.500	1.983	.188	HM14	R	<b>14994</b>	1.500	2.374	.313	†CRWA1	V
▲14844	1.500	1.997	.250	†CRWA5	V	▲15004	1.500	2.374	.313	†CRW1	R
	W/STAINLESS STEEL SPRING					<b>15005</b>	1.500	2.374	.313	†CRWA1	R
14846	1.500	2.000	.313	†CRWA1	R	<b>15012</b>	1.500	2.250	.500	†CRWH1	R
▲14848	1.500	1.989	.250	†HMA22	R	15023	1.503	2.375	.720	HMSA26	V
▲14855	1.500	2.000	.313	†CRW1	R		W/CCW HELIX				
▲14857	1.500	2.000	.250	†HM14	R	15025	1.503	2.375	.720	CRSA3	P
▲14858	1.500	2.048	.313	†CRWA1	R		W/CCW HELIX & PF.314"				
14861	1.500	2.000	.313	†CRW1	V	▲15032	1.500	2.374	.250	†HM21	R
▲14863	1.500	2.062	.210	†HM14	R	<b>15039</b>	1.500	2.374	.500	†CRWH1	R
▲14864	1.500	2.062	.313	†CRW1	R	▲15041	1.500	2.377	.453	†CRWA1	R
14867	1.500	2.062	.313	†CRW1	V	15047	1.500	2.376	.815	†HMSA25	P
14868	1.500	2.064	.375	†CRWA5	V		HELIX-CCW & P.F. WIDTH .402"				
	W/STAINLESS STEEL SPRING					□15053	38.00	54.00	6.50	HMS46	R
14869	1.500	2.000	.188	HM8	R	15054	1.500	2.377	.450	KIT	R
14872	1.500	2.125	.250	CRWH3	V	□15063	38.00	55.00	10.00	HMS47	R
	W/SS CASE & SPRING					□15067	38.00	56.00	12.00	CRS11	R
▲14875	1.500	2.125	.313	†CRW1	R	□15068	38.00	58.00	10.00	HMS46	R
14876	1.500	2.125	.313	†CRWA1	R	□15071	38.00	60.00	7.00	HMS43	V
14886	1.500	2.125	.313	†CRW1	V	▲15076	1.500	2.437	.313	†CRW1	R
14887	1.500	2.125	.313	†CRWA1	V	▲15080	1.500	2.437	.250	†HM14	R
14891	1.496	2.913	.433	HMSA96	P	<b>15092</b>	1.500	2.441	.313	CRW1	R
	W/BI-DIR HELIX FROM AIR SIDE					<b>15093</b>	1.500	2.441	.313	†CRWA1	R
14896	1.500	2.187	.500	X1	L	<b>15097</b>	1.500	2.441	.313	†CRW1	V
	O.D. LISTED IS PRESSFIT I.D.					□15112	38.00	72.00	12.00	HMS47	R
14900	1.496	2.362	.433	HMSA123	P	□15114	38.00	74.00	10.00	HMSA77	R
	W/CCW HELIX FROM AIR SIDE					□15115	38.00	80.00	12.00	HMS46	R
14903	1.500	2.222	.313	†CRW1	R	15120	1.500	2.502	.625	†C8	RR
14907	1.484	2.254	.313	†CRW1	R	□15121	38.00	65.00	10.00	HMS4	R
14921	1.378	2.441	.472	HMSA35	P	15128	1.512	2.207	.354	†HMSHA4	#
	W/BI-DIR HELIX FROM AIR SIDE					15133	1.503	2.374	.374	†CRSA3	P
14922	1.496	2.564	.315	HMS4	R		W/CCW HELIX FROM AIR SIDE				
	W/BI-DIR HELIX FROM AIR SIDE					<b>15138</b>	1.500	2.502	.313	†CRW1	V
14934	1.496	2.559	.354	HMSA35	P	<b>15141</b>	1.500	2.502	.313	†CRW1	R
	W/BI-DIR HELIX FROM AIR SIDE					<b>15142</b>	1.500	2.502	.313	†CRWA1	R
14935	1.500	2.250	.313	†CRW1	S	15145	1.500	2.500	.375	KIT	R
14936	1.496	1.969	.394	HMSA7	V	▲15160	1.500	2.502	.250	†HM21	R
	HELIX-CW FROM AIR SIDE					▲15174	1.500	2.462	.290	X13	R
▲14938	1.500	2.250	.313	†CRW1	R		O.D. LISTED IS PRESSFIT I.D.				
14939	1.500	2.250	.313	†CRWA1	R	▲15176	1.500	2.561	.313	†CRW1	R
14940	1.500	2.250	.313	†CRW1	V	▲15190	1.500	2.623	.250	HM21	R
14942	1.500	2.250	.313	†CRWA1	V	▲15194	1.500	2.623	.313	†CRW1	R
14956	1.496	1.969	.315	HMSA7	V	▲15204	1.500	2.716	.438	†CRW1	R
14958	1.496	2.275	.427	HMSA7	P	▲15207	1.500	2.686	.500	†CRW1	R
▲14960	1.500	2.250	.250	HM21	R	▲15209	1.500	2.716	.250	†HM21	R
▲14966	1.500	2.254	.250	†HM21	R	▲15214	1.500	2.750	.313	†CRW1	R

Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
▲15230	1.500	2.758	.313	†CRW1	R	15512	1.578	2.165	.295	HMSA96	P
▲15234	1.500	2.835	.313	†CRW1	R	▲15517	1.563	2.125	.313	CRW1	R
▲15235	1.500	2.875	.313	†CRW1	R	15518	1.563	2.125	.313	†CRWA1	P
▲15240	1.500	2.996	.500	CRSH1	R	▲15522	1.563	2.250	.313	†CRW1	R
15241	1.500	3.000	.375	CRSA1	R	15525	1.552	3.160	.630	HMSHA25	V
15243	1.500		.563	J6-KIT	R						
	SEE TYPE J SECTION (CRW LIP)										
15250	1.500	3.125	.625	C8	RR	15529	1.552	2.447	.500	HMSA57	V
15270	1.504	1.937	.475	HMSA76	P						
	W/HELIX-CCW & P.F. WIDTH .315					15530	1.563	2.237	.290	X4	R
□15292	38.50	58.00	11.00	HMSA7	R						
15298	1.535	2.047	.248	HMSA96	P	15532	1.563	2.250	.250	†HM14	R
15300	1.535	2.047	.276	HMSA7	P	15535	1.563	2.250	1.520	CRSA3	R
	W/CW HELIX FROM AIR SIDE										
15302	1.535	2.165	.315	HMSA7	V	15536	1.563	2.250	1.520	KIT	R
	W/CW HELIX FROM AIR SIDE					15540	1.563	2.374	.313	CRW1	P
★15305	1.524	2.656	.424	†HMSA12	R	▲15542	1.563	2.374	.313	†CRW1	R
	W/CW HELIX FROM AIR SIDE					15543	1.563	2.374	.313	†CRWA1	R
▲15306	1.520	2.656	.425	HMSA16	R	15544	1.563	2.374	.250	†HM21	R
	HELIX-CCW & PF WIDTH .388					15545	1.552	3.160	.546	HMSHA26	V
15310	1.535	2.244	.669	HMSA92	P						
	W/AXIAL DIRT LIP					▲15546	1.563	2.372	1.070	HMSA31	P
15312	1.535	2.244	.844	HMSA92	P						
	W/AXIAL DIRT LIP					15549	1.563	2.374	.313	†CRWA1	V
15315	1.524	2.656	.424	HMSA16	E	▲15557	1.578	2.408	.313	†CRWHA1	R
	W/CW HELIX FROM AIR SIDE					15558	1.575	2.461	.433	HMSA7	R
15330	1.500	2.374	.563	KIT	R	15560	1.552	2.446	.500	†D8	RT
15343	1.524	2.374	.375	†CRSH1	R	15566	1.552	3.160	.546	HMSHA25	P
15345	1.535	2.244	.380	HMSA7	V						
	W/CW HELIX					▲15592	1.563	2.437	.313	CRW1	R
□15352	39.00	62.00	12.00	CRSH11	R	▲15620	1.563	2.441	.500	†CRWA1	R
15353	1.535	2.323	.472	D7-SPL	PP	15624	1.563	2.465	.374	†CRWA1	P
□15354	39.00	65.00	9.00	HMS-SPL	P	15629	1.562	2.442	.500	HMSA97	R
	W/CCW HELIX FROM AIR SIDE					15635	1.563	2.502	.313	†CRWA1	R
□15356	39.00	68.00	9.00	HMS-SPL	P	▲15649	1.563	2.502	.250	†HM21	R
	W/CW HELIX FROM AIR SIDE					▲15655	1.563	2.502	.313	†CRW1	R
15357	1.535	3.228	.512	HMSA24	P	15656	1.563	2.502	.313	†CRW1	V
15359	1.535	1.969	.453	HMS4SPL	P	15660	1.563	2.531	.500	X15	R
15363	1.535	2.126	.236	HMA1	R						
15370	1.575	2.283	.394	HMSA7	P	15662	1.562	2.460	.374	†CRWA1	V
▲15372	1.535	2.323	.669	HMSA92	R	15669	1.575	2.205	.354	HMSA35	P
	W/AXIAL DIRT LIP										
15376	1.524	2.714	.500	HMS9	R	□15672	40.00	55.00	10.00	HMS4	R
15382	1.535	2.953	.647	HMSA56	P	□15675	40.00	55.00	10.00	HMSA7	R
15394	1.535	1.969	.315	HMSA7	P	▲15677	1.563	2.561	.313	†CRW1	R
	W/CW HELIX FROM AIR SIDE					15692	1.568	2.620	1.000	HMS15	R
15440	1.552	2.447	.500	HMSA78	RT						
	W/EXTENDED RADIAL DIRT LIP					15696	1.562	2.625	.562	†KIT	R
▲15445	1.535	1.968	.335	HMSA3	R						
▲15450	1.552	2.502	.500	†CRWA1	R	▲15699	1.563	2.623	.313	†CRW1	R
15451	1.535	1.969	.276	HMSHA7	V	15701	1.575	2.087	.315	HMSA7	P
	W/CCW HELIX FROM AIR SIDE										
▲15460	1.552	2.686	.500	†CRW1	R	15702	1.563	2.684	.438	X	R
15462	1.552	2.750	.500	†CRWHA1	P						
15463	1.535	2.244	.512	F2	PF	15703	1.575	2.047	.276	CRSA1	R
15500	1.515	2.087	.315	HMSA7	P						
	W/CCW HELIX FROM AIR SIDE					15704	1.575	2.520	.394	HMSA96	P
15502	1.552	2.750	.590	CRSA8	R	15706	1.575	2.244	.512	HMSA7S	P
	W/BI-DIR HELIX FROM AIR SIDE					▲15707	1.563	2.686	.313	†CRW1	R
15503	1.552	3.160	.546	KIT	V	15709	1.575	2.205	.354	HMSA7	P
	W/BI HELIX & 3M BEAD ON OD										
15506	1.563	2.062	.250	†CRW1	V	□15712	40.00	60.00	6.00	HMS4	V
▲15508	1.563	2.062	.250	†CRW1	R	□15713	40.00	46.00	8.00	HMS4	R
▲15509	1.563	2.062	.203	†HM14	R	15714	1.457	2.378	.433	CRSA3	P
15510	1.578	2.082	.250	†CRW1	R						
						□15715	40.00	46.00	8.00	HMSA7	R

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 ▲ WasteWatcher numbers

## Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
15716	1.575	2.161	.511	†HMSA16	P	□15825	40.00	56.00	8.00	†CRW1	R
<b>15718</b>	1.575	2.362	.198	HMS4	V	□15826	40.00	56.00	7.00	†CRW1	V
	W/CW HELIX FROM AIR SIDE					▲□15828	40.00	56.00	8.00	HMS4	R
15719	1.563	2.687	.250	†HM21	R	□15829	40.00	56.00	8.00	HMSA7	R
15721	1.575	2.281	.472	HMSHA4	P	□15830	40.00	57.00	8.00	†CRW1	R
	W/BI-DIR HELIX FROM AIR SIDE					□15835	40.00	58.00	8.00	†CRW1	R
15724	1.575	2.048	.354	HMSA33	R	□15836	40.00	58.00	8.00	†CRW1	V
15727	1.575	2.283	.415	HMSA25	V	▲□15838	40.00	58.00	9.00	HMSA7	R
<b>15729</b>	1.563	2.441	.500	HMSA7	R	▲□15839	40.00	60.00	10.00	HMS4	R
▲15730	1.563	2.686	.375	†HM14	R	□15840	40.00	60.00	8.00	†CRW1	R
15731	1.575	2.040	.290	HMSA32	R	□15841	40.00	60.00	8.00	†CRW1	V
□15732	40.00	50.00	7.00	HMSA7	R	15842	1.575	2.362	.315	HMSA35	R
15733	1.575	2.480	.315	HMSA92	P		W/AXIAL DIRT LIP				
<b>15736</b>	1.575	2.283	.236	HMSA7	P	15843	1.575	2.126	.517	HMS15	R
15737	1.575	2.480	.354	HMSHA83	V		P.F. WIDTH .315				
	W/CCW HELIX FROM AIR SIDE					□15844	40.00	60.00	10.00	HMSA7	R
□15738	40.00	47.00	4.00	HM4	R	□15845	40.00	62.00	8.00	†CRW1	R
□15740	40.00	50.00	4.00	HM4	R	□15846	40.00	62.00	8.00	†CRW1	V
15742	1.575	2.283	.354	HMSA92	P	▲□15847	40.00	62.00	7.00	HMS4	R
	W/CCW HELIX FROM AIR SIDE					□15848	40.00	62.00	10.00	HMS4	R
□15743	40.00	52.00	5.00	HM4	R	15849	1.575	2.520	.688	HMSA92S	P
□15745	40.00	52.00	6.00	HMSA7	R		P.F. WD .472 W/ROCK GUARD				
▲15746	1.575	2.165	.328	†HMA9	R	□15850	40.00	65.00	8.00	†CRW1	R
	P.F. WIDTH .220 & 2.550 FLANGE					□15851	40.00	62.00	7.00	HMSA7	R
□15747	40.00	50.00	8.00	HMS4	R	▲□15852	40.00	65.00	10.00	HMS4	R
15748	1.563	2.716	.469	†CRSH1	R	□15853	40.00	68.00	10.00	HMS4	R
▲15750	1.575	2.283	.354	†CRWA3	R	□15854	40.00	68.00	8.00	†CRW1	R
	W/2.519 FLANGE					□15855	40.00	70.00	8.00	†CRW1	R
15753	1.575	2.520	.472	HMSA12	P	□15856	40.00	62.00	10.00	HMSA7	V
	W/3.085 FLANGE						W/STAINLESS STEEL SPRING				
▲15761	1.563	2.750	.500	†CRWH1	R	▲□15857	40.00	72.00	7.00	HMS4	R
15766	1.563	2.758	.500	W4	R	▲□15858	40.00	68.00	8.00	HMSA7	R
▲15773	1.563	2.875	.313	†CRW1	R	40.00	72.00	10.00	HMS4	R	
15779	1.563	2.875	.313	†CRWA1	P	□15860	40.00	72.00	8.00	†CRW1	R
▲15788	1.552	3.160	.665	CRWA31	P	□15861	40.00	72.00	7.00	HMS4	V
	P.F. WIDTH .250						W/STAINLESS STEEL SPRING				
15790	1.563	2.920	.409	HMSA96S	R	□15862	40.00	75.00	8.00	†CRW1	V
	W/CW HELIX FROM AIR SIDE					▲□15863	40.00	74.00	8.00	†CRW1	R
15791	1.552	3.160	.530	CRSHA8	V	15866	1.575	2.992	.492	HMSA92	P
15796	1.575	2.284	.315	HMSA92	P		HELIX-CW & P.F. WIDTH 9MM				
□15798	40.00	55.00	12.00	HMS46	R	15867	1.575	2.992	.492	HMSA92	P
15799	1.575	2.953	.669	HMSA35	R		HELIX-CCW,P.F. WIDTH .354(9MM)				
	W/3.327 FLANGE P.F. WIDTH .551					□15868	40.00	72.00	10.00	HMSA7	R
<b>15800</b>	1.575	2.047	.276	HMSA7	P	□15869	40.00	60.00	12.00	HMS4	R
	W/CW HELIX FROM AIR SIDE					□15870	40.00	80.00	8.00	†CRW1	R
□15801	40.00	52.00	7.00	HMSA7	R	□15871	40.00	80.00	10.00	HMS4	V
15802	1.575	2.047	.260	HMSA92	R	▲□15872	40.00	80.00	10.00	HMS4	R
	W/AXIAL DIRT LIP					□15873	40.00	80.00	10.00	HMSA7	V
□15803	40.00	52.00	7.00	†CRW1	V	□15874	40.00	65.00	14.00	HMSA7	R
	W/STAINLESS STEEL SPRING					□15876	40.00	58.00	10.00	HMS4	R
▲□15804	40.00	52.00	7.00	HMS4	R	□15877	40.00	80.00	12.00	HMSA7	R
□15805	40.00	52.00	7.00	†CRW1	R	□15878	40.00	68.00	12.00	HMS4	R
▲□15807	40.00	54.00	5.50	HMSA1	R	□15879	40.00	58.00	9.00	CRSA13	R
□15808	40.00	52.00	8.00	HMSA7	R	<b>15881</b>	1.575	2.126	.394	HMSA7	P
15809	1.575	2.087	.906	HMSA8	R		W/ENCAPSULATED SPRING				
	P.F.WD .472, W/2.835 FLG O.D.					15882	1.575	2.953	.467	HMSA29	R
▲□15810	40.00	54.00	7.00	†CRW1	R		W/CCW HELIX FROM AIR SIDE				
▲□15815	40.00	55.00	7.00	HMS4	R	15883	1.575	2.953	.394	HMSA96	P
<b>15818</b>	1.575	2.165	.236	HMSA7	V	15884	1.575	2.087	.197	HMA76	R
	W/CW HELIX FROM AIR SIDE					15886	1.575	2.953	.472	HMSA92	P
□15819	40.00	55.00	7.00	HMSA7	R	15887	1.575	2.559	.708	HMSASPL	P
□15820	40.00	55.00	8.00	†CRW1	R	15888	1.575	2.205	.315	HMSA92	P
□15821	40.00	55.00	8.00	†CRW1	V	▲□15890	40.00	90.00	8.00	†CRW1	R
□15822	40.00	55.00	8.00	HMSA7	R	15891	1.574	2.598	.315	HMSA96	P
□15823	40.00	55.00	8.00	HMS4	R		W/CW HELIX FROM AIR SIDE				

Numerical — complete index

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15892	1.575	2.559	.472	HMSA92	R	▲□16034	41.00	55.00	8.00	†CRW1	R
□15893	40.00	60.00	10.00	CRSA1	R	16036	1.614	2.165	.275	HMSA29	R
□15898	40.00	62.00	6.00	HMSA7P2	R					W/AXIAL DIRT LIP	
15900	1.575	2.677	.500	D8-SPL	P	16037	1.614	2.323	.394	HMSA92	P
	P.F. WIDTH .455 W/2.988 FLANGE					16038	1.614	2.402	.394	HMSA92	P
15902	1.575	2.441	.354	HMSA55	P					W/AXIAL DIRT LIP, CW HELIX	
	P.F. WIDTH .455 W/2.600 FLANGE					16039	1.625	2.000	.250	†CRW1	V
□15907	40.00	62.00	10.00	HMS4	V	16040	1.618	2.531	.438	†CRWA1	R
15910	1.594	2.067	.236	HMSA7	P	□16041	41.00	62.00	8.00	†CRW1	R
	W/CW HELIX FROM AIR SIDE					□16043	41.00	62.00	12.00	D8	P
□15914	40.00	62.00	10.00	HMSA7	R	▲16044	1.618	2.575	.500	†CRSA1	R
▲15915	1.594	2.125	.313	†CRW1	P					W/BI-DIR HELIX FROM AIR SIDE	
□15919	40.00	65.00	12.00	CRS13	R	16045	1.625	2.125	.250	CRWA5	V
15920	1.594	2.283	.315	HMSA7	P					W/STAINLESS STEEL SPRING	
□15922	40.00	68.00	7.00	CRS13	R	▲16046	1.619	2.000	.250	†CRW1	R
□15930	40.00	70.00	12.00	CRSH11	R	16047	1.625	2.116	.313	†CRWA1	R
□15934	40.00	72.00	7.00	HMSA7	V	16048	1.625	2.125	.250	†CRW1	V
□15937	40.00	55.00	10.00	CRS1	R					W/STAINLESS STEEL SPRING	
□15939	40.00	80.00	10.00	HMSA7	R	16049	1.625	2.250	.375	†CRW1	P
15940	1.594	2.437	.313	†CRW1	P	▲16054	1.625	2.125	.250	†CRW1	R
□15944	40.00	90.00	10.00	HMS48	R	▲16055	1.625	2.125	.250	†HM14	R
□15945	40.00	90.00	12.00	HMSA79	R	▲16061	1.625	2.250	.313	†CRW1	R
□15948	40.00	78.00	10.00	HMSA7	R	▲16062	1.625	2.248	.313	†CRWA1	R
□15950	40.00	65.00	12.00	HMS4	R	16064	1.625	2.328	.438	TL7	R
▲15955	1.594	2.437	.313	†CRW1	R	▲16065	1.625	2.250	.250	†HM21	R
□15958	40.00	62.00	8.00	HMS4	R	▲16069	1.625	2.328	.438	†HM18	R
▲15960	1.594	2.502	.313	†CRW1	R					CLEARANCE D .235	
□15961	40.00	62.00	8.00	HMSA7	R	16072	1.625	2.374	.313	†CRWH1	R
□15963	40.00	65.00	10.00	HMSA7	R	16077	1.625	2.374	.313	†CRW1	V
□15964	40.00	68.00	10.00	HMSA7	R	16078	1.625	2.250	.313	CRW1	V
15966	1.598	2.476	.394	†CRSA3	P					W/STAINLESS STEEL SPRING	
	W/CW HELIX FROM AIR SIDE					16079	1.625	2.374	.500	†CRWH1	R
15967	1.575	2.126	.315	HMSA1	R	16083	1.625	2.282	.313	†CRW1	R
15968	1.594	2.623	.313	†CRW1	R	▲16084	1.625	2.374	.313	†CRW1	R
15974	1.592	2.406	.354	HMSA96	P	16085	1.625	2.374	.313	†CRWA1	R
	W/BI-DIR HELIX FROM AIR SIDE					16091	1.625	2.374	.313	CRWA1	P
15975	1.594	2.758	.313	†CRW1	R	▲16092	1.625	2.374	.250	†HM21	R
15977	1.598	2.476	.394	†CRSA3	P	16094	1.625	2.374	.250	CRW1	R
	W/CW HELIX, LONG BOOT					16095	1.625	2.375	.250	HM14	R
15978	1.575	2.441	.365	HM4SPL	R	16110	1.625	2.375	.395	CRWA6	R
15984	1.594	3.150	.390	D7	P	16114	1.614	2.950	.430	HMSA96	P
□15985	40.00	72.00	7.00	HMSA7	R					W/BI-DIR HELIX FROM AIR SIDE	
□15989	40.00	62.00	7.00	HMSA92	P	▲16115	1.625	2.375	.395	CRWA6	V
	W/CW HELIX									W/STAINLESS STEEL SPRING	
□15998	40.00	58.00	8.00	HMS4	R	16116	1.625	2.403	.360	CRSA4	R
16003	1.614	2.126	.236	HMSA7	P					W/2.675 FLANGE O.D.	
	W/CW HELIX FROM AIR SIDE					▲16117	1.625	2.437	.313	†CRW1	R
□16006	40.00	62.00	12.00	HMS4	R	16118	1.625	2.437	.313	†CRWA1	R
□16009	40.00	62.00	12.00	HMSA7	R	16119	1.625	2.437	.313	†CRW1	V
16013	1.614	2.244	.315	HMSA96	P	16120	1.625	2.437	.313	†CRWA1	V
	W/CW HELIX FROM AIR SIDE					16121	1.625	2.437	.374	CRSHA1	R
16015	1.614	2.284	.512	HMS15	P	16122	1.648	2.332	.591	†HMSA1	V
	P.F. WIDTH .354 (9MM)					16139	1.614	2.569	.433	HMSA25	P
16017	1.614	2.677	.456	DB-SPL	P					W/BI-DIR HELIX FROM AIR SIDE	
16019	1.614	2.677	.354	HMSA92	R	16144	1.614	2.950	.430	HMSA57	P
	W/CW HELIX FROM AIR SIDE									W/CW HELIX FROM AIR SIDE	
▲16020	1.609	1.906	.250	HM3	R	▲16146	1.618	2.841	.500	†CRSA4	R
	W/STAINLESS STEEL CASE									W/3.179 FLANGE O.D.	
16021	1.614	2.913	.354	HMSA29	R	16147	1.614	2.165	.276	HMSA7	P
16022	1.575	2.047	.276	HMSHA7	V					W/CW HELIX FROM AIR SIDE	
	W/CW HELIX FROM AIR SIDE					▲16168	1.625	2.437	.250	†HM21	R
16023	1.614	2.323	.315	HMS4	R	▲16180	1.625	2.441	.313	†CRW1	R
	W/CW HELIX FROM AIR SIDE					16189	1.625	2.441	.625	CRWHA3	RR
□16024	40.00	68.00	8.00	HMS4	R	16201	1.625	2.441	.313	†CRWA1	R
▲□16032	41.00	53.00	7.00	†CRW1	R						

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16204	1.625	2.443	.640	†C8	RR	□16498	42.00	58.00	10.00	HMS4	R		
16225	1.625	2.437	.313	†HMS14	S	16499	1.654	2.550	.550	HMSA56	P		
<b>16242</b>	W/CW HELIX FROM AIR SIDE		1.625	2.502	.250	CRWH3	V	16500	1.645	2.656	.400	†CRSA1	P
<b>16243</b>	W/SS CASE & SPRING		1.625	2.502	.313	†CRWA1	V	□16502	42.00	55.00	6.00	HM1	R
▲16245	1.625	2.502	.313	†CRW1	R	▲□16503	42.00	55.00	8.00	†CRW1	R		
<b>16246</b>	1.625	2.502	.313	†CRWA1	R	□16504	42.00	56.00	7.00	†CRW1	V		
<b>16247</b>	1.625	2.502	.313	CRWA1	P	▲□16505	42.00	56.00	8.00	†CRW1	R		
<b>16254</b>	1.625	2.502	.375	†CRWHA1	R	▲16506	1.654	2.213	.236	HMA1	R		
<b>16257</b>	1.625	2.502	.374	†CRWHA1	V	□16507	42.00	55.00	8.00	†CRW1	V		
16262	1.625	2.409	.545	HMSA24	R	▲16508	1.654	2.213	.374	HMA101	R		
▲16270	1.625	2.502	.250	†HM21	R	P.F. WIDTH .236							
16271	1.627	2.365	.389	HMSA25	R	□16509	42.00	58.00	8.00	†CRW1	R		
W/CCW HELIX FROM AIR SIDE		1.625	2.562	.250	†HM21	R	□16511	42.00	58.00	8.00	†CRW1	V	
▲16284	1.625	2.462	.250	X15	R	□16512	42.00	55.00	8.00	HMS4	R		
▲16286	O.D. LISTED IS PRESSFIT I.D.		1.625	2.562	.438	†HM18	R	▲□16513	42.00	55.00	7.00	HMS4	R
▲16289	CLEARANCE D .210		1.625	2.562	.313	†CRWA1	V	□16514	42.00	60.00	7.00	HMSA7	R
<b>16290</b>	1.625	2.562	.313	†CRWA1	V	□16515	42.00	60.00	8.00	†CRW1	R		
16295	1.625	2.565	.750	†HMSHASP	R	□16517	42.00	60.00	8.00	†CRW1	V		
W/BI-DIR HELIX FROM AIR SIDE		1.625	2.623	.313	†CRW1	R	□16518	42.00	62.00	8.00	HMSA7	R	
▲16314	1.625	2.623	.313	†CRWA1	R	□16519	42.00	62.00	8.00	†CRW1	R		
<b>16315</b>	1.625	2.623	.313	†CRWA1	R	16520	1.660	2.440	.594	HM11	R		
<b>16316</b>	1.625	2.623	.313	†CRW1	V	▲□16521	42.00	62.00	8.00	HMS4	R		
▲16322	1.625	2.623	.250	†HM21	R	□16522	42.00	64.00	6.00	HMA1	R		
▲16337	1.625	2.686	.313	†CRW1	R	□16523	42.00	62.00	8.00	†CRW1	V		
<b>16338</b>	1.625	2.686	.313	†CRW1	V	16524	1.654	2.520	.472	D	PP		
16342	1.625	2.722	.406	FF2	F	□16525	42.00	65.00	8.00	†CRW1	R		
▲16362	1.625	2.750	.250	†HM21	R	□16527	42.00	65.00	8.00	†CRW1	V		
▲16364	1.625	2.750	.250	†CRW1	R	□16528	42.00	66.00	10.00	HMSA7	P		
<b>16368</b>	1.625	2.750	.313	†CRWH1	R	□16529	42.00	62.00	10.00	HMS4	R		
<b>16384</b>	1.625	2.781	.313	†HM14	R	□16531	42.00	55.00	9.00	HMSA7	R		
16386	1.625	2.835	.469	†CRSH1	R	16532	1.656	2.502	.500	†CRSH1	R		
16392	1.625	2.808	.500	†HMSHA4	P	<b>16533</b>	1.654	2.362	.335	HMSA7	V		
W/3.065 FLANGE O.D.		1.625	2.875	.313	†CRW1	R	W/CW HELIX FROM AIR SIDE						
▲16406	1.625	3.000	.313	†CRWH1	R	□16534	42.00	65.00	12.00	HMSA7	R		
▲16422	1.625	3.062	.500	†CRSH1	R	<b>16536</b>	1.654	2.323	.303	HMS4	R		
16431	1.625	3.251	.500	CRSH1	R	W/CW HELIX FROM AIR SIDE							
16440	1.625	3.251	.500	CRSH1	R	▲□16537	42.00	65.00	10.00	HMS4	R		
□16451	42.00	60.00	9.00	HMSA7	R	16542	1.654	2.551	.531	HMSA95	R		
16456	1.654	2.283	.472	CRS1SPL	P	W/HELIX-CW P.F. WIDTH .375							
W/CW HELIX FROM AIR SIDE		42.00	56.00	7.00	CRSA1	R	□16543	42.00	60.00	7.00	HMS4	R	
□*16466	1.654	2.165	.276	HMSA7	V	▲16545	1.656	2.623	.375	†CRWA1	P		
<b>16471</b>	W/CW HELIX FROM AIR SIDE		1.654	2.205	.315	HMSA7	P	16546	1.654	2.217	.315	HMSA12	R
<b>16473</b>	W/CW HELIX FROM AIR SIDE		1.654	2.480	.433	CRSA3	P	▲□16548	42.00	58.00	7.00	HMA1	R
16474	W/BI-DIR HELIX & BOOT		1.654	2.559	.433	D7	P	16549	1.654	2.283	.472	HMSA123	P
□16480	42.00	50.00	4.00	HMSA7	R	16551	1.654	2.559	.433	D7	P		
□16483	42.00	52.00	4.00	HM4	R	□16552	42.00	68.00	10.00	HMS4	R		
16485	1.654	2.441	.472	D6	P	□16553	42.00	72.00	8.00	HMSA7	R		
<b>16487</b>	1.654	2.094	.275	HMSA7	V	□16554	42.00	72.00	8.00	†CRW1	V		
<b>16489</b>	1.654	2.362	.276	HMSA7	P	□16555	42.00	72.00	8.00	†CRW1	R		
W/CW HELIX FROM AIR SIDE		1.654	2.550	.530	HMSA95	R	▲□16558	42.00	72.00	8.00	HMS4	R	
16491	1.654	2.550	.530	HMSA95	R	□16561	42.00	72.00	10.00	HMS4	R		
▲□16492	42.00	56.00	7.00	HMS4	R	16564	1.654	2.992	.472	HMSA92	P		
□16493	42.00	56.00	7.00	HMS4	V	□16565	42.00	67.00	10.00	HMSA7	P		
□16494	42.00	56.00	7.00	HMSA7	R	W/ENCAPSULATED SPRING							
□16495	42.00	55.00	7.00	HMSA7	R	16578	1.688	2.551	.595	D8	RRT		
□16496	42.00	56.00	7.00	HMSA7	V	W/CW HELIX FROM AIR SIDE							
W/STAINLESS STEEL SPRING		1.654	2.283	.270	CRSA1	R	□16579	42.00	60.00	10.00	HMS4	R	
16497	1.654	2.283	.270	CRSA1	R	□16581	42.00	62.00	10.00	CRS1	R		
		1.654	2.283	.270	CRSA1	R	16594	1.654	3.543	.394	D8SPL	P	
		1.654	2.283	.270	CRSA1	R	W/AXIAL DIRT LIP						
		1.654	2.283	.270	CRSA1	R	16596	1.654	3.543	.472	D8-SPL	P	
		1.654	2.283	.270	CRSA1	R	W/AXIAL DIRT LIP						
		1.654	2.283	.270	CRSA1	R	▲16599	1.673	2.162	.290	†HMA9	R	
		1.654	2.283	.270	CRSA1	R	W/2.608 FLANGE						

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Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
□16605	42.00	70.00	12.00	CRSH11	R	16904	1.688	2.760	.974	HDDF1	R
□16609	42.00	72.00	12.00	CRS12	R	□16905	43.00	69.00	8.00	†CRW1	R
□16615	42.00	70.00	10.00	HMSA7	R	16906	1.688			HDDFBV1	R
□16616	42.00	62.00	7.00	HMSA7	R	BELLEVILLE WASHERS (2 EA/KIT)					
□16617	42.00	80.00	10.00	HMS4	R	□16914	43.00	73.00	8.00	†CRW1	R
□16619	45.00	70.00	10.00	HMSA7	R	16917	1.693	2.756	.354	HMSA29	R
16620	1.685	2.165	.433	HMSA7	R	16924	1.692	2.303	.295	HMSA96	P
16622	1.654	2.441	.315	HMS-SPL	R	16926	1.693	2.480	.394	CRSA3	R
16626	1.652	2.520	.390	HMSHA4	R	□16936	43.00	72.00	10.00	CRSH11	R
□16628	42.00	62.00	7.00	HMS4	R	□16937	43.00	60.00	10.00	HMS4	R
□16642	42.00	58.00	7.00	HMS4	R	□16939	43.00	62.00	10.00	CRSH1	R
□16647	42.00	72.00	10.00	HMSA7	R	□16942	43.00	60.00	10.00	HMSA7	R
▲16650	1.688	2.279	.500	†CRWH1	R	16945	1.688	2.623	.500	CRW2	P
▲16657	1.688	2.328	.313	†CRWA1	R	▲16960	1.688	2.835	.469	CRSA1	R
▲16659	1.688	2.328	.531	HMA5	R	□16984	43.00	60.00	9.00	HMSA7	R
▲16667	1.688	2.328	.500	HM18	R	W/CW HELIX FROM AIR SIDE					
	CLEARANCE D .286					▲16999	1.688	2.875	.313	†CRW1	R
16669	1.688	2.374	.313	CRSA1	R	17005	1.705	3.080	.550	†HMSA25	R
▲16679	1.688	2.437	.313	†CRW1	R	17035	1.688	3.061	.375	†CRW1	R
16680	1.688	2.437	.313	†CRWA1	R	▲17037	1.688	3.091	.500	†CRSA4	R
16692	1.688	2.437	.250	†CRW1	S	W/3.453 FLANGE & BI-DIR HELIX					
16696	1.688	2.437	.469	†CRW1	S	17038	1.688	3.125	.375	†CRWA1	R
▲16719	1.688	2.502	.313	†CRW1	R	▲17053	1.705	3.084	.500	CRS1	R
▲16725	1.688	2.502	.835	†CRWA41	R	▲17100	1.704	3.034	.500	†CRWA1	R
	P.F. WIDTH .360 & 2.750 FLANGE					▲17106	1.709	2.209	.355	†HMSA23	P
16727	1.688	2.502	1.535	†KIT	R	17107	1.709	2.209	.355	†HMSA23	V
★16729	1.688	2.502	2.120	†KIT	R	HELIX-CW,W/2.505 FLG,PF WD.295					
▲16735	1.688	2.551	.470	HMSA7	R	17110	1.730	2.336	.470	HMA95	R
▲16743	1.688	2.502	.281	†HM21	R	P.F. WIDTH .250 & SLINGER					
16747	1.688	2.551	.375	HMSA95	R	17113	1.772	2.323	.315	HMA83	P
▲16754	1.688	2.562	.250	†HM21	R	W/FELT 'A' LIP WASHER					
▲16757	1.688	2.605	.250	†HM14	R	▲17115	1.730	2.336	.250	HMA85	R
16787	1.675	2.000	.200	WIPER	R	17122	1.732	2.165	.236	HMSA7	P
	WIPER SEAL					W/CW HELIX FROM AIR SIDE					
▲16805	1.688	2.623	.531	HMSA16	R	17124	1.719	2.437	.469	P1	L
	W/CW HELIX FROM AIR SIDE					17131	1.734	2.449	.250	†HM21	R
▲16811	1.688	2.623	.375	†HM21	R	17134	1.732	2.320	.260	HMS4	R
16814	1.688	2.623	.313	†CRWA1	R	W/CW HELIX FROM AIR SIDE					
▲16816	1.688	2.623	.500	†CRW1	R	17136	1.719	2.623	.500	†CRSH1	R
16817	1.688	2.623	.500	†CRWA1	V	▲□17139	44.00	60.00	8.00	†CRW1	R
▲16818	1.688	2.650	.290	X4	R	□17142	44.00	60.00	8.00	CRW1	V
	O.D. LISTED IS PRESSFIT I.D.					□17143	44.00	60.00	9.00	HMSA7	R
▲16820	1.688	2.688	.250	X9	R	17144	1.719	2.561	.315	†CRWA1	R
	O.D. LISTED IS PRESSFIT I.D.					▲17145	1.734	2.726	.512	†HM18	R
▲16842	1.688	2.686	.313	†CRW1	R	CLEARANCE D .218					
▲16854	1.688	2.716	.313	†CRW1	R	▲17146	1.719	2.562	.500	†HM18	R
▲16871	1.688	2.502	.500	†CRWA3	R	CLEARANCE D .286					
	W/2.750 FLANGE					17147	1.732	2.441	.315	HMSA45	R
16889	1.673	2.146	.236	HMSA7	V	W/AXIAL DIRT LIP					
	W/CW HELIX FROM AIR SIDE					□17148	44.00	60.00	10.00	HMS4	R
16891	1.693	2.126	.295	CRSHA1	R	▲□17149	44.00	62.00	8.00	†CRW1	R
▲□16892	43.00	54.00	7.50	CRSA1	R	17154	1.732	2.362	.315	HMSA7	V
16893	1.654	2.165	.315	HMSA7	V	W/CW HELIX FROM AIR SIDE					
	W/CW HELIX FROM AIR SIDE					□17160	44.00	65.00	8.00	†CRW1	R
16894	1.693	2.480	.354	HMSA92	R	17162	1.719	2.875	.469	P1	L
	W/CCW HELIX FROM AIR SIDE					□17166	44.00	68.00	8.00	†CRW1	V
□16895	43.00	57.00	8.00	†CRW1	R	□17168	44.00	65.00	10.00	HMS4	R
16896	1.693	2.283	.276	HMSA7	P	□17179	44.00	70.00	8.00	†CRW1	R
	W/CW HELIX FROM AIR SIDE					□17184	44.00	72.00	8.00	†CRW1	R
□16897	43.00	60.00	8.00	†CRW1	R	□17186	44.00	72.00	10.00	HMS4	R
□16898	43.00	62.00	8.00	HMSA7	P	▲17187	1.734	2.401	.210	†G2	R
▲16900	1.688	2.750	.313	CRW1	R	▲17190	1.739	2.812	.594	†HMSA16	R
▲16901	1.654	2.520	.390	HMSHA4	R	W/HELIX-CW, W/3.270 FLANGE					
16903	1.688	2.750	.375	†CRWA1	R	17191	1.732	3.150	.354	HMSA92	P

★Contact manufacturer for availability  
**Bold numbers** are preferred designs

□ Metric numbers

† Includes Bore-Tite on O.D.  
 ▲ WasteWatcher numbers



## Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
17193	1.732	3.622	.748	†HMSA7SP	R	▲17442	1.750	2.623	.313	†CRW1	R
	P.F. WIDTH .492					17443	1.750	2.623	.313	†CRWA1	R
17194	1.732	3.543	.787	HMSASPL	P	17444	1.750	2.623	.313	†CRW1	S
▲17227	1.750	2.125	.188	†HMS1	R	17448	1.750	2.623	.313	†CRWA1	V
▲17231	1.750	2.250	.313	†CRW1	R	17456	1.750	2.623	.375	†CRWH1	R
17234	1.750	2.250	.313	†CRW1	V	▲17458	1.747	2.623	.365	†HMS14	E
▲17240	1.750	2.250	.188	†HM14	R	W/HELIX-CW & 2.870 FLANGE					
□17255	45.00	68.00	12.00	†HMSA1	R	17459	1.747	2.623	.365	†KIT	E
17257	1.750	2.328	.438	CRS1	R	▲17461	1.750	2.623	.250	HM21	R
17259	1.720	2.921	.468	†HMSA57	P	▲17484	1.750	2.686	.313	CRW1	R
	W/BI-DIR HELIX FROM AIR SIDE					17485	1.750	2.718	.294	X4	R
17261	1.750	2.374	.313	†CRWA1	V	O.D. LISTED IS PRESSFIT I.D.					
★17265	1.750	2.374	.438	HMS6	R	▲17488	1.750	2.716	.250	†HM21	R
▲17270	1.750	2.374	.313	†CRW1	R	17490	1.750	2.326	.275	KIT	R
17271	1.750	2.374	.313	†CRWA1	R	17502	1.771	2.362	.495	D7	PP
▲17277	1.750	2.374	.250	HM21	R	17502	1.750	2.620	.354	HMSA97	V
▲17280	1.750	2.411	.375	†CRW1	P	17523	1.750	2.750	.313	†CRWA1	R
17283	1.750	2.437	.313	†CRW1	R	▲17544	1.750	2.750	.250	†HM21	R
	W/SS CASE & SPRING					▲17557	1.750	2.750	.313	†CRW1	R
▲17284	1.750	2.437	.313	†CRW1	R	17558	1.750	2.750	.313	†CRW1	V
17285	1.750	2.437	.315	†CRWA1	R	17588	1.889	2.440	.276	CRSA1	R
▲17286	1.766	2.412	.375	†HMSA1	R	17599	1.750	2.750	.484	†HM21	R
	W/CW HELIX FROM AIR SIDE					▲17605	1.750	2.758	.313	†CRW1	R
17292	1.750	2.437	.313	†CRW1	V	▲17607	1.750	2.717	.438	†CRWA1	R
17293	1.750	2.437	.315	†CRWA1	V	▲17617	1.750	2.718	.359	†HM18	R
17296	1.732	2.614	.394	HMSA97	V	CLEARANCE D .160					
	W/3.012 FLG O.D. & .394 PRESS					17618	1.750	2.718	.359	TL2	R
17298	1.732	2.283	.276	HMSA7	P	▲17620	1.750	2.786	.294	X15	R
	W/CW HELIX FROM AIR SIDE					O.D. LISTED IS PRESSFIT I.D.					
17300	1.732	2.283	.315	HMSA7	V	▲17624	1.750	2.810	.313	CRWA1	R
	W/CW HELIX FROM AIR SIDE					17627	1.750	2.810	.313	†CRWA1	V
▲17310	1.750	2.437	.250	HM21	R	17629	1.772	2.362	.276	HMSA7	P
▲17315	1.750	2.441	.313	†CRW1	R	W/CW HELIX FROM AIR SIDE					
17320	1.750	2.441	.375	†CRWA1	V	▲17633	1.750	2.830	.375	†HM21	R
□17324	44.00	62.00	10.00	HMSA7	R	17645	1.750	2.875	.375	†CRWHA1	R
17327	1.705	3.034	.562	HMSA25	V	▲17653	1.750	2.875	.313	†CRW1	R
★17330	1.732	2.362	.394	HMSA7	V	17657	1.750	2.875	.313	†CRW1	V
□17335	44.00	62.00	10.00	HMS4	R	17658	1.772	2.520	.472	CRSHA1	R
▲17340	1.750	2.441	.250	†HM21	R	W/BI-DIR HELIX FROM AIR SIDE					
17341	1.750	2.441	.250	†HM21	R	17662	1.772	2.441	.394	HMSA32	R
	W/STAINLESS STEEL CASE					17666	1.772	2.441	.394	CRSA1	R
□17347	44.00	72.00	12.00	CRSH11	R	17667	1.772	2.835	.472	HMSA-DL	P
17353	1.750	2.500	.484	D7	P	W/CW HELIX, 19MM OVERALL WIDTH					
▲17359	1.750	2.441	.469	†HM18	R	17670	1.772	2.598	.394	HMSA92	V
	CLEARANCE D .254					W/BI-DIR HELIX FROM AIR SIDE					
17374	1.750	2.502	.500	†CRWA5	R	▲17671	1.750	2.875	.250	†HM21	R
	W/STAINLESS STEEL SPRING					17673	1.771	2.835	.450	HMSA21	E
17379	1.750	2.502	.313	†CRW1	V	17674	1.750	2.875	.500	TL7	R
	W/STAINLESS STEEL SPRING					▲17675	1.750	2.981	.438	CRWHA1	R
17381	1.750	2.502	.313	†CRWA1	V	17677	1.772	2.756	.433	HMSA16	V
17385	1.750	2.502	.250	CRWH3	V	W/BI-DIR HELIX FROM AIR SIDE					
	W/SS CASE & SPRING					17678	1.750	2.997	.313	†CRWHA1	R
▲17386	1.750	2.502	.313	†CRW1	R	□17679	45.00	63.00	7.70	HMS4	S
17387	1.750	2.502	.313	†CRWA1	R	17683	1.772	3.130	.571	HMSA7S	V
▲17392	1.750	2.502	.250	†HM21	R	17686	1.772	2.953	.472	HMSA92S	P
17395	1.750	2.502	.375	†CRWHA1	V	W/CW HELIX					
17399	1.750	2.502	.375	†CRW1	S	□17688	45.00	60.00	10.00	HMSA7	R
▲17404	1.750	2.561	.313	†CRW1	R	□17690	45.00	60.00	9.00	HMSA7	R
▲17406	1.750	2.562	.500	†HM18	R	▲17691	1.811	2.732	.433	HMSA45	P
	CLEARANCE D .286					W/AXIAL DIRT LIP & 3.146 FLANGE					
17407	1.732	2.653	.375	HMSASPL	P	□17692	45.00	52.00	4.00	HM4	R
	W/BI-DIR HELIX FROM AIR SIDE					□17694	45.00	68.00	7.00	HMSA7	R
▲17413	1.750	2.565	.313	†CRWA1	R	▲17695	1.750	2.997	.313	†CRW1	R
▲17415	1.750	2.561	.250	†HM21	R	17696	1.772	2.559	.315	HMSA85	P
17435	1.772	2.561	.197	†CRSA1	R	W/CCW HELIX FROM AIR SIDE					

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Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
<b>17699</b>	1.750	3.000	.313	†CRWA1	R	▲□17790	45.00	62.00	8.00	HMS4	R
17701	1.772	2.402	.315	HMSA35	R	□17791	45.00	80.00	8.00	†CRW1	R
	W/CCW HELIX FROM AIR SIDE					▲17792	1.772	2.835	.228	J2	R
▲17702	1.750	3.000	.250	†HM21	R	SEE TYPE J SECTION (HMA LIP)					
□17703	45.00	72.00	7.00	HMS4	R	▲□17794	45.00	80.00	10.00	HMS4	R
▲17707	1.750	3.000	.313	†CRW1	R	□17795	45.00	72.00	10.00	HMSA7	R
17709	1.750	3.000	.313	†CRW1	V	□17796	45.00	85.00	8.00	†CRW1	R
□17713	45.00	75.00	10.00	HMS4	R	▲□17797	45.00	85.00	10.00	HMS4	R
▲17716	1.750	3.061	.313	†CRW1	R	□17798	45.00	80.00	10.00	HMSA7	R
□17717	45.00	65.00	8.00	HMSA7	R	17799	1.772	3.346	.740	D8	R
17718	1.750	3.061	.375	†CRWA1	R	W/STAINLESS STEEL CASE					
▲17720	1.750	3.062	.485	D7	RT	17801	1.772	2.520	.354	HMA101	P
17722	1.750	3.061	.484	D	R	W/AXIAL DIRT LIP					
	SPECIAL CONST.					17802	1.781	2.126	.250	HM14	R
17724	1.750	3.149	.290	TL6	R	W/STAINLESS STEEL CASE					
▲17726	1.750	3.154	.313	CRS1	R	17803	1.772	2.913	.433	HMSA96	P
▲17727	1.739	3.000	.500	CRWA4	P	W/CW HELIX FROM AIR SIDE					
▲□17728	45.00	58.00	7.00	HMS4	R	▲17806	1.781	2.252	.313	†CRWA1	R
□17729	45.00	60.00	7.00	HMSA7	R	17808	1.772	3.071	.433	HMSA96	P
□17730	45.00	60.00	8.00	HMSA7	R	W/CW HELIX FROM AIR SIDE					
□17732	45.00	60.00	10.00	HMS4	R	□17809	45.00	55.00	7.00	HMS47	R
▲□17734	45.00	65.00	8.00	HMS4	R	▲17810	1.781	2.502	.313	†CRWH1	R
□17736	45.00	62.00	10.00	HMS4	R	17811	1.781	2.502	.313	†CRWH1	V
□17738	45.00	62.00	8.00	HMSA7	R	□17812	45.00	58.00	7.00	HMS46	R
▲□17740	45.00	60.00	8.00	HMS4	R	17813	1.772	3.858	.413	HMSA96	P
▲□17741	45.00	60.00	7.00	HMS4	R	W/BI-DIR HELIX FROM AIR SIDE					
□17742	45.00	62.00	7.00	HMS4	R	▲17815	1.734	2.328	.270	†HM19	R
□17744	45.00	72.00	12.00	HMSA7	R	W/2.625 FLANGE					
▲17746	1.750	3.189	.313	†CRW1	R	□17818	45.00	72.00	8.00	HMA22	R
□17749	45.00	62.00	9.00	HMS4	R	▲17821	1.781	2.623	.313	†CRW1	R
□17750	45.00	60.00	8.00	†CRW1	R	17824	1.772	2.441	.472	HMSASPL	R
▲17751	1.750	3.371	.625	C8	RR	W/EXCLUDER LIP					
□17752	45.00	60.00	8.00	†CRW1	V	▲17832	1.781	2.686	.313	CRW1	R
□17753	45.00	62.00	8.00	†CRWA1	V	▲17836	1.797	2.726	.516	†HM14	R
□17754	45.00	62.00	8.00	†CRW1	R	□17845	45.00	62.00	12.00	HMS45	R
▲17756	1.750	3.543	.438	†CRW1	R	▲17846	1.792	2.500	.600	XHA79N	R
▲□17757	45.00	65.00	5.00	HM1	R	O.D. LISTED IS PRESSFIT I.D.					
□17758	45.00	68.00	9.00	HMSA7	R	17847	1.781	2.750	.500	CRSH1	R
□17759	45.00	65.00	8.00	†CRW1	R	▲17849	1.787	3.234	.335	†HMSH22	S
▲17761	1.750	3.625	.438	†CRW1	R	17851	1.781	2.758	.500	†CRSH1	R
□17762	45.00	65.00	8.00	†CRW1	V	□17868	45.00	65.00	10.00	HMSA7	R
□17764	45.00	65.00	10.00	HMS4	R	□17873	45.00	65.00	7.00	HMSA7P2	R
▲□17766	45.00	68.00	8.00	†CRW1	R	□17874	45.00	66.00	6.00	HMS46	R
□17767	45.00	68.00	8.00	†CRW1	V	17897	1.811	2.283	.276	HMSA7	R
□17769	45.00	68.00	10.00	HMS4	R	W/CW HELIX FROM AIR SIDE					
17771	1.750	3.937	.313	†CRSA1	R	□17898	45.00	80.00	13.00	HMS46	R
□17773	45.00	72.00	8.00	†CRW1	V	□17900	45.00	85.00	13.00	CRSH11	R
▲□17774	45.00	72.00	8.00	HMS4	R	□17901	45.00	100.00	10.00	HMS46	R
17775	1.766	2.412	.370	HMSA1	P	□17904	45.00	55.00	4.00	HM4	R
	W/CW HELIX FROM AIR SIDE					17905	1.811	2.323	.457	HMSA56	P
□17776	45.00	72.00	10.00	HMS4	R	□17906	45.00	75.00	7.00	HMSA7	R
□17778	45.00	72.00	8.00	†CRW1	R	17907	1.772	2.638	.315	HMSA7	P
▲17780	1.768	2.363	.313	†CRWHA1	V	□17908	45.00	58.00	7.00	HMSA7	R
▲17781	1.770	2.364	.427	†HMSA21	P	▲□17909	46.00	59.00	12.00	HMA10	R
▲□17782	45.00	75.00	8.00	†CRW1	R	□17910	46.00	60.00	8.00	†CRW1	R
□17783	45.00	75.00	8.00	†CRW1	V	□17911	45.00	62.00	7.00	HMSA7	R
□17784	45.00	58.00	9.00	CRSA1	R	□17912	45.00	62.00	10.00	HMSA7	R
□17785	45.00	70.00	12.00	HMSA7	R	17914	1.811	2.362	.276	HMSA7	R
□17786	45.00	78.00	10.00	HMS4	R	W/CW HELIX FROM AIR SIDE					
▲17787	1.772	2.500	.432	†HMSA16	S	17915	1.811	2.740	.583	HMSA45	P
	HELIX-CW & 3.046 FLG,PF WD.359					P.F. WIDTH .315					
17788	1.772	2.480	.294	HMA16	R	17919	1.772	2.401	.315	HMSA92	R
	W/2.835 FLANGE					W/CCW HELIX FROM AIR SIDE					
▲17789	1.772	2.520	.354	HMA101	R	17921	1.772	2.638	.394	HMSA7	V
	W/AXIAL DIRT LIP										

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† Includes Bore-Tite on O.D.  
 ▲ WasteWatcher numbers

## Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
17922	1.772	2.520	.807	HMSA97	P	18257	1.813			HDDFBV1	R
				W/DIRT LIP						BELLEVILLE WASHERS (2 EA/KIT)	
□17925	45.00	68.00	10.00	HMSA7	R	18258	1.813	2.965	.250	FF1	F
□17927	45.00	72.00	8.00	HMSA7	R	18259	1.813	3.003	.892	HDDF1	R
□17928	45.00	75.00	8.00	HMS4	R					O.D. LISTED IS SEAL I.D.	
□17929	45.00	75.00	8.00	HMSA7	R	▲18264	1.813	3.000	.375	†CRWA1	P
□17930	46.00	65.00	8.00	†CRW1	R	18412	1.844	2.502	.375	†CRSA1	R
□17933	45.00	75.00	10.00	HMSA7	R	▲18415	1.825	2.570	.250	†HM21	R
□17935	45.00	85.00	10.00	HMSA7	R	▲18425	1.844	2.623	.313	†CRW1	R
□17937	45.00	55.00	7.00	HMS4	R	▲18436	1.849	2.717	.398	D7	P
□17939	45.00	55.00	7.00	HMSA7	R	18443	1.890	2.440	.405	†HMSA23	E
□17941	45.00	100.00	10.00	HMSA7	R					P.F. WIDTH .354	
17943	1.772	1.969	.512	END CAP	P	▲18444	1.844	2.750	.313	†CRW1	P
□17945	45.00	55.00	4.00	HMS4	R	18446	1.844	2.750	.375	†CRSA1	R
□17948	45.00	55.00	4.00	HMSA7	R	□18447	47.00	60.00	7.00	†CRW1	R
□17950	46.00	68.00	8.00	†CRW1	R	□18450	47.00	62.00	8.00	†CRW1	R
□17952	45.00	68.00	12.00	HMS4	R	18452	1.850	2.441	.354	HMS9	P
□17954	45.00	68.00	12.00	HMSA7	R	▲18454	1.850	2.520	.550	HMA5	R
17955	1.811	2.697	.295	HMA8	R					P.F. WIDTH .236	
□17975	46.00	72.00	8.00	†CRW1	R	18458	1.850	2.520	.276	D8	R
□17980	46.00	73.00	8.00	†CRW1	R	▲18465	1.850	2.598	.433	HMSA29	R
18000	1.811	3.543	.630	HMSA7SP	P					P.F. WD .236 W/AXIAL DIRT LIP	
				P.F. WIDTH .433 (11MM)		▲□18467	47.00	65.00	10.00	HMS4	R
18003	1.811	4.016	.394	CRSSPL	R	18472	1.842	2.748	.426	†HMSA16	V
▲18009	1.809	2.361	.370	†HMA9	R					W/BI-DIR HELIX FROM AIR SIDE	
				P.F. WIDTH .340 & 2.865 FLANGE		□18480	47.00	70.00	10.00	HMSA7	R
18014	1.811	2.480	.300	HMS4	P	▲□18485	47.00	72.00	8.00	†CRW1	R
				W/CW HELIX FROM AIR SIDE		18488	1.850	3.150	.511	HMSASPL	P
18015	1.811	2.520	.354	HMSA92	P					W/.276 P.F. WIDTH	
				W/CW HELIX FROM AIR SIDE		18489	1.850	3.307	.374	HMA101	P
▲18024	1.813	3.092	.469	HMSA25	R	▲18492	1.868	2.518	.315	†CRWA1	P
▲18025	1.813	2.279	.313	†CRW1	R	18496	1.850	2.283	.276	HMSA7	P
18030	1.813	2.408	.300	X15	R					W/CW HELIX FROM AIR SIDE	
				O.D. LISTED IS PRESSFIT I.D.		18499	1.850	2.698	.354	CRSA3	P
▲18039	1.813	2.437	.313	†CRW1	R					WBI-DIR HELIX	
▲18049	1.813	2.562	.313	†CRWA1	V	□18500	47.00	65.00	12.00	CRSH13	R
▲18050	1.813	2.562	.438	†HM18	R	□18501	47.00	70.00	12.00	CRSH11	R
				CLEARANCE D .224		□18502	47.00	72.00	10.00	CRSH11	R
▲18055	1.825	2.623	.250	†HM21	R	18505	1.850	3.976	.472	HMSA92	P
18098	1.813	2.562	.313	SL1	T	18507	1.850	2.756	.472	HMSA123	P
▲18100	1.813	2.623	.500	CRW79	R	18508	1.875	2.625	.375	HMS4	S
				P.F. WIDTH .375						W/CW HELIX FROM AIR SIDE	
18101	1.811	2.480	.291	HMSA7	P	18510	1.872	2.684	.544	X13	R
				W/CW HELIX FROM AIR SIDE						O.D. LISTED IS PRESSFIT I.D.	
18102	1.811	2.874	.572	UNITIZE	V	18512	1.850	2.402	.276	HMSA7	V
				VITON,W/HNBR SLEEVE						W/CW HELIX FROM AIR SIDE	
▲18104	1.813	2.623	.313	†CRW1	R	18513	1.850	2.835	.394	HMSA92	P
18108	1.177	2.559	.433	HMSA57	P	18531	1.890	2.835	.394	D7	R
				W/BI-DIR HELIX FROM AIR SIDE		▲18536	1.875	2.318	.203	HMSA11	V
□18113	46.00	65.00	10.00	HMS47	R					W/2.333 NOSE GASKET	
18114	1.813	2.686	.313	†CRWA1	P	▲18543	1.875	2.401	.275	†HM14	R
□18118	46.00	80.00	10.00	CRSH11	R	18544	1.875	2.561	.600	†HMSA16	V
★18122	1.811	2.874	.394	HMSHA7	R					W/HELIX-CW P.F. WIDTH .528	
				W/BI-DIR HELIX FROM AIR SIDE		▲18545	1.875	2.471	.313	†CRWA1	R
18124	1.811	2.667	.315	HMS4	P	18546	1.875	2.562	.313	†CRWA1	V
				W/CW HELIX FROM AIR SIDE		▲18548	1.875	2.561	.600	†HMSA16	P
▲18127	1.813	2.719	.270	TL7	R					W/HELIX-CW, P.F. WIDTH .528	
18136	1.813	2.776	.432	181367	R	▲18549	1.875	2.398	.256	†CRW1	R
				W/CW HELIX FROM AIR SIDE		18550	1.875	2.398	.250	†KIT	R
▲18149	1.825	2.750	.484	†HM18	R					SEE KIT SECTION	
				CLEARANCE D .275		18551	1.875	2.398	.250	KIT	R
▲18159	1.813	2.750	.313	†CRW1	R					SEE KIT SECTION	
▲18190	1.813	2.777	.432	†HMSA25	R	▲18555	1.875	2.500	.313	†CRW1	P
				W/CW HELIX FROM AIR SIDE		▲18558	1.875	2.502	.250	†HM21	R
▲18242	1.813	2.875	.313	†CRW1	R	18562	1.875	2.562	.313	†CRW1	P

Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
▲18565	1.875	2.502	.313	†CRW1	R	18854	1.890	2.677	.433	HMSA7	R
▲18580	1.875	2.623	.313	†CRW1	R		W/CW HELIX FROM AIR SIDE				
18581	1.875	2.623	.313	†CRWA1	R	18857	1.890	2.362	.276	HMSA7	P
18582	1.875	2.623	.313	†CRW1	V		W/CW HELIX FROM AIR SIDE				
18584	1.875	2.623	.313	†CRWA1	V	18860	1.886	2.690	.350	CRSA3	P
▲18591	1.875	2.623	.250	†HM21	R		W/CCW HELIX FROM AIR SIDE				
18592	1.875	2.623	.374	†CRW1	S	18862	1.851	2.441	.354	†HMS1	R
▲18603	1.875	2.628	.328	†HM14	R	18864	1.890	2.441	.236	HMA1	R
18623	1.875	2.716	.394	HMSA7	P	18865	1.890	2.441	.296	†CRSHA1	R
				W/CCW HELIX FROM AIR SIDE		18866	1.890	2.520	.472	CRSA1	R
▲18626	1.875	2.686	.313	†CRW1	R	□18868	47.90	72.00	11.43	HMSA21	V
18630	1.873	2.716	.281	X13	R		W/CCW HELIX AND 270 DEG SPRING				
				O.D. LISTED IS PRESSFIT I.D.		18871	1.890	3.160	.620	KIT	R
▲18640	1.875	2.721	.266	HM14	R	▲18872	1.875	3.061	.313	†CRWA1	R
18652	1.875	2.750	.313	†CRW1	V	18873	1.890	2.756	.354	HMSA7	R
▲18657	1.875	2.750	.313	†CRW1	R	18875	1.890	3.160	.620	CRSHA32	R
18658	1.875	2.750	.313	†CRWA1	R	18876	1.890	2.756	.669	D8-SPL	R
▲18659	1.875	2.750	.250	†HM21	R	18877	1.890	2.559	.315	HMSA1	R
▲18662	1.875	2.750	.500	†HMSA26	R	18878	1.889	2.685	.512	†D8-SPL	P
18666	1.875	2.750	.313	†CRW1	P	18879	1.875	3.125	.313	†CRSA1	R
▲18671	1.875	2.758	.313	†CRW1	P	▲18880	1.875	3.105	.500	†CRWA1	R
18676	1.875	2.758	.531	D5	RR	▲18881	1.875	3.150	.930	HMSA41	R
18679	1.875	2.758	.313	†CRW1	S	▲18888	1.875	3.160	.531	CRWA32	P
18687	1.875	2.750	1.370	CRSA3	P		P.F. WIDTH .254 W/O BUMPER				
▲18692	1.875	2.760	.400	†HMS14	S	▲18889	1.875	3.150	.250	†HM21	R
				W/CW HELIX FROM AIR SIDE		▲18891	1.875	3.160	.770	CRWA31	P
▲18693	1.875	2.782	.438	†CRWH1	R		P.F. WIDTH .254 & BUMPER				
18695	1.875	2.782	.438	†CRWHA1	R	18892	1.889	2.750	.520	HMSA92	P
▲18697	1.875	2.804	.300	HMA22	R		W/BI-DIR HELIX FROM AIR SIDE				
▲18704	1.875	2.780	.250	†HM21	R	18895	1.890	2.624	.315	HMS4	S
▲18708	1.875	2.813	.500	†HMSA16	R	18896	1.875	3.160	.695	CRSA8	V
				W/CW HELIX FROM AIR SIDE			P.F. WIDTH .250 & BUMPER				
▲18710	1.875	2.868	.544	HMSA95	R	18897	1.890	2.362	.276	HMSA7	P
				P.F. WD .450 W/2.898 RIBBED OD			W/CW HELIX FROM AIR SIDE				
18724	1.874	2.496	.351	HMSA92	V	▲18899	1.875	3.189	.469	†CRWH1	R
□18727	47.00	72.00	6.00	HMA85	R	▲18912	1.875	3.105	.500	CRW2	R
▲18731	1.875	2.868	.375	HMSA95	R		W/3.266 FLANGE				
18732	1.875	2.875	.313	†CRW1	V	▲18916	1.875	3.371	.438	†CRWH1	R
▲18733	1.875	2.875	.313	†CRW1	R	□18919	48.00	70.00	10.00	HMS47	R
18734	1.875	2.875	.313	†CRWA1	R	□18921	48.00	70.00	9.00	CRSA1	R
18737	1.875	2.875	.313	†CRWA1	V	▲18922	1.875	3.249	.484	†CRWA1	R
▲18750	1.875	2.875	.250	†HM21	R	▲18924	1.875	3.496	.438	†CRWA1	R
18752	1.875	3.061	.485	D7	RT	18926	1.875	3.500	.438	†CRW1	R
18757	1.877	2.503	.341	HMSA7	V	□18935	48.00	72.00	12.00	HMS46	R
18758	1.872	2.750	.677	†HMSA96	V	□18940	48.00	80.00	13.00	CRSH11	R
18761	1.875	2.628	.415	HMSA16	R	▲18948	1.875	3.744	.430	HMSH1	R
▲18765	1.875	2.903	.424	HMA84	R	□18951	48.00	65.00	10.00	HMSA7	R
				W/3.150 FLANGE		▲□18952	48.00	68.00	10.00	HMS4	R
▲18771	1.875	2.750	.500	†D8	ET	□18953	48.00	68.00	10.00	HMSA7	R
				P.F. WD .500, W/2.950 FLG O.D.		□18955	48.00	62.00	8.00	HMSA7	R
▲18772	1.875	2.965	.234	†HM14	R	□18956	48.00	62.00	8.00	HMSA7	V
18782	1.890	3.071	.551	HMSA35	R	□18957	48.00	62.00	8.00	HMS4	V
▲18785	1.875	2.997	.313	†CRW1	R	▲□18958	48.00	62.00	8.00	HMS4	R
▲18808	1.875	2.997	.250	†HM14	R	▲18959	1.890	2.520	.540	HMSA65	R
▲18817	1.875	3.000	.313	†CRW1	R		W/2.815 FLANGE				
18818	1.875	3.000	.313	†CRW1	V	18961	1.875	3.375	.313	J2	R
▲18823	1.875	3.000	.250	†HM21	R		SEE TYPE J SECTION (HMS LIP)				
18829	1.875	3.000	.625	†UNITIZE	S	□18962	48.00	62.00	8.00	†CRW1	R
				P.F. WIDTH .562		□18963	48.00	62.00	8.00	†CRW1	P
▲18833	1.813	3.001	.563	†HMSA25	P	18964	1.890	2.441	.945	HMA31	R
				P.F. WIDTH .375 W/3.313 FLANGE		□18965	48.00	65.00	8.00	†CRW1	R
18844	1.890	2.810	.700	X-SPL	P	□18966	48.00	65.00	8.00	†CRW1	V
				HUB SEAL		▲□18967	48.00	65.00	10.00	HMS4	R
18852	1.893	2.811	.468	HMSA97	P	□18968	48.00	68.00	8.00	†CRW1	R
				W/BI-DIR HELIX & 3M BEAD & FLG		▲□18970	48.00	70.00	8.00	†CRW1	R

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Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
□18971	48.00	70.00	8.00	†CRW1	V	<b>19234</b>	1.938	2.686	.304	†CRWA1	P
□18972	48.00	72.00	8.00	†CRW1	R	▲19236	1.938	2.686	.304	†CRW1	R
□18973	48.00	72.00	8.00	†CRW1	V	<b>19237</b>	1.938	2.686	.304	†CRWA1	R
□18974	48.00	74.00	10.00	HMSA7	R	<b>19240</b>	1.938	2.686	.375	†CRW1	S
▲□18976	48.00	72.00	8.00	HMS4	R	<b>19243</b>	1.938	2.686	.304	†CRWA1	V
□18977	48.00	72.00	10.00	HMS4	R	<b>19244</b>	1.938	2.686	.304	†CRW1	P
18979	1.890	2.874	.276	CRSA1	P	19251	1.938	2.686	.594	†TL8	R
▲□18981	48.00	80.00	8.00	†CRW1	R	19252	1.937	2.687	.375	KIT	R
18983	1.889	3.110	.688	CRSA1	P	19255	1.938	2.680	.500	†D3	R
18984	1.890	2.520	.472	HMSA96	R	▲19264	1.938	2.750	.313	†CRW1	R
18987	1.890	2.910	.390	HMSA92	P	▲19267	1.938	2.750	.313	†CRW1	V
□18989	48.00	80.00	10.00	HMS48	R	▲19273	1.938	2.762	.500	†CRSA1	R
▲18990	1.886	2.561	.250	HM22	R					W/CW HELIX FROM AIR SIDE	
▲18992	1.886	2.700	.550	†HMSA16	P	19274	1.938	2.825	.500	CRSH1	P
						▲19277	1.938	2.813	.500	HMSA23	R
18994										W/CCW HELIX FROM AIR SIDE	
						<b>19278</b>	1.938	2.835	.250	†CRWA5	R
□18997	48.00	58.00	4.00	HM4	R	19286	1.938	2.875	.563	KIT	RR
18998	1.886	2.700	1.000	†KIT	P					SEE KIT SECTION	
18999	1.885	2.700	.552	HMSA25	#	□19290	49.00	65.00	10.00	HMS46	R
						□19292	49.00	68.00	10.00	CRSH13	R
						<b>19293</b>	1.929	2.677	.394	HMSA7	R
▲19000	1.893	2.434	.250	CRW1	R					W/BI-DIR HELIX FROM AIR SIDE	
□19002	48.00	72.00	7.00	HMSA7	R	▲19300	1.938	2.875	.313	†CRW1	R
□19003	48.00	90.00	10.00	HMS4	R	<b>19301</b>	1.938	2.875	.313	†CRWA1	R
□19007	48.00	72.00	10.00	HMSA7	R	<b>19304</b>	1.938	2.875	.313	†CRWH1	V
19010	1.915	2.533	.250	†CRW1	R	19305	1.938	2.875	.718	KIT	P
19011	1.893	2.533	.250	KIT	R					SEE KIT SECTION	
						▲19306	1.938	2.875	.250	†HM21	R
19012	1.893	2.533	.250	†KIT	R	<b>19310</b>	1.938	2.884	.313	†CRWA1	P
						▲19314	1.940	2.909	.516	CRSA6	R
19013	1.938	2.500	.300	†HMA9	R					HELIX-CW & 3.583 FLG,PF WD.370	
<b>19017</b>	1.906	2.752	.375	†CRWA1	P	19317	1.890	2.677	.433	CRSA3	P
□19021	48.00	72.00	8.00	HMSA7	R					W/BI-DIR HELIX FROM AIR SIDE	
□19028	48.00	72.00	7.00	HMS4	R	19324	1.811	3.189	1.090	HMSA97S	P
19062	1.906	3.189	.313	CRSA1	P	19333	1.930	3.940	.315	HM83	R
▲19090	1.929	2.441	.315	HMSA45	R	▲19350	1.938	2.997	.313	†CRW1	R
						▲19359	1.938	3.000	.313	†CRW1	R
□19092	49.00	68.00	7.00	HMSA7	V	<b>19360</b>	1.938	3.000	.313	CRWA1	R
19095	1.929	2.756	.472	HMSA-SP	R	<b>19368</b>	1.938	3.000	.313	†CRWA1	V
						19372	1.938	2.693	.507	D8	R
19097	1.929	2.441	.441	HMSA45	P	19377	1.937	2.650	.350	†AHL1FLG	S
▲19100	1.929	2.843	.315	HMA22	R	▲19380	1.938	3.061	.313	†CRW1	R
						19387	1.938	2.750	.360	†HMSA16	V
19192	1.929	2.756	.394	HM-SPL	R	▲19400	1.938	3.125	.500	†CRW1	R
						▲19407	1.938	3.189	.313	†CRW1	R
19200	1.929	2.520	.492	HMA16	R	19428	1.940	2.900	.400	HMSA16	R
						<b>19433</b>	1.938	3.251	.313	†CRWA1	V
▲19206	1.938	2.471	.313	†HMSA1	V	▲19434	1.938	3.251	.313	†CRW1	R
19208	1.927	2.910	1.210	†HMS-SPL	#	<b>19438</b>	1.938	3.062	.500	†CRW1	S
▲19210	1.938	2.437	.250	†CRW1	R	<b>19445</b>	1.938	3.350	.469	†CRWHA1	R
▲19211	1.938	2.563	.313	†CRW1	R	▲19449	1.938	3.543	.313	†CRW1	R
<b>19212</b>	1.938	2.437	.250	†CRW1	R	19455	1.938	3.622	.375	FF1	F
						19466	1.938	3.751	.500	†CRSH1	R
19213	1.938	2.675	.250	†CRWA5	R	▲19500	1.938	2.621	.570	†HMA8	R
▲19214	1.938	2.500	.380	†HMA9	R					P.F. WIDTH .255	
						▲19510	1.945	2.892	.294	†TL6	R
▲19215	1.938	2.412	.313	†CRW1	R	□19564	50.00	68.00	8.00	HMSA7	R
▲19219	1.938	2.502	.281	†HM14	R	19569	1.969	2.750	.530	CRSHA1	R
▲19220	1.938	2.502	.375	†CRWA1	R	19578	1.969	3.150	.433	HMSA96	P
▲19221	1.938	2.502	.281	HMA4	R					W/CCW HELIX FROM AIR SIDE	
▲19223	1.938	2.578	.294	HMA4	R	19579	1.969	2.657	.531	CRSHA1	R
						□19581	50.00	60.00	7.00	HMS4	R
▲19226	1.938	2.623	.313	†CRW1	R	□19584	50.00	60.00	7.00	HMSA7	R
<b>19227</b>	1.938	2.623	.313	†CRWA1	V	□19587	50.00	62.00	10.00	HMS4	R
▲19229	1.938	2.623	.313	†CRWA1	R						

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Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
□19589	50.00	62.00	5.00	HMS4	R	19656	1.969	2.913	.354	HMSA92	P
□19590	50.00	58.00	4.00	HM4	R	□19657	50.00	75.00	10.00	HMSA7	R
□19592	50.00	62.00	10.00	HMSA7	R	▲19660	1.969	2.960	.250	HD1	R
□19595	50.00	62.00	5.00	HM4	R	QUILL WIPER					
19596	1.969	2.677	.354	CRSHA1	R	□19662	50.00	80.00	8.00	HMSA7	R
□19597	50.00	62.00	5.00	HMSA7	R	□19663	50.00	80.00	10.00	HMS4	R
□19598	50.00	68.00	9.00	HMS4	R	□19664	50.00	80.00	8.00	†CRW1	R
19599	1.968	2.362	.236	HMA10	R	▲□19665	50.00	80.00	8.00	HMS4	R
▲□19600	50.00	65.00	8.00	HMS4	R	□19666	50.00	80.00	8.00	†CRW1	V
□19601	50.00	65.00	8.00	HMSA7	R	□19667	50.00	80.00	13.00	HMS4	R
□19602	50.00	62.00	7.00	CRS1	R	□19668	50.00	82.00	8.00	†CRWA1	R
□19603	50.00	62.00	7.00	HMSA7	R	□19669	50.00	80.00	10.00	HMS4	V
▲□19604	50.00	64.00	6.50	HMSA7	R	W/STAINLESS STEEL SPRING					
□19605	50.00	65.00	8.00	†CRW1	R	*19672	1.969	3.150	.630	HMSA92	P
□19606	50.00	65.00	8.00	†CRW1	V	W/BI-DIR HELIX FROM AIR SIDE					
▲19607	1.969	2.623	.313	†CRWA1	R	□19674	50.00	85.00	8.00	†CRW1	R
□19608	50.00	68.00	8.00	†CRW1	R	□19675	50.00	85.00	10.00	HMS4	R
▲19610	1.969	2.686	.375	HMS2	S	19676	2.244	3.150	.402	HMSA56	R
□19611	50.00	68.00	8.00	†CRW1	V	19677	1.969	3.228	.315	HMSA96	P
▲19612	1.969	2.618	.591	HMSA92	R	□19681	50.00	65.00	9.00	HMSA7	R
P.F. WD .750 W/AXIAL DIRT LIP						19682	1.969	3.386	.748	HMSA96	R
19613	1.969	2.677	.270	HMSA45	R	W/CCW HELIX FROM AIR SIDE					
W/AXIAL DIRT LIP						□19683	50.00	75.00	12.00	HMSA7	R
□19614	50.00	68.00	8.00	HMS4	V	▲□19684	50.00	90.00	8.00	†CRW1	R
19615	1.969	2.686	.500	CRSH1	R	□19686	50.00	90.00	8.00	†CRW1	V
▲□19616	50.00	68.00	8.00	HMS4	R	□19687	50.00	90.00	10.00	HMS4	R
□19618	50.00	68.00	10.00	HMS4	R	□19688	50.00	64.00	10.00	HMSA7	R
□19619	50.00	68.00	10.00	HMSA7	R	19689	1.969	2.835	.570	D8SPL	R
19620	1.969	2.742	.500	CRSH1	P	AXIAL DIRT LIP-SEAL					
□19621	50.00	68.00	6.50	HMSA7	R	19709	1.988	3.051	.354	HMSA96	P
▲□19622	50.00	62.00	7.00	HMS4	R	□19710	50.00	68.00	7.00	HMSA7P2	R
19623	1.969	2.571	.315	HMSA24	P	□19714	50.00	65.00	10.00	HMS4	R
W/BI-DIR HELIX FROM AIR SIDE						□19715	50.00	72.00	12.00	HMS4	R
19624	1.969	2.638	.216	HMA90	R	19720	1.991	2.900	.290	X4	R
▲19626	1.969	2.638	.433	HMA76	R	O.D. LISTED IS PRESSFIT I.D.					
19627	1.969	2.638	.354	HMA8	R	□19723	50.00	70.00	10.00	HMSA7	R
▲19628	1.969	2.638	.354	CRSA1	R	□19728	50.00	72.00	7.00	HMSA7P2	R
□19629	50.00	62.00	10.00	CRS1	R	19730	1.996	3.111	.344	†HMSA16	V
▲□19630	50.00	70.00	8.00	†CRW1	R	W/HELIX-CW W/3.425 FLANGE					
□19631	50.00	70.00	8.00	†CRW1	V	19731	2.000	2.375	.188	HMS1	R
▲□19632	50.00	70.00	10.00	HMS4	R	19733	2.000	2.375	.188	HM14	R
□19634	50.00	70.00	10.00	HMSA7	V	▲19737	2.000	2.371	.250	†HM14	R
W/STAINLESS STEEL SPRING						19739	2.000	2.500	.438	†CRW1	S
19635	1.969	2.756	.315	HMSA92	P	□19741	50.00	75.00	9.00	CRS11	R
W/CW HELIX FROM AIR SIDE						▲19743	2.000	2.622	.280	†HMA9	R
□19636	50.00	72.00	8.00	HMS4	V	W/3.000 FLG & AXIAL DIRT LIP					
W/STAINLESS STEEL SPRING						▲19745	2.000	2.502	.313	†CRW1	P
□19637	50.00	65.00	10.00	HMSA7	R	19746	2.000	2.623	.250	†HM21	V
▲□19638	50.00	72.00	8.00	HMS4	R	▲19748	2.000	2.500	.250	HM1	R
▲19639	1.969	2.835	.640	D5-SPL	R	19753	2.000	2.562	.234	†HM14	R
SPECIAL CONST.						▲19754	2.000	2.502	.250	†HM14	R
□19640	50.00	72.00	8.00	†CRW1	R	▲19757	2.000	2.565	.500	†HM14	R
□19641	50.00	72.00	8.00	†CRW1	V	▲19760	2.000	2.623	.313	†CRW1	R
▲19643	1.969	2.875	.469	CRSH1	R	19762	2.000	2.623	.313	†CRWA1	R
▲19644	1.969	2.874	.468	KIT	R	▲19763	2.000	2.623	.250	†HM21	R
□19645	50.00	72.00	10.00	HMS4	R	▲19768	2.000	2.627	.234	†HM14	R
□19646	50.00	72.00	8.00	HMSA7	R	19770	2.000	2.635	.234	†HM14	R
19647	1.969	2.559	.384	HMA8	P	19773	2.000	2.652	.365	HMA2	R
□19648	50.00	72.00	9.00	HMS4	R	19777	2.000	2.623	.313	†CRWA1	V
□19649	50.00	72.00	10.00	HMSA7	R	▲19778	2.000	2.686	.375	†CRW1	R
□19650	50.00	87.00	11.00	HMSA92	P	19782	2.000	2.623	.313	†CRWA1	V
19651	1.969	2.368	.276	HMSA7	V	W/STAINLESS STEEL SPRING					
□19652	50.00	72.00	12.00	HMSA7	R	▲19783	2.000	2.686	.250	†HM21	R
□19654	50.00	75.00	8.00	†CRWA1	R	19784	2.000	2.560	.234	†HMA85	R
▲□19655	50.00	75.00	10.00	HMS4	R	▲19785	2.000	2.716	.375	†CRW1	R

\*Contact manufacturer for availability  
**Bold numbers** are preferred designs

□ Metric numbers

† Includes Bore-Tite on O.D.  
 ▲ WasteWatcher numbers



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Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
<b>19786</b>	2.000	2.716	.375	†CRWA1	R	20016	2.000	2.631	.272	HMA94	R
□19791	50.00	78.00	13.00	CRSH13	R	P.F. WD IS.257",MINOR OD=2.628					
19793	2.000	2.720	.210	X	R	20018	2.000	2.620	.355	HMSA96	VT
▲19799	O.D. LISTED IS PRESSFIT I.D.					20038	2.047	2.590	.290	HMSA96	P
	2.000	2.742	.375	†HMS13	P	▲20044	2.000	3.061	.250	†HM21	R
	W/CW HELIX FROM AIR SIDE					▲20045	2.000	3.061	.375	†CRW1	R
▲19803	2.000	2.745	.234	HM14	R	▲20053	2.000	3.061	.500	†CRWH1	R
▲19807	2.000	2.746	.375	†CRW1	S	▲20054	2.000	3.061	.500	†CRWHA1	R
▲19820	2.000	2.752	.188	†HM14	R	▲20070	2.000	3.125	.375	†CRW1	R
19823	2.000	2.750	.313	†CRW1	V	▲20078	2.000	3.148	.250	HM14	R
▲19831	2.000	2.750	.313	†CRW1	R	▲20079	2.000	3.150	.375	†CRW1	R
19832	2.000	2.750	.313	†CRWA1	R	▲20098	2.000	3.189	.469	†CRWH1	R
▲19834	2.000	2.750	.250	†HM21	R	20100	2.000	3.189	.469	†CRWHA1	R
19839	2.000	2.750	.313	†CRWA1	V	20108	2.000	3.251	.437	KIT	R
19840	2.000	2.750	.313	†CRW1	V	▲20109	2.000	3.251	.438	†CRWH1	R
	W/SS CASE & SPRING					▲20113	2.000	2.962	.250	†HM20	R
19841	2.000	2.834	.197	SL2	T	W/3.209 FLANGE					
	W/ALUMINUM CASE					▲20118	2.000	2.968	.313	†HM14	R
▲19844	2.000	2.802	.250	X15	D	20122	2.000	3.371	.438	†CRW1	V
	O.D. LISTED IS PRESSFIT I.D.					▲20124	2.000	3.371	.438	†CRWH1	R
▲19848	2.000	2.835	.469	†CRWH1	R	20125	2.000	3.371	.438	†CRWHA1	R
▲19852	2.000	2.562	.335	CRW2	R	20127	2.000	3.371	.438	CRWH1	V
	W/2.860 FLANGE					20136	2.000	3.370	1.031	CRSA4	P
19876	2.000	2.874	.703	†C8	RR	HELIX-CW & 3.800 FLG,PF WD.358					
□19878	50.00	85.00	13.00	CRSH1	R	▲20140	2.000	3.543	.433	†CRWH1	R
▲19880	2.000	2.875	.250	†HM21	R	▲20144	2.000	3.623	.438	†CRWH1	R
19882	2.000	2.875	.256	XHM	R	20146	1.980	3.371	.563	†KIT	V
	O.D. LISTED IS PRESSFIT I.D.					SEE KIT SECTION					
19884	2.000	2.875	.313	†CRW1	V	▲20148	2.000	3.623	.250	HM21	R
▲19886	2.000	2.875	.313	†CRW1	R	▲20158	2.000	4.003	.438	†CRWH1	R
19887	2.000	2.875	.313	†CRWA1	R	20168	2.000		.562	J2-KIT	R
□19894	50.00	90.00	13.00	CRSH13	R	SEE TYPE J SECTION (HM LIP)					
19896	2.000	2.875	.375	†CRWHA1	R	▲□20205	51.00	63.00	6.00	HMA2	R
19900	2.000	2.875	.500	†CRWH1	R	20209	2.008	2.480	.470	HMSA96	R
	W/SS CASE & SPRING					P.F. WIDTH .337"					
□19903	50.00	78.00	10.00	HMS47	R	▲□20210	51.00	65.00	7.00	†CRWA1	R
19905	2.000	2.623	.311	HMSA1	V	20215	2.008	2.598	.413	HMSA96	R
	W/CW HELIX FROM AIR SIDE					P.F. WIDTH .295 (7.5MM)					
▲19922	2.000	2.880	.375	†CRWA1	R	20216	2.008	2.756	.433	HMSASPL	P
19923	2.000	2.880	.375	†CRWA1	P	W/CCW HELIX FROM AIR SIDE					
□19925	50.00	80.00	10.00	HMSA7	R	□20255	51.00	73.00	8.00	†CRWA1	R
□19927	50.00	90.00	10.00	HMSA7	R	□20275	51.00	80.00	9.53	†CRW1	R
19938	2.000	2.965	.500	†HM14	R	□20280	51.00	81.00	9.53	†CRWH1	R
	CLEARANCE D .275					□20281	51.00	81.00	9.53	†CRWHA1	R
19939	2.000	2.880	.368	†HMS14	R	□20292	51.00	92.00	11.13	†CRWH1	R
	W/CW HELIX FROM AIR SIDE					□20400	52.00	62.00	7.00	HMSA7	R
▲19940	2.000	2.965	.313	†HM14	R	20403	2.043	2.835	.315	HMSA29	R
19955	1.995	2.620	.492	KIT		□20405	52.00	63.00	8.00	HMSA7	P
▲19965	2.000	2.997	.250	HM21	R	□20408	52.00	65.00	9.00	HMSA7	R
19966	2.000	2.754	.302	†HMS14	S	□20415	52.00	69.00	10.00	HMS4	R
▲19969	2.000	2.997	.375	†CRWH1	R	20417	2.047	2.441	.217	XA-SPL	P
19970	2.000	2.997	.375	†CRWHA1	R	O.D. LISTED IS PRESSFIT I.D.					
19974	2.000	2.997	.375	†CRWHA1	V	▲20420	2.047	2.561	.315	†CRW1	R
19979	2.000	2.997	.375	†CRWH1	V	□20421	52.00	68.00	8.00	†CRW1	R
19982	2.000	2.997	.438	†HMSA24	P	▲20422	2.047	2.638	.264	X	P
19984	2.000	2.560	.224	†HMA84	R	O.D. LISTED IS PRESSFIT I.D.					
▲19992	2.000	3.000	.313	†CRW1	R	□20424	52.00	68.00	8.00	†CRW1	V
19993	2.000	3.000	.313	†CRWA1	R	▲20425	2.048	2.727	.570	†HMA8	R
19995	2.000	3.000	.313	†CRWA1	V	W/AXIAL DIRT LIP					
20002	2.000	3.000	.375	†CRWH1	V	▲□20426	52.00	68.00	8.00	HMS4	R
20004	2.000	3.000	.375	†CRWH1	R	20427	2.047	2.677	.276	HMA8	P
20005	2.000	3.000	.375	†CRWHA1	R	W/AXIAL DIRT LIP					
▲20006	2.000	3.000	.250	†HM21	R	▲20428	2.047	2.677	.512	HMSA7SP	R
20012	1.969	2.953	.354	CRSA1	P	SPECIAL CONST.					

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Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
20429	2.047	2.953	.294	HMSA29	R	<b>20747</b>	2.063	3.251	.438	+CRWHA1	R
	W/AXIAL DIRT LIP					<b>▲20749</b>	2.063	3.251	.438	+CRWH1	R
▲□20430	52.00	70.00	8.00	+CRW1	R	20766	2.063		.348	J2-KIT	R
▲20431	2.047	2.599	.295	HMSA96	P	SEE TYPE J SECTION (CRWH LIP)					
20432	2.047	2.756	.374	HMSA1	V	20866	2.087	2.795	.453	CRSA1	R
	W/CW HELIX FROM AIR SIDE					□20872	53.00	72.00	12.00	CRSH11	R
20433	2.047	2.561	.354	+CRS1	R	□20873	53.00	80.00	13.00	CRSH13	R
□20434	52.00	66.00	9.00	HMS4	R	20875	2.087	3.203	.610	+HMSA9	R
□20435	52.00	72.00	8.00	+CRWA1	V	20880	2.088	2.911	.500	HMSA97	V
□20437	52.00	72.00	8.00	HMSA7	R	W/3.309 FLANGE O.D.					
20438	2.047	2.835	.315	HMSA35	P	□20902	53.00	71.29	8.91	HMS4	P
	W/CW HELIX FROM AIR SIDE					□20904	53.00	68.00	8.00	CRW1	V
▲20439	2.047	2.756	.294	X	R	□20905	53.00	68.00	10.00	HMS4	R
	O.D. LISTED IS PRESSFIT I.D.					<b>20906</b>	2.086	2.685	.276	HMSA7	R
□20440	52.00	72.00	8.00	+CRW1	R	▲20952	2.094	2.718	.359	+HM18	R
□20441	52.00	72.00	8.00	+CRW1	V	CLEARANCE D .160					
□20442	52.00	72.00	10.00	HMS4	R	20965	2.094	3.149	.550	+HM21	R
□20443	52.00	72.00	10.00	HMSA7	V	21020	2.102	3.038	.315	HMSW7	V
	W/STAINLESS STEEL SPRING					▲□21040	54.00	65.00	8.00	+CRW1	R
▲□20444	52.00	72.00	8.00	HMS4	R	□21041	54.00	65.00	8.00	+CRW1	V
20445	2.045	2.835	.618	HMSA7SP	P	21043	2.126	2.559	.512	CRSA1	R
20446	2.047	2.874	.315	KIT	P	▲21045	2.125	2.960	.669	HMSA45	R
20447	2.283	2.992	.630	HMSASPL	R	W/P.F. WIDTH 8.00MM (.315)					
20448	2.047	2.717	.583	D7-SPL	P	21048	2.126	2.598	.315	HMSA96	P
□20453	52.00	75.00	12.00	HMS4	R	21052	2.126	2.717	.296	D5SPL	R
20455	2.047	2.677	.315	HMSA96	P	▲21059	2.125	2.750	.250	+HM21	R
20457	2.047	2.756	.354	HMSA1	R	▲21061	2.125	2.750	.500	+CRWA1	R
20463	2.047	2.835	.315	HMSA96	R	<b>21063</b>	2.125	2.750	.375	+CRW1	V
▲20465	2.047	3.071	.368	X	P	▲21064	2.126	2.756	.374	HMSHA1	R
	O.D. LISTED IS PRESSFIT I.D.					<b>21069</b>	2.125	2.763	.250	+CRW1	R
□20466	52.00	68.00	8.00	HMSA7	R	21070	2.125	2.763	.250	KIT	R
□20473	52.00	80.00	10.00	HMS4	R	SEE KIT SECTION					
□20478	52.00	68.00	10.00	HMSA7	R	<b>21091</b>	2.125	2.875	.438	+CRW1	V
□20479	52.00	72.00	12.00	CRSA13	R	▲21098	2.125	2.875	.438	+CRW1	R
□20481	52.00	72.00	12.00	HMS45	R	▲21100	2.125	2.875	.438	+CRWA1	R
□20488	52.00	75.00	10.00	HMS46	R	▲21101	2.125	2.875	.250	+HM14	R
□20490	52.00	85.00	8.00	+CRW1	R	▲21103	2.125	2.875	.375	+CRW1	S
□20491	52.00	80.00	13.00	CRS15	R	<b>21108</b>	2.125	2.875	.438	+CRWHA1	R
▲□20495	52.00	85.00	10.00	HMS4	R	▲21110	2.125	2.875	.438	+CRWHA1	R
20501	2.047	3.268	.315	KIT	R	W/CW HELIX FROM AIR SIDE					
	SEE KIT SECTION					▲21111	2.125	2.880	.550	+CRWA3	P
□20507	52.00	72.00	10.00	HMSA7	R	W/HELIX-CCW & 3.180 FLANGE					
<b>20520</b>	2.063	2.561	.313	+CRW1	V	▲21121	2.125	2.891	.250	+HM14	R
<b>20525</b>	2.063	2.661	.188	HMS4	R	<b>21128</b>	2.125	2.953	.472	HMSA7	P
20526	2.063	2.661	.188	KIT	R	W/CCW HELIX FROM AIR SIDE					
	SEE KIT SECTION					▲21134	2.125	2.997	.438	+CRWH1	R
<b>20530</b>	2.063	2.750	.313	CRWH1	R	<b>21136</b>	2.125	2.997	.438	+CRWHA1	R
▲20538	2.063	2.842	.438	+CRWH1	R	▲21159	2.125	3.000	.250	+HM21	R
▲20554	2.063	2.875	.438	+CRWH1	R	▲21163	2.125	3.000	.375	+CRW1	R
20560	2.063	2.938	.344	X15	R	<b>21164</b>	2.125	3.000	.375	+CRWA1	R
	O.D. LISTED IS PRESSFIT I.D.					<b>21167</b>	2.125	3.000	.313	+CRWHA1	V
▲20586	2.063	2.997	.438	+CRWH1	R	<b>21171</b>	2.125	3.000	.438	+CRWH1	V
▲20594	2.063	3.000	.375	+CRW1	R	<b>21172</b>	2.125	3.000	.438	+CRWH1	R
<b>20599</b>	2.063	3.000	.375	+CRWA1	V	<b>21173</b>	2.125	3.000	.438	+CRWHA1	R
▲20608	2.063	3.000	.313	+HM21	R	▲21203	2.125	3.061	.438	+CRWH1	V
▲20643	2.063	3.061	.313	+CRWH1	R	W/STAINLESS STEEL SPRING					
<b>20659</b>	2.063	3.125	.375	+CRW1	R	▲21208	2.125	3.061	.250	+HM21	R
20669	2.063	3.149	.250	+HM21	R	▲21210	2.125	3.061	.500	+CRW1	R
20672	2.063	3.149	.500	+TL6	D	<b>21211</b>	2.125	3.061	.500	CRWA1	R
	P.F. WIDTH .395					<b>21213</b>	2.125	3.061	.500	+CRWHA1	R
▲20674	2.063	3.150	.266	TL7	R	▲21234	2.125	3.125	.438	+CRWH1	R
20700	2.047	3.268	.709	KIT	R	21236	2.125	2.880	.552	+HMSA25	V
▲20702	2.063	3.189	.375	+CRW1	R	21239	2.125	2.884	.401	D8	V
▲20735	2.063	3.250	.294	X15	R	21241	2.122	3.030	.430	HMSA97	V
	O.D. LISTED IS PRESSFIT I.D.										

\*Contact manufacturer for availability  
**Bold numbers** are preferred designs

□ Metric numbers

† Includes Bore-Tite on O.D.  
 ▲ WasteWatcher numbers

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Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
21244	2.128	3.150	.532	HMSA95	R	□21631	55.00	78.00	10.00	HMS4	R
<b>21245</b>	2.125	3.125	.438	†CRWHA1	P	□21632	55.00	78.00	12.00	HMSA7	R
21247	2.126	2.559	.276	HMS18SP	P	□21633	55.00	85.00	14.00	HMS4	R
21248	2.126	2.992	.315	HMSA96	P	□21634	55.00	75.00	10.00	HMSA7	R
□21261	54.00	70.00	10.00	CRS13	R	▲□21637	55.00	80.00	8.00	HMS4	R
□21262	54.00	70.00	12.00	CRSH13	R	□21638	55.00	80.00	8.00	HMSA7	R
▲21265	2.125	3.189	.250	†HM21	R	21639	2.165	3.150	.315	HMSA16	V
▲21267	2.125	3.189	.375	†CRWA1	R	□21640	55.00	80.00	8.00	†CRW1	R
<b>21269</b>	2.125	3.189	.375	†CRWA1	V	□21641	55.00	80.00	8.00	†CRW1	V
<b>21270</b>	2.125	3.189	.469	†CRWHA1	S	□21642	55.00	80.00	10.00	HMS4	R
□21273	54.00	80.00	13.00	CRSH13	R	□21643	55.00	70.00	10.00	HMSA7	R
21281	2.126	3.228	.315	HMSA96	V	□21644	55.00	80.00	12.00	HMS4	R
□21283	54.00	80.00	10.00	CRSH1	R	□21645	55.00	80.00	13.00	HMS4	R
21285	2.125	2.763	.500	HMSA97	V	□21646	55.00	70.00	10.00	HMS4	R
	W/CW HELIX FROM AIR SIDE					□21648	55.00	68.00	8.00	HMSA7	R
□21290	54.00	70.00	8.00	HMSA7	P	21650	2.172	2.426	.484	SL1	T
21291	2.130	2.745	.958	HM-SPL	R	W/3.000 FLANGE					
21294	2.125	3.058	.235	KIT	R	□21651	55.00	82.00	12.00	HMS4	R
	FLG OD 3.266					21652	2.165	2.670	.310	HMSA56	P
▲21298	2.125	3.250	.270	X15	R	□21656	55.00	70.00	8.00	HMSA7	R
	O.D. LISTED IS PRESSFIT I.D.					□21660	55.00	85.00	8.00	†CRW1	R
▲21302	2.125	3.251	.438	†CRWH1	R	▲□21661	55.00	85.00	8.00	HMS4	R
21306	2.125	3.250	.900	HDDF1	R	□21664	55.00	72.00	7.00	HMSA7P2	R
	O.D. LISTED IS SEAL I.D.					□21667	55.00	72.00	8.00	HMSA7	V
21307	2.125			HDDFBV1	R	□21668	55.00	85.00	10.00	HMS4	R
	BELLEVILLE WASHERS (2 EA/KIT)					▲□21670	55.00	90.00	8.00	†CRW1	R
□21318	54.00	72.00	10.00	HMSA7	R	▲□21671	55.00	90.00	10.00	HMS4	R
▲□21320	54.00	73.00	11.00	†CRW1	R	□21673	55.00	90.00	13.00	HMS4	R
□21324	54.00	73.00	11.13	†CRWA1	R	□21682	55.00	75.00	12.00	HMS4	R
21327	2.126	2.992	.563	D6	P	▲□21685	55.00	100.00	8.00	†CRW1	R
	RUBBER COVERED					□21693	55.00	100.00	12.00	HMS4	R
▲21336	2.125	3.350	.438	†CRWH1	R	□21699	55.00	80.00	10.00	HMSA7	R
▲□21345	54.00	81.00	9.53	†CRWA1	R	□21709	55.00	85.00	13.00	HMSA7	R
▲21352	2.125	3.371	.375	†CRWA1	R	□21711	55.00	90.00	10.00	HMSA7	R
▲21353	2.125	3.371	.438	†CRWH1	R	□21716	55.00	100.00	13.00	CRSH13	R
▲21358	2.125	3.543	.438	†CRWH1	R	□21717	55.00	78.00	13.00	CRSH11	R
□21361	54.00	85.00	10.00	HMS4	R	□21723	55.00	72.00	8.00	HMSA7	R
▲21379	2.125	3.623	.469	CRSA1	P	□21727	55.00	72.00	10.00	HMSA7	R
▲21400	2.136	2.904	.453	†HMS17	R	□21732	55.00	85.00	10.00	HMSA7	R
	P.F. WIDTH .310 & 3.110 FLANGE					21735	2.180	3.059	.300	†HMA22	R
21410	2.141	3.484	.329	HMS14	P	▲21736	2.188	2.875	.438	†CRWH1	R
	W/CW HELIX					□21744	55.00	78.00	8.00	HMS4	R
▲21538	2.145	3.188	.469	CRSH1	R	□21747	55.00	78.00	8.00	HMSA7	R
▲□21603	55.00	68.00	8.00	HMS4	R	▲21749	2.188	2.997	.438	†CRWH1	R
□21610	55.00	70.00	8.00	†CRW1	R	21756	2.188	3.000	.256	HMA22	R
□21611	55.00	70.00	8.00	†CRW1	V	▲21759	2.188	3.000	.375	†CRWA1	R
▲□21612	55.00	70.00	8.00	HMS4	R	21763	2.188	3.000	.375	†CRWA1	V
□21613	55.00	70.00	8.00	HMSA7	V	21764	2.188	3.000	.500	†CRWH1	R
	W/STAINLESS STEEL SPRING					★21769	2.188	3.000	.340	†HMA22	R
□21615	55.00	70.00	9.00	HMSA7	R	▲21771	2.188	3.000	.500	†HMA22	R
□21619	55.00	72.00	8.00	HMS4	V	▲21775	2.188	3.061	.500	†CRWH1	R
	W/STAINLESS STEEL SPRING					21814	2.188	3.188	.688	KIT	R
□21620	55.00	72.00	8.00	†CRW1	R	SEE KIT SECTION					
□21621	55.00	72.00	8.00	†CRW1	V	21820	2.188	3.188	.469	KIT	R
□21622	55.00	73.00	8.00	†CRW1	V	SEE KIT SECTION					
▲□21623	55.00	72.00	8.00	HMS4	R	▲21840	2.188	3.251	.438	†CRWH1	R
□21624	55.00	72.00	10.00	HMS4	R	▲21890	2.188	3.350	.438	†CRWH1	R
□21625	55.00	75.00	8.00	†CRW1	R	▲21910	2.188	3.371	.438	†CRWH1	R
□21626	55.00	75.00	8.00	†CRW1	V	21915	2.191	3.055	.170	X-SPL	P
▲□21627	55.00	75.00	10.00	HMS4	R	O.D. LISTED IS PRESSFIT I.D.					
21628	2.165	2.913	.276	HMA8	P	21918	2.186	3.131	.729	VACBOOT	R
	W/AXIAL DIRT LIP					HUB SEAL					
□21629	55.00	72.00	9.00	HMSA7	R	▲21938	2.188	3.189	.640	HMA4	R
□21630	55.00	78.00	9.00	HMS1	R	21950	2.188	3.623	.500	CRSHA1	R
						▲21952	2.199	2.737	.438	†HMA90	R

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Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
21953	2.199	2.804	.300	HMA85	P	▲22311	2.250	3.110	.469	VR1	R
	W/ALUMINUM CASE						SHAFT RANGE 2.090 - 2.290				
▲21955	2.201	3.519	.591	†HMSA16	R	22319	2.250	2.891	.563	†CRWA1	R
	W/CW HELIX FROM AIR SIDE					▲22325	2.250	2.875	.250	HM21	R
21961	2.201	2.738	.197	HMA73	R	▲22328	2.250	2.875	.313	†CRWA1	R
	W/2.913 FLG & AXIAL DIRT LIP					▲22338	2.250	2.997	.438	†CRWH1	R
21962	2.123	2.737	.438	†KIT	R	22340	2.250	2.997	.438	†CRWHA1	R
22005	2.205	2.638	.217	X	R	▲22353	2.250	3.000	.375	†CRW1	R
	O.D. LISTED IS PRESSFIT I.D.					22354	2.250	3.000	.375	†CRWA1	R
22013	2.205	2.992	.484	HMSA101	R	22358	2.250	3.000	.438	†CRWH1	R
	W/AXIAL DIRT EXCLUDER & BUMPER					22359	2.250	3.000	.438	†CRWHA1	R
▲□22015	56.00	70.00	8.00	HMS4	R	22361	2.250	3.000	.375	†CRWA1	V
▲□22018	56.00	72.00	8.00	HMS4	R	22363	2.250	3.000	.375	†CRW1	V
□22020	56.00	72.00	9.00	†HMS1	R	22367	2.250	3.000	.438	†CRWH1	V
22022	2.205	2.835	.453	HMSA57	R	▲22368	2.250	3.000	.250	†HM21	R
	P.F. WIDTH .453 W/3.032 FLANGE					22371	2.250	3.035	.374	HMSH4	R
22024	2.205	2.843	.315	HMS4SPL	P	▲22382	2.250	3.061	.375	†CRW1	R
22026	2.205	2.846	.315	HMSA92	R	22390	2.250	3.061	.438	†CRWH1	R
22027	2.205	2.835	.492	†HMSA21	R	22391	2.250	3.061	.438	†CRWHA1	R
▲22028	2.205	3.054	.551	HMSASPL	R	▲22392	2.250	3.061	.250	HM21	R
	P.F. WIDTH .276					22394	2.250	3.061	.438	†CRWHA1	S
22029	2.205	3.031	.394	CRSA3	R	▲22400	2.250	3.125	.375	†CRWA1	R
	W/BOOT & 3.360" FLG OD					22405	2.250	3.125	.375	†CRWA1	V
▲□22030	56.00	75.00	8.00	†CRW1	R	22407	2.250	3.125	.500	CRWH1	R
22031	2.205	2.953	.433	HMSA7SP	R	22411	2.250	3.125	.563	HM18	R
	W/CW HELIX FROM AIR SIDE						CLEARANCE D .214				
22033	2.205	2.953	.315	HMSA96	P	▲22424	2.250	3.189	.438	†CRW1	R
22035	2.205	2.992	.472	†CRSA9	R	22425	2.250	3.189	.438	†CRWA1	P
	P.F. WIDTH .236 SPECIAL CONST.					▲22430	2.250	3.250	.270	X15	R
▲22037	2.205	2.874	.315	HMSA96	P		O.D. LISTED IS PRESSFIT I.D.				
□22038	56.00	72.00	8.00	HMSA7	R	▲22440	2.250	3.251	.375	†CRW1	R
□22040	56.00	78.00	10.00	HMS1	R	22441	2.250	3.251	.375	†CRWA1	R
22041	2.205	2.870	.315	HMSA96	P	22446	2.250	3.251	.438	†CRWH1	R
22042	2.205	3.071	.295	HMSA96	R	22448	2.250	3.251	.438	†CRWHA1	R
	W/AXIAL DIRT LIP					22449	2.250	3.251	.438	†CRWH1	V
22045	2.205	3.471	.876	HMSASPL	P	22450	2.250	3.251	.375	†CRWA1	P
22047	2.205	2.874	.315	KIT	P	□22453	57.00	72.00	10.00	CRSH1	R
22048	2.205	2.835	.433	†HMSA56	R	22454	2.205	2.677	.433	HMA8	R
22049	2.205	3.031	.472	CRSA3	P	□22457	57.00	80.00	12.00	CRSH11	R
	P.F. WIDTH .472 & 13.398 WIDTH					□22458	57.00	85.00	10.00	CRSH11	R
□22051	56.00	70.00	8.00	CRS11	R	□22463	57.00	90.00	13.00	CRS13	R
▲□22053	56.00	80.00	8.00	HMS4	R	□22467	57.00	90.00	13.00	CRSH11	R
□22059	56.00	72.00	10.00	CRSH11	R	▲22468	2.250	3.251	.250	HM21	R
□★22060	56.00	82.00	8.00	†HMSA27	R	□22469	57.00	85.00	13.00	HMSA7	R
□22067	56.00	80.00	13.00	CRSH11	R	▲22483	2.250	3.310	.375	†HM18	R
▲□22071	56.00	85.00	8.00	HMS4	R		CLEARANCE D .130				
□22074	56.00	82.00	8.00	HMSA7	R	22484	2.250	3.350	.375	†CRW1	P
22075	2.047	2.953	.390	KIT	P	▲22492	2.250	3.350	.438	CRWH1	R
22120	2.208	2.913	.394	HMSA57	R	22493	2.250	3.350	.438	†CRWHA1	R
	W/3.268 FLANGE O.D.					22495	2.250	3.350	.438	†CRWH1	V
▲22125	2.205	2.992	.435	HMSA57	R	22532	2.250	3.371	.438	†CRWHA1	R
	W/AXIAL DIRT LIP					▲22550	2.250	3.371	.375	†HM14	R
22175	2.222	3.543	.750	UNITIZED	SR	▲22558	2.250	3.371	.438	†CRWH1	R
22224	2.244	2.835	.331	HMSA21	P	22561	2.250	3.371	.438	†CRWH1	V
▲22225	2.244	2.638	.236	HMSA7	R	22562	2.250	3.251	.500	†KIT	V
▲22230	2.244	3.110	.531	HMSA55	R		SEE KIT SECTION				
	W/3.366 FLG & AXIAL DIRT LIP					▲22563	2.250	3.400	.294	X15	R
□22240	57.00	81.00	11.00	†CRW1	R		O.D. LISTED IS PRESSFIT I.D.				
□22245	57.00	81.00	11.00	†CRWA1	P	▲22565	2.250	3.440	.250	†HM14	R
22250	2.244	3.189	.450	HMSA96	P	22573	2.250	3.371	.375	†CRSH1	V
□22260	57.00	92.00	11.00	†CRWH1	R	22582	2.250	3.500	.438	†CRWHA1	R
□22262	57.00	92.00	11.00	†CRWHA1	R	▲22583	2.250	3.500	.438	†CRWH1	R
22284	2.244	4.810	.413	HMS83	R	22587	2.125	3.500	.750	KIT	R
	P.F. WIDTH .315 (8MM)					22590	2.250	3.500	.438	†CRWHA1	V
▲22306	2.250	2.625	.188	†HM14	R	▲22610	2.250	3.565	.438	†CRWA1	R

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**Bold numbers** are preferred designs

□ Metric numbers

† Includes Bore-Tite on O.D.  
 ▲ WasteWatcher numbers

## Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
22614	2.240	3.189	.610	†HM14	R	23244	2.324	3.541	.591	HMSA97	R
▲22618	2.250	3.623	.438	†CRWH1	R	W/4 .018" FLANGE O.D.					
22619	2.250	3.623	.438	†CRWHA1	R	23276	2.327	3.130	.315	†RRH1	R
▲22626	2.250	3.751	.438	†CRWH1	R	23277	2.313	3.751	.500	†CRW1	R
22640	2.250	3.251	.520	†HMSHA16	P	▲□23278	59.00	75.00	9.11	HMSA29	R
W/CCW HELIX						23279	2.313	3.751	.500	†KIT	R
▲22644	2.250	3.876	.438	†CRWH1	R	23284	2.322	3.937	.394	D8-SPL	P
▲22647	2.250	4.003	.438	†CRWH1	R	23286	2.323	3.937	.394	HMSA7SP	P
22653	2.250	4.063	1.220	†CRWA3	P	23297	2.323	3.080	.315	HMSA92	P
W/4.438 FLANGE						23299	2.323	3.083	.315	HMSA24	R
22742	2.272	2.656	.250	SL1	T	▲23300	2.328	3.000	.395	†CRW1	P
W/BRASS CASE						□23414	60.00	80.00	12.00	HMS4	R
□22804	58.00	72.00	8.00	HMSA7	R	□23425	60.00	72.00	8.00	HMS4	R
22808	2.283	2.874	.507	HMSA57	R	▲□23426	60.00	75.00	8.00	HMS4	R
□22811	58.00	78.00	8.00	HMSHA1	R	□23427	60.00	75.00	8.00	HMSA7	R
□22813	58.00	72.00	8.00	HMS4	V	□23428	60.00	75.00	8.00	HMSA7	V
□22815	58.00	72.00	8.00	†CRW1	R	W/STAINLESS STEEL SPRING					
▲□22816	58.00	72.00	8.00	HMS4	R	□23429	60.00	75.00	8.00	†CRW1	R
□22818	58.00	72.00	8.00	†CRW1	S	□23430	60.00	75.00	8.00	†CRW1	V
22819	2.283	2.913	.512	D7	P	□23431	60.00	75.00	10.00	HMSA7	R
22821	2.283	2.992	.276	HMSA29	R	▲23432	2.362	2.953	.465	HMSA	R
▲□22822	58.00	75.00	8.00	†CRW1	R	W/P.F. WIDTH 5.80MM (.228)					
□22823	58.00	75.00	9.00	HMSA7	R	□23433	60.00	75.00	9.00	HMS4	R
□22824	58.00	75.00	11.00	HMS4	R	□23435	60.00	78.00	9.00	†CRS1	R
22826	2.283	3.031	.335	HMS83	R	□23436	60.00	78.00	9.00	HMSA7	R
▲□22827	58.00	80.00	8.00	HMS4	R	□23438	60.00	80.00	10.00	HMSA7	R
□22828	58.00	80.00	12.00	HMSA7	R	▲□23439	60.00	80.00	8.00	HMS4	R
□22831	58.00	80.00	10.00	HMS4	R	□23440	60.00	80.00	8.00	†CRW1	R
□22832	58.00	80.00	8.00	†CRW1	R	□23441	60.00	80.00	8.00	†CRW1	V
□22833	58.00	80.00	8.00	†CRW1	V	□23442	60.00	80.00	10.00	HMS4	R
□22834	58.00	80.00	10.00	HMSA7	R	□23443	60.00	80.00	13.00	HMS4	R
▲22835	2.281	3.154	.375	†HM21	R	□23444	60.00	80.00	8.00	HMSA7	V
22840	2.283	2.953	.276	HMS4SPL	P	W/STAINLESS STEEL SPRING					
22841	2.283	2.951	.292	HMSA45	P	▲□23445	60.00	82.00	8.00	†CRWA1	R
22842	2.283	2.910	.390	HMSA7	P	23446	2.362	3.228	.472	HMSA7	S
W/CCW HELIX FROM AIR SIDE						W/CCW HELIX FROM AIR SIDE					
22845	2.283	3.070	.394	HMSA92	R	□23447	60.00	85.00	8.00	†CRW1	V
W/CCW HELIX FROM AIR SIDE						□23449	60.00	85.00	8.00	†CRW1	R
□22849	58.00	85.00	8.00	†CRW1	R	23450	2.362	3.374	.395	HMS14	S
▲□22851	58.00	85.00	10.00	HMS4	R	W/CW HELIX FROM AIR SIDE					
□22862	58.00	90.00	13.00	CRSH13	R	▲□23451	60.00	85.00	8.00	HMS4	R
□22866	58.00	85.00	13.00	CRSH1	R	□23452	60.00	85.00	8.00	HMSA7	R
□22869	58.00	90.00	8.00	†CRW1	R	□23453	60.00	85.00	10.00	HMS4	R
▲22870	2.297	3.148	.359	HM18	R	□23454	60.00	85.00	12.00	HMS4	R
CLEARANCE D .185						□23456	60.00	82.00	12.00	HMSA7	R
□22875	58.00	90.00	10.00	HMSA7	R	23458	2.362	3.386	.276	HMSA29	R
22878	2.283	4.055	.435	HMSA96	P	□23462	60.00	85.00	10.00	HMSA7	R
W/CW HELIX FROM AIR SIDE						23464	2.362	3.543	.866	D5-SPL	R
23000	2.500	3.350	.438	†CRSA3	R	□23465	60.00	90.00	8.00	†CRW1	R
▲23030	2.313	2.997	.375	†CRW1	R	□23466	60.00	90.00	10.00	HMS4	R
▲23035	2.313	3.000	.250	†HM14	R	▲□23467	60.00	90.00	8.00	HMS4	R
▲23040	2.313	3.000	.438	†CRWH1	V	▲□23468	60.00	95.00	10.00	HMSA7	R
▲23046	2.313	3.061	.313	†CRW1	R	□23471	60.00	90.00	14.00	HMS4	R
23050	2.313	3.065	.281	HM1	R	□23475	60.00	90.00	10.00	HMSA7	R
▲23061	2.313	3.125	.375	†CRW1	R	□23476	60.00	95.00	8.00	HMSA7	R
23063	2.313	3.125	.375	†CRWA1	V	23483	2.362	3.937	1.063	KIT	R
▲23093	2.313	3.251	.438	†CRWH1	R	SEE KIT SECTION					
23099	2.313	3.251	.438	CRWHA1	V	23484	2.362	4.055	.472	HMSA96	P
▲23130	2.313	3.310	.375	†HM21	R	□23486	60.00	105.00	8.00	†CRW1	R
▲23152	2.313	3.350	.438	†CRWH1	R	▲□23488	60.00	110.00	8.00	†CRW1	R
▲23167	2.313	3.371	.438	†CRW1	R	23590	2.359	3.938	.686	PLUS XL	P
▲23169	2.313	3.374	.438	†CRWHA1	R	SCOTSEAL PLUS XL					
▲23184	2.313	3.500	.313	CRW1	R	23615	2.362	2.954	.208	†HMSA56	R
23228	2.323	2.835	.472	HMSA7	R	□23618	60.00	70.00	7.00	CRS1	R
▲23240	2.313	3.500	.250	†HM21	R	□23619	60.00	80.00	12.00	HMSA7	R



Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
▲23630	2.375	2.997	.250	+HM21	R	23870	2.375	.275	J1-KIT	R	
▲23632	2.375	2.997	.438	+CRWH1	R		SEE TYPE J SECTION (CRW LIP)				
□*23636	60.00	80.00	7.00	HMSA71	R	23880	2.402	3.460	.284	X-SPL	R
□23639	60.00	80.00	10.00	CRSHA1	R		O.D. LISTED IS PRESSFIT I.D.				
▲23640	2.375	3.000	.250	HM21	R	23885	2.402	2.992	.276	HMSA96	P
▲23641	2.375	3.000	.375	+CRW1	V		W/AXIAL DIRT LIP				
▲23644	2.375	3.061	.438	+CRWH1	R	23888	2.402	3.071	.531	D7-SPL	P
▲23645	2.375	3.061	.438	+CRWH1	P	24012	2.420	3.000	.402	HMHASPL	R
▲23646	2.375	3.125	.375	+CRW1	R	24017	2.420	3.000	.280	HMA9	R
▲23652	2.375	3.125	.438	+CRWH1	R	▲24097	2.420	3.554	.276	HMA7	R
▲23654	2.375	3.125	.438	+CRWHA1	R		W/AXIAL DIRT LIP				
▲23655	2.375	3.061	.438	+CRWH1	V	▲24110	2.432	3.070	.227	CRSA1	P
	W/STAINLESS STEEL SPRING										
▲23656	2.375	3.125	.438	+CRWHA1	V	▲24255	2.438	3.125	.500	+CRWH1	R
▲23659	2.375	3.125	.375	+CRW1	S	▲24263	2.438	3.251	.438	+CRWH1	R
▲23666	2.375	3.189	.438	+CRWH1	R	24283	2.441	3.071	.276	HMA8	R
▲23678	2.375	3.251	.433	+CRWHA1	V	▲24286	2.438	3.350	.375	+CRW1	R
▲23685	2.375	3.251	.453	+CRW1	P	▲24287	2.438	3.350	.375	+CRWA1	R
▲23691	2.375	3.251	.625	+CRWA3	P	▲24320	2.438	3.371	.438	+CRWH1	R
	P.F. WIDTH .528 & 3.841 FLANGE										
23695	2.375	3.350	.669	+HMSA24	V	▲24340	2.438	3.481	.438	+CRWH1	R
□23697	60.00	80.00	8.00	HMSA7	R	▲24370	2.438	3.500	.438	+CRWH1	R
▲23698	2.375	3.251	.625	+CRWA3	V	▲24372	2.438	3.500	.438	+CRWH1	V
	P.F. WIDTH .528 & 3.841 FLANGE										
▲23701	2.375	3.350	.375	+CRW1	R	□24432	62.00	90.00	13.00	CRS13	R
▲23702	2.375	3.350	.375	+CRWA1	R	□24433	62.00	95.00	13.00	CRS13	R
▲23703	2.375	3.350	.375	+CRW1	P	24441	2.441	2.699	.350	HMA8	P
▲23706	2.375	3.350	.375	+CRW1	S		W/FLANGE				
▲23708	2.375	3.350	.438	+CRWH1	R	▲24445	2.438	3.543	.438	+CRWH1	R
▲23710	2.375	3.350	.438	+CRWHA1	R	▲24459	2.438	3.623	.359	+G2	L
□23715	60.00	80.00	8.00	HMS4	V		CLEARANCE D .156				
▲23725	2.375	3.350	.250	+HM21	R	24466	2.438	3.751	.750	+KIT	R
▲23742	2.375	3.371	.438	+CRWH1	R	□24600	62.00	75.00	10.00	CRS1	R
▲23744	2.375	3.471	.250	X15	R	□▲24620	62.00	80.00	8.00	+CRW1	R
	O.D. LISTED IS PRESSFIT I.D.										
▲23746	2.375	3.371	.438	+CRWH1	V	□24626	62.00	80.00	10.00	HMS4	R
□23747	60.00	90.00	8.00	HMSA7	R	□24627	60.00	82.00	9.00	HMSA7	R
23751	2.375	4.498	.391	+HMSA25	V	▲□24635	62.00	85.00	8.00	+CRW1	R
▲23755	2.375	3.481	.438	+CRWH1	R	▲□24638	62.00	85.00	10.00	HMS4	R
▲23756	2.375	3.481	.438	CRWHA1	R	□24639	62.00	85.00	10.00	HMSA7	R
▲23770	2.375	3.500	.375	+CRWA1	P	□24640	62.00	85.00	10.00	HMSA7	R
▲23771	2.375	3.500	.375	+CRWH1	V	24642	2.441	3.346	.394	HMSHA96	P
▲23779	2.375	3.500	.375	+CRWH1	R	□24645	62.00	85.00	12.00	HMS4	R
▲23782	2.375	3.500	.438	+CRWHA1	R	□24659	62.00	90.00	8.00	+CRW1	R
□23787	60.00	90.00	13.00	HMS48	R	□24661	62.00	90.00	11.13	+CRWH1	R
□23789	60.00	90.00	10.00	CRSH1	R	▲□24662	62.00	90.00	10.00	HMS4	R
□23799	60.00	100.00	10.00	HMS4	R	□24665	62.00	90.00	10.00	HMSA7	V
□23804	60.00	110.00	13.00	HMS46	R		W/STAINLESS STEEL SPRING				
23806	2.375	3.876	1.150	CRSA4	P	▲24670	2.474	3.543	.290	TL1	R
	P.F. WIDTH .402 W/4.250 FLANGE										
▲23808	2.375	3.543	.438	+CRWH1	R	▲□24678	62.00	100.00	12.00	HMS4	R
▲23809	2.375	3.543	.438	+CRWHA1	V	□24710	63.00	78.00	8.00	+CRW1	R
23815	2.375	3.543	.250	+HM21	R	□24725	63.00	80.00	8.00	+CRW1	R
□23818	60.00	85.00	13.00	HMS46	R	□24729	63.00	80.00	9.00	HMSA7	R
▲23820	2.375	3.601	.438	+CRW1	R	▲□24755	63.00	85.00	8.00	+CRW1	R
□23822	60.00	95.00	13.00	CRSH13	R	□24758	63.00	85.00	10.00	HMS4	R
▲23839	2.375	3.623	.438	+CRWH1	R	□24770	63.00	88.00	8.00	+CRW1	R
▲23841	2.375	3.623	.438	+CRWHA1	P	□24788	63.00	90.00	10.00	HMS4	R
▲23843	2.375	3.623	.438	+CRWHA1	V	24800	2.480	3.543	.276	HMSA96	P
	W/STAINLESS STEEL SPRING										
▲23844	2.375	3.876	.438	+CRWH1	R	□24808	63.00	90.00	12.00	CRSH11	R
▲23857	2.375	4.063	1.094	+CRWA3	P	24816	2.480	4.035	.236	HMSHA16	P
	W/4.438 FLANGE										
▲23860	2.375	4.498	1.150	CRSA4	P	▲24863	2.500	3.000	.250	+HM14	R
	HELIX-CW W/4.875 FLG,PF WD.402										
						24865	2.500	3.000	.313	HM1	R
						24868	2.500	3.130	.315	KIT	T
							W/CW HELIX FROM AIR SIDE				
						▲24875	2.500	3.125	.250	+HM21	R
						▲24880	2.500	3.150	.250	+HM21	R
						▲24881	2.500	3.189	.438	+CRWH1	R
						▲24883	2.500	3.189	.438	+CRWH1	V

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## Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
▲24886	2.500	3.226	.190	HMA73	R	25097	2.500			HDDFBV1	R
	W/3.405 FLG & AXIAL DIRT LIP						BELLEVILLE WASHERS (2 EA/KIT)				
▲24888	2.497	3.245	.420	HM16	R	▲25100	2.500	3.876	.438	†CRWH1	R
▲24889	2.500	3.245	.438	†CRWH1	R	25102	2.500	3.876	.469	†CRWHA1	P
24892	2.500	3.251	.350	†CRWA5	R	25106	2.500	3.876	.559	†HMSA25	V
	W/SS CASE & SPRING & GRD O.D.					▲25108	2.500	4.003	.375	†CRWA1	R
▲24897	2.500	3.251	.375	†CRW1	R	25110	2.500	4.003	.375	†CRWA1	V
24898	2.500	3.251	.375	†CRWA1	R	25140	2.500	4.035	.640	CRSA9	V
24899	2.500	3.251	.375	†CRWA1	V	▲25146	2.500	4.938	.500	CRWA22	P
▲24904	2.500	3.251	.250	†HM21	R	25160	2.500		.438	J1-KIT	R
24910	2.500	3.251	.438	†CRWH1	R		SEE TYPE J SECTION (CRW LIP)				
24911	2.500	3.251	.438	†CRWHA1	R	25176	2.520	3.032	.276	HMS-SPL	R
24913	2.500	3.251	.500	†CRW1	V	▲□25185	64.00	80.00	8.00	HMS4	R
24914	2.500	3.251	.438	†CRWH1	V	25190	2.519	5.236	.511	HMSA7SP	R
24916	2.500	3.251	.438	†CRWHA1	V		SPECIAL CONST.				
▲24917	2.500	3.301	.453	†HMSA16	R	25196	2.520	3.228	.354	XA-SPL	R
	P.F. WIDTH .330 & 3.580 FLANGE						O.D. LISTED IS PRESSFIT I.D.				
24920	2.480	3.314	.500	FF4	F	□25203	64.00	80.00	13.00	CRSH11	R
★24926	2.500	3.351	.433	†CRWH1	V	□25204	64.00	85.00	10.00	CRSH13	R
▲24931	2.500	3.350	.438	†CRWH1	R	□25205	64.00	85.00	13.00	CRSH13	R
24932	2.500	3.350	.438	†CRWHA1	R	□25207	64.00	90.00	10.00	HMS46	R
24934	2.500	3.371	.375	CRWHA1	R	□25396	65.00	85.00	8.00	HMS4	R
24936	2.500	3.371	.438	†CRWHA1	V	□25398	65.00	85.00	8.00	HMSA7	R
24941	2.500	3.371	.500	†CRWH1	S	□25400	65.00	85.00	12.00	HMS4	R
	W/STAINLESS STEEL SPRING					□25409	65.00	80.00	8.00	HMSA7	R
24949	2.500	3.428	.375	†CRWA1	P	□25410	65.00	80.00	8.00	†CRW1	R
▲24951	2.500	3.428	.375	†CRWA1	R	▲□25416	65.00	80.00	8.00	HMS4	R
▲24954	2.500	3.371	.438	†CRWH1	R	□25417	65.00	82.00	10.00	HMS4	R
★24960	2.500	3.500	.625	CRWH	R	25418	2.559	3.228	.354	HMSASPL	R
24964	2.500	3.428	.709	†HMSA25	V	25419	2.559	3.307	.354	HMSA7	P
24971	2.500	3.500	.375	†CRWA1	V		W/CW HELIX FROM AIR SIDE				
▲24980	2.500	3.500	.438	†CRW1	R	▲□25420	65.00	85.00	8.00	†CRW1	R
24982	2.500	3.500	.438	†CRWA1	R	□25421	65.00	85.00	8.00	†CRW1	V
24984	2.500	3.500	.438	†CRWH1	V		W/STAINLESS STEEL SPRING				
	W/STAINLESS STEEL SPRING					▲□25422	65.00	85.00	10.00	HMS4	R
24986	2.500	3.500	.438	†CRWH1	R	□25424	65.00	85.00	10.00	HMSA7	R
24988	2.500	3.500	.438	†CRWHA1	R	▲□25425	65.00	88.00	8.00	†CRW1	R
24989	2.500	3.500	.438	†CRWH1	P	□25426	65.00	90.00	10.00	HMSA7	V
24990	2.500	3.500	.438	†CRWHA1	V		W/STAINLESS STEEL SPRING				
25004	2.559	3.230	.334	†HMSA96	R	□25427	65.00	90.00	10.00	HMS4	V
25005	2.502	3.628	.559	†HMSA25	V	▲□25428	65.00	90.00	10.00	HMS4	R
★25006	2.500	4.040	.634	CRSA9	R	□25429	65.00	90.00	10.00	HMSA7	R
▲25007	2.500	3.500	.250	†HM21	R	▲□25430	65.00	90.00	8.00	†CRW1	R
25009	2.500	3.223	.728	VACBOOT	R	□25431	65.00	90.00	8.00	†CRW1	V
25013	2.500	3.305	.276	†KIT	R	□25432	65.00	92.00	11.13	†CRWH1	R
▲25028	2.500	3.505	.250	†HM21	R	□25433	65.00	88.00	12.00	HMSA7	R
25037	2.500	3.544	.433	†CRWHA1	V	□25434	65.00	90.00	13.00	HMS4	R
▲25043	2.500	3.543	.438	†CRWH1	R	▲□25436	65.00	95.00	10.00	HMS4	R
25050	2.500	3.223	.728	†KIT	R	□25437	65.00	95.00	14.00	HMSA7	R
25065	2.500	3.543	.438	CRWHA1	P	□25438	65.00	88.00	10.00	HMSA7	R
25066	2.500	3.543	.875	D5	R	▲□25440	65.00	100.00	8.00	†CRW1	R
25071	2.500	3.623	.438	CRWH1	R	□25441	65.00	100.00	8.00	†CRW1	V
▲25074	2.500	3.623	.375	†CRW1	R	▲□25442	65.00	100.00	10.00	HMS4	R
25075	2.500	3.623	.375	†CRWA1	R	□25443	65.00	100.00	10.00	HMSA7	R
25076	2.500	3.623	.375	†CRWA1	V	25445	2.500	4.035	.640	HMSA14	P
25077	2.500	3.623	.500	†HMSA16	R		W/BUMPER				
	W/BI-DIR HELIX FROM AIR SIDE					□25446	65.00	100.00	10.00	HMS4	V
▲25078	2.496	3.672	.313	X15	R		W/STAINLESS STEEL SPRING				
	O.D. LISTED IS PRESSFIT I.D.					□25455	65.00	110.00	10.00	†CRW1	R
25082	2.500	3.502	.406	†CRW1	S	□25465	65.00	120.00	8.00	†CRW1	R
25085	2.500	3.695	.500	†ALH1	S	□25514	65.00	80.00	8.00	†CRW1	V
▲25091	2.500	3.751	.438	CRWH1	R	▲25515	2.560	3.094	.256	HMA7	R
25096	2.500	3.761	.907	HDDF1	R	25518	2.559	3.189	.276	HMSA7	P
	O.D. LISTED IS SEAL I.D.						W/CW HELIX FROM AIR SIDE				
						▲25561	2.563	3.481	.500	†CRWHA1	R

Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
□25573	65.00	90.00	13.00	HMSA7	R	▲26358	2.625	4.063	1.094	†CRWA3	P
▲25577	2.563	3.500	.438	†CRWH1	R		W/4.438 FLANGE				
□25581	65.00	85.00	13.00	HMSA7	R	▲26359	2.625	4.370	.438	†CRWHA1	R
25584	2.559	3.465	.394	HMSA7	P	▲26368	2.625	4.438	.438	†CRWH1	R
	W/CCW HELIX FROM AIR SIDE										
□25586	65.00	90.00	12.00	HMS4	R	▲26373	2.625	4.563	.719	†CRWA3	P
25587	2.563	3.500	.500	CRSHA1	P	26378	2.625	4.562	.468	†HMSA25	V
□25588	65.00	85.00	12.00	HMSA7	R		REMOVE OEM SLINGER				
□25590	65.00	75.00	8.00	HM102	R	□26379	67.00	88.00	8.00	HMS4	P
□25596	65.00	85.00	10.00	CRSH12	R	□26381	67.00	85.00	10.00	CRSH12	R
□25605	65.00	90.00	13.00	CRSA13	R	□26383	67.00	90.00	13.00	CRSH11	R
□25633	65.00	100.00	13.00	CRSA12	R	26387	2.638	3.503	.354	HMSA7	P
▲25641	2.563	3.623	.438	†CRWH1	R		W/CCW HELIX FROM AIR SIDE				
25652	2.562	3.625	.438	†CRWA1	V	26388	2.638	3.228	.315	HMSASPL	P
25661	2.563	3.623	.469	†CRWA1	P		W/CCW HELIX FROM AIR SIDE				
▲25713	2.563	3.751	.438	†CRWH1	R	26620	2.667	3.751	.500	HM1	R
25714	2.563	3.751	.438	†CRWHA1	R	26625	2.677	3.307	.335	HMSA7	S
25725	2.563	3.751	.438	†CRWH1	V		W/CCW HELIX FROM AIR SIDE				
▲25745	2.563	3.873	.438	CRWHA1	R	▲□26630	68.00	85.00	8.00	†CRW1	R
▲25748	2.563	3.876	.438	†CRWH1	R	□26632	68.00	85.00	8.00	HMS4	V
▲25950	2.607	3.350	.375	†CRWH1	P		W/STAINLESS STEEL SPRING				
□25965	66.00	80.00	8.90	CRSHA1	R	□26635	68.00	85.00	10.00	CRS1	R
▲□25968	66.00	85.00	10.00	CRSHA1	R	□26640	68.00	88.00	8.00	†CRW1	R
▲25970	2.598	3.481	.438	†CRWHA1	P	▲□26648	68.00	90.00	10.00	HMS4	R
□25979	66.00	90.00	13.00	CRSH1	R	□26649	68.00	90.00	10.00	HMSA7	R
▲25990	2.598	3.999	.787	CRWA3	P	▲□26650	68.00	90.00	8.00	†CRW1	R
	W/4.600 FLANGE										
▲26110	2.625	3.251	.438	†CRWH1	R	□26651	68.00	90.00	12.00	HMS4	R
26122	2.625	3.350	.375	†CRW1	V	□26652	68.00	90.00	8.00	†CRW1	V
▲26123	2.625	3.350	.375	†CRW1	R	□26653	68.00	90.00	10.00	HMS4	V
26124	2.625	3.350	.375	†CRWA1	R	□26657	68.00	90.00	10.00	HMSA7	V
26128	2.625	3.350	.438	CRW1	R	▲□26660	68.00	95.00	10.00	†CRW1	R
▲26141	2.625	3.374	.438	†CRWHA1	R	□26661	68.00	95.00	10.00	†CRW1	V
▲26144	2.625	3.371	.250	†HM14	R	□26665	68.00	95.00	13.00	HMS4	R
▲26153	2.625	3.371	.438	†CRWHA1	R	□26667	68.00	100.00	10.00	†CRW1	R
26163	2.625	3.481	.438	†CRWH1	R	▲□26673	68.00	100.00	10.00	HMS4	R
26177	2.625	3.500	.375	†CRW1	V	□26683	68.00	100.00	13.00	HMSA7	R
▲26186	2.625	3.500	.375	†CRWA1	R	26695	2.677	4.882	1.063	HMSA	P
▲26189	2.625	3.500	.438	†CRWH1	R		W/HELIX-CW, P.F. WIDTH .453				
26190	2.625	3.500	.438	†CRWHA1	R	▲26747	2.700	3.498	.475	†HMS17	R
26191	2.625	3.500	.438	†CRWA1	P		W/3.704 FLANGE				
▲26194	2.625	3.543	.438	†CRWH1	R	26748	2.717	3.386	.315	HMSA7	P
26196	2.625	3.500	.374	†KIT	R		W/CCW HELIX FROM AIR SIDE				
26204	2.625	3.623	.375	†CRW1	V	26749	2.717	3.380	.310	HMSA7	V
26208	2.625	3.623	.438	†CRWH1	V		W/CCW HELIX FROM AIR SIDE				
26209	2.625	3.623	.438	†CRWH1	R	▲26761	2.688	3.751	.438	†CRWH1	R
26211	2.625	3.623	.438	†CRWHA1	R	26877	2.648	3.812	.500	CRS1	R
26220	2.625	3.623	.375	†CRWA1	P	▲26921	2.688	3.876	.438	†CRWH1	R
▲26237	2.625	3.623	.375	†CRW1	R	▲26975	2.688	4.003	.469	†CRWH1	R
26238	2.625	3.623	.375	†CRWA1	R	27117	2.717	3.386	.276	CRSA79	P
26239	2.625	3.623	.460	†HMSA24	V	□27170	69.00	90.00	10.00	HMS47	R
26247	2.624	3.946	.891	UNITIZE	R	27210	2.750	3.125	.188	HM1	R
▲26260	2.625	3.623	.250	†HM21	R	▲27225	2.750	3.250	.313	HM1	R
▲26284	2.625	3.751	.375	†CRWA1	R	27230	2.750	3.544	.433	†CRWHA1	V
26289	2.625	3.751	.715	TL4	RR	▲27251	2.750	3.481	.438	CRW1	R
	P.F. WIDTH .640										
26297	2.625	3.751	.438	†CRWH1	R	▲27268	2.750	3.500	.375	†CRW1	R
26298	2.625	3.751	.438	†CRWHA1	R	27269	2.750	3.500	.375	†CRWA1	R
26299	2.625	3.751	.438	†CRWHA1	V	▲27271	2.750	3.500	.250	†HM14	R
▲26310	2.625	3.813	.415	TL5	R	27272	2.750	3.500	.375	†CRWA1	V
	P.F. WIDTH .300										
▲26328	2.625	3.876	.438	†CRWH1	R	27280	2.750	3.500	.438	†CRWH1	R
▲26346	2.625	3.936	.438	†CRWH1	R	▲27284	2.750	3.538	.438	†CRWH1	R
▲26354	2.625	4.003	.375	†CRWA1	R	▲27292	2.750	3.543	.438	†CRWH1	P
26356	2.625	4.003	.438	†CRWH1	R	27293	2.750	3.543	.433	†CRWH1	V
						27295	2.750	3.543	.438	†CRWHA1	P
						27324	2.750	3.623	.438	†CRWH1	V
						▲27334	2.750	3.623	.438	†CRWH1	R
						▲27361	2.750	3.751	.438	†CRW1	R

\*Contact manufacturer for availability  
**Bold numbers** are preferred designs

□ Metric numbers

† Includes Bore-Tite on O.D.  
 ▲ WasteWatcher numbers

## Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
27362	2.750	3.751	.438	†CRWA1	R	□27749	70.00	92.00	11.00	†CRWH1	V
27365	2.750	3.751	.438	†CRWH1	V	□27750	70.00	92.00	12.00	HMSA7	R
▲27368	2.750	3.751	.438	†CRWH1	R	□27755	70.00	95.00	10.00	†CRW1	R
27370	2.750	3.751	.438	†CRWHA1	R	□27757	70.00	95.00	10.00	HMS4	V
27377	2.750	3.751	.438	†CRWA1	P	W/STAINLESS STEEL SPRING					
▲27394	2.750	3.751	.250	†HM21	R	▲□27759	70.00	95.00	13.00	HMS4	R
▲27426	2.750	3.765	.438	†CRWH1	R	□27760	70.00	95.00	13.00	HMSA7	R
▲27430	2.750	3.773	.350	HMA84	R	▲□27768	70.00	100.00	10.00	HMS4	R
27438	2.750	3.779	.762	†SCOT1	R	□27770	70.00	100.00	10.00	†CRW1	R
SCOTSEAL						□27773	70.00	100.00	10.00	HMS4	V
27452	2.750	3.876	.433	†CRWHA1	P	□27775	70.00	100.00	13.00	HMS4	R
27461	2.750	3.876	.591	†HMSA25	V	▲□27783	70.00	105.00	13.00	HMS4	R
27467	2.750	3.876	.438	†CRWA1	R	□27785	70.00	105.00	10.00	†CRW1	R
▲27470	2.750	3.876	.438	†CRWH1	R	□27788	70.00	110.00	10.00	HMS4	R
27471	2.750	3.876	.438	†CRWHA1	R	□27789	70.00	110.00	10.00	HMSA7	R
27486	2.748	3.543	.591	HM-SPL	P	▲□27790	70.00	110.00	10.00	†CRW1	R
27501	2.750	3.876	.703	†B5	PL	□27791	70.00	110.00	12.70	CRWHA1	R
▲27525	2.750	3.936	.438	†CRWH1	R	□27792	70.00	110.00	12.00	HMS4	R
27526	2.750	3.937	.438	†CRWA1	P	▲28035	2.813	3.751	.438	†CRWH1	R
27535	2.750			HDDFBV1	R	▲28116	2.813	3.876	.438	†CRWH1	R
BELLEVILLE WASHERS (2 EA/KIT)						▲28175	2.813	4.003	.438	†CRWH1	R
27536	2.750	4.030	.918	HDDF1	R	▲28270	2.813	4.249	.313	†CRW1	R
O.D. LISTED IS SEAL I.D.						28275	2.813	4.249	.438	†CRWH1	R
27539	2.750	4.003	.375	†CRWA1	V	28276	2.813	4.250	.438	†CRWH1	P
▲27541	2.750	4.003	.438	†CRWH1	R	28305	2.835	3.370	.709	HMS1	R
27542	2.750	4.001	.500	†HMSA25	V	P.F. I.D. FOR 84MM SHOULDER					
27558	2.750	3.543	.500	†HMSA25	V	□28307	72.00	86.00	7.50	HMSA7	R
27565	2.750	4.003	.438	CRWHA1	P	28308	2.835	3.780	.354	HMSA7	S
□27571	70.00	90.00	7.00	HMSA7P2	R	W/CCW HELIX FROM AIR SIDE					
27576	2.750	4.125	.438	†CRS1	P	□28310	72.00	88.00	8.00	†CRW1	R
27577	2.750	4.125	.563	CRSA1	R	□28325	73.00	90.00	8.00	HMSA7	R
□27587	70.00	90.00	13.00	HMS4	R	▲□28330	72.00	90.00	10.00	HMS4	R
□27596	70.00	95.00	10.00	HMS47	R	□28331	72.00	90.00	10.00	HMSA7	R
□27598	70.00	95.00	10.00	HMSA7	V	28332	2.832	3.622	.374	HMSA7	V
▲27600	2.750	4.249	.438	†CRWH1	R	W/CCW HELIX FROM AIR SIDE					
27601	2.750	4.249	.438	†CRWHA1	P	▲□28341	72.00	95.00	10.00	HMS4	R
□27606	70.00	100.00	6.00	HMS46	R	▲□28354	72.00	100.00	10.00	HMS4	R
□27607	70.00	100.00	10.00	HMSA7	R	□*28358	72.00	100.00	12.00	HMS4	R
□27608	70.00	100.00	12.00	HMS4	R	□28362	72.00	95.00	13.00	CRS13	R
□27619	70.00	110.00	13.00	HMS4	R	□28375	72.00	105.00	13.00	CRSA13	R
□27620	70.00	110.00	8.00	HMS47	R	▲28425	2.844	3.939	.500	†CRWA1	R
▲27625	2.750	4.331	.500	†CRWHA1	R	28426	2.844	3.939	.550	†CRWHA1	R
27630	2.750		.500	J2-KIT	R	28446	2.844	3.939	.550	†KIT	R
SEE TYPE J SECTION (CRWHA LIP)						▲28464	2.844	4.003	.438	†CRWH1	R
□27636	70.00	90.00	12.00	HMSA7	R	28474	2.844	4.003	.500	†CRWH1	V
□27637	70.00	90.00	12.00	HMS4	R	W/STAINLESS STEEL SPRING					
□27640	70.00	90.00	13.00	HMSA7	R	28554	2.854	3.932	.748	UNITIZE	P
▲27642	2.750	5.501	1.375	†CRWA2	P	□28612	73.00	92.00	11.13	†CRWH1	R
P.F. WIDTH .500						□28622	73.00	110.00	11.13	†CRWA1	P
□27710	70.00	85.00	8.00	†CRW1	R	28646	2.875	3.434	.294	†CRSA1	R
▲□27714	70.00	85.00	8.00	HMS4	R	▲28654	2.875	3.623	.438	†CRWH1	R
□27715	70.00	85.00	8.00	HMSA7	R	28655	2.875	3.623	.438	†CRWHA1	R
□27719	70.00	85.00	7.00	HMSA7	R	28656	2.875	3.623	.500	†AL1	S
□27721	70.00	85.00	7.00	HMS4	R	▲28669	2.875	3.751	.375	†CRWA1	R
27723	2.756	3.425	.335	HMSA7	S	28670	2.875	3.751	.375	†CRWA1	V
W/CCW HELIX FROM AIR SIDE						▲28686	2.875	3.751	.438	†CRWH1	R
▲□27725	70.00	88.00	8.00	†CRW1	R	28687	2.875	3.751	.438	†CRWHA1	R
□27726	70.00	88.00	8.00	†CRW1	V	28697	2.875	3.751	.438	†CRWH1	P
□27727	70.00	88.00	12.00	HMS4	R	28698	2.875	3.751	.438	†CRWH1	V
▲□27739	70.00	90.00	10.00	HMS4	R	28699	2.875	3.751	.438	†CRWHA1	V
▲□27740	70.00	90.00	8.00	†CRW1	R	▲28700	2.875	3.751	.250	†HM21	R
□27741	70.00	90.00	10.00	HMSA7	R	▲28720	2.875	3.876	.610	†HMSHA16	R
□27743	70.00	90.00	10.00	†CRW1	V	P.F. WIDTH .365 & 4.150 FLANGE					
□27746	70.00	90.00	10.00	†CRWHA1	P	▲28725	2.875	3.876	.188	†HM1	R
▲□27748	70.00	92.00	11.00	†CRWH1	R	□28740	73.00	95.00	10.00	CRSH13	R

Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
□28744	73.00	100.00	13.00	CRSH11	R	29520	2.952	4.409	.688	HMSA8	R
▲28745	2.875	3.876	.438	†CRWH1	R					P.F. WIDTH 10MM	
28746	2.875	3.876	.438	†CRWHA1	R	□29521	75.00	95.00	10.00	HMSA7	R
28748	2.875	3.876	.438	†CRWHA1	V	▲□29524	75.00	95.00	10.00	HMS4	R
28751	2.875	3.876	.250	†HM21	R	□29525	75.00	95.00	10.00	†CRW1	R
28754	2.875	3.876	.610	HMSHA16	V	□29526	75.00	95.00	10.00	†CRW1	V
28758	2.875	3.875	.781	†SCOT1	R	□29527	75.00	95.00	10.00	HMSA7	V
				SCOTSEAL						W/STAINLESS STEEL SPRING	
▲28760	2.875	4.003	.438	†CRWH1	R	□29529	75.00	90.00	8.00	HMS4	R
28761	2.875	4.003	.438	†CRWHA1	R	□29530	75.00	95.00	12.00	HMS4	V
▲28778	2.875	4.003	.375	†CRWA1	R	□29536	75.00	95.00	8.00	HMSA7	R
28779	2.875	4.003	.375	†CRWA1	V	□29537	75.00	95.00	12.00	HMS4	R
28790	2.875	4.003	.750	C8	RR	□29540	75.00	100.00	10.00	†CRW1	R
				P.F. WIDTH .688		□29542	75.00	100.00	10.00	†CRW1	V
▲28800	2.875	4.003	.250	†HM21	R	▲□29543	75.00	100.00	10.00	HMS4	R
▲28817	2.875	4.125	.375	†CRWH1	R	□29544	75.00	100.00	10.00	HMS4	V
28820	2.875	4.126	.844	†SCOT1	R	□29545	75.00	100.00	10.00	HMSA7	V
				SCOTSEAL						W/STAINLESS STEEL SPRING	
▲28828	2.875	4.125	.813	†HMSH12	R	□29551	75.00	95.00	12.00	HMSA7	R
				P.F. WIDTH .375		□29554	75.00	100.00	10.00	HMSA7	R
▲28830	2.875	4.176	.813	†CRWH2	R	□29555	75.00	105.00	10.00	†CRW1	R
				P.F. WIDTH .375		□29563	75.00	100.00	12.00	HMS4	R
28832	2.875	4.176	.844	†SCOT1	R	▲□29567	75.00	105.00	13.00	HMS4	R
				SCOTSEAL		□29568	75.00	110.00	13.00	CRS13	R
▲28841	2.875	4.331	.438	†CRWA1	P	□29569	75.00	110.00	13.00	CRSH13	R
▲28848	2.875	4.501	.433	†CRWH1	R	□29570	75.00	110.00	10.00	†CRW1	R
29105	2.913	3.543	.394	CRSA1	P	▲□29575	75.00	110.00	12.00	HMS4	R
				W/CCW HELIX FROM AIR SIDE		□29580	75.00	100.00	13.00	HMSA7	R
29112	2.913	3.858	.472	HMSA7	P	□29581	75.00	110.00	13.00	HMSA7	R
				W/CW HELIX FROM AIR SIDE		□29582	75.00	115.00	13.00	CRSH1	R
□29129	74.00	100.00	13.00	CRSH1	R	▲□29585	75.00	115.00	12.00	†CRW1	R
□29132	74.00	90.00	10.00	HMS46	R	▲□29587	75.00	120.00	12.00	HMS4	R
□29133	74.00	95.00	10.00	CRSH13	R	29590	2.953	4.724	.320	†TL1	R
□29134	74.00	95.00	10.00	HMS48	R	29675	2.992	3.661	.394	HMSA6	S
29208	2.938	3.378	.180	HMS1	R					W/CCW HELIX FROM AIR SIDE	
▲29218	2.938	3.623	.375	†CRW1	R	29685	2.992	3.858	.472	HMSA7	S
▲29223	2.938	3.751	.375	†CRW1	R					W/CW HELIX FROM AIR SIDE	
29224	2.938	3.751	.375	†CRWA1	R	29804	2.992	4.370	.512	UNITIZD	V
29226	2.938	3.751	.375	†CRWA1	V					W/FELT "A" LIP	
29250	2.938	3.784	.500	HM23	RT	▲29840	3.000	3.500	.313	HM1	R
▲29260	2.938	3.876	.375	CRWHA1	R	29841	3.000	3.500	.375	†CRW1	V
29262	2.938	3.876	.375	†CRWHA1	V	▲29850	3.000	3.623	.250	HM14	R
▲29273	2.938	3.937	.438	†CRWA1	P	29862	2.992	3.623	.385	HMSA7	V
29288	2.938	3.937	.591	†HMSA25	V					W/CCW HELIX FROM AIR SIDE	
29292	2.938	4.003	.619	†HMSA24	V	▲29863	3.000	3.751	.250	†HM21	R
▲29316	2.938	4.003	.438	†CRWH1	R	▲29865	3.000	3.751	.375	CRW1	R
29317	2.938	4.003	.438	CRWHA1	R	29866	3.000	3.751	.375	†CRWA1	R
29322	2.938	4.003	.438	†CRWA1	P	29867	3.000	3.751	.375	†CRWA1	P
29383	2.938	4.004	.433	†CRWHA1	V	29868	3.000	3.751	.375	†CRW1	V
▲29384	2.938	4.125	.375	†CRWH1	R	29870	3.000	3.751	.375	†CRWA1	V
29385	2.938	4.125	.375	†CRWHA1	R	29871	3.000	3.751	.438	†CRWH1	R
▲29465	2.938	4.501	.438	†CRWH1	R	29872	3.000	3.751	.438	†CRWHA1	R
▲29471	2.938	4.938	1.375	†CRWA3	P	29877	3.000	3.876	.313	†CRW1	V
				W/5.375 FLANGE		▲29887	3.000	3.876	.438	†CRWH1	R
29472	2.941	3.882	.774	UNITIZD	P	29891	3.000	3.876	.469	†CRWH1	V
29480	2.948	4.725	.630	PLUS XL						W/STAINLESS STEEL SPRING	
				SCOTSEAL PLUS XL		▲29900	3.000	4.000	.500	X2	L
□29495	75.00	100.00	13.00	HMS4	R					O.D. LISTED IS PRESSFIT I.D.	
29505	2.953	3.425	.276	X-SPL	R	▲29906	3.000	4.003	.375	†CRW1	R
				O.D. LISTED IS PRESSFIT I.D.		29907	3.000	4.003	.375	†CRWA1	R
▲□29510	75.00	90.00	8.00	†CRW1	R	29912	3.000	4.003	.375	†CRWA1	V
□29512	75.00	90.00	10.00	HMSA7	R	29917	3.000	4.939	.662	†UNITIZE	P
□29513	75.00	90.00	10.00	HMS4	R	29918	2.992	4.213	.315	HMSA7	V
★29518	2.952	3.708	.327	HMSA7	R					W/CCW HELIX FROM AIR SIDE	
29519	2.992	3.692	.354	HMSA7	V	29925	3.000	4.003	.438	CRWHA1	P

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## Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
□29931	76.00	95.00	10.00	CRS11	R	<b>31152</b>	3.125	4.003	.375	†CRWHA1	V
□29936	76.00	100.00	10.00	HMS47	R	31158	3.125	4.049	.438	P2	R
<b>29950</b>	3.000	4.003	.375	†CRWH1	P	<b>31173</b>	3.125	4.125	.438	†CRWHA1	P
<b>29951</b>	3.000	4.003	.438	CRWH1	R	31175	3.125	4.126	.781	†SCOT1	R
<b>29952</b>	3.000	4.003	.438	†CRWHA1	R	SCOTSEAL					
<b>29958</b>	3.000	4.003	.438	†CRWH1	V	<b>▲31177</b>	3.125	4.125	.375	†CRW1	R
29961	3.000	4.003	.312	†HMSA25	V	<b>31179</b>	3.125	4.125	.375	†CRWA1	V
	W/CCW HELIX FROM AIRSIDE					<b>31185</b>	3.125	4.125	.438	†CRWHA1	S
29967	3.000	4.003	.312	HMSA25	V	<b>31189</b>	3.125	4.125	.438	CRWH1	R
	W/CW HELIX FROM AIRSIDE					<b>▲31192</b>	3.125	4.125	.250	HMA1	R
<b>▲29968</b>	3.000	4.003	.250	HM21	R	<b>▲31203</b>	3.125	4.174	.290	HMA1	R
29987	2.992	3.741	.370	HMSA83	V	<b>▲31227</b>	3.125	4.249	.438	†CRWH1	R
	W/CW HELIX FROM AIR SIDE					<b>31228</b>	3.125	4.249	.438	†CRWHA1	R
<b>▲30000</b>	3.000	4.125	.438	†CRWH1	R	<b>31237</b>	3.125	4.249	.438	†CRWHA1	V
<b>30003</b>	3.000	4.125	.438	†CRWH1	V	31244	3.125	4.373	.781	†SCOT1	R
30007	3.000	3.751	.452	†HMSA25	V	SCOTSEAL					
<b>30015</b>	3.000	3.683	.540	CRWA86	P	31247	3.125	4.125	.437	†SL1	T
	W/4.180 FLANGE					W/CW HELIX FROM AIR SIDE					
30026	3.002	3.751	.991	†UNITIZE	V	<b>▲31250</b>	3.125	4.376	.438	†CRWH1	R
	HD PINION SEAL					<b>31261</b>	3.125	4.376	.438	†CRWHA1	P
<b>▲30033</b>	3.000	4.249	.438	CRWH1	R	31266	3.125	4.438	.781	†SCOT1	R
<b>▲30049</b>	3.000	4.249	.250	†HM21	R	SCOTSEAL					
<b>30055</b>	3.000	4.249	.438	†CRWHA1	P	<b>▲31269</b>	3.125	4.501	.438	†CRWH1	R
30057	3.000	4.249	.438	†HMSA25	V	31281	3.125	4.500	.672	†SCOT1	R
<b>▲30060</b>	3.000	4.331	.438	†CRWH1	R	SCOTSEAL					
<b>▲30070</b>	3.000	4.376	.438	†CRWH1	R	<b>▲31284</b>	3.125	4.562	.750	CRWH2	R
<b>▲30087</b>	3.000	4.500	.438	†CRWH1	R	<b>▲31299</b>	3.125	4.626	.438	†CRWH1	R
<b>30095</b>	3.000	4.500	.438	†CRWHA1	R	31307	3.125	4.626	.672	†SCOT1	R
<b>30098</b>	3.000	4.501	.438	†CRWH1	V	SCOTSEAL					
30100	3.000	4.501	.383	†HMSA25	V	<b>▲31316</b>	3.125	4.751	.438	†CRWH1	R
<b>▲30108</b>	3.000	4.525	.375	X12	R	<b>▲31333</b>	3.125	4.999	.438	†CRWH1	R
	O.D. LISTED IS PRESSFIT I.D.					<b>▲31353</b>	3.125	5.251	.438	†CRWH1	R
<b>▲30125</b>	3.000	4.999	.438	†CRWH1	R	31361	3.109		.325	J2-KIT	R
30140	3.000	5.750	.982	HMSA25	V	SEE TYPE J SECTION (CRW LIP)					
<b>30144</b>	3.000	5.501	1.375	CRWHA6	P	31362	3.125	5.985	.953	CRS-SPL	R
<b>▲30145</b>	3.000	4.939	.750	†CRWA1	P	31372	3.125	5.495	1.003	J2	R
	P.F. WIDTH .438 W/5.690 FLANGE					SEE TYPE J SECTION (CRSH LIP)					
<b>▲30147</b>	3.000	5.750	1.300	HMSA16	P	31378	3.109		1.016	J1-KIT	R
	HELIX-CW W/6.250 FLG,PF WD.400					SEE TYPE J SECTION (CRW LIP)					
<b>▲30148</b>	3.000	5.750	.840	HMSA16	P	31385	3.109		.500	J1-KIT	R
	P.F. WIDTH .400 W/6.250 FLANGE					SEE TYPE J SECTION (CRW LIP)					
30153	3.000	4.936	.755	†HMSA25	V	31390	3.109		.500	J1-KIT	R
□30310	77.00	95.00	10.00	CRSH13	R	SEE TYPE J SECTION (CRW LIP)					
□30311	77.00	100.00	10.00	CRSH13	R	31490	3.149	4.448	.866	HMSA8	R
<b>30360</b>	3.040	3.937	.250	HMS4	R	P.F. WIDTH 12MM					
30370	3.307	3.813	.354	HMSASPL	V	<b>31492</b>	3.150	3.946	.394	HMSA7	S
	W/CCW HELIX FROM AIR SIDE					31494	3.150	3.946	.335	HMSA92	R
30651	3.063	4.500	1.016	HDDF1	R	W/CCW HELIX FROM AIR SIDE					
	O.D. LISTED IS SEAL I.D.					<b>31497</b>	3.150	3.858	.393	HMSA7	R
30654	3.063			HDDFBV1	R	W/CCW HELIX FROM AIR SIDE					
	BELLEVILLE WASHERS (2 EA/KIT)					□ <b>31499</b>	80.00	100.00	12.00	HMSA7	R
□30716	78.00	105.00	13.00	CRSH11	R	□31501	80.00	95.00	10.00	CRSH13	R
□30717	78.00	110.00	13.00	CRSH11	R	□31503	80.00	100.00	13.00	CRSA1	R
<b>▲□30725</b>	78.00	100.00	10.00	HMS4	R	<b>▲31504</b>	3.150	3.740	.551	HMA18	P
□ <b>30726</b>	78.00	100.00	10.00	HMSA7	R	W/3.990 FLANGE O.D.					
30771	3.071	6.417	.630	HMSA7SP	R	<b>31506</b>	3.150	3.780	.354	HMSA7	R
<b>▲30772</b>	3.075	3.540	.380	HMA18	P	W/CCW HELIX FROM AIR SIDE					
	W/3.790 FLANGE O.D.					<b>31507</b>	3.150	3.858	.393	HMSA7	V
<b>▲31129</b>	3.125	3.751	.250	†HMA1	R	W/CCW HELIX FROM AIR SIDE					
<b>31132</b>	3.125	3.811	.355	†CRW1	V	□ <b>31509</b>	80.00	100.00	10.00	HMSA7	V
<b>▲31135</b>	3.125	3.811	.355	†CRW1	R	W/STAINLESS STEEL SPRING					
<b>▲31139</b>	3.125	4.003	.375	†CRWA1	R	□ <b>31510</b>	80.00	100.00	10.00	†CRW1	R
31144	3.125	3.936	.512	†CRSHA1	V	<b>31511</b>	3.150	3.946	.394	†CRW1	V
<b>▲31147</b>	3.125	4.003	.438	†CRWH1	R	<b>▲□31512</b>	80.00	100.00	10.00	HMS4	R
<b>31148</b>	3.125	4.003	.438	†CRWHA1	R	□ <b>31513</b>	80.00	100.00	10.00	HMSA7	R

Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
31514	3.150	3.994	.591	X15	R	▲32393	3.250	4.249	.375	†CRW1	R
	O.D. LISTED IS PRESSFIT I.D.					32394	3.250	4.249	.750	†F1	LF
▲□31515	80.00	105.00	10.00	†CRW1	R	32395	3.250	4.249	.375	†CRWA1	R
□31516	80.00	100.00	10.00	HMS4	V	32396	3.250	4.249	.438	†CRWH1	R
□31517	80.00	105.00	10.00	†CRW1	V	32397	3.250	4.249	.438	†CRWHA1	R
□31520	80.00	110.00	10.00	†CRW1	R	32403	3.250	4.249	.438	†CRWH1	V
□31521	80.00	105.00	13.00	HMSA7	R	32410	3.250	4.249	.670	†HMSWD26	V
□31524	80.00	100.00	10.00	†CRW1	V	▲32412	3.250	4.249	.250	†HM14	R
▲□31525	80.00	110.00	10.00	HMS4	R	▲32424	3.250	4.376	.438	†CRWH1	R
□31526	80.00	110.00	12.00	HMS4	V	32437	3.250	4.468	.315	X4	R
□31530	80.00	110.00	12.00	HMS4	R		O.D. LISTED IS PRESSFIT I.D.				
□31531	80.00	110.00	12.00	HMSA7	V	▲32441	3.250	4.500	.313	X15	R
	W/STAINLESS STEEL SPRING						O.D. LISTED IS PRESSFIT I.D.				
□31533	80.00	100.00	7.00	HMSA7P2	R	32448	3.250	4.500	.438	†CRWA1	P
□31539	80.00	100.00	13.00	HMS47	R	32470	3.250	4.501	.672	†SCOT1	R
□31546	80.00	120.00	13.00	HMS4	R		SCOTSEAL				
□31547	80.00	105.00	13.00	HMS4	R	▲32477	3.250	4.501	.375	†CRW1	R
▲□31551	80.00	125.00	10.00	†CRW1	R	32501	3.250	4.501	.438	†CRWH1	R
□31552	80.00	125.00	10.00	†CRW1	V	32502	3.250	4.501	.438	†CRWHA1	R
□31560	80.00	110.00	10.00	HMSA7	R	▲32510	3.250	4.501	.250	†HM21	R
□31562	80.00	115.00	10.00	HMS46	R	32514	3.250	4.626	.433	CRWHA1	R
□31563	80.00	115.00	13.00	CRS13	R	★32519	3.250	4.500	.610	†HMSHA4	R
□31565	80.00	130.00	12.00	†CRWA1	R		BI-DIRECTIONAL P.F. WIDTH .436				
□31568	80.00	125.00	13.00	HMS43	R	32527	3.250	4.500	.610	†HMSHA4	V
□31573	80.00	110.00	13.00	HMS4	R		BI-DIRECTIONAL P.F. WIDTH .436				
□31576	80.00	125.00	13.00	CRSH1	R	32532	3.250	4.328	.500	CRWA5	R
□31580	80.00	110.00	12.00	HMSA7	R	32535	3.250	5.501	.650	†UNITIZE	P
31582	3.150	3.946	.394	HMSA7	R	▲32540	3.250	4.626	.438	†CRWH1	R
□31585	80.00	140.00	12.00	†CRW1	R	▲32555	3.250	4.718	.438	†CRWH1	R
□31588	80.00	100.00	13.00	HMS4	R	▲32560	3.250	4.751	.438	†CRWH1	R
□31590	80.00	100.00	13.00	HMSA7	R	▲32582	3.250	4.999	.438	†CRWH1	R
▲31753	3.188	4.180	.750	†HMSHA4	R	32583	3.250	4.999	.438	†CRWHA1	R
	W/4.500 FLANGE					32710	3.262	4.626	.500	CRWA1	R
▲31758	3.188	4.249	.438	†CRWH1	R		W/4.910 FLANGE				
▲31825	3.188	4.376	.438	†CRWH1	R	32715	3.268	3.937	.354	HMSA7	V
▲31855	3.188	4.501	.438	†CRWH1	R		W/CCW HELIX FROM AIR SIDE				
▲31870	3.188	4.626	.438	†CRWH1	R	32815	3.298	4.125	.563	†CRSA1	R
□31891	81.00	100.00	10.00	CRSH11	R	32870	3.250	5.501	.650	†UNITIZE	P
31897	3.189	3.801	.630	HMA8	R	33007	3.307	4.094	.433	HMSA7	V
	W/FLANGE						W/CCW HELIX FROM AIR SIDE				
▲31955	3.188	4.999	.438	†CRWH1	R	▲33033	3.313	4.125	.438	†CRWH1	R
32243	3.226	3.858	.394	HMSA7	P	□33070	84.00	100.00	10.00	HMSA1	R
	W/CW HELIX FROM AIR SIDE					□33072	84.00	110.00	12.00	CRSH11	R
□32275	82.00	110.00	12.00	HMSA7	R	▲33073	3.313	4.249	.438	†CRWH1	R
32283	3.228	3.791	.315	HMSA7	V	□33115	84.00	127.00	11.00	†CRWH1	R
	W/CCW HELIX FROM AIR SIDE					▲33136	3.313	4.500	.438	†CRWH1	R
□32285	82.00	105.00	13.00	CRSH13	R	33206	3.313	4.999	.438	†CRWH1	R
□32286	82.00	110.00	12.00	HMS4	R	33251	3.312	5.000	.562	KIT	R
32289	3.228	3.920	.500	HMSA7	V	33254	3.250	5.501	.650	HMSA25S	P
	W/CCW HELIX FROM AIR SIDE						W/EXTRA 'A' LIP, DL PINION				
32290	3.228	3.937	.394	HMSA7	P	33405	3.307	4.094	.433	HMSA7	V
	W/CCW HELIX FROM AIR SIDE						W/CCW HELIX FROM AIR SIDE				
□32302	82.00	105.00	12.00	HMS4	R	33408	3.346	4.134	.394	HMSA7	R
32304	3.228	4.134	.512	HMSA12	S	▲□33410	85.00	105.00	10.00	†CRW1	R
	W/4.331 FLANGE					□33412	85.00	105.00	10.00	†CRW1	V
32325	3.250	3.750	.250	†HMA1	R	□33413	85.00	105.00	12.00	HMSA7	R
▲32330	3.250	3.876	.375	†CRW1	P		W/CCW HELIX FROM AIR SIDE				
32332	3.250	3.876	.375	†CRS1	V	□33415	85.00	105.00	13.00	HMS4	R
	W/CW HELIX FROM AIR SIDE					□33416	85.00	105.00	13.00	HMSA7	R
▲32344	3.250	4.003	.375	†CRW1	R	▲□33425	85.00	110.00	10.00	†CRW1	R
32347	3.250	4.003	.375	†CRWA1	P	□33426	85.00	110.00	10.00	†CRWA1	V
32362	3.250	4.125	.563	†CRSH1	R	□33427	85.00	110.00	12.00	HMS4	R
32380	3.250	4.249	.438	CRWH1	P	□33428	85.00	110.00	12.00	HMS4	V
32385	3.250	4.249	.438	†CRWHA1	P		W/STAINLESS STEEL SPRING				
32392	3.250	4.249	.375	†CRWA1	V	□33429	85.00	110.00	12.00	HMSA7	R

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□ 33431	85.00	110.00	13.00	HMSA7	R	▲ 34407	3.438	4.999	.438	†CRWH1	R
▲ □ 33443	85.00	115.00	13.00	HMS4	R	34408	3.438	4.999	.438	†CRWHA1	R
33454	3.346	4.094	.354	HMSA7	P	▲ 34611	3.465	4.252	.427	HMS4	V
□ 33456	85.00	100.00	9.00	HMS4	R	W/CCW HELIX FROM AIR SIDE					
□ 33458	85.00	100.00	9.00	HMSA7	R	▲ □ 34623	88.00	110.00	12.00	HMS4	R
□ 33459	85.00	100.00	9.00	CRS1	R	34647	3.375	4.125	.375	†CRWA1	V
33460	3.346	5.039	.826	HMSA8	R	□ 34653	88.00	120.00	13.00	CRSH13	R
P.F. WIDTH 11MM						□ 34655	88.00	110.00	13.00	CRSH1	R
□ 33463	85.00	100.00	12.00	CRSA12	R	▲ 34700	3.469	4.626	.625	CRSA1	R
□ 33464	85.00	100.00	13.00	CRSH13	R	34835	3.500	4.000	.300	HM1	R
□ 33488	85.00	115.00	13.00	CRSH13	R	▲ 34840	3.500	4.003	.250	†HM14	R
□ 33555	85.00	120.00	12.00	†CRW1	R	▲ 34848	3.500	4.125	.250	HM14	R
▲ □ 33563	85.00	120.00	12.00	HMS4	R	▲ 34857	3.500	4.249	.438	†CRWHA1	V
□ 33564	85.00	120.00	12.00	HMSA7	R	▲ 34860	3.500	4.376	.375	†CRW1	R
□ 33585	85.00	130.00	12.00	†CRW1	R	34861	3.500	4.376	.375	†CRWA1	R
□ 33586	85.00	130.00	12.00	HMS4	R	34866	3.500	4.376	.375	†CRWA1	V
□ 33587	85.00	130.00	12.00	HMSA7	R	34867	3.500	4.376	.438	†CRWH1	R
□ 33593	85.00	130.00	14.00	HMSA7	R	34868	3.500	4.376	.438	†CRWHA1	R
33624	3.375	4.045	.500	J-TYPE	R	34869	3.500	4.376	.433	†CRWHA1	V
W/4 EA .254 HOLES						34882	3.500	4.499	.500	†HMSA25	V
33628	3.375	3.948	.375	HMSA7	P	34883	3.500	4.501	.375	†CRWA1	V
▲ 33645	3.375	4.125	.375	†CRW1	R	▲ 34885	3.500	4.450	.531	HM12	R
33654	3.375	4.280	.406	†CRWA1	S	▲ 34886	3.500	4.501	.375	†CRW1	R
33659	3.250	4.249	.750	KIT	P	34887	3.500	4.501	.375	†CRWA1	R
SEE KIT SECTION						34888	3.500	4.501	.438	†CRWH1	R
33665	3.375	4.249	.438	†CRWHA1	R	34889	3.500	4.501	.438	†CRWHA1	R
33699	3.375	4.376	.375	†CRWA1	V	34890	3.500	4.438	.438	X1	L
▲ 33700	3.375	4.376	.375	†CRW1	R	O.D. LISTED IS PRESSFIT I.D.					
33701	3.375	4.376	.375	†CRWA1	R	34891	3.500	4.501	.438	CRWHA1	P
33711	3.375	4.376	.438	†CRWH1	R	34892	3.500	4.501	.438	†CRWH1	V
33712	3.375	4.376	.438	†CRWHA1	R	34928	3.500	4.682	.451	†HMSHA16	V
33733	3.375	4.501	.438	†CRWA1	V	▲ 34967	3.500	4.501	.250	HM21	R
▲ 33735	3.375	4.501	.438	†CRWH1	R	34971	3.500	4.547	.900	PLUS XL	H
▲ 33772	3.375	4.626	.438	†CRWH1	R	SCOTSEAL PLUS XL					
33773	3.375	4.626	.438	†CRWHA1	R	34975	3.500	4.547	.862	†SCOT1	R
33775	3.375	4.626	.438	†CRWHA1	V	SCOTSEAL					
▲ 33807	3.375	4.686	.438	CRWH1	R	▲ 34980	3.500	4.547	.740	†CRWHA2	R
▲ 33837	3.375	4.999	.438	CRWH1	R	P.F. WIDTH .640					
33861	3.346	4.055	.315	HMSA7	V	▲ 34985	3.500	4.626	.438	†CRWH1	R
W/CCW HELIX FROM AIR SIDE						34994	3.500	4.750	.706	PLUS XL	H
□ 33862	86.00	105.00	13.00	HMS46	R	SCOTSEAL PLUS XL					
□ 33863	86.00	110.00	13.00	CRSH11	R	35000	3.500	4.626	.986	†SCOT1	R
33866	3.375	5.251	.438	†CRWHA1	R	SCOTSEAL					
34000	3.400	4.500	.281	†X14	V	▲ 35012	3.500	4.751	.438	†CRWH1	R
O.D. LISTED IS PRESSFIT I.D.						35020	3.500	4.751	.438	†CRWHA1	R
34115	3.425	3.937	.295	HMSA7	V	35029	3.500	4.751	.625	†CRWH1	R
W/CCW HELIX FROM AIR SIDE						35039	3.500	4.751	.375	†CRWA1	V
34116	3.465	4.252	.453	HMSA7	V	▲ 35040	3.500	4.751	.375	†CRWA1	P
W/CCW HELIX FROM AIR SIDE						▲ 35042	3.500	4.751	.250	†HM21	R
34120	3.425	3.937	.315	HMSA7	S	35058	3.500	4.842	.903	PLUS XL	H
W/CCW HELIX FROM AIR SIDE						SCOTSEAL PLUS XL					
□ 34251	87.00	110.00	13.00	CRSH13	R	35060	3.500	4.814	.906	†SCOT1	R
▲ 34256	3.438	4.249	.375	†CRW1	R	SCOTSEAL					
34279	3.438	4.501	.375	†CRWA1	R	▲ 35062	3.500	4.842	.906	CRWHA2	R
▲ 34282	3.438	4.501	.438	†CRWH1	R	P.F. WIDTH .737					
34283	3.438	4.501	.438	†CRWHA1	R	35066	3.500	4.842	.904	†SCOT1	R
▲ 34336	3.438	4.626	.438	†CRWH1	R	SCOTSEAL					
34338	3.438	4.626	.438	†CRWHA1	R	35072	3.500	4.852	.904	†SCOT1	R
34379	3.438	4.751	.438	†CRWA1	R	SCOTSEAL					
▲ 34383	3.438	4.756	.438	†CRWH1	R	35075	3.500	5.000	.891	†SCOT1	R
34384	3.438	4.757	.700	PLUS XL	H	SCOTSEAL					
SCOTSEAL PLUS XL						35076	3.500	4.953	1.096	HDDF1	R
34387	3.438	4.757	.859	†SCOT1	R	O.D. LISTED IS SEAL I.D.					
SCOTSEAL						35079	3.500			HDDFBV1	R
▲ 34398	3.438	4.876	.438	†CRWH1	R	BELLEVILLE WASHERS (2 EA/KIT)					

Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
35080	3.500	4.999	.438	†CRWA1	V	▲35716	3.563	4.999	.438	†CRWH1	R
▲35082	3.500	4.999	.438	†CRWH1	R	35810	3.574	4.758	.625	†HMSA16	P
35083	3.500	4.999	.438	†CRWHA1	P	35828	3.582	4.370	.374	HMSA7	V
▲35086	3.500	5.126	.438	†CRWH1	R					W/CCW HELIX FROM AIR SIDE	
35095	3.500	5.126	.438	†CRWHA1	R	35833	3.543	4.094	.433	HMSA1	V
▲35096	3.500	5.251	.438	†CRWH1	R	35836	3.583	4.094	.433	UNITIZE	VR
▲35098	3.500	5.251	.750	†CRWHA11	P	▲35905	3.583	4.370	.394	†HMSA1	V
35103	3.500	4.842	.904	†SCOTLL	H					W/CCW HELIX FROM AIR SIDE	
				SCOTSEAL LONGLIFE		36005	3.622	4.331	.374	HMSA7	V
35105	3.500	5.750	.413	†HMSA25	V					W/CCW HELIX FROM AIR SIDE	
35111	3.500	5.751	.563	†CRSH1	R	□36013	92.00	120.00	13.00	HMS4	R
35116	3.500	4.260	.500	HMSA7S	RT	□36015	92.00	120.00	14.00	HMS4	R
35120	3.504	4.173	.354	HMSA7	V	□36025	92.00	127.00	11.13	†CRWH1	R
				W/CCW HELIX FROM AIR SIDE		□36027	92.00	127.00	11.00	†CRWHA1	R
□35125	89.00	127.00	11.13	†CRWH1	R	▲36120	3.620	4.626	.500	†ALH1	S
□35127	89.00	127.00	11.13	†CRWHA1	P	▲36147	3.625	4.240	.380	HMSA7	V
35405	3.543	4.134	.394	HMSA7	V					W/CCW HELIX FROM AIR SIDE	
				W/CCW HELIX FROM AIR SIDE		36153	3.625	4.376	.375	†CRWA1	V
35407	3.543	4.291	.354	HMSA35	V	36155	3.625	4.376	.375	†CRWA1	R
				W/CCW HELIX FROM AIR SIDE		▲36157	3.625	4.376	.375	†CRWH1	R
35409	3.543	4.331	.354	HMSA7	S	36158	3.625	4.376	.375	†CRWH1	P
				W/CCW HELIX FROM AIR SIDE		36166	3.625	4.501	.375	†CRW1	R
□35410	90.00	110.00	12.00	†CRW1	R	36172	3.625	4.500	.294	X15	R
▲□35411	90.00	110.00	12.00	HMS4	R					O.D. LISTED IS PRESSFIT I.D.	
□35412	90.00	110.00	12.00	†CRW1	V	▲36177	3.625	4.626	.375	†CRW1	R
□35414	90.00	110.00	12.00	HMSA7	R	36179	3.625	4.626	.375	†CRWA1	V
35418	3.543	4.252	.394	HMA7	P	36185	3.625	4.626	.438	†CRWH1	R
▲□35420	90.00	115.00	12.00	†CRWA1	R	36186	3.625	4.626	.438	†CRWHA1	R
□35421	90.00	115.00	13.00	HMSA7	R	36204	3.622	4.370	.315	HMSA7	P
35422	3.543	4.528	.512	HMSA7	P					W/CCW HELIX FROM AIR SIDE	
				W/CCW HELIX FROM AIR SIDE		▲36220	3.625	4.751	.438	†CRWH1	R
□35425	90.00	110.00	8.00	HMSA7	R	36221	3.625	4.695	.395	X13	R
□35428	90.00	110.00	8.00	HMS4	R					O.D. LISTED IS PRESSFIT I.D.	
□35430	90.00	120.00	12.00	†CRW1	R	□36222	92.00	120.00	12.00	HMS46	R
□35431	90.00	120.00	12.00	†CRW1	V	36234	3.625	4.751	.500	†CRWA1	S
▲□35432	90.00	120.00	12.00	HMS4	R					W/STAINLESS STEEL SPRING	
□35435	90.00	120.00	12.00	HMSA7	V	36250	3.625	4.751	.500	†SL1	T
				W/STAINLESS STEEL SPRING						W/HELIX-CW W/INSTALLATION SLV	
□35439	90.00	110.00	7.50	HMSA7P2	R	36282	3.625	4.814	.906	CRWA2	R
▲□35440	90.00	125.00	12.00	†CRW1	R					W/ZINC PLATED CASE, W/.433 P.F	
□35441	90.00	125.00	12.00	†CRW1	V	36285	3.625	4.813	.906	†SCOT1	R
□35449	90.00	110.00	13.00	HMSA7	R					SCOTSEAL	
□35450	90.00	130.00	12.00	†CRW1	R	36289	3.625	4.839	.500	P1	L
□35453	90.00	115.00	9.00	CRSH11	R	▲36314	3.625	4.876	.438	†CRWH1	R
□35455	95.00	130.00	15.00	HMSA7	R	36337	3.625	4.876	.375	CRW	R
□35459	90.00	120.00	13.00	HMS4	R					NO SPRING	
□35461	90.00	120.00	12.00	HMS4	V	36340	3.625	4.876	.750	C8	RR
□35468	90.00	120.00	13.00	HMSA7	R	36358	3.625	5.000	.859	†SCOT1	R
□35472	90.00	130.00	13.00	HMS46	R					SCOTSEAL	
□35477	90.00	125.00	13.00	CRSH1	R	36359	3.625	4.999	.375	†CRWA1	V
□35481	90.00	140.00	12.00	†CRWA1	R	36361	3.625	4.999	.375	†CRWA1	R
□35482	90.00	140.00	13.00	HMS4	R	▲36363	3.625	4.999	.438	†CRWH1	R
□35483	90.00	115.00	13.00	HMS4	R	36364	3.625	4.999	.438	†CRWHA1	R
□35484	90.00	120.00	12.00	HMSA7	R	36365	3.625	5.001	.891	†SCOT1	R
35495	3.543	6.299	.800	HMSHASP	R					SCOTSEAL	
				P.F. WIDTH .669 & 6.713 FLANGE		36381	3.500	5.251	.718	KIT	P
□35498	90.00	110.00	13.00	HMS4	R					SEE KIT SECTION	
□35501	90.00	110.00	5.50	HMS4	R	▲36382	3.625	5.251	.375	†CRWA1	R
□35504	90.00	110.00	5.50	HMSA7	R	36391	3.625	5.375	.438	†CRWHA1	R
□35508	90.00	125.00	13.00	HMS4	R	36601	3.661	4.488	.551	HMSA7	V
□35511	90.00	125.00	13.00	HMSA7	R	36614	3.661	4.331	.512	HMSA7	V
▲35556	3.563	4.501	.438	†CRWH1	R					W/CCW HELIX	
▲35593	3.563	4.626	.438	†CRWH1	R	36650	3.661	6.063	.315	J-TYPE	P
▲35649	3.563	4.751	.438	†CRWH1	R					W/7-.320 HOLES AT 5.000 B.C.	
▲35676	3.563	4.876	.438	†CRWH1	R						

★Contact manufacturer for availability  
**Bold numbers** are preferred designs

□ Metric numbers

† Includes Bore-Tite on O.D.  
 ▲ WasteWatcher numbers

## Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
36655	3.661	6.649	.449	J-TYPE	P	37507	3.750	4.573	.571	S1	T
	W/4-.477" HOLES					37520	3.753	4.720	.607	†UNITIZE	V
<b>36658</b>	3.661	4.331	.276	HMSA7	V	UNITIZED TRANSMISSION SEAL					
	W/CCW HELIX FROM AIR SIDE					<b>37524</b>	3.750	4.999	.375	†CRW1	V
<b>36660</b>	3.661	4.252	.394	HMSA7	P	<b>▲37525</b>	3.750	4.999	.375	†CRW1	R
	W/CCW HELIX FROM AIR SIDE					<b>37526</b>	3.750	4.999	.375	†CRWA1	R
<b>▲36740</b>	3.688	4.501	.438	†CRWHA1	R	<b>37532</b>	3.750	4.999	.438	†CRWH1	R
<b>▲36770</b>	3.688	4.751	.438	†CRWH1	R	<b>37533</b>	3.750	4.999	.438	†CRWHA1	R
<b>▲36880</b>	3.688	4.999	.438	†CRWH1	R	<b>★37565</b>	3.750	4.999	.469	†HM21	R
<b>36895</b>	3.688	5.126	.438	†CRWA1	R	<b>37570</b>	3.778	4.567	.354	HMSA7	V
<b>36910</b>	3.688	5.626	.438	†CRWA1	R	W/CCW HELIX FROM AIR SIDE					
36944	3.688	5.250	.718	KIT	P	<b>▲37574</b>	3.750	5.251	.438	†CRWH1	R
	SEE KIT SECTION					<b>37577</b>	3.750	5.251	.438	†CRWH1	V
□37001	95.00	110.00	9.00	CRS1	R	W/STAINLESS STEEL SPRING					
□37005	95.00	110.00	9.00	HMS4	R	37775	3.777	4.567	.508	†UNITIZD	V
□37008	95.00	110.00	9.00	HMSA7	R	<b>37795</b>	3.740	4.440	.315	HMSA7	V
<b>▲□37015</b>	95.00	110.00	10.00	†CRW1	R	W/CCW HELIX FROM AIR SIDE					
<b>▲□37020</b>	95.00	115.00	12.00	HMS4	R	<b>37825</b>	3.780	4.606	.472	HMSA7	S
□37025	95.00	115.00	12.00	†CRW1	R	W/CCW HELIX FROM AIR SIDE					
□37026	95.00	115.00	12.00	†CRW1	V	<b>▲38040</b>	3.813	4.501	.250	†HD1	R
□37027	95.00	115.00	12.00	CRSA1	R	QUILL WIPER					
<b>37030</b>	3.740	4.646	.394	HMSA7	S	38041	3.813	4.501	.250	†HD1	V
	W/CCW HELIX FROM AIR SIDE					QUILL WIPER					
□37039	95.00	120.00	12.00	HMS4	R	38160	3.813	4.999	.469	CRSH1	R
<b>▲□37040</b>	95.00	120.00	12.00	†CRW1	R	□38191	97.00	120.00	13.00	CRSH11	R
□37041	95.00	120.00	12.00	†CRW1	V	<b>38196</b>	3.819	4.724	.512	HMSA7	R
□37042	95.00	120.00	12.00	†CRWA1	V	W/CCW HELIX FROM AIR SIDE					
□37043	95.00	120.00	12.00	HMSA7	R	38220	3.813	5.251	.469	CRSH1	R
<b>▲□37047</b>	95.00	125.00	12.00	HMS4	R	□38520	98.00	120.00	12.00	†CRW1	V
□37050	95.00	125.00	12.00	†CRW1	R	<b>▲□38523</b>	98.00	120.00	13.00	HMS4	R
□37075	95.00	130.00	12.00	†CRW1	R	□38581	98.00	125.00	12.00	HMS45	R
<b>37076</b>	3.740	5.118	.472	†CRW1	V	□38583	98.00	130.00	13.00	CRSH11	R
<b>▲□37081</b>	95.00	130.00	12.00	HMS4	R	<b>38585</b>	3.858	4.567	.394	HMSA7	V
<b>▲37320</b>	3.750	4.376	.250	†HM14	R	W/CCW HELIX FROM AIR SIDE					
<b>37325</b>	3.750	4.376	.250	†HM14	V	<b>▲38590</b>	3.875	5.390	.375	X12	R
<b>37327</b>	3.750	4.501	.375	CRW1	R	O.D. LISTED IS PRESSFIT I.D.					
<b>37328</b>	3.750	4.501	.375	†CRW1	V	<b>38646</b>	3.875	4.751	.375	†CRW1	R
<b>▲37330</b>	3.750	4.501	.469	†CRWHA1	P	W/SS CASE & SPRING					
<b>37332</b>	3.750	4.502	.469	†CRWHA1	V	<b>38647</b>	3.875	4.751	.375	†CRWA1	R
<b>37338</b>	3.750	4.500	.381	HMSA7	P	<b>38649</b>	3.875	4.751	.375	†CRWA1	V
	W/CW HELIX FROM AIR SIDE					<b>▲38653</b>	3.875	4.751	.438	†CRWH1	R
<b>▲37340</b>	3.750	4.501	.380	HMS4	S	<b>▲38669</b>	3.875	4.876	.500	†CRWH1	R
	W/CCW HELIX FROM AIR SIDE					<b>38673</b>	3.875	4.876	.438	†CRWHA1	R
<b>37341</b>	3.750	4.501	.376	HMS4	V	<b>38678</b>	3.875	4.876	.500	†CRWHA1	V
	W/CCW HELIX FROM AIR SIDE					<b>▲38691</b>	3.875	4.999	.375	†CRW1	R
<b>37342</b>	3.750	4.501	.380	HMSA7	V	<b>38692</b>	3.875	4.999	.375	†CRWA1	R
	W/CCW HELIX FROM AIR SIDE					<b>38694</b>	3.875	4.999	.375	†CRWA1	V
37381	3.750	4.751	.875	†E3	RR	<b>38702</b>	3.875	5.126	.438	†CRWHA1	V
<b>37387</b>	3.750	4.751	.375	†CRW1	P	<b>▲38703</b>	3.875	5.126	.438	†CRWH1	R
<b>▲37388</b>	3.750	4.751	.375	†CRW1	R	38709	3.875	5.129	.844	†SCOT1	R
<b>37389</b>	3.750	4.751	.375	†CRWA1	R	SCOTSEAL					
<b>37390</b>	3.750	4.751	.438	†CRWA1	P	<b>38713</b>	3.875	5.126	.438	†CRWHA1	R
<b>37395</b>	3.750	4.751	.438	†CRWHA1	S	<b>▲38730</b>	3.875	5.251	.438	†CRWH1	R
<b>37396</b>	3.750	4.751	.438	†CRWH1	R	<b>38731</b>	3.875	5.251	.438	†CRWHA1	R
<b>37403</b>	3.750	4.750	.438	†CRWHA1	P	38736	3.875	5.248	.844	†SCOT1	R
<b>37405</b>	3.750	4.751	.438	†CRWH1	V	SCOTSEAL					
37408	3.740	5.196	.866	HMSA8	R	<b>38739</b>	3.875	5.251	.438	†CRWHA1	P
	P.F. WIDTH 12MM					38740	3.875	5.312	1.102	HDDF1	R
37410	3.750	4.751	.500	†HMSA24	V	O.D. LISTED IS SEAL I.D.					
□37424	95.00	125.00	12.00	HMSA7	R	38741	3.875			HDDFBV1	R
<b>▲37433</b>	3.750	4.876	.438	†CRWH1	R	BELLEVILLE WASHERS (2 EA/KIT)					
□37439	95.00	120.00	13.00	HMSA7	R	<b>▲38745</b>	3.875	5.376	.438	†CRWH1	R
□37440	95.00	110.00	12.00	HMS4	R	38747	3.875	5.376	1.016	†SCOT1	R
37442	3.745	6.161	.305	J-TYPE	P	SCOTSEAL					
37504	3.750	4.532	.482	HMA11	VT	38749	3.875	5.501	.500	†CRSHA1	R

Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
38750	3.875	5.501	.938	†SCOT1	R	□39416	100.00	120.00	13.00	HMSA7	R
	SCOTSEAL					39420	3.938	5.501	.938	†SCOT1	R
38751	3.875	5.562	1.267	HDDF1	R	SCOTSEAL					
	O.D. LISTED IS SEAL I.D.					□39421	100.00	150.00	12.00	HMS4	R
38752	3.875			HDDFBV1	R	▲39423	3.938	5.501	.438	†CRWH1	R
	BELLEVILLE WASHERS (2 EA/KIT)					39425	3.938	5.504	1.016	†SCOT1	R
<b>38758</b>	3.875	5.626	.433	†CRWHA1	R	SCOTSEAL					
<b>38774</b>	3.875	5.690	.500	†CRWH1	R	39426	3.938	5.512	.591	SCOTPLS	R
38776	3.875	5.691	.892	PLUS XL	H	SCOTSEAL PLUS					
	SCOTSEAL PLUS XL					□39760	101.00	114.00	10.00	HMSA1	R
▲38777	3.875	5.690	.750	CRSHA2	R	▲39835	4.000	4.501	.250	†HM14	R
38780	3.875	5.691	.938	†SCOT1	R	39838	4.000	4.562	.375	HMS2	P
	SCOTSEAL					▲39851	4.000	4.876	.438	†CRW1	R
38810	3.875	5.751	.563	CRSH1	R	▲39860	4.000	4.876	.250	†HM21	R
38845	3.875	6.000	.625	HMSA1	R	<b>39895</b>	4.000	4.999	.375	†CRW1	P
<b>38880</b>	3.898	4.680	.370	HMSA7	VR	<b>39921</b>	4.000	4.999	.375	†CRWA1	V
<b>38883</b>	3.898	4.331	.276	HMSA7	V	▲39922	4.000	4.999	.375	†CRW1	R
	W/CCW HELIX FROM AIR SIDE					<b>39923</b>	4.000	4.999	.375	†CRWA1	R
□38890	99.00	124.00	9.53	†CRW1	R	<b>39930</b>	4.000	4.999	.438	†CRWHA1	P
39070	3.907	5.708	1.023	HMSA8	R	<b>39932</b>	4.000	4.999	.438	†CRWH1	V
	P.F. WIDTH 14.8MM					<b>39933</b>	4.000	4.999	.438	†CRWH1	R
□39100	100.00	115.00	9.00	HMS4	R	<b>39934</b>	4.000	4.999	.438	†CRWHA1	R
□39114	100.00	120.00	10.00	HMSA7	R	<b>39935</b>	4.000	4.999	.438	†CRWH1	S
▲□39118	100.00	120.00	10.00	HMS4	R	39946	4.000	4.999	.438	†D	SS
▲□39120	100.00	120.00	12.00	†CRW1	R	P.F. WIDTH .438 SPECIAL CONST.					
□39122	100.00	120.00	12.00	HMS4	R	▲39961	4.000	4.999	.250	†HM21	R
□39125	100.00	120.00	12.00	†CRW1	V	▲39975	4.000	5.126	.438	†CRWH1	R
□39129	100.00	120.00	12.00	HMSA7	R	39979	4.000	5.122	.953	PLUS XL	H
▲□39135	100.00	125.00	12.00	†CRW1	R	SCOTSEAL PLUS XL					
□39136	100.00	125.00	12.00	†CRW1	V	39988	4.000	5.126	1.047	†SCOT1	R
▲□39139	100.00	125.00	12.00	HMS4	R	SCOTSEAL					
□39140	100.00	125.00	12.00	HMSA7	R	<b>39996</b>	4.000	5.251	.438	†CRWH1	V
□39142	100.00	125.00	13.00	HMS4	R	▲39997	4.000	5.251	.438	†CRWH1	R
□39145	100.00	127.00	11.13	†CRWH1	R	<b>40000</b>	4.000	5.251	.438	†CRWA1	R
□39155	100.00	130.00	12.00	†CRW1	R	▲40020	4.000	5.310	.500	†CRWHA1	R
▲□39156	100.00	130.00	12.00	HMS4	R	▲40036	4.000	5.376	.438	†CRWH1	R
□39158	100.00	130.00	12.00	HMSA7	R	40040	4.000	5.376	1.016	†SCOT1	R
□39159	100.00	130.00	12.00	HMSA7	V	SCOTSEAL					
	W/STAINLESS STEEL SPRING					▲40049	4.000	5.501	.438	†CRWH1	R
□39170	100.00	135.00	12.00	†CRWA1	R	▲40077	4.000	5.626	.375	†CRWA1	R
□39180	100.00	140.00	12.00	†CRWA1	R	▲40078	4.000	5.626	.438	†CRWH1	R
□39183	100.00	140.00	13.00	HMS4	R	40086	4.000	5.626	.688	†SCOT2	R
□39184	100.00	140.00	13.00	HMSA7	R	SCOTSEAL					
▲39245	3.938	4.876	.438	†CRWH1	R	40091	4.000	5.626	.688	PLUS XL	H
▲39275	3.938	4.999	.438	†CRWH1	R	SCOTSEAL PLUS XL					
<b>39276</b>	3.938	4.999	.438	†CRWH1	V	▲40108	4.000	5.751	.438	†CRWH1	R
<b>39277</b>	3.938	4.999	.438	†CRWH1	R	40129	4.000	5.754	.995	PLUS XL	H
	W/SS CASE & SPRING					SCOTSEAL PLUS XL					
▲39304	3.938	5.126	.472	†CRWHA1	V	40131	4.000	5.813	.500	X	R
▲39320	3.938	5.251	.438	†CRWH1	R	O.D. LISTED IS PRESSFIT I.D.					
▲39350	3.938	5.375	.438	†CRWH1	R	40136	4.000	5.754	1.079	†SCOT1	R
<b>39361</b>	3.937	4.724	.374	HMSA7	V	SCOTSEAL					
<b>39367</b>	3.937	4.882	.512	HMSA7	V	▲40138	4.000	6.001	.500	†CRWH1	R
	W/CCW HELIX					40139	4.000	5.760	1.079	†SCOT1	R
39380	3.938	5.374	1.016	†SCOT1	R	SCOTSEAL					
	SCOTSEAL					□40151	102.00	116.00	14.00	HMSA1	R
□39384	100.00	120.00	8.00	CRS13	R	▲40158	4.000	6.250	.500	†CRWH1	R
▲39385	3.938	5.372	1.031	CRWH2	R	▲40210	4.012	5.693	.813	†HMSA16	P
	P.F. WIDTH .527					□40248	102.00	130.00	13.00	HMS4	R
□39387	100.00	120.00	13.00	CRSH1	R	▲40360	4.050	5.501	.550	†CRWH6	R
□39392	100.00	125.00	13.00	HMSA7	R	W/5.750 FLANGE					
□39399	100.00	130.00	10.00	HMS46	R	40510	4.063	5.390	.375	X12	R
□39403	100.00	130.00	12.00	HMS4	V	O.D. LISTED IS PRESSFIT I.D.					
□39406	100.00	135.00	13.00	HMS47	R	□40939	104.00	125.00	10.00	HMS4	R
□39415	100.00	130.00	13.00	HMSA7	R	▲41125	4.125	4.999	.438	†CRWH1	R

★Contact manufacturer for availability  
**Bold numbers** are preferred designs

□ Metric numbers

† Includes Bore-Tite on O.D.  
 ▲ WasteWatcher numbers



## Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
<b>41126</b>	4.125	4.999	.438	CRWH1	V	42623	4.250	6.009	.984	+SCOT1	R
<b>41130</b>	4.125	4.999	.438	†CRWH1	S					SCOTSEAL	
41152	4.125	4.999	.718	KIT	P	42624	4.250	6.043	.984	+SCOT1	R
				SEE KIT SECTION						SCOTSEAL	
▲ <b>41170</b>	4.125	5.126	.438	†CRWH1	R	42625	4.250	6.009	1.122	SCOTPLS	R
<b>41171</b>	4.125	5.126	.438	†CRWH1	V					SCOTSEAL	
▲ <b>41185</b>	4.125	5.251	.438	†CRWH1	R	42627	4.250	6.009	.971	PLUS XL	H
<b>41186</b>	4.125	5.251	.438	†CRWH1	V					SCOTSEAL PLUS XL	
▲ <b>41265</b>	4.125	5.501	.438	†CRWH1	R	42631	4.250	6.008	.984	+SCOTLL	
▲ <b>41287</b>	4.125	5.751	.438	†CRWH1	R					SCOTSEAL LONGLIFE	
▲ <b>41305</b>	4.125	6.001	.438	†CRWH1	R	▲ <b>42635</b>	4.250	6.126	.500	†CRWH1	R
<b>41307</b>	4.125	6.001	.438	†CRWH1	V	▲ <b>42644</b>	4.250	6.250	.500	†CRWH1	R
□41340	105.00	120.00	8.00	CRSA13	R	42672	4.250	6.254	1.250	+SCOT1	R
□41352	105.00	135.00	13.00	CRSH11	R					SCOTSEAL	
□41358	105.00	145.00	15.00	CRS11	R	42673	4.250	6.254	1.245	PLUS XL	H
□41360	105.00	150.00	15.00	CRSH11	R					SCOTSEAL PLUS XL	
□41367	105.00	125.00	13.00	HMS4	R	42800	4.266	6.066	.875	+SCOT1	R
□41370	105.00	125.00	13.00	HMSA7	R					SCOTSEAL	
<b>41401</b>	4.134	4.724	.433	HMSA7	S	<b>43072</b>	4.313	5.501	.433	†CRWHA1	P
□★41410	105.00	125.00	12.00	HMSA27	R	▲ <b>43073</b>	4.313	5.501	.438	†CRWHA1	R
□41411	105.00	125.00	12.00	CRS1	R	43131	4.313	5.751	.500	CRSH1	R
□41415	105.00	127.00	11.13	†CRWH1	R	43135	4.312	5.823	1.102	HDDF1	R
□41425	105.00	130.00	12.00	†CRW1	R					O.D. LISTED IS SEAL I.D.	
□41426	105.00	130.00	12.00	†CRW1	V	43136	4.312			HDDFBV1	R
▲□41430	105.00	130.00	12.00	HMS4	R					BELLEVILLE WASHERS (2 EA/KIT)	
□41433	105.00	130.00	12.00	HMSA7	R	43149	4.312			HDDFBV1	R
□41440	105.00	135.00	12.00	†CRWA1	R					BELLEVILLE WASHERS (2 EA/KIT)	
□41443	105.00	135.00	14.00	HMSA7	R	43150	4.312	6.000	1.320	HDDF1	R
□41455	105.00	140.00	12.00	†CRWA1	R					O.D. LISTED IS SEAL I.D.	
▲□41456	105.00	140.00	12.00	HMS4	R	43201	4.313	6.250	.500	HMSH1	R
□41457	105.00	140.00	15.00	HMS4	R	□43300	110.00	130.00	12.00	HMS4	V
□41460	105.00	140.00	12.00	HMSA7	R	□43301	110.00	130.00	12.00	HMSA7	V
□41475	105.00	160.00	12.00	†CRW1	R					W/STAINLESS STEEL SPRING	
▲41550	4.166	5.501	.600	†HMSHA3	R	▲□43303	110.00	130.00	12.00	HMS4	R
41555	4.165	5.625	.210	J5SPLIT	R	□43304	110.00	130.00	12.00	HMSA7	R
				W/8 EA .390 DIA. HOLES		□43310	110.00	130.00	12.00	†CRW1	R
▲41751	4.188	4.999	.469	CRSHA1	R	□43311	110.00	130.00	12.00	†CRW1	V
▲41761	4.188	5.251	.469	CRSH1	R	□43313	110.00	128.00	9.00	CRSA13	R
▲41813	4.188	5.501	.500	†HMSHA3	R	□43324	110.00	140.00	12.00	HMSA7	R
41814	4.188	5.501	.500	†HMSHA3	V	□43326	110.00	135.00	12.00	†CRW1	V
41833	4.188	5.751	.500	CRSHA1	R	▲□43327	110.00	135.00	12.00	HMS4	R
□42120	107.00	123.00	11.00	CRSA1	R	□43334	110.00	150.00	13.00	HMS4	R
□42130	107.00	130.00	13.00	CRSH11	R	□43338	110.00	140.00	12.00	†CRW1	V
<b>42340</b>	4.250	4.813	.313	HM14	R	□43340	110.00	140.00	12.00	†CRW1	R
42380	4.250	5.126	.250	†HM21	R	▲□43341	110.00	140.00	12.00	HMS4	R
▲ <b>42419</b>	4.250	5.251	.375	†CRWA1	R	□43342	110.00	140.00	13.00	HMS4	R
<b>42422</b>	4.250	5.251	.375	†CRW1	S	□43343	110.00	140.00	14.00	HMSA7	R
<b>42426</b>	4.250	5.251	.438	†CRWH1	R	<b>43345</b>	4.331	5.626	.472	†CRWHA1	V
<b>42427</b>	4.250	5.251	.438	†CRWHA1	R	▲□43355	110.00	145.00	12.00	†CRW1	R
<b>42433</b>	4.250	5.251	.438	†CRWH1	V	□43357	110.00	145.00	15.00	HMSA7	R
▲42470	4.250	5.251	.250	†HM21	R	□43359	110.00	130.00	13.00	HMS4	R
▲ <b>42474</b>	4.250	5.373	.438	†CRWA1	V	□43361	110.00	140.00	13.00	HMSA7	R
▲ <b>42475</b>	4.250	5.376	.438	†CRWH1	R	□43363	110.00	130.00	13.00	HMSA7	R
□42520	108.00	130.00	13.00	CRSH1	R	□43390	110.00	160.00	12.00	†CRWH1	R
▲ <b>42528</b>	4.250	5.501	.438	†CRWH1	R	▲ <b>43650</b>	4.375	5.376	.438	†CRWH1	R
42540	4.250	5.501	.750	C8	RR	▲ <b>43691</b>	4.375	5.501	.438	†CRWH1	R
42550	4.250	5.501	.938	+SCOT1	R		4.374	5.737	.207	SPLIT	R
				SCOTSEAL		▲ <b>43751</b>	4.375	5.751	.438	†CRWH1	R
<b>42557</b>	4.250	5.626	.438	†CRWA1	R	43752	4.375	5.751	1.016	+SCOT1	R
▲ <b>42573</b>	4.250	5.751	.438	†CRWH1	R					SCOTSEAL	
<b>42592</b>	4.250	5.876	.500	†CRWH1	V	43754	4.375	5.751	.995	PLUS XL	H
				W/STAINLESS STEEL SPRING						SCOTSEAL PLUS XL	
▲ <b>42616</b>	4.250	6.001	.500	†CRWH1	R	43761	4.375	5.900	1.000	PLUS XL	H
										SCOTSEAL PLUS XL	

Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
▲43762	4.375	5.907	.984	†CRWHA2	R	45103	4.500	5.876	.984	†SCOT1	R
		P.F. WIDTH .640								SCOTSEAL	
43764	4.375	5.905	1.000	†SCOT1	R	▲45110	4.500	6.001	.500	†CRWH1	R
		SCOTSEAL				▲45111	4.500	6.001	.500	†CRWHA1	R
▲43771	4.375	6.001	.500	†CRWH1	R	▲45112	4.500	6.001	.500	†CRWHA1	V
43800	4.375	6.003	1.047	†SCOT1	R	▲45140	4.500	6.126	.563	†CRWH1	R
		SCOTSEAL				▲45150	4.500	6.250	.500	†CRWH1	R
▲43820	4.375	6.250	.500	†CRWH1	R	45152	4.500	6.311	1.125	†SCOT1	R
43860	4.375	6.254	.922	†SCOT1	R					SCOTSEAL	
		SCOTSEAL				45157	4.500	6.254	.750	PLUS XL	H
43865	4.375	6.254	1.047	†SCOT1	R					SCOTSEAL PLUS XL	
		SCOTSEAL				45160	4.500	6.254	1.047	†SCOT1	R
43875	4.375	6.311	1.125	†SCOT1	R					SCOTSEAL	
		SCOTSEAL				45161	4.500	6.409	.415	X12	D
44000	4.400	5.230	.375	HMSA7	P					O.D. LISTED IS PRESSFIT I.D.	
		W/CCW HELIX FROM AIR SIDE				45162	4.500	6.441	.938	†SCOT1	R
□44092	112.00	140.00	13.00	CRSA11	R					SCOTSEAL	
□44094	112.00	140.00	13.00	HMS47	R	□45210	115.00	135.00	12.00	†CRW1	R
□44095	112.00	150.00	15.00	CRSH11	R	▲□45220	115.00	140.00	12.00	†CRW1	R
▲44269	4.375	5.373	.570	X1	V	□45221	115.00	140.00	12.00	†CRW1	R
		O.D. LISTED IS PRESSFIT I.D.								W/SS CASE & SPRING	
▲44275	4.438	5.501	.500	†CRWH1	R	□45222	115.00	140.00	12.00	†CRW1	V
44276	4.438	5.501	.500	†CRWH1	V	▲□45223	115.00	140.00	12.00	HMS4	R
▲44295	4.438	5.751	.500	†CRWH1	R	□45224	115.00	140.00	12.00	HMSA7	R
▲44320	4.438	6.001	.500	†CRWH1	R	□45225	115.00	140.00	13.00	HMS4	R
▲44350	4.438	6.250	.500	†CRWH1	R	▲□45230	115.00	145.00	12.00	†CRW1	R
□44493	113.00	140.00	13.00	CRSH1	R	□45233	115.00	145.00	14.00	HMSA7	R
▲44630	4.477	6.250	.500	†CRWH1	R	□45250	115.00	150.00	12.00	†CRW1	R
□44880	114.00	140.00	13.00	HMSA7	R	▲□45252	115.00	150.00	12.00	HMS4	R
▲44892	4.500	6.015	.550	X12	R	45280	4.528	6.142	1.063	HMSA8	R
		O.D. LISTED IS PRESSFIT I.D.								P.F. WIDTH 15.6MM	
▲44913	4.500	5.251	.438	†CRWH1	R	□45290	115.00	160.00	12.00	†CRW1	R
44916	4.500	5.375	.975	PLUS XL	H	□45299	115.00	160.00	15.00	CRSH1	R
		SCOTSEAL PLUS XL				▲45550	4.563	5.751	.500	CRSHA1	R
44917	4.500	5.251	.438	†CRWHA1	V	45560	4.563	6.250	.500	CRSH1	R
▲44920	4.500	5.376	.438	†CRWH1	R	46060	4.606	6.850	1.063	HMSA8	R
44922	4.500	5.375	.984	†SCOT1	R					P.F. WIDTH 15.6MM	
		SCOTSEAL				46125	4.625	5.501	.500	†ALH1	S
44926	4.500	5.376	.438	†CRWHA1	V	▲46144	4.625	5.626	.500	†CRWH1	R
▲44959	4.500	5.501	.375	†CRW1	R	46155	4.625	5.626	.500	†CRWH1	V
▲44960	4.500	5.501	.375	†CRWA1	R	▲46200	4.625	5.751	.500	†CRWH1	R
44964	4.500	5.501	.750	†SCOT1	R	▲46208	4.625	5.751	.500	†CRWH1	S
		SCOTSEAL				▲46285	4.625	6.001	.500	†CRWH1	R
44967	4.500	5.501	.438	†CRWH1	R	46300	4.625	6.001	.912	PLUS XL	H
44968	4.500	5.501	.438	†CRWHA1	R					SCOTSEAL PLUS XL	
44973	4.500	5.501	.438	†CRWH1	V	46305	4.625	6.001	1.063	†SCOT1	R
44980	4.500	5.501	.435	†CRWH1	V					SCOTSEAL	
		W/STAINLESS STEEL SPRING				46308	4.625	6.000	1.063	†SCOTLL	H
45001	4.500	5.501	.500	†KIT	S					SCOTSEAL LONGLIFE	
		SEE KIT SECTION				▲46309	4.625	6.186	1.250	HMSA8	R
45010	4.500	5.501	.938	†SCOT1	R					P.F. WIDTH .813	
		SCOTSEAL				▲46324	4.625	6.250	.500	†CRWH1	R
▲45025	4.500	5.501	.250	HM14	R	46390	4.635	6.009	1.031	†SCOT1	R
▲45032	4.500	5.626	.438	†CRWH1	R					SCOTSEAL	
45033	4.500	5.626	.438	†CRWHA1	V	▲46395	4.625	6.623	1.094	†CRWA79	R
45064	4.500	5.751	.375	†CRWA1	V					P.F. WIDTH .484	
▲45069	4.500	5.751	.438	†CRWH1	R	46396	4.625	6.623	1.093	OILBATH	R
45070	4.500	5.751	.438	†CRWHA1	R	□46460	118.00	140.00	13.00	CRSH11	R
45093	4.500	5.751	.767	PLUS XL	H	46790	4.688	5.751	.512	†CRWH1	S
		SCOTSEAL PLUS XL				▲46800	4.688	5.751	.512	†CRWH1	R
45095	4.500	5.876	1.009	PLUS XL	H	▲46851	4.688	5.751	.250	†HD1	R
		SCOTSEAL PLUS XL								QUILL WIPER	
45099	4.500	5.751	1.016	†SCOT1	R	▲46920	4.688	6.001	.266	†HD1	P
		SCOTSEAL								QUILL WIPER	

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□ Metric numbers

† Includes Bore-Tite on O.D.  
 ▲ WasteWatcher numbers



## Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
▲46935	4.688	6.001	.380	†HMSW90	P	47698	4.767	6.313	1.125	†SCOT1	R
	P.F. WIDTH .281						SCOTSEAL				
46950	4.688	6.250	.500	†CRWH1	R	47699	4.766	7.000	1.250	†SCOT1	R
46975	4.688	6.400	1.525	HDDF1	R		SCOTSEAL				
	O.D. LISTED IS SEAL I.D.					48000	4.766	6.254	1.047	†SCOT1	R
46976	4.688			HDDFBV1	R		SCOTSEAL				
	BELLEVILLE WASHERS (2 EA/KIT)					48002	4.766	6.254	.795	PLUS XL	H
□47210	120.00	140.00	12.00	†CRWA1	R		SCOTSEAL PLUS XL				
▲□47212	120.00	140.00	13.00	HMS4	R	□48030	122.00	150.00	13.00	CRSH13	R
□47214	120.00	140.00	13.00	HMSA7	R	□48031	122.00	150.00	15.00	HMSA75	R
□47225	120.00	145.00	12.00	HMS4	R	48046	4.811	5.543	.472	HMSA7	V
▲□47230	120.00	145.00	12.00	†CRW1	R		W/CCW HELIX FROM AIR SIDE				
□47240	120.00	150.00	13.00	HMS4	R	▲48060	4.813	5.751	.563	†CRWH1	P
47245	4.724	5.906	.590	SCOTPLS	R	48062	4.813	5.751	.563	†CRWH1	V
	SCOTSEAL PLUS					48065	4.813	5.751	.563	†CRWH1	S
▲□47250	120.00	150.00	12.00	†CRW1	R	48070	4.813	5.751	.813	†D7	VV
▲□47252	120.00	150.00	12.00	HMS4	R	48075	4.813	5.755	.750	†D7	PP
□47253	120.00	150.00	12.00	HMS4	V	48297	4.824	6.311	1.125	†SCOT1	R
	W/STAINLESS STEEL SPRING						SCOTSEAL				
□47254	120.00	150.00	12.00	HMSA7	V	48298	4.824	6.501	1.125	†SCOT1	R
	W/STAINLESS STEEL SPRING						SCOTSEAL				
□47260	120.00	150.00	14.00	HMSA7	R	48650	4.875	5.501	.250	HM14	R
□47264	120.00	150.00	15.00	CRSH1	R	48689	4.875	6.001	.500	†CRWHA1	R
□47272	120.00	160.00	15.00	CRSH11	R	48690	4.875	6.001	.875	†SCOT1	R
□47273	120.00	155.00	16.00	HMSA7	R		SCOTSEAL				
□47276	120.00	150.00	12.00	HMSA7	R	48692	4.875	6.001	.500	†CRWH1	V
□47287	120.00	160.00	12.00	HMS4	R	▲48693	4.875	6.001	.500	†CRWH1	R
□47289	120.00	160.00	12.00	HMS4	V	48697	4.875	6.000	.750	KIT	S
	W/STAINLESS STEEL SPRING						SEE KIT SECTION				
▲□47291	120.00	160.00	12.00	†CRWH1	R	▲48726	4.875	6.126	.500	†CRWH1	R
47375	4.750	5.749	.438	†CRW1	P	48768	4.875	6.250	.500	†CRWHA1	R
47378	4.750	5.375	.313	†HM14	R	▲48769	4.875	6.250	.500	†CRWH1	R
47379	4.750	5.751	.500	†CRW1	V	★48792	4.875	6.254	1.047	†SCOT1	R
47382	4.750	5.751	.500	†CRWA1	V		SCOTSEAL				
	W/STAINLESS STEEL SPRING					48794	4.875	6.379	.938	†SCOT1	R
47383	4.750	5.751	.500	†CRW1	R		SCOTSEAL				
47385	4.646	5.751	.625	KIT	V	48796	4.875	6.441	.938	†SCOT1	R
	SEE KIT SECTION						SCOTSEAL				
▲47394	4.750	5.751	.500	†CRWH1	R	48881	4.881	6.693	.571	X14	R
47395	4.750	5.751	.500	†CRWHA1	R		O.D. LISTED IS PRESSFIT I.D.				
▲47441	4.750	5.875	.500	†CRWH1	R	48883	4.875	6.375	.516	CRW3	R
47455	4.750	6.002	.300	X15	R	48884	4.875	6.503	1.063	†SCOT1	R
	O.D. LISTED IS PRESSFIT I.D.						SCOTSEAL				
▲47474	4.750	6.001	.500	†CRWH1	R	48886	4.875	6.440	.500	†CRW3	R
47475	4.750	6.001	.500	†CRWHA1	R		P.F. WIDTH .375 W/6.735 FLANGE				
47481	4.750	6.001	.500	†CRW1	V	49050	4.902	6.309	.709	†CRWA3	R
47483	4.750	6.001	1.063	†SCOT1	R		W/6.695 FLANGE				
	SCOTSEAL					49060	4.902	7.085	.475	X12	R
▲47583	4.750	6.250	.500	†CRWH1	R		O.D. LISTED IS PRESSFIT I.D.				
47586	4.750	6.250	.500	†CRWHA1	V	□49208	125.00	146.00	14.00	CRSA1	P
47587	4.750	6.250	.500	†KIT	R	□49210	125.00	150.00	12.00	†CRW1	R
47591	4.750	6.250	.610	†HMSA24	R	□49211	125.00	150.00	12.00	†CRW1	V
▲47660	4.750	6.619	1.181	†HMSA28	R	□49213	125.00	150.00	12.00	HMSA7	R
	P.F. WIDTH .550					□49214	125.00	150.00	12.00	HMSA7	V
47690	4.766	6.001	1.063	†SCOT1	R		W/STAINLESS STEEL SPRING				
	SCOTSEAL					▲□49215	125.00	150.00	12.00	HMS4	R
47691	4.767	6.308	1.035	†PLUS XL		▲49221	125.00	150.00	15.00	HMS43	V
	DRIVE AXLE ABS VERSION					□49235	125.00	170.00	15.00	HMSA7	R
47692	4.767	6.308	1.420	PLUS XL	H	▲□49240	125.00	155.00	14.00	HMS1	R
	SCOTSEAL PLUS XL					□49243	125.00	155.00	14.00	HMSA7	R
47693	4.767	6.316	1.125	†SCOTLL	H	▲49251	4.938	6.001	.500	†CRWH1	R
	SCOTSEAL LONGLIFE					□49264	125.00	150.00	13.00	HMS4	R
47697	4.766	6.311	1.125	†SCOT1	R	□49267	125.00	150.00	13.00	HMSA7	R
	SCOTSEAL					▲□49268	125.00	160.00	12.00	HMS4	R
						□49270	125.00	160.00	12.00	†CRW1	R

Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	
49274	4.921	6.375	.500	†CRWHA1	V	□51203	130.00	180.00	15.00	CRSH13	R	
▲49301	4.938	6.250	.500	†CRWH1	R	▲51240	5.125	6.126	.500	†CRWHA1	R	
□49600	126.00	147.00	11.00	CRSA1	R	51242	5.125	6.126	.750	†KIT	V	
▲49920	5.000	5.751	.500	†HMS1	V	SEE KIT SECTION						
	W/STAINLESS STEEL SPRING						51243	5.125	6.126	.500	†CRW1	V
49921	4.841	5.751	.750	KIT	V	51247	5.125	6.126	.500	†CRW1	R	
	SEE KIT SECTION						▲51248	5.125	6.375	.500	CRWH1	R
49927	5.000	6.001	.500	†CRWHA1	V	▲51252	5.125	6.250	.500	†CRWHA1	R	
▲49928	5.000	6.001	.500	†CRWH1	R	51253	5.125	6.250	.500	†CRWA1	V	
49929	5.000	6.001	.500	†CRWHA1	R	51255	5.125	6.375	.500	†CRWH1	V	
49935	5.000	6.000	.500	†AL1	S	51260	5.125	6.408	.625	X	D	
49951	5.000	6.125	.500	†HDW1	R	O.D. LISTED IS PRESSFIT I.D.						
49960	5.000	6.126	.500	†CRW1	V	51276	5.125	6.500	.500	CRSHA1	R	
▲49966	5.000	6.250	.500	†CRWH1	R	51277	5.125	6.625	.500	†HDW1	R	
49984	5.000	6.250	.500	†CRW1	R	51320	5.125	7.000	.500	†HDW1	R	
49985	5.000	6.250	.500	†CRWA1	R	51800	5.188	6.250	.500	†HDW1	R	
49990	5.000	6.250	.500	CRWH1	P	★51851	5.188	6.501	.625	†CRWH1	R	
49991	5.000	6.250	.500	†CRWH1	V	▲51852	5.188	6.501	.625	†CRWH1	V	
49998	5.000	6.250	.500	†CRWHA1	R	▲52440	5.250	6.001	.375	†CRW1	R	
▲50070	5.000	6.250	.250	†HM21	R	▲52443	5.250	6.001	.500	†CRWH1	V	
50124	5.000	6.254	1.047	†SCOT1	R	▲52445	5.250	6.250	.500	†CRWH1	R	
	SCOTSEAL						52447	5.250	6.250	.500	†CRWH1	V
▲50130	5.000	6.375	.500	†CRWH1	R	▲52475	5.250	6.250	.250	HM4	R	
50138	5.000	6.375	.500	†CRWHA1	R	▲52488	5.250	6.500	.500	†CRWH1	R	
▲50148	5.000	6.500	.500	†CRWH1	R	52489	5.250	6.500	.500	†CRWH1	V	
50151	5.000	6.500	.500	†CRWH1	V	52492	5.250	6.375	.500	CRWHA1	R	
▲50167	5.000	6.623	.906	†CRWA79	R	52498	5.250	6.375	.500	CRWHA1	V	
▲50168	5.000	6.750	.500	†CRWH1	R	▲52648	5.250	6.750	.500	†CRWH1	R	
50172	5.000	6.750	.500	†CRWHA1	R	52649	5.250	6.750	.500	†CRWH1	V	
50185	5.000	7.000	.500	CRSHA1	R	52651	5.250	6.750	.500	†HDW1	R	
50186	5.000	7.125	.500	†HDW1	R	52655	5.250	7.125	.500	†HDW1	R	
50195	5.000	7.500	.500	CRSHA1	R	52658	5.250	7.376	.945	†SCOT1	R	
□50390	128.00	146.00	13.50	CRSH12	R	SCOTSEAL						
□50391	128.00	150.00	13.00	HMS47	R	★52664	5.250	7.379	2.500	†SCOT1	R	
□50394	128.00	160.00	15.00	CRSH13	R	SCOTSEAL						
□50600	128.00	150.00	15.00	HMS4	R	53100	5.313	6.375	.500	†HDW1	R	
▲50618	5.063	6.126	.500	†CRWH1	R	▲□53135	135.00	160.00	12.00	HMS4	R	
50620	5.063	6.125	.500	†HDW1	R	□53140	135.00	160.00	15.00	HMS4	R	
50640	5.063	6.310	1.313	CRWH2	R	□53142	135.00	160.00	13.00	HMSA7	R	
50650	5.063	6.375	.500	†CRWH1	R	□53143	135.00	160.00	13.00	HMS4	R	
50655	5.062	6.750	1.280	HDDF1	R	□53145	135.00	165.00	14.00	HMSA7	R	
	O.D. LISTED IS SEAL I.D.						□53149	135.00	170.00	12.00	HMSA7	R
50656	5.062			HDDFBV1	R	53151	5.313	6.500	.500	CRSHA1	R	
	BELLEVILLE WASHERS (2 EA/KIT)						★53152	135.00	160.00	13.00	CRSH1	R
□50790	129.00	160.00	15.00	CRSH11	R	□53154	135.00	160.00	13.00	CRSH12	R	
□51117	130.00	160.00	15.00	HMSA7	R	□53155	135.00	170.00	12.00	HMS4	R	
□51120	130.00	160.00	15.00	HMS4	R	□53156	135.00	165.00	13.00	CRSH13	R	
□51123	130.00	160.00	13.00	HMS4	R	□53162	135.00	170.00	15.00	CRSH1	R	
□51125	130.00	160.00	12.00	†CRW1	R	□53165	135.00	180.00	15.00	CRSH13	R	
□51126	130.00	160.00	12.00	†CRW1	V	53688	5.375	6.374	.500	†CRSHA1	R	
□51128	130.00	160.00	13.00	HMSA7	R	53692	5.375	6.499	.563	CRSH1	R	
▲□51130	130.00	160.00	12.00	HMS4	R	▲53701	5.375	6.625	.500	†CRWH1	R	
□51131	130.00	160.00	12.00	HMSA7	R	53702	5.375	6.625	.500	†CRWH1	V	
□51135	130.00	160.00	14.00	HMSA7	R	53771	5.375	6.750	.500	†CRWH1	V	
▲□51140	130.00	170.00	12.00	HMS4	R	▲53775	5.375	6.750	.500	†CRWH1	R	
□51143	130.00	170.00	15.00	HMS4	R	▲53790	5.375	6.876	1.000	†CRWHA2	R	
□51151	130.00	165.00	13.00	CRSH1	R	P.F. WIDTH .375						
□51179	130.00	155.00	10.00	CRSH1	R	54000	5.400	6.990	1.310	HDDF1	R	
□51180	130.00	170.00	12.00	†CRW1	R	O.D. LISTED IS SEAL I.D.						
□51181	130.00	150.00	14.00	CRSA1	R	54001	5.400			HDDFBV1	R	
□51182	130.00	150.00	10.00	CRSA1	R	BELLEVILLE WASHERS (2 EA/KIT)						
□51185	130.00	170.00	12.00	HMS4	V	54300	5.438	6.625	.500	†HDW1	R	
□51189	130.00	160.00	13.00	CRS1	R	□54330	138.00	152.00	12.00	CRSA1	R	
□51190	130.00	160.00	13.00	CRSA1	R	54925	5.500	6.250	.500	†CRWA1	R	
□★51193	130.00	160.00	15.00	HMSA7	R							

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Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
▲ 54929	5.500	6.310	1.188	†CRWHA9	R	57502	5.750	6.375	.250	HMA1	R
	P.F. WIDTH .500					▲ 57505	5.750	6.625	.500	†CRWH1	R
54930	4.824	6.310	.875	†KIT	R	57506	5.750	6.625	.500	†CRW1	V
	SEE KIT SECTION					57509	5.750	6.751	.500	CRWHA1	R
▲ 54931	5.500	6.500	.500	†CRWH1	R	▲ 57510	5.750	6.750	.500	†CRWH1	R
54934	5.500	6.500	.500	†CRWH1	V	57519	5.750	6.876	.563	CRSHA1	R
54935	4.824	6.500	.875	†KIT	R	▲ 57521	5.750	7.000	.500	†CRWH1	R
	SEE KIT SECTION					57522	5.750	6.750	.500	†CRWH1	V
54936	5.500	6.500	.500	†CRWH1	P	57523	5.750	7.000	.500	†CRWH1	V
54940	5.500	6.499	1.063	†CRWHA2	R	57531	5.750	7.000	.500	†CRWHA1	R
54949	5.500	6.626	.563	CRSHA1	R	□ 57533	145.00	190.00	16.00	HMSA7	R
54959	5.500	6.750	.500	†CRW1	R	57571	5.750	7.003	.250	HMA21	R
54960	5.500	6.750	.500	†CRWA1	R	57578	5.750	7.126	.563	CRSHA1	R
54971	5.500	6.750	.500	†CRWHA1	R	▲ 57584	5.750	7.502	.563	CRSHA1	R
▲ 54972	5.500	6.750	.500	†CRWH1	R	□ 57599	148.00	170.00	15.00	HMS4	R
54974	5.500	6.750	.500	†CRWH1	V	58709	5.875	6.875	.500	†HDW1	R
□ 55113	140.00	170.00	12.00	HMSA7	R		W/STAINLESS STEEL SPRING				
▲ □ 55115	140.00	160.00	12.00	†CRW1	R	58710	5.875	7.000	.500	†HDW1	R
▲ □ 55116	140.00	160.00	13.00	HMS4	R	▲ 58716	5.875	7.125	.500	†CRWH1	R
▲ □ 55118	140.00	170.00	12.00	†CRW1	R	▲ 58717	5.875	7.125	.500	†CRWH1	V
▲ □ 55119	140.00	170.00	13.00	HMS4	R	58741	5.875	7.125	.500	†CRWHA1	R
□ 55120	140.00	170.00	15.00	HMS4	R	▲ 58760	5.875	7.500	.500	†CRWH1	R
□ 55121	140.00	170.00	15.00	HMSA7	R	58775	5.875	7.641	1.510	HDDF1	R
55122	5.512	6.693	.591	SCOTPLS	R		O.D. LISTED IS SEAL I.D.				
	SCOTSEAL PLUS					58776	5.875			HDDFBV1	R
□ 55125	140.00	170.00	12.00	CRW1	V		BELLEVILLE WASHERS (2 EA/KIT)				
▲ □ 55127	140.00	180.00	12.00	HMS4	R	▲ □ 59005	150.00	180.00	12.00	HMS4	R
□ 55134	140.00	165.00	12.00	HMS45	R	□ 59010	150.00	180.00	15.00	HMS4	R
55152	5.500	6.780	.380	X	R	□ 59053	150.00	180.00	14.00	HMSA7	R
	O.D. LISTED IS PRESSFIT I.D.					□ 59057	150.00	180.00	13.00	HMSA7	R
55157	5.500	6.876	.563	CRSHA1	R	□ 59059	150.00	180.00	14.00	HMS4	R
□ 55160	140.00	180.00	15.00	CRSA13	R	□ 59061	150.00	180.00	15.00	HMS4	V
55165	4.824	6.998	.875	†KIT	R	□ 59062	150.00	170.00	15.00	CRSH1	R
	SEE KIT SECTION					□ 59063	150.00	180.00	13.00	HMS4	R
▲ 55170	5.500	6.998	1.188	†CRWHA2	R	□ 59065	150.00	180.00	13.00	CRSH1	R
	SEE KIT SECTION					□ 59071	150.00	190.00	15.00	CRSH13	R
55172	5.500	7.126	1.187	OILBATH	R	□ *59076	150.00	180.00	15.00	HMSA7	R
	OILBATH					□ 59077	150.00	200.00	15.00	CRSH1	R
▲ 55175	5.500	7.250	.625	†CRWHA22	R	59300	5.938	7.000	.500	†HDW1	R
	P.F. WIDTH .536 & 7.625 FLANGE					▲ 59380	5.938	6.801	1.125	J2	R
55177	5.500	7.250	1.187	OILBATH	R		SEE TYPE J SECTION (HMSA LIP)				
55179	5.500	7.501	.563	CRSH1	R	59997	6.000	6.750	.437	†SL1	T
▲ 56101	5.625	6.625	.500	†CRWH1	R		HELIX-CCW & INSTALLATION SLV				
56102	5.625	6.625	.500	†CRWH1	V	59999	6.000	6.750	.500	†CRWA1	V
56103	5.500	6.625	.875	KIT	P	▲ 60000	6.000	6.750	.500	†CRW1	V
	SEE KIT SECTION					*60004	6.000	7.126	.563	CRSHA1	R
56112	5.625	6.750	.750	D5	VV	▲ 60006	6.000	7.002	.500	†CRSHA1	R
▲ 56136	5.625	6.875	.500	†CRWH1	R	60009	6.000	7.250	.500	†HDW1	R
56137	5.625	6.875	.500	†CRWH1	V	▲ 60012	6.000	7.126	.500	†CRWHA1	R
▲ 56160	5.625	7.125	.500	†CRWHA1	R	60013	6.000	7.126	.500	†CRWHA1	V
56170	5.625	7.250	1.366	HDDF1	R	60016	6.000	7.500	.500	†CRWA1	R
	O.D. LISTED IS SEAL I.D.					60026	6.000	7.500	.500	†CRWHA1	V
56171	5.625			HDDFBV1	R	60028	6.000	7.500	.500	†CRWHA1	R
	BELLEVILLE WASHERS (2 EA/KIT)					60037	6.000	7.500	.535	HS8	R
□ 56315	143.00	181.00	12.70	†CRWHA1	R	▲ 60075	6.000	7.500	.250	HM4	R
□ 56340	144.00	160.00	12.00	HMSA7	R	60620	6.062	6.772	.551	CRSA1	R
□ 57080	145.00	164.00	14.00	CRSA1	R	▲ □ 60622	154.00	175.00	13.00	CRSA1	R
□ 57088	145.00	170.00	12.00	HMSA7	R	60650	6.063	7.500	.500	†HDW1	R
□ 57089	145.00	165.00	13.00	CRSH12	R	□ 60920	155.00	190.00	15.00	HMS4	R
□ 57094	145.00	170.00	13.00	CRSA11	R	□ 61024	155.00	200.00	15.00	CRSH11	R
▲ □ 57110	145.00	170.00	15.00	HMS4	R	□ 61031	155.00	180.00	15.00	HMSA7	R
▲ □ 57118	145.00	175.00	15.00	HMS4	R	▲ 61210	6.125	7.125	.625	CRWH1	R
□ 57120	145.00	175.00	14.00	CRS1	R	▲ 61212	6.125	7.125	.550	†CRWA	V
□ 57123	145.00	175.00	14.00	HMSA7	R		P.F. WIDTH .500 & SS SPRING				
▲ □ 57125	145.00	180.00	12.00	HMS4	R	61215	6.125	7.125	.500	†HDW1	R

Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
61230	6.125	7.250	.500	+HDW1	R	▲67533	6.750	8.250	.500	CRWH1	R
61235	6.125	7.375	.500	+HDW1	R	67540	6.750	8.419	1.563	+CRWH19	R
61248	6.125	7.502	.563	CRSHA1	R					W/SLINGER	
▲61255	6.125	7.625	.625	CRWH1	R	67560	6.750	8.620	1.375	HDDF1	R
61256	6.125	7.625	.625	CRWH1	P					O.D. LISTED IS SEAL I.D.	
61500	6.151	7.865	.210	SPLIT	R	67561	6.750			HDDFBV1	R
61840	6.188	7.500	.563	CRSH1	P					BELLEVILLE WASHERS (2 EA/KIT)	
62000	6.204	7.330	.500	+ALH1	S	67600	6.750	8.750	.500	+HDW1	R
□62200	158.00	180.00	15.00	CRSH13	R	68730	6.875	8.250	.500	+HDW1	R
▲62480	6.250	7.250	.500	+HDW1	R	▲68745	6.875	8.375	.500	CRWH1	R
▲62482	6.250	7.252	.500	CRWH1	R	68760	6.875	8.500	.500	+HDW1	R
▲62495	6.250	7.500	.500	CRWH1	R	▲□68800	175.00	200.00	15.00	HMS4	R
62497	6.250	7.500	.500	CRWH1	V	□68803	175.00	200.00	15.00	HMSA7	R
62530	6.250	7.750	.350	X	R	□68905	175.00	205.00	15.00	HMS4	R
						70008	7.000	8.000	.500	HS8	D
						▲70016	7.000	8.000	.630	+CRWH1	R
▲62535	6.250	7.750	.500	+CRWH1	R	▲70028	7.000	8.250	.625	CRWH1	R
62572	6.250	7.875	.625	+CRWH1	R	70034	7.000	8.375	.625	CRSHA1	R
▲□62930	160.00	185.00	10.00	HMS4	R	70037	7.000	8.375	1.000	KIT	P
□62935	160.00	185.00	13.00	CRSA1	V					SEE KIT SECTION	
						▲70052	7.000	8.500	.625	+CRWH1	R
						70053	7.000	8.500	.625	+CRWHA1	R
						70054	7.000	8.500	.625	+CRWHA1	V
□62939	160.00	190.00	15.00	HMSA7	R	70055	7.000	8.500	.625	HDS1	V
▲□62940	160.00	190.00	15.00	HMS4	R	70080	7.000	8.500	.500	+CRWA1	R
□62941	160.00	190.00	15.00	+CRW1	V	□70082	178.00	215.00	16.00	CRSH11	R
□62945	160.00	190.00	15.00	HMSA7	V	□70801	180.00	200.00	12.00	CRS1	R
□62989	160.00	180.00	15.00	CRSH13	R	□70803	180.00	210.00	15.00	HMS1	V
□62995	160.00	185.00	14.00	HMS47	R					W/STAINLESS STEEL SPRING	
□62998	160.00	190.00	13.00	CRS11	R	▲□70805	180.00	210.00	15.00	HMS4	R
□63005	160.00	200.00	15.00	HMSA7	R	□70809	180.00	210.00	15.00	HMSA7	R
▲63700	6.375	7.375	.625	+CRWH1	R	□70813	180.00	200.00	15.00	HMS4	R
63717	6.375	7.500	.500	+HDW1	R	□70869	180.00	215.00	16.00	CRS1	R
63733	6.375	7.875	.625	CRWH1	R	□70876	180.00	215.00	15.00	CRSHA13	R
▲63734	6.375	7.875	.563	+CRWHA1	R	□70879	180.00	215.00	15.00	HMSA7	R
□63781	162.00	190.00	12.00	HMS46	R	71220	7.125	8.250	.500	+HDW1	R
63796	6.375	8.120	1.265	HDDF1	R	▲71245	7.125	8.625	.625	CRWH1	R
						72510	7.250	8.750	.625	HDS2	V
						▲72515	7.250	8.250	.625	CRW1	R
						▲72539	7.250	8.750	.625	+CRWHA1	R
						72542	7.250	8.750	.750	CRWH1	P
						72543	7.250	8.750	.625	HDS1	V
						▲72570	7.250	9.055	.625	+CRWHA1	R
						72594	7.250	8.750	.875	HDSA2	VD
						72805	7.283	8.850	.625	HDS2	R
						□72813	185.00	210.00	13.00	HMS4	R
						□72832	185.00	215.00	16.00	CRSHA11	R
						73720	7.375	8.375	.500	+HDW1	R
						73730	7.375	8.500	.500	+HDW1	R
						▲73745	7.375	8.875	.625	CRWH1	R
						74310	7.438	9.400	1.656	HDDF1	R
										O.D. LISTED IS SEAL I.D.	
						74311	7.438			HDDFBV1	R
										BELLEVILLE WASHERS (2 EA/KIT)	
						▲74540	7.453	8.500	.750	+ALH1	S
						□74800	188.00	215.00	16.00	+CRWH1	R
						□74801	190.00	215.00	15.00	CRS13	R
						□74803	190.00	220.00	12.00	HMSA7	R
						▲□74805	190.00	220.00	15.00	HMS4	R
						□74807	190.00	220.00	15.00	HMS4	V
						□74808	190.00	220.00	15.00	HMSA7	V
										W/STAINLESS STEEL SPRING	
						□★74812	190.00	225.00	16.00	HMS47	R
						□74813	190.00	220.00	15.00	HMSA7	R

★Contact manufacturer for availability  
**Bold numbers** are preferred designs

□ Metric numbers

† Includes Bore-Tite on O.D.  
 ▲ WasteWatcher numbers

## Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
<b>74814</b>	7.480	8.858	.630	HMSA7	V	80091	8.000	10.000	1.000	HDS1	V
	W/STAINLESS STEEL SPRING					80092	8.000	10.125	1.250	HDSB1	RD
□74815	190.00	215.00	16.00	CRSH1	R	80097	8.000	11.625	1.079	CRSHA2	R
□74820	190.00	225.00	16.00	HMS4	R	80184	4.688			S1	
□74824	190.00	225.00	16.00	HMSA7	R	SEE SLEEVE & WIPER SECTION					
▲75030	7.500	8.500	.625	CRWH1	R	▲81245	8.125	10.125	.625	CRWH1	R
75038	7.500	8.500	.625	HS8	R	81246	8.125	10.125	.625	CRWHA1	R
	W/HOOK & EYE SPRING CONNECTOR					81252	8.125	10.125	.750	HDS1	V
75046	7.500	8.750	.500	†HDW1	R	81253	8.125	10.125	1.000	HDS1	R
75048	7.500	8.750	.625	HDS1	V	81351	11.000		1.000	LDSL3	
▲75050	7.500	9.000	.625	†CRWH1	R	FOR SEAL SH SIZE 11.188 (284.18MM)					
75052	7.500	9.000	.625	†CRWHA1	P	81352	14.000		1.500	LDSL3	
75053	7.500	9.000	.625	HDS1	V	FOR SEAL SH SIZE 14.188 (360.38MM)					
75054	7.500	9.000	.750	HDS2	V	81354	16.000		2.000	LDSL3	
75067	7.500	9.250	.625	HDS1	V	FOR SEAL SH SIZE 16.188 (411.18MM)					
75069	7.500	9.250	.500	†HDW1	R	81389	10.813		1.000	LDSL3	
75090	7.500		1.918	J1-KIT	R	FOR SEAL SH SIZE 11.000 (279.40MM)					
	SEE TYPE J SECTION (CRW LIP)					81390	13.813		1.500	LDSL3	
▲76215	7.625	8.625	.563	CRWH1	R	FOR SEAL SH SIZE 14.000 (355.60MM)					
76225	7.625	8.875	.500	†HDW1	R	81391	14.813		2.125	LDSL3	
▲76255	7.625	9.125	.625	CRWH1	R	FOR SEAL SH SIZE 15.000 (381.00MM)					
□76770	195.00	220.00	16.00	CRSH13	R	81587	28.313		2.000	LDSL3	
□76790	195.00	230.00	15.00	CRSH1	R	FOR SEAL SH SIZE 28.500 (723.90MM)					
77506	7.750	8.750	.500	†HDW1	R	81753	38.500		1.500	LDSL4	
77531	7.750	9.000	.625	HDS1	R	FOR SEAL SH SIZE 38.688 (982.68MM)					
77539	7.750	9.250	.625	HDS1	V	81774	4.766			S6	
▲77540	7.750	9.250	.625	CRWH1	R	SEE SLEEVE & WIPER SECTION					
77996	8.000	9.250	.625	HDS1	V	81826	39.813		2.125	LDSL4	
						FOR SEAL SH SIZE 40.000 (1016.00MM)					
78020	7.800	10.000	1.750	HDDF1	R	82099	12.750		1.125	LDSL3	
						FOR SEAL SH SIZE 12.938 (328.63MM)					
78021	7.800			HDDFBV1	R	▲82510	8.250	9.250	.625	CRWH1	R
□78703	200.00	230.00	15.00	HMSA7	V	▲82512	8.250	9.252	.500	†CRWH1	R
	W/STAINLESS STEEL SPRING					▲82521	8.250	9.500	.578	CRW1	R
▲□78705	200.00	230.00	15.00	HMS4	R	82524	8.250	9.500	.625	HDS2	R
□78706	200.00	230.00	15.00	HMSA7	R	82526	8.250	9.500	.625	HDS2	V
□78708	200.00	238.00	19.00	HDS1	V	82540	8.250	10.062	1.560	HDDF1	R
78710	7.875	8.875	.500	†HDW1	R						
▲78725	7.875	9.250	1.000	CRWHA1	R	82541	8.250			HDDFBV1	R
▲78738	7.875	9.375	.625	CRWH1	R	82555	8.250	10.250	.813	HDS2	V
□78742	200.00	230.00	13.00	HMSA7P2	R	82559	8.250	10.250	.625	HDS2	V
□78745	200.00	230.00	16.00	CRS13	R	▲82560	8.250	10.250	.625	CRWH1	R
□78751	200.00	250.00	15.00	CRSH1	R	82561	8.250	10.250	.750	HDS3	D
□78757	205.00	230.00	15.00	CRS11	R	W/4 EA .500 ADJ. LUGS					
78760	7.874	9.252	.591	HMSA7	R	82562	8.250	10.250	.750	HDS1	R
	W/STAINLESS STEEL SPRING					82563	8.250	10.250	.750	HDS1	V
78790	7.875	10.234	.625	HDS2	R	82570	8.250	11.500	.750	HDS1	R
79302	7.938	8.750	.344	HM14	R	□82607	210.00	250.00	15.00	HMS4	R
79620	7.938	9.125	.500	†HDW1	R	▲□82610	210.00	240.00	15.00	HMS4	R
□★79825	203.00	254.00	15.88	†CRWH1	R	□82615	210.00	250.00	20.00	HDS1	V
□79826	203.00	254.00	15.88	CRWHA1	R	83701	8.375	9.750	.750	HDS2	V
▲79960	8.000	9.000	.625	CRWH1	R	83702	8.375	9.750	.625	HDS3	D
79961	8.000	9.000	.625	CRWHA1	R	W/4 EA .500 ADJ. LUGS					
▲79997	8.000	9.250	.625	CRWH1	R	83705	8.375	9.875	.625	HDS3	D
79998	8.000	9.250	.625	†CRWHA1	R	W/4 EA .500 ADJ. LUGS					
80009	8.000	9.500	.687	HDS2	V	83760	12.313		.750	LDSL4	
▲80010	8.000	9.500	.625	†CRWH1	R	FOR SEAL SH SIZE 12.500 (317.50MM)					
80030	8.000	9.750	.750	HDS1	V	83978	38.500		1.250	LDSL4	
★80037	8.000	10.000	.625	†CRWH1	R	FOR SEAL SH SIZE 38.688 (982.68MM)					
80038	8.000	10.000	.625	CRWHA1	R	84041	4.646	4.705	.625	S1	
80086	8.000	10.000	.625	HDS3	D	SEE SLEEVE & WIPER SECTION					
	W/4 EA .500 ADJ. LUGS					84094	11.313		1.500	LDSL4	
80087	8.000	10.000	.750	HDS1	R	FOR SEAL SH SIZE 11.500 (292.10MM)					
	W/3 EA .125 LUGS					84156	9.813		2.000	LDSL3	
80088	8.000	10.000	1.000	HDS1	R	FOR SEAL SH SIZE 10.000 (254.00MM)					



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Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
84263	12.813		1.375	LDSL4		85018	8.500	10.500	.625	HDS1	V
	FOR SEAL SH SIZE 13.000		(330.20MM)			85019	8.500	10.000	.625	HDS1	V
84369	8.438	10.000	.625	HDS1	R	85033	10.813		2.000	LDSL4	
84385	8.438	10.000	.625	HDS1	V		FOR SEAL SH SIZE 11.000		(279.40MM)		
84390	12.813		2.000	LDSL3		85038	42.063		2.125	LDSL4	
	FOR SEAL SH SIZE 13.000		(330.20MM)				FOR SEAL SH SIZE 42.250		(1073.15MM)		
84472	27.500		2.000	LDSL3		85039	30.813		2.000	LDSL4	
	FOR SEAL SH SIZE 27.688		(703.28MM)				FOR SEAL SH SIZE 31.000		(787.40MM)		
84510	10.875		2.000	LDSL4		85045	9.750		2.250	LDSL4	
	FOR SEAL SH SIZE 11.063		(281.00MM)				FOR SEAL SH SIZE 9.938		(252.43MM)		
84576	17.250		2.000	LDSL4		85046	11.813		2.250	LDSL4	
	FOR SEAL SH SIZE 17.438		(442.93MM)				FOR SEAL SH SIZE 12.000		(304.80MM)		
84579	20.990		2.250	LDSL3		85072	10.500		1.000	LDSL4	
	FOR SEAL SH SIZE 21.178		(537.92MM)				FOR SEAL SH SIZE 10.688		(271.48MM)		
84590	21.813		2.250	LDSL4		85073	9.563		1.000	LDSL4	
	FOR SEAL SH SIZE 22.000		(558.80MM)				FOR SEAL SH SIZE 9.750		(247.65MM)		
84616	16.813		2.250	LDSL4		85074	13.813		1.000	LDSL4	
	FOR SEAL SH SIZE 17.000		(431.80MM)				FOR SEAL SH SIZE 14.000		(355.60MM)		
84641	28.813		2.250	LDSL4		▲85085	8.500	10.625	.625	CRWHA1	R
	FOR SEAL SH SIZE 29.000		(736.60MM)			85104	18.813		1.500	LDSL3	
84642	29.813		2.250	LDSL4			FOR SEAL SH SIZE 19.000		(482.60MM)		
	FOR SEAL SH SIZE 30.000		(762.00MM)			85106	7.813		2.250	LDSL4	
84643	9.250		.875	LDSL4			FOR SEAL SH SIZE 8.000		(203.20MM)		
	FOR SEAL SH SIZE 9.438		(239.73MM)			□85115	216.00	254.00	15.88	†CRWH1	R
□84650	215.00	240.00	12.00	HMS47	R	85122	27.433		1.500	LDSL4	
□84651	215.00	250.00	16.00	HMS47	R		FOR SEAL SH SIZE 27.625		(701.68MM)		
84661	14.313		2.000	LDSL3		85123	38.813		2.125	LDSL4	
	FOR SEAL SH SIZE 14.500		(368.30MM)				FOR SEAL SH SIZE 39.000		(990.60MM)		
84697	16.313		2.000	LDSL4		85158	8.500		1.000	LDSL3	
	FOR SEAL SH SIZE 16.500		(419.10MM)				FOR SEAL SH SIZE 8.688		(220.68MM)		
84711	27.500		2.250	LDSL4		85179	13.813		2.000	LDSL4	
	FOR SEAL SH SIZE 27.688		(703.28MM)				FOR SEAL SH SIZE 14.000		(355.60MM)		
84730	33.313		2.625	LDSL4		85181	15.813		2.000	LDSL4	
	FOR SEAL SH SIZE 33.500		(850.90MM)				FOR SEAL SH SIZE 16.000		(406.40MM)		
84764	27.063		2.250	LDSL4		85191	10.313		2.250	LDSL3	
	FOR SEAL SH SIZE 27.250		(692.15MM)				FOR SEAL SH SIZE 10.500				
84781	19.813		1.250	LDSL4		85212	11.188		2.250	LDSL4	
	FOR SEAL SH SIZE 20.000		(508.00MM)				FOR SEAL SH SIZE 11.375		(288.93MM)		
84819	11.813		2.250	LDSL3		85367	20.813		2.125	LDSL4	
	FOR SEAL SH SIZE 12.000		(304.80MM)				FOR SEAL SH SIZE 21.000		(533.40MM)		
84843	9.313		2.250	LDSL3		85377	9.313		1.500	LDSL3	
	FOR SEAL SH SIZE 9.500						FOR SEAL SH SIZE 9.500		(241.30MM)		
84962	10.188		1.125	LDSL4		85384	26.813		1.250	LDSL4	
	FOR SEAL SH SIZE 10.375		(263.53MM)				FOR SEAL SH SIZE 27.000		(685.80MM)		
84963	13.063		1.125	LDSL4		85397	9.563		2.000	LDSL4	
	FOR SEAL SH SIZE 13.250		(336.50MM)				FOR SEAL SH SIZE 9.750		(247.65MM)		
84964	15.250		.750	LDSL3		85418	12.063		.625	LDSL4	
	FOR SEAL SH SIZE 15.438		(392.13MM)				FOR SEAL SH SIZE 12.250		(311.15MM)		
84965	9.750		1.438	LDSL4		85469	11.054		1.750	LDSL4	
	FOR SEAL SH SIZE 9.938		(252.43MM)				FOR SEAL SH SIZE 11.250		(285.75MM)		
▲85002	8.500	9.750	.625	†CRWH1	R	85491	10.557		2.250	LDSL4	
85007	8.500	10.000	.625	HDS3	D		FOR SEAL SH SIZE 10.745		(272.92MM)		
	W/4 EA .500 ADJ. LUGS					85531	26.813		2.250	LDSL4	
85008	8.500	10.000	.688	HDS1	R		FOR SEAL SH SIZE 27.000		(685.80MM)		
	W/6 EA .063 LUGS					85535	13.000		1.750	LDSL4	
▲85009	8.500	10.000	.625	CRWH1	R		FOR SEAL SH SIZE 13.188		(334.98MM)		
85011	27.313		2.250	LDSL4		85577	12.000		2.250	LDSL4	
	FOR SEAL SH SIZE 27.500		(698.50MM)				FOR SEAL SH SIZE 12.188		(309.58MM)		
85012	8.500	10.000	.750	HDS2	V	85582	15.560		.906	LDSL4	
85013	8.500	10.500	.625	HDS3	D		FOR SEAL SH SIZE 15.750		(400.00MM)		
	W/4 EA .500 ADJ. LUGS					85629	10.313		2.000	LDSL4	
★85014	8.500	10.500	.625	CRWA1	R		FOR SEAL SH SIZE 10.500		(266.70MM)		
▲85015	8.500	10.500	.625	CRWH1	R	85636	10.313		1.500	LDSL4	
85017	8.500	10.500	.688	HDS2	R		FOR SEAL SH SIZE 10.500		(266.70MM)		
	W/4 EA .125 LUGS										

★Contact manufacturer for availability  
**Bold numbers** are preferred designs

□ Metric numbers

† Includes Bore-Tite on O.D.  
 ▲ WasteWatcher numbers



## Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
85643	8.625		2.750	LDSL3		86145	11.375		2.250	LDSL4	
	FOR SEAL SH SIZE	8.813		(223.85MM)			FOR SEAL SH SIZE	11.563		(293.70MM)	
85654	19.563		2.750	LDSL4		86150	11.500		.750	LDSL4	
	FOR SEAL SH SIZE	19.750		(501.60MM)			FOR SEAL SH SIZE	11.688		(296.88MM)	
85688	8.813		1.000	LDSL3		86153	14.000		2.000	LDSL4	
	FOR SEAL SH SIZE	9.000		(228.60MM)			FOR SEAL SH SIZE	14.188		(360.38MM)	
85691	22.250		1.000	LDSL3		86167	8.500		2.125	LDSL3	
	FOR SEAL SH SIZE	22.438		(569.93MM)			FOR SEAL SH SIZE	8.688		(220.68MM)	
85762	17.449		2.000	LDSL4		86168	11.000		2.125	LDSL3	
	FOR SEAL SH SIZE	17.637		(447.98MM)			FOR SEAL SH SIZE	11.188		(284.18MM)	
85800	20.813		1.250	LDSL3		86169	12.500		2.125	LDSL3	
	FOR SEAL SH SIZE	21.000		(533.40MM)			FOR SEAL SH SIZE	12.688		(322.28MM)	
85814	35.313		2.500	LDSL4		86175	16.063		1.250	LDSL4	
	FOR SEAL SH SIZE	35.500		(901.70MM)			FOR SEAL SH SIZE	16.250		(411.18MM)	
85839	10.500		1.500	LDSL4		86225	8.625	10.125	.625	HDS3	D
	FOR SEAL SH SIZE	10.688		(271.48MM)			W/4 EA .500 ADJ. LUGS				
85844	11.813		2.750	LDSL4		86230	8.625	10.250	.625	HDS3	D
	FOR SEAL SH SIZE	12.000		(304.80MM)			W/4 EA .500 ADJ. LUGS				
85846	9.000		1.750	LDSL4		86235	8.625	10.500	.750	HDS1	V
	FOR SEAL SH SIZE	9.188		(233.38MM)		86240	8.625	10.625	.750	HDS1	V
85852	13.313		2.000	LDSL3		86258	12.813		1.000	LDSL4	
	FOR SEAL SH SIZE	13.500		(342.90MM)			FOR SEAL SH SIZE	13.000		(330.20MM)	
85874	11.813		2.000	LDSL4		▲ 86260	8.625	10.625	.625	CRWH1	R
	FOR SEAL SH SIZE	12.000		(304.80MM)		86269	11.187		1.250	LDSL4	
85881	9.055		1.575	LDSL4			FOR SEAL SH SIZE	11.375		(288.93MM)	
	FOR SEAL SH SIZE	9.243		(234.77MM)		86319	13.313		.813	LDSL4	
85885	8.313		1.250	LDSL4			FOR SEAL SH SIZE	13.500			
	FOR SEAL SH SIZE	8.500		(215.90MM)		86343	18.163		2.000	LDSL4	
85900	16.000		2.000	LDSL4			FOR SEAL SH SIZE	18.350		(466.09MM)	
	FOR SEAL SH SIZE	16.188		(411.18MM)		86357	14.000		1.500	LDSL4	
85907	22.313		1.250	LDSL4			FOR SEAL SH SIZE	14.000		(355.60MM)	
	FOR SEAL SH SIZE	22.500		(571.50MM)		86378	11.000		2.500	LDSL3	
85908	15.998		2.250	LDSL3			FOR SEAL SH SIZE	11.188		(284.18MM)	
	FOR SEAL SH SIZE	16.188		(411.18MM)		86403	14.438		2.500	LDSL3	
85914	14.500		1.000	LDSL4			FOR SEAL SH SIZE	14.625		(371.48MM)	
	FOR SEAL SH SIZE	14.688		(373.08MM)		86404	12.063		2.500	LDSL3	
85920	8.813		2.250	LDSL3			FOR SEAL SH SIZE	12.250		(311.15MM)	
	FOR SEAL SH SIZE	9.000		(228.60MM)		86405	17.813		2.500	LDSL3	
85931	9.063		1.500	LDSL4			FOR SEAL SH SIZE	18.000		(457.20MM)	
	FOR SEAL SH SIZE	9.250		(234.95MM)		86407	15.813		2.500	LDSL4	
85973	8.875		1.250	LDSL3			FOR SEAL SH SIZE	16.000			
	FOR SEAL SH SIZE	9.063		(230.20MM)		86413	9.813		1.125	LDSL4	
85979	11.813		1.500	LDSL4			FOR SEAL SH SIZE	10.000		(254.00MM)	
	FOR SEAL SH SIZE	12.000		(304.80MM)		86426	16.063		1.300	LDSL4	
85987	9.813		.625	LDSL4			FOR SEAL SH SIZE	16.250			
	FOR SEAL SH SIZE	10.000		(254.00MM)		86429	14.313		1.500	LDSL4	
85995	8.313		2.000	LDSL4			FOR SEAL SH SIZE	14.500		(368.30MM)	
	FOR SEAL SH SIZE	8.500		(215.90MM)		86430	17.313		1.500	LDSL4	
85999	8.813		2.250	LDSL4			FOR SEAL SH SIZE	17.500		(444.50MM)	
	FOR SEAL SH SIZE	9.000		(228.60MM)		86435	10.750		2.500	LDSL4	
86000	10.063		2.250	LDSL4			FOR SEAL SH SIZE	10.938		(277.83MM)	
	FOR SEAL SH SIZE	10.250		(260.35MM)		86441	11.417		1.750	LDSL4	
86013	10.500		2.750	LDSL4			FOR SEAL SH SIZE	11.605		(294.77MM)	
	FOR SEAL SH SIZE	10.688				86454	11.000		2.500	LDSL4	
86029	34.813		1.313	LDSL4			FOR SEAL SH SIZE	11.188		(284.18MM)	
	FOR SEAL SH SIZE	35.000		(899.00MM)		86458	36.813		2.500	LDSL4	
86062	3.000		.625	S1			FOR SEAL SH SIZE	37.000		(939.80MM)	
86071	4.250		.750	S1		86468	10.562		1.750	LDSL4	
86076	5.250		.750	S1			FOR SEAL SH SIZE	10.750		(273.05MM)	
86090	32.313		2.000	LDSL4		86469	10.813		1.750	LDSL4	
	FOR SEAL SH SIZE	32.500		(825.50MM)			FOR SEAL SH SIZE	11.001		(279.43MM)	
86091	25.313		2.000	LDSL4		86473	14.000		2.500	LDSL4	
	FOR SEAL SH SIZE	25.500		(647.70MM)			FOR SEAL SH SIZE	14.188		(360.38MM)	
86111	36.375		2.500	LDSL4		86486	11.000		1.500	LDSL4	
	FOR SEAL SH SIZE	36.555		(928.50MM)			FOR SEAL SH SIZE	11.188		(284.18MM)	

Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	
86533	11.000		1.375	LDSL4		86754	9.312		.750	LDSL4		
	FOR SEAL SH SIZE 11.188			(284.18MM)			FOR SEAL SH SIZE 9.500			(241.30MM)		
86543	8.687		2.250	LDSL3		86798	10.441		2.165	LDSL4		
	FOR SEAL SH SIZE 8.875			(225.43MM)			FOR SEAL SH SIZE 10.629			(269.98MM)		
86544	10.562		1.813	LDSL4		86799	17.543		2.362	LDSL4		
	FOR SEAL SHAFT SIZE 10.750						FOR SEAL SH SIZE 17.731			(450.37MM)		
86545	37.813		2.250	LDSL4		86805	20.813		2.000	LDSL4		
	FOR SEAL SHAFT SIZE 38.000						FOR SEAL SH SIZE 21.000			(533.40MM)		
86546	8.938		2.500	LDSL4		86840	38.000		1.500	LDSL4		
	FOR SEAL SH SIZE 9.126			(231.80MM)			FOR SEAL SH SIZE 38.188			(969.98MM)		
86547	9.125		1.000	LDSL4		86841	27.000		2.000	LDSL4		
	FOR SEAL SH SIZE 9.313			(236.55MM)			FOR SEAL SH SIZE 27.188			(690.58MM)		
86551	8.812		2.000	LDSL4		86850	8.688	10.911	1.924	HDDF1	R	
	FOR SEAL SH SIZE 9.000			(228.60MM)								
86562	9.500		2.500	LDSL4		86851	8.688			HDDFBV1	R	
	FOR SEAL SH SIZE 9.688			(246.08MM)		86903	11.811		2.500	LDSL4		
86563	18.813		1.750	LDSL4			FOR SEAL SH SIZE 11.999			(284.46MM)		
	FOR SEAL SH SIZE 19.000			(482.60MM)		86907	8.353		1.500	LDSL4		
86564	9.500		1.250	LDSL4			FOR SEAL SH SIZE 8.541			(216.94MM)		
	FOR SEAL SH SIZE 9.688			(246.08MM)		86947	12.500		2.500	LDSL4		
86567	25.000		2.500	LDSL4			FOR SEAL SH SIZE 12.688			(322.28MM)		
	FOR SEAL SH SIZE 25.188			(639.78MM)		86970	12.812		1.750	LDSL4		
86575	16.063		2.000	LDSL4			FOR SEAL SH SIZE 13.000			(330.20MM)		
	FOR SEAL SH SIZE 16.250			(412.75MM)		86972	37.813		2.500	LDSL4		
86600	11.968		.709	LDSL4			FOR SEAL SH SIZE 38.000			(965.20MM)		
	FOR SEAL SH SIZE 12.156			(308.76MM)		86973	37.813		1.500	LDSL4		
86601	10.846		.709	LDSL4			FOR SEAL SH SIZE 38.000			(965.20MM)		
	FOR SEAL SH SIZE 11.034			(280.26MM)		86974	26.813		2.000	LDSL4		
□ 86603	220.00	250.00	16.00	HMS4	R		FOR SEAL SH SIZE 27.000			(685.80MM)		
□ 86606	220.00	250.00	16.00	HMSA7	R	87015	18.813		2.250	LDSL4		
86607	8.661	9.843	.630	HMSA7	V		FOR SEAL SH SIZE 19.000			(482.60MM)		
	W/STAINLESS STEEL SPRING						87054	42.125		2.125	LDSL4	
86610	8.661	10.228	.625	HDS2	R		FOR SEAL SH SIZE 42.313			(1074.75MM)		
□ *86611	220.00	250.00	15.00	HMS43	V	87067	9.813		2.000	LDSL4		
86612	8.661	9.911	.625	HS8	V		FOR SEAL SH SIZE 10.000			(254.00MM)		
□ 86614	220.00	250.00	15.00	HMS4	V	87069	21.803		2.362	LDSL4		
▲ □ 86615	220.00	250.00	15.00	HMS4	R		FOR SEAL SH SIZE 21.991			(558.57MM)		
□ 86616	220.00	250.00	15.00	HMSA7	R	87070	22.303		2.362	LDSL4		
□ 86617	220.00	250.00	16.00	CRWH1	R		FOR SEAL SH SIZE 22.491			(571.27MM)		
86631	17.750		2.500	LDSL3		87089	9.055		2.500	LDSL4		
	FOR SEAL SH SIZE 17.938			(455.63MM)			FOR SEAL SH SIZE 9.243			(234.77MM)		
86633	9.500		1.000	LDSL3		87090	21.000		2.250	LDSL4		
	FOR SEAL SH SIZE 9.688			(246.08MM)			FOR SEAL SH SIZE 21.188			(538.18MM)		
86640	26.000		2.250	LDSL3		87142	11.023		1.181	LDSL4		
	FOR SEAL SHAFT SIZE 26.188						FOR SEAL SH SIZE 11.212			(284.80MM)		
86641	30.000		2.500	LDSL3		87143	8.661		1.181	LDSL4		
	FOR SEAL SH SIZE 30.188			(766.78MM)			FOR SEAL SH SIZE 8.850			(224.79MM)		
86643	11.812		1.125	LDSL4		87144	9.449		1.181	LDSL4		
	FOR SEAL SH SIZE 12.000			(304.80MM)			FOR SEAL SH SIZE 9.637					
86687	11.812		1.125	LDSL4		87166	8.866		2.500	LDSL4		
	FOR SEAL SH SIZE 12.000			(304.80MM)			FOR SEAL SHAFT SIZE 9.054					
86688	13.313		.813	LDSL4		87196	8.750		1.500	LDSL3		
	FOR SEAL SH SIZE 13.500			(342.90MM)			FOR SEAL SH SIZE 8.938			(227.03MM)		
86716	18.813		2.500	LDSL4		87241	20.813		2.250	LDSL4		
	FOR SEAL SH SIZE 19.000			(482.60MM)			FOR SEAL SH SIZE 21.000			(533.40MM)		
86721	12.813		1.500	LDSL4		87246	12.750		.875	LDSL4		
	FOR SEAL SH SIZE 13.000			(330.20MM)			FOR SEAL SH SIZE 12.938			(328.63MM)		
86722	12.813		2.500	LDSL4		87247	15.000		1.000	LDSL4		
	FOR SEAL SH SIZE 13.000			(330.20MM)			FOR SEAL SH SIZE 15.188			(385.78MM)		
86737	16.812		1.000	LDSL4		87248	12.063		.875	LDSL4		
	FOR SEAL SH SIZE 17.000			(431.80MM)			FOR SEAL SH SIZE 12.250			(311.15MM)		
86738	16.812		2.500	LDSL4		87271	17.812		2.125	LDSL4		
	FOR SEAL SH SIZE 17.000			(431.80MM)			FOR SEAL SH SIZE 18.000			(457.20MM)		
86739	20.312		1.000	LDSL4		87280	9.440		2.500	LDSL3		
	FOR SEAL SH SIZE 20.500			(520.70MM)			FOR SEAL SH SIZE 9.628			(244.51MM)		

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## Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
87298	20.813		2.500	LDSL4		87577	8.000		1.500	LDSL4	
	FOR SEAL SH SIZE	21.000					FOR SEAL SH SIZE	8.188			
87319	8.661		1.000	LDSL4		87580	14.313		1.375	LDSL4	
	FOR SEAL SH SIZE	8.849		(224.77MM)			FOR SEAL SH SIZE	14.500			
87379	42.312		1.250	LDSL4		87585	16.750		1.500	LDSL4	
	FOR SEAL SH SIZE	42.500		(1079.50MM)			FOR SEAL SH SIZE	16.938			
87392	42.500		1.250	LDSL4		87605	30.320		1.375	LDSL4	
	FOR SEAL SH SIZE	42.688		(1084.28MM)			FOR SEAL SH SIZE	30.508			
87406	12.000		2.250	LDSL3		87613	16.063		.500	LDSL4	
	FOR SEAL SH SIZE	12.188		(309.58MM)			FOR SEAL SH SIZE	16.250			
87421	27.812		2.500	LDSL4		87623	28.312		2.313	LDSL3	
	FOR SEAL SH SIZE	28.000		(711.20MM)			FOR SEAL SH SIZE	28.500			
87434	12.598		.980	LDSL3		87631	19.496		2.362	LDSL4	
	FOR SEAL SH SIZE	12.786		(324.76MM)			FOR SEAL SH SIZE	19.684			
87435	9.448		.984	LDSL3		★87632	19.496		2.360	LDSL4	
	FOR SEAL SH SIZE	9.636		(244.75MM)			FOR SEAL SH SIZE	19.685			
<b>87440</b>	8.750	9.750	.500	HS8	V	87634	15.812		2.500	LDSL3	
87445	14.173		1.000	LDSL4			FOR SEAL SHAFT SIZE	16.000			
	FOR SEAL SH SIZE	14.361		(364.77MM)		87707	8.662		2.250	LDSL3	
87446	15.813		2.000	LDSL3			FOR SEAL SHAFT SIZE	8.850			
	FOR SEAL SH SIZE	16.000		(406.40MM)		87723	14.813		1.500	LDSL4	
87451	35.812		2.000	LDSL4			FOR SEAL SH SIZE	15.000			
	FOR SEAL SH SIZE	36.000		(914.40MM)		87738	10.236		1.968	LDSL3	
★87460	8.750	10.000	.625	†HMS1	R		FOR SEAL SH SIZE	10.424			
87461	15.560		2.500	LDSL4		87746	11.313		2.000	LDSL4	
	FOR SEAL SHAFT SIZE	400.00MM					FOR SEAL SH SIZE	11.501			
87462	8.867		1.000	LDSL4		87768	10.563		1.500	LDSL4	
	FOR SEAL SH SIZE	9.055					FOR SEAL SH SIZE	10.563			
87463	13.313		1.500	LDSL4		87777	23.434		.984	LDSL4	
	FOR SEAL SH SIZE	13.500					FOR SEAL SH SIZE	23.434			
87490	8.750	10.250	.625	HDS3	D	87783	20.866		.787	LDSL4	
	W/4 EA .500 ADJ. LUGS						FOR SEAL SH SIZE	535.00MM			
87491	8.750	10.250	.688	HDS1	R	87784	9.250		.625	LDSL4	
<b>87492</b>	8.750	10.250	.625	HDS2	V		FOR SEAL SH SIZE	9.438			
87493	8.750	10.250	.688	HDS1	V	87785	19.497		1.575	LDSL4	
87496	8.750	10.500	.750	HDS1	V		FOR SEAL SH SIZE	19.497			
87499	8.750	10.750	.750	HDS1	V	87789	9.260		1.102	LDSL4	
87500	14.173		1.732	LDSL4			FOR SEAL SHAFT SIZE	9.448			
	FOR SEAL SH SIZE	364.78MM				87802	25.312		2.500	LDSL4	
87503	19.497		1.181	LDSL4			FOR SEAL SHAFT SIZE	25.500			
	FOR SEAL SH SIZE	500.00MM				87807	9.312		1.250	LDSL4	
87504	17.922		1.968	LDSL4			FOR SEAL SHAFT SIZE	9.500			
	FOR SEAL SH SIZE	460.00MM				87813	15.813		2.500	LDSL3	
87513	12.750		.688	LDSL4			FOR SEAL SH SIZE	16.000			
	FOR SEAL SH SIZE	12.938				87817	25.403		2.500	LDSL3	
87524	8.866		2.500	LDSL4			FOR SEAL SH SIZE	650.00MM			
	FOR SEAL SH SIZE	9.055				87820	28.142		1.968	LDSL4	
87525	11.031		1.260	LDSL4			FOR SEAL SHAFT SIZE	720.00MM			
	FOR SEAL SH SIZE	11.219				87823	2.437	2.565	.550	S7	
87526	8.875		1.250	LDSL4			BORE SLEEVE				
	FOR SEAL SH SIZE	9.063				87831	8.472		1.378	LDSL3	
87529	34.312		1.750	LDSL4			FOR SEAL SH SIZE	220.00MM			
	FOR SEAL SH SIZE	34.500				87842	30.312		2.500	LDSL3	
87530	30.309		1.375	LDSL4			FOR SEAL SH SIZE	30.500			
	FOR SEAL SH SIZE	30.497				87850	32.812		2.220	LDSL4	
87531	14.378		.787	LDSL4			FOR SEAL SH SIZE	33.000			
	FOR SEAL SH SIZE	370.00MM				87861	23.434		.689	LDSL4	
▲87541	8.750	10.750	.625	CRWH1	R		FOR SEAL SH SIZE	23.622			
87555	9.000		1.000	LDSL3		87871	15.066		1.000	LDSL3	
	FOR SEAL SH SIZE	9.188					FOR SEAL SH SIZE	15.254			
87566	11.190		2.250	LDSL4		87872	11.750		2.375	LDSL3	
	FOR SEAL SH SIZE	11.378					FOR SEAL SH SIZE	11.938			
87569	15.188		2.500	LDSL4		87875	11.623		1.417	LDSL3	
	FOR SEAL SH SIZE	15.375					FOR SEAL SH SIZE	11.811			

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Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
87901	13.198		.709	LDSL4		90065	9.000	11.000	.625	HDS1	V
	FOR SEAL SH SIZE 340.00MM					90066	9.000	11.000	.750	HDS1	V
87907	23.687		1.950	LDSL4		<b>90067</b>	9.000	11.000	.750	HDS2	V
	FOR SEAL SH SIZE 23.875					90070	10.000		1.000	LDSL3	
87911	9.457		1.732	LDSL4			FOR SEAL SH SIZE 10.188				
	FOR SEAL SH SIZE 245.00MM					90075	21.859		2.500	LDSL4	
87914	8.661		1.574	LDSL3			FOR SEAL SH SIZE 560.00MM				
	FOR SEAL SH SIZE 225.00MM					90103	34.456		2.500	LDSL4	
87915	8.661	8.849	2.000	LDSL3			FOR SEAL SH SIZE 880.00MM				
	FOR SEAL SH SIZE 225.00MM					90113	13.386		1.969	LDSL3	
87916	17.134		2.500	LDSL4			FOR SEAL SH SIZE 345.00MM				
	FOR SEAL SH SIZE 440.00MM					90114	11.622		1.260	LDSL3	
87921	18.708		.787	LDSL4			FOR SEAL SHAFT SIZE 300.00MM				
	FOR SEAL SHAFT SIZE 480.00MM					90120	23.435		2.290	LDSL3	
87922	23.812		.750	LDSL4			FOR SEAL SH SIZE 600.00MM				
	FOR SEAL SH SIZE 24.000					90130	9.125		1.500	LDSL4	
87923	8.319		2.500	LDSL4			FOR SEAL SHAFT SIZE 9.313				
	FOR SEAL SH SIZE 8.507					90139	11.001		1.000	LDSL4	
87924	18.812		1.575	LDSL4			FOR SEAL SH SIZE 284.28MM				
	FOR SEAL SH SIZE 19.000					90143	12.750		1.500	LDSL3	
87960	23.812		2.500	LDSL4			FOR SEAL SH SIZE 328.63MM				
	FOR SEAL SHAFT SIZE 24.000					90146	23.000		2.000	LDSL4	
87981	29.732		2.500	LDSL3			FOR SEAL SH SIZE 23.188				
	FOR SEAL SHAFT SIZE 760.00MM					90149	19.813		.945	LDSL4	
88702	8.875	10.125	.750	HDS1	R		FOR SEAL SH SIZE 508.00MM				
88706	8.875	10.875	.625	HDS1	V	90150	12.000		1.375	LDSL4	
▲ <b>88710</b>	8.875	10.125	.625	CRWH1	R		FOR SEAL SHAFT SIZE 310.00MM				
▲ <b>88760</b>	8.875	10.875	.625	CRWH1	R	90155	12.409		2.500	LDSL4	
89943	9.055		1.000	LDSL3			FOR SEAL SH SIZE 320.00MM				
	FOR SEAL SH SIZE 9.243					90156	9.449		.689	LDSL3	
89946	43.315		2.480	LDSL4			FOR SEAL SHAFT SIZE 250.00MM				
	FOR SEAL SH SIZE 1105.00MM					90163	22.812	23.000	2.000	LDSL4	
89947	41.312		2.362	LDSL4			FOR SEAL SH SIZE 23.000				
	FOR SEAL SH SIZE 1054.00MM					90174	12.312		1.500	LDSL4	
89948	41.312		1.968	LDSL4			FOR SEAL SH SIZE 12.500				
	FOR SEAL SH SIZE 41.500					90179	8.465		1.000	LDSL3	
89949	28.986		2.480	LDSL4			FOR SEAL SH SIZE 220.00MM				
	FOR SEAL SH SIZE 740.00MM					90198	12.598		2.500	LDSL4	
89951	14.000	14.188	1.375	LDSL3			FOR SEAL SH SIZE 325.00MM				
	FOR SEAL SH SIZE 14.188					90221	34.064		2.500	LDSL4	
89997	23.434		2.500	LDSL4			FOR SEAL SH SIZE 870.00MM				
	FOR SEAL SH SIZE 600.00MM					90238	11.229		2.500	LDSL4	
90004	25.403		2.500	LDSL4			FOR SEAL SH SIZE 290.00MM				
	FOR SEAL SH SIZE 650.00MM					90239	12.804		2.500	LDSL4	
▲ <b>90006</b>	9.000	10.000	.625	CRWH1	R		FOR SEAL SH SIZE 330.00MM				
90017	9.000	10.250	.750	HDS1	R	90241	23.434		1.969	LDSL3	
90018	9.000	10.250	.625	HDS3	D		FOR SEAL SH SIZE 600.00MM				
	W/4 EA .500 ADJ. LUGS					90259	19.466		4.380	LDSL4	
90019	9.000	10.250	.625	HDS1	R		FOR SEAL SH SIZE 500.00MM				
<b>90020</b>	9.000	10.500	.625	HDS2	V	90272	15.062		.750	LDSL4	
90022	9.000	10.500	.625	HDS1	V		FOR SEAL SH SIZE 15.250				
90023	9.000	10.500	.625	HDS1	R	90292	23.040		2.165	LDSL4	
90024	9.000	10.500	.750	HDS1	R		FOR SEAL SH SIZE 590.00MM				
90027	9.000	10.500	.625	HDS3	D	90332	35.812		1.500	LDSL4	
	W/4 EA .500 ADJ. LUGS						FOR SEAL SHAFT SIZE 36.000				
▲ <b>90036</b>	9.000	11.000	.625	CRWH1	R	90333	11.562		1.000	LDSL4	
90042	15.954		1.969	LDSL4			FOR SEAL SH SIZE 298.45MM				
	FOR SEAL SH SIZE 410.00MM					90334	14.312		1.000	LDSL4	
90054	9.000	10.250	.875	HDSA2	VD		FOR SEAL SH SIZE 14.500				
<b>90056</b>	9.048	10.630	.625	HDS2	V	90347	17.922		1.181	LDSL4	
□ <b>90057</b>	230.00	260.00	15.00	HS8	R		FOR SEAL SH SIZE 460.00MM				
90062	9.000	11.000	.625	HDS3	D	90437	11.024		1.772	LDSL4	
	W/4 EA .500 ADJ. LUGS						FOR SEAL SH SIZE 285.00MM				
90063	9.000	11.000	.750	HDS1	R	90546	10.827		.866	LDSL4	
90064	9.000	11.000	1.000	HDS1	R		FOR SEAL SH SIZE 280.00MM				

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## Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
□ 90554	230.00	260.00	15.00	HMSA7	R	95042	9.500	11.000	.688	HDS1	V
▲ □ 90555	230.00	260.00	15.00	HMS4	R	<b>95044</b>	9.500	10.750	.625	HDS2	V
□ 90559	230.00	270.00	15.00	CRSH11	R	<b>95045</b>	9.500	10.750	.625	HDS2	R
90761	11.500		.750	LDSL4		95046	9.500	11.000	.625	HDS3	D
	FOR SEAL SHAFT SIZE 11.688										
* 90765	17.913	18.101	1.181	LDSL4		95047	9.500	11.000	.750	HDS1	R
	FOR SEAL SH SIZE 460.00MM					▲ <b>95048</b>	9.500	10.500	.438	†CRW1	R
90766	9.654		2.500	LDSL4			W/SS CASE & SPRING				
	FOR SEAL SH SIZE 250.00MM					95052	9.500	10.750	.313	HM21	R
90769	19.500		1.250	LDSL4		95056	9.500	11.125	.625	HDS3	D
	FOR SEAL SH SIZE 19.688						W/4 EA .500 ADJ. LUGS				
90770	17.500		1.250	LDSL4		▲ <b>95062</b>	9.500	11.500	.625	†CRW1	R
	FOR SEAL SH SIZE 17.688					95068	9.500	11.500	.813	HDS1	V
90773	9.835		1.575	LDSL4		95069	9.500	11.500	.625	HDS3	D
	FOR SEAL SH SIZE 10.023						W/4 EA .500 ADJ. LUGS				
90774	17.750		1.250	LDSL4		<b>95071</b>	9.500	11.500	.875	HDS2	R
	FOR SEAL SHAFT SIZE 17.938					<b>95072</b>	9.500	11.500	1.000	HDS2	R
90777	13.197		1.535	LDSL4		<b>95075</b>	9.500	11.000	.625	HS8	V
	FOR SEAL SH SIZE 340.00MM					95081	9.500	12.500	.688	CRSA4	R
90778	13.984		1.000	LDSL4		95620	9.563	11.859	1.949	HDDF1	R
	FOR SEAL SH SIZE 360.00MM					95621	9.563			HDDFBV1	R
90779	17.250		1.000	LDSL4		<b>96230</b>	9.625	11.625	1.000	HDS2	V
	FOR SEAL SH SIZE 17.438					<b>96231</b>	9.625	11.625	.813	HDS2	V
90951	22.647		2.500	LDSL4		▲ <b>96245</b>	9.625	11.625	.625	CRWH1	R
	FOR SEAL SH SIZE 580.00MM					96290	9.620	12.750	1.250	HDSA1	RD
90952	9.261		.709	LDSL4		<b>96880</b>	9.688	11.500	1.000	HDS2	V
	FOR SEAL SH SIZE 240.00MM					97064	16.535		2.500	LDSL4	
90953	26.977		2.500	LDSL4			FOR SEAL SH SIZE 425.00MM				
	FOR SEAL SH SIZE 960.00MM					97526	9.750	11.000	.625	HDS1	R
<b>91202</b>	9.125	11.125	.812	HDS2	R	97527	9.750	11.000	.625	HDS3	D
<b>91235</b>	9.125	11.125	.812	HDS2	R		W/4 EA .500 ADJ. LUGS				
	W/4 EA .500 ADJ. LUGS					97528	9.750	11.000	.625	HDS1	V
91250	9.125	10.625	.625	HDS3	D	<b>97529</b>	9.750	11.000	.625	HDS2	V
	W/4 EA .500 ADJ. LUGS					▲ <b>97542</b>	9.750	11.125	.625	CRWH1	R
91255	9.125	10.750	.625	HDS3	D	▲ <b>97545</b>	9.750	11.250	.625	CRWH1	R
	W/4 EA .500 ADJ. LUGS					97548	9.750	11.750	1.000	HDS1	R
91256	9.125	10.750	.750	HDS1	R	97549	9.750	11.750	.625	HDS1	V
91260	9.125	11.125	.625	HDS3	D	▲ <b>97550</b>	9.750	11.750	.625	CRWH1	R
	W/4 EA .500 ADJ. LUGS					<b>97551</b>	9.750	11.750	1.000	HDS2	V
91261	9.125	11.125	.688	HDS1	V	▲ □ 98435	250.00	280.00	15.00	HMS4	R
92532	9.250	11.000	.625	HDS3	D	<b>98444</b>	9.844	11.409	.625	HDS2	R
	W/4 EA .500 ADJ. LUGS					<b>98445</b>	9.844	11.409	.625	HDS2	R
92534	9.250	10.750	.656	HDS1	R		W/4 EA .375 LUGS				
▲ <b>92536</b>	9.250	11.250	.625	†CRWHA1	R	□ <b>99049</b>	12.00		6.00	SSLEEVE	
92537	9.250	10.750	.656	HDS3	D		SHAFT RANGE 11.91MM - 12.07MM				
	W/4 EA .500 ADJ. LUGS					<b>99050</b>	.500		.250	SSLEEVE	
92543	9.250	11.250	.625	HDS1	V		SHAFT RANGE .498 - .502				
<b>92544</b>	9.250	11.250	.813	HDS2	V	□ <b>99055</b>	14.00		6.35	SSLEEVE	
▲ <b>92570</b>	9.250	12.750	.625	CRWHA1	R		SHAFT RANGE 13.89MM - 14.00MM				
<b>92574</b>	9.250	12.750	1.250	CRWHA1	R	<b>99056</b>	.563		.250	SSLEEVE	
92591	9.250	10.438	.875	HDSA1	RD		SHAFT RANGE .560 - .566				
93115	9.312	11.000	1.437	HDDF1	R	□ <b>99058</b>	16.00		7.95	SSLEEVE	
							SHAFT RANGE 15.89MM - 16.00MM				
93116	9.312			HDDFBV1	R	□ <b>99059</b>	15.00		5.00	SSLEEVE	
93125	9.312	11.625	1.754	HDDF1	R		SHAFT RANGE 14.96MM - 15.06MM				
						<b>99060</b>	.684		.313	SSLEEVE	
93126	9.313			HDDFBV1	R		SHAFT RANGE .682 - .686				
93751	9.375	11.375	.875	HDS1	R	<b>99062</b>	.625		.313	SSLEEVE	
□ <b>94480</b>	240.00	275.00	16.00	HMS4	R		SHAFT RANGE .623 - .627				
□ <b>94484</b>	240.00	275.00	16.00	HMSA7	R	□ <b>99068</b>	17.00		7.95	SSLEEVE	
<b>94485</b>	9.449	10.827	.630	HMSA7	V		SHAFT RANGE 16.94MM - 17.04MM				
	W/STAINLESS STEEL SPRING					□ <b>99076</b>	19.00		7.95	SSLEEVE	
▲ □ 94495	240.00	270.00	15.00	HMS4	R		SHAFT RANGE .748 - .752				
□ <b>94498</b>	240.00	280.00	16.00	HDS2	R	□ <b>99078</b>	20.00		8.00	SSLEEVE	
<b>95000</b>	9.500	10.500	.500	HS8	D		SHAFT RANGE 19.94MM - 20.04MM				



Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
99080	.781		.313	SSLLEEVE		99138	1.375		.500	SSLLEEVE	
	SHAFT RANGE .780 - .784						SHAFT RANGE 1.371 - 1.377				
99081	.760		.313	SSLLEEVE		99139	1.375		.512	SSLLEEVE	
	SHAFT RANGE .759 - .761						SHAFT RANGE 34.92MM - 35.08MM				
□ 99082	18.00		8.00	SSLLEEVE		□ 99141	31.50		8.00	SSLLEEVE	
	SHAFT RANGE 17.87MM - 18.00MM						SHAFT RANGE 31.42MM - 31.58MM				
99083	.813		.375	SSLLEEVE		99143	1.438		.563	SSLLEEVE	
	SHAFT RANGE .811 - .815						SHAFT RANGE 1.432 - 1.438				
□ 99084	22.00		6.57	SSLLEEVE		99144	1.438		.375	SSLLEEVE	
	SHAFT RANGE 21.87MM - 22.00MM						SHAFT RANGE 1.435 - 1.441				
□ 99085	22.00		8.00	SSLLEEVE		99146	1.417		.512	SSLLEEVE	
	SHAFT RANGE 21.87MM - 22.00MM						SHAFT RANGE 35.85MM - 36.00MM				
99086	.859		.250	SSLLEEVE		99147	1.496		.512	SSLLEEVE	
	SHAFT RANGE .857 - .861						SHAFT RANGE 37.85MM - 38.00MM				
99087	.875		.313	SSLLEEVE		99149	1.500		.563	SSLLEEVE	
	SHAFT RANGE .873 - .877						SHAFT RANGE 1.497 - 1.503				
99091	.910		.313	SSLLEEVE		99150	1.500		.375	SSLLEEVE	
	SHAFT RANGE .908 - .912						SHAFT RANGE 1.497 - 1.503				
□ 99092	24.00		7.95	SSLLEEVE		99152	1.523		.438	SSLLEEVE	
	SHAFT RANGE 23.87MM - 24.00MM						SHAFT RANGE 1.520 - 1.526				
99094	.969		.313	SSLLEEVE		99153	1.575		.390	SSLLEEVE	
	SHAFT RANGE .966 - .970						SHAFT RANGE 39.84MM - 40.00MM				
99096	.969		.625	SSLLEEVE		99155	1.552		.438	SSLLEEVE	
	SHAFT RANGE .966 - .970						SHAFT RANGE 1.549 - 1.555				
□ 99098	25.00		7.95	SSLLEEVE		99156	1.563		.563	SSLLEEVE	
	SHAFT RANGE 24.94MM - 25.04MM						SHAFT RANGE 1.559 - 1.565				
99100	1.000		.313	SSLLEEVE		99157	1.578		.512	SSLLEEVE	
	SHAFT RANGE .998 - 1.002						SHAFT RANGE 39.93MM - 40.09MM				
□ 99103	26.00		8.00	SSLLEEVE		99159	1.569		.625	SSLLEEVE	
	SHAFT RANGE 25.88MM - 26.01MM						SHAFT RANGE 1.566 - 1.572				
□ 99106	27.00		7.95	SSLLEEVE		99160	1.605		.500	SSLLEEVE	
	SHAFT RANGE 1.060 - 1.064						SHAFT RANGE 1.602 - 1.608				
99108	1.089		.313	SSLLEEVE		99161	1.625		.313	SSLLEEVE	
	SHAFT RANGE 1.087 - 1.091						SHAFT RANGE 1.622 - 1.628				
□ 99111	28.00		9.52	SSLLEEVE		99162	1.625		.563	SSLLEEVE	
	SHAFT RANGE 27.94MM - 28.04MM						SHAFT RANGE 1.622 - 1.628				
99112	1.125		.313	SSLLEEVE		99163	1.614		.500	SSLLEEVE	
	SHAFT RANGE 1.123 - 1.127						SHAFT RANGE 40.84MM - 41.00MM				
□ 99114	30.00		8.00	SSLLEEVE		99165	1.656		.550	SSLLEEVE	
	SHAFT RANGE 29.95MM - 30.08MM						SHAFT RANGE 1.653 - 1.659				
99116	1.125		.375	SSLLEEVE		99166	1.650		.445	SSLLEEVE	
	SHAFT RANGE 1.123 - 1.127						SHAFT RANGE 41.84MM - 42.00MM				
99118	1.188		.313	SSLLEEVE		99167	1.688		.313	SSLLEEVE	
	SHAFT RANGE 1.185 - 1.190						SHAFT RANGE 1.685 - 1.691				
99120	1.156		.375	SSLLEEVE		99168	1.688		.563	SSLLEEVE	
	SHAFT RANGE 1.154 - 1.158						SHAFT RANGE 1.684 - 1.690				
99121	1.299		.591	SSLLEEVE		99169	1.650		.563	SSLLEEVE	
	SHAFT RANGE 32.94MM - 33.05MM						SHAFT RANGE 41.84MM - 42.00MM				
99122	1.175		.313	SSLLEEVE		99170	1.739		.375	SSLLEEVE	
	SHAFT RANGE 1.173 - 1.178						SHAFT RANGE 1.736 - 1.742				
□ 99123	31.00		7.95	SSLLEEVE		99171	1.719		.563	SSLLEEVE	
	SHAFT RANGE 1.216 - 1.222						SHAFT RANGE 1.715 - 1.721				
99125	1.250		.313	SSLLEEVE		99172	1.750		.375	SSLLEEVE	
	SHAFT RANGE 1.247 - 1.253						SHAFT RANGE 1.747 - 1.753				
99128	1.260		.315	SSLLEEVE		99174	1.750		.563	SSLLEEVE	
	SHAFT RANGE 31.92MM - 32.08MM						SHAFT RANGE 1.747 - 1.753				
99129	1.313		.250	SSLLEEVE		99175	1.750		.750	SSLLEEVE	
	SHAFT RANGE 1.308 - 1.314						SHAFT RANGE 1.747 - 1.753				
99131	1.313		.500	SSLLEEVE		99176	1.766		.563	SSLLEEVE	
	SHAFT RANGE 1.310 - 1.316						SHAFT RANGE 1.761 - 1.767				
99133	1.375		.313	SSLLEEVE		99177	1.772		.551	SSLLEEVE	
	SHAFT RANGE 1.371 - 1.377						SHAFT RANGE 44.93MM - 45.09MM				
99134	1.339		.500	SSLLEEVE		99179	1.781		.667	SSLLEEVE	
	SHAFT RANGE 33.86MM - 34.01MM						SHAFT RANGE 1.778 - 1.784				

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Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
<b>99180</b>	1.750		.531	SSLEEVE		<b>99237</b>	2.375		.781	SSLEEVE	
	SHAFT RANGE 1.747 - 1.753						SHAFT RANGE 2.374 - 2.380				
<b>99181</b>	1.813		.563	SSLEEVE		<b>99238</b>	2.375		.594	SSLEEVE	
	SHAFT RANGE 1.809 - 1.815						SHAFT RANGE 2.372 - 2.378				
<b>99182</b>	1.693		.500	SSLEEVE		<b>99240</b>	2.375		.526	SSLEEVE	
	SHAFT RANGE 42.84MM - 43.00MM						SHAFT RANGE 2.374 - 2.380				
<b>99184</b>	1.875		.375	SSLEEVE		<b>99241</b>	2.362		.670	SSLEEVE	
	SHAFT RANGE 1.872 - 1.878						SHAFT RANGE 59.92MM - 60.08MM				
<b>99185</b>	1.859		.563	SSLEEVE		<b>99242</b>	2.438		.500	SSLEEVE	
	SHAFT RANGE 1.857 - 1.863						SHAFT RANGE 2.435 - 2.441				
<b>99186</b>	1.868		.889	SSLEEVE		<b>99243</b>	2.438		.781	SSLEEVE	
	SHAFT RANGE 1.866 - 1.872						SHAFT RANGE 2.434 - 2.440				
<b>99187</b>	1.875		.563	SSLEEVE		<b>99244</b>	2.441		.500	SSLEEVE	
	SHAFT RANGE 1.872 - 1.878						SHAFT RANGE 61.81MM - 62.00MM				
<b>99188</b>	1.875		.295	SSLEEVE		<b>99248</b>	2.500		.500	SSLEEVE	
	SHAFT RANGE 1.872 - 1.878						SHAFT RANGE 2.500 - 2.506				
<b>99189</b>	1.891		.551	SSLEEVE		<b>99249</b>	2.492		.781	SSLEEVE	
	SHAFT RANGE 47.93MM - 48.09MM						SHAFT RANGE 2.489 - 2.495				
<b>99190</b>	1.875		.175	SSLEEVE		<b>99250</b>	2.500		.781	SSLEEVE	
	SHAFT RANGE 1.872 - 1.878						SHAFT RANGE 2.500 - 2.506				
<b>99192</b>	1.912		.375	SSLEEVE		<b>99251</b>	2.516		.781	SSLEEVE	
	SHAFT RANGE 1.909 - 1.915						SHAFT RANGE 2.510 - 2.516				
<b>99193</b>	1.938		.563	SSLEEVE		<b>99253</b>	2.500		.555	SSLEEVE	
	SHAFT RANGE 1.934 - 1.940						SHAFT RANGE 2.497 - 2.503				
<b>99196</b>	1.969		.551	SSLEEVE		<b>99254</b>	2.559		.787	SSLEEVE	
	SHAFT RANGE 49.91MM - 50.07MM						SHAFT RANGE 64.92MM - 65.08MM				
<b>99198</b>	1.980		.563	SSLEEVE		<b>99256</b>	2.563		.781	SSLEEVE	
	SHAFT RANGE 1.977 - 1.983						SHAFT RANGE 2.560 - 2.566				
<b>99199</b>	2.000		.563	SSLEEVE		<b>99259</b>	2.598		.781	SSLEEVE	
	SHAFT RANGE 1.997 - 2.003						SHAFT RANGE 65.91MM - 66.07MM				
<b>99200</b>	2.000		.875	SSLEEVE		<b>99260</b>	2.625		.500	SSLEEVE	
	SHAFT RANGE 1.997 - 2.003						SHAFT RANGE 2.622 - 2.628				
<b>99204</b>	2.047		.500	SSLEEVE		<b>99261</b>	2.621		.781	SSLEEVE	
	SHAFT RANGE 51.81MM - 52.00MM						SHAFT RANGE 2.618 - 2.624				
<b>99205</b>	2.063		.781	SSLEEVE		<b>99262</b>	2.625		.781	SSLEEVE	
	SHAFT RANGE 2.057 - 2.063						SHAFT RANGE 2.625 - 2.631				
<b>99210</b>	2.125		.500	SSLEEVE		<b>99264</b>	2.625		.781	SSLEEVE	
	SHAFT RANGE 2.123 - 2.128						SHAFT RANGE 2.621 - 2.627				
<b>99212</b>	2.125		.781	SSLEEVE		<b>99266</b>	2.677		.750	SSLEEVE	
	SHAFT RANGE 2.124 - 2.130						SHAFT RANGE 67.81MM - 68.00MM				
<b>99215</b>	2.165		.787	SSLEEVE		<b>99267</b>	2.750		1.438	SSLEEVE	
	SHAFT RANGE 54.91MM - 55.07MM						SHAFT RANGE 2.747 - 2.753				
<b>99218</b>	2.188		.781	SSLEEVE		<b>99268</b>	2.730		.781	SSLEEVE	
	SHAFT RANGE 2.186 - 2.192						SHAFT RANGE 2.727 - 2.733				
<b>99219</b>	2.283		.787	SSLEEVE		<b>99269</b>	2.750		1.125	SSLEEVE	
	SHAFT RANGE 2.280 - 2.286						SHAFT RANGE 2.750 - 2.756				
<b>99220</b>	2.205		.500	SSLEEVE		<b>99272</b>	2.750		.406	SSLEEVE	
	SHAFT RANGE 55.81MM - 56.00MM						SHAFT RANGE 2.750 - 2.756				
<b>99225</b>	2.250		.781	SSLEEVE		<b>99273</b>	2.743		.781	SSLEEVE	
	SHAFT RANGE 2.249 - 2.255						SHAFT RANGE 2.740 - 2.746				
<b>99226</b>	2.240		.764	SSLEEVE		<b>99274</b>	2.750		.781	SSLEEVE	
	SHAFT RANGE 2.237 - 2.243						SHAFT RANGE 2.745 - 2.751				
<b>99227</b>	2.250		.313	SSLEEVE		<b>99275</b>	2.750		.781	SSLEEVE	
	SHAFT RANGE 2.249 - 2.255						SHAFT RANGE 2.750 - 2.756				
<b>99229</b>	2.230		.500	SSLEEVE		<b>99276</b>	2.756		.787	SSLEEVE	
	SHAFT RANGE 2.227 - 2.233						SHAFT RANGE 69.92MM - 70.08MM				
<b>99230</b>	2.230		.781	SSLEEVE		<b>99281</b>	2.813		.594	SSLEEVE	
	SHAFT RANGE 2.227 - 2.233						SHAFT RANGE 2.809 - 2.815				
<b>99231</b>	2.313		.781	SSLEEVE		<b>99282</b>	2.838		.500	SSLEEVE	
	SHAFT RANGE 2.309 - 2.315						SHAFT RANGE 2.838 - 2.844				
<b>99233</b>	2.328		.750	SSLEEVE		<b>99284</b>	2.835		.750	SSLEEVE	
	SHAFT RANGE 2.327 - 2.333						SHAFT RANGE 71.81MM - 72.00MM				
<b>99235</b>	2.362		.787	SSLEEVE		<b>99286</b>	2.869		.781	SSLEEVE	
	SHAFT RANGE 59.91MM - 60.07MM						SHAFT RANGE 2.866 - 2.872				

Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
99287	2.875		.781	SSLLEEVE		99340	3.480		.781	SSLLEEVE	
	SHAFT RANGE 2.873 - 2.879						SHAFT RANGE 3.477 - 3.483				
99289	2.953		.594	SSLLEEVE		99346	3.500		.625	SSLLEEVE	
	SHAFT RANGE 74.93MM - 75.09MM						SHAFT RANGE 3.497 - 3.503				
99290	2.938		.500	SSLLEEVE		99347	3.500		.313	SSLLEEVE	
	SHAFT RANGE 2.937 - 2.943						SHAFT RANGE 3.500 - 3.506				
99291	2.993		.484	SSLLEEVE		99349	3.504		.625	SSLLEEVE	
	SHAFT RANGE 2.990 - 2.996						SHAFT RANGE 88.92MM - 89.08MM				
99292	2.974		.813	SSLLEEVE		99350	3.500		.813	SSLLEEVE	
	SHAFT RANGE 2.972 - 2.976						SHAFT RANGE 3.500 - 3.506				
99293	2.940		.781	SSLLEEVE		99351	3.543		.710	SSLLEEVE	
	SHAFT RANGE 2.937 - 2.943						SHAFT RANGE 89.91MM - 90.07MM				
99294	2.953		.866	SSLLEEVE		99352	3.543		.438	SSLLEEVE	
	SHAFT RANGE 74.93MM - 75.09MM						SHAFT RANGE 89.91MM - 90.07MM				
99296	3.000		.813	SSLLEEVE		99353	3.543		.526	SSLLEEVE	
	SHAFT RANGE 2.997 - 3.003						SHAFT RANGE 89.91MM - 90.07MM				
99298	2.993		.563	SSLLEEVE		99354	3.543		.906	SSLLEEVE	
	SHAFT RANGE 2.990 - 2.996						SHAFT RANGE 89.91MM - 90.07MM				
99299	2.993		.813	SSLLEEVE		99356	3.563		.813	SSLLEEVE	
	SHAFT RANGE 2.990 - 2.996						SHAFT RANGE 3.560 - 3.566				
99300	3.000		.813	SSLLEEVE		99359	3.730		.469	SSLLEEVE	
	SHAFT RANGE 3.000 - 3.006						SHAFT RANGE 3.727 - 3.733				
99301	3.011		.500	SSLLEEVE		99360	3.621		.813	SSLLEEVE	
	SHAFT RANGE 3.008 - 3.014						SHAFT RANGE 3.618 - 3.624				
99303	3.000		.625	SSLLEEVE		99362	3.625		.813	SSLLEEVE	
	SHAFT RANGE 3.000 - 3.006						SHAFT RANGE 3.623 - 3.629				
99306	3.071		.750	SSLLEEVE		99363	3.625		.500	SSLLEEVE	
	SHAFT RANGE 77.81MM - 78.00MM						SHAFT RANGE 3.623 - 3.629				
99307	3.125		.551	SSLLEEVE		99364	3.743		.469	SSLLEEVE	
	SHAFT RANGE 3.124 - 3.132						SHAFT RANGE 3.740 - 3.746				
99311	3.125		.688	SSLLEEVE		99365	3.688		.813	SSLLEEVE	
	SHAFT RANGE 3.120 - 3.126						SHAFT RANGE 3.685 - 3.691				
99312	3.125		.813	SSLLEEVE		99366	3.730		.781	SSLLEEVE	
	SHAFT RANGE 3.120 - 3.126						SHAFT RANGE 3.727 - 3.733				
99313	3.150		.750	SSLLEEVE		99367	3.753		.344	SSLLEEVE	
	SHAFT RANGE 3.142 - 3.150						SHAFT RANGE 3.750 - 3.756				
99315	3.150		.827	SSLLEEVE		99368	3.688		.313	SSLLEEVE	
	SHAFT RANGE 79.90MM - 80.08MM						SHAFT RANGE 3.684 - 3.690				
99317	3.150		.433	SSLLEEVE		99369	3.740		.827	SSLLEEVE	
	SHAFT RANGE 79.90MM - 80.08MM						SHAFT RANGE 94.92MM - 95.08MM				
99322	3.250		.813	SSLLEEVE		99372	3.753		.688	SSLLEEVE	
	SHAFT RANGE 3.247 - 3.253						SHAFT RANGE 3.750 - 3.756				
99324	3.250		.595	SSLLEEVE		99374	3.743		.344	SSLLEEVE	
	SHAFT RANGE 3.250 - 3.256						SHAFT RANGE 3.740 - 3.746				
99325	3.250		.813	SSLLEEVE		99376	3.749		.563	SSLLEEVE	
	SHAFT RANGE 3.250 - 3.256						SHAFT RANGE 3.746 - 3.752				
99326	3.250		.688	SSLLEEVE		99386	3.871		.813	SSLLEEVE	
	SHAFT RANGE 3.250 - 3.256						SHAFT RANGE 3.868 - 3.874				
99328	3.228		.660	SSLLEEVE		99387	3.875		.813	SSLLEEVE	
	SHAFT RANGE 3.225 - 3.231						SHAFT RANGE 3.873 - 3.879				
99331	3.310		.813	SSLLEEVE		99393	3.938		.813	SSLLEEVE	
	SHAFT RANGE 3.307 - 3.313						SHAFT RANGE 3.935 - 3.941				
99332	3.342		.669	SSLLEEVE		99395	4.000		.600	SSLLEEVE	
	SHAFT RANGE 84.76MM - 85.02MM						SHAFT RANGE 3.998 - 4.006				
99333	3.342		.827	SSLLEEVE		99399	4.000		.813	SSLLEEVE	
	SHAFT RANGE 84.76MM - 85.02MM						SHAFT RANGE 3.998 - 4.006				
99334	3.346		.399	SSLLEEVE		99400	4.000		.650	SSLLEEVE	
	SHAFT RANGE 84.78MM - 85.00MM						SHAFT RANGE 3.998 - 4.006				
99337	3.375		.813	SSLLEEVE		99401	4.000		.500	SSLLEEVE	
	SHAFT RANGE 3.373 - 3.379						SHAFT RANGE 3.998 - 4.006				
99338	3.375		.375	SSLLEEVE		99409	4.094		.787	SSLLEEVE	
	SHAFT RANGE 3.373 - 3.379						SHAFT RANGE 103.89MM-104.09MM				
99339	3.438		.781	SSLLEEVE		99412	4.125		.813	SSLLEEVE	
	SHAFT RANGE 3.435 - 3.441						SHAFT RANGE 4.122 - 4.130				

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□ Metric numbers

† Includes Bore-Tite on O.D.  
 ▲ WasteWatcher numbers

## Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
<b>99413</b>	4.134		.787	SSLEEVE		<b>99548</b>	5.438		1.500	SSLEEVE	
	SHAFT RANGE 104.90MM-105.10MM						SHAFT RANGE 5.434 - 5.442				
<b>99418</b>	4.188		.813	SSLEEVE		<b>99549</b>	5.500		.813	SSLEEVE	
	SHAFT RANGE 4.183 - 4.191						SHAFT RANGE 5.498 - 5.506				
<b>99423</b>	4.234		.781	SSLEEVE		<b>99550</b>	5.500		.518	SSLEEVE	
	SHAFT RANGE 4.226 - 4.234						SHAFT RANGE 5.498 - 5.506				
<b>99424</b>	4.250		.813	SSLEEVE		<b>99552</b>	5.512		.807	SSLEEVE	
	SHAFT RANGE 4.248 - 4.256						SHAFT RANGE 139.90MM-140.11MM				
<b>99434</b>	4.331		.448	SSLEEVE		<b>99560</b>	5.625		.875	SSLEEVE	
	SHAFT RANGE 109.78MM-110.00MM						SHAFT RANGE 5.621 - 5.629				
<b>99435</b>	4.328		.509	SSLEEVE		<b>99562</b>	5.734		.563	SSLEEVE	
	SHAFT RANGE 109.91MM-110.11MM						SHAFT RANGE 5.726 - 5.734				
<b>99437</b>	4.375		.813	SSLEEVE		<b>99571</b>	5.709		.750	SSLEEVE	
	SHAFT RANGE 4.370 - 4.378						SHAFT RANGE 144.75MM-145.00MM				
<b>99438</b>	4.409		.750	SSLEEVE		<b>99575</b>	5.750		.813	SSLEEVE	
	SHAFT RANGE 111.78MM-112.00MM						SHAFT RANGE 5.746 - 5.754				
<b>99439</b>	4.438		1.000	SSLEEVE		<b>99587</b>	5.875		1.000	SSLEEVE	
	SHAFT RANGE 4.434 - 4.442						SHAFT RANGE 5.871 - 5.879				
<b>99450</b>	4.500		.813	SSLEEVE		<b>99595</b>	5.905		1.024	SSLEEVE	
	SHAFT RANGE 4.496 - 4.504						SHAFT RANGE 149.75MM-150.00MM				
<b>99452</b>	4.528		.813	SSLEEVE		<b>99596</b>	5.938		1.000	SSLEEVE	
	SHAFT RANGE 114.89MM-115.09MM						SHAFT RANGE 5.934 - 5.942				
<b>99463</b>	4.625		1.000	SSLEEVE		<b>99599</b>	6.000		1.000	SSLEEVE	
	SHAFT RANGE 4.621 - 4.629						SHAFT RANGE 5.995 - 6.003				
<b>99465</b>	4.625		.438	SSLEEVE		<b>99601</b>	6.000		.500	SSLEEVE	
	SHAFT RANGE 4.621 - 4.629						SHAFT RANGE 5.995 - 6.003				
<b>99468</b>	4.688		.813	SSLEEVE		<b>99605</b>	6.063		1.024	SSLEEVE	
	SHAFT RANGE 4.685 - 4.693						SHAFT RANGE 153.87MM-154.13MM				
<b>99471</b>	4.724		.315	SSLEEVE		<b>99606</b>	6.097		1.024	SSLEEVE	
	SHAFT RANGE 119.89MM-120.09MM						SHAFT RANGE 154.75MM-155.00MM				
<b>99472</b>	4.803		.787	SSLEEVE		<b>99620</b>	6.203		.813	SSLEEVE	
	SHAFT RANGE 121.90MM-122.10MM						SHAFT RANGE 6.198 - 6.208				
<b>99473</b>	4.724		.787	SSLEEVE		<b>99625</b>	6.250		1.031	SSLEEVE	
	SHAFT RANGE 119.89MM-120.09MM						SHAFT RANGE 6.245 - 6.255				
<b>99475</b>	4.750		.500	SSLEEVE		<b>99630</b>	6.299		1.000	SSLEEVE	
	SHAFT RANGE 4.746 - 4.754						SHAFT RANGE 6.289 - 6.299				
<b>99484</b>	4.843		.787	SSLEEVE		<b>99640</b>	6.688		1.250	SSLEEVE	
	SHAFT RANGE 122.91MM-123.11MM						SHAFT RANGE 6.683 - 6.693				
<b>99487</b>	4.875		.625	SSLEEVE		<b>99650</b>	6.500		1.000	SSLEEVE	
	SHAFT RANGE 4.871 - 4.879						SHAFT RANGE 6.495 - 6.505				
<b>99490</b>	4.921		.394	SSLEEVE		<b>99675</b>	6.750		.813	SSLEEVE	
	SHAFT RANGE 124.90MM-125.10MM						SHAFT RANGE 6.745 - 6.755				
<b>99491</b>	5.125		.866	SSLEEVE		<b>99687</b>	6.890		1.102	SSLEEVE	
	SHAFT RANGE 5.117 - 5.125						SHAFT RANGE 6.880 - 6.890				
<b>99492</b>	4.921		1.024	SSLEEVE		<b>99700</b>	7.000		1.000	SSLEEVE	
	SHAFT RANGE 124.89MM-125.09MM						SHAFT RANGE 6.995 - 7.005				
<b>99494</b>	5.114		.750	SSLEEVE		<b>99721</b>	7.087		1.299	SSLEEVE	
	SHAFT RANGE 129.80MM-130.00MM						SHAFT RANGE 7.077 - 7.087				
<b>99498</b>	5.000		.688	SSLEEVE		<b>99725</b>	7.250		1.250	SSLEEVE	
	SHAFT RANGE 4.998 - 5.006						SHAFT RANGE 7.244 - 7.254				
<b>99499</b>	5.000		.813	SSLEEVE		<b>99726</b>	7.278		1.260	SSLEEVE	
	SHAFT RANGE 4.998 - 5.006						SHAFT RANGE 184.75MM-185.00MM				
<b>99501</b>	5.000		.540	SSLEEVE		<b>99745</b>	7.453		.813	SSLEEVE	
	SHAFT RANGE 4.998 - 5.006						SHAFT RANGE 7.444 - 7.454				
<b>99513</b>	5.125		.813	SSLEEVE		<b>99750</b>	7.500		.813	SSLEEVE	
	SHAFT RANGE 5.120 - 5.128						SHAFT RANGE 7.495 - 7.505				
<b>99525</b>	5.250		.813	SSLEEVE		<b>99775</b>	7.750		1.000	SSLEEVE	
	SHAFT RANGE 5.246 - 5.254						SHAFT RANGE 7.745 - 7.755				
<b>99533</b>	5.311		.807	SSLEEVE		<b>99787</b>	7.875		1.359	SSLEEVE	
	SHAFT RANGE 5.307 - 5.315						SHAFT RANGE 7.869 - 7.879				
<b>99537</b>	5.375		.813	SSLEEVE		<b>99799</b>	7.938		1.000	SSLEEVE	
	SHAFT RANGE 5.371 - 5.379						SHAFT RANGE 7.933 - 7.943				
<b>99547</b>	5.476		.563	SSLEEVE		<b>99800</b>	8.000		1.000	SSLEEVE	
	SHAFT RANGE 5.472 - 5.480						SHAFT RANGE 7.995 - 8.005				

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Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
99810	.625		.313	GSLEEVE		99845	2.838		.500	GSLEEVE	
	SHAFT RANGE 0.623 - 0.627						SHAFT RANGE 2.838 - 2.844				
□ 99811	19.00		7.95	GSLEEVE		99846	2.875		.781	GSLEEVE	
	SHAFT RANGE 0.748 - 0.752						SHAFT RANGE 2.873 - 2.879				
99812	.875		.313	GSLEEVE		99847	2.938		.781	GSLEEVE	
	SHAFT RANGE 0.873 - 0.877						SHAFT RANGE 2.937 - 2.943				
□ 99813	25.00		7.95	GSLEEVE		99848	3.000		.813	GSLEEVE	
	SHAFT RANGE 0.982 - 0.986						SHAFT RANGE 3.000 - 3.006				
99814	1.000		.313	GSLEEVE		99849	3.125		.813	GSLEEVE	
	SHAFT RANGE 0.998 - 1.002						SHAFT RANGE 3.120 - 3.126				
□ 99815	27.00		7.95	GSLEEVE		99850	3.250		.595	GSLEEVE	
	SHAFT RANGE 1.060 - 1.064						SHAFT RANGE 3.250 - 3.256				
99816	1.125		.313	GSLEEVE		99851	3.250		.813	GSLEEVE	
	SHAFT RANGE 1.123 - 1.127						SHAFT RANGE 3.250 - 3.256				
99817	1.250		.313	GSLEEVE		99852	3.500		.813	GSLEEVE	
	SHAFT RANGE 1.247 - 1.253						SHAFT RANGE 3.500 - 3.506				
99819	1.375		.500	GSLEEVE		99853	3.750		.688	GSLEEVE	
	SHAFT RANGE 1.371 - 1.377						SHAFT RANGE 3.750 - 3.756				
99820	1.375		.512	GSLEEVE		99854	3.938		.813	GSLEEVE	
	SHAFT RANGE 1.375 - 1.381						SHAFT RANGE 3.935 - 3.941				
99821	1.438		.563	GSLEEVE		99855	4.000		.813	GSLEEVE	
	SHAFT RANGE 1.432 - 1.438						SHAFT RANGE 3.998 - 4.006				
99822	1.500		.563	GSLEEVE		99856	4.500		.813	GSLEEVE	
	SHAFT RANGE: 1.497 - 1.503						SHAFT RANGE 4.496 - 4.504				
99823	1.500		.375	GSLEEVE		99857	5.000		.688	GSLEEVE	
	SHAFT RANGE: 1.497 - 1.503						SHAFT RANGE 4.998 - 5.006				
99824	1.563		.563	GSLEEVE		99858	5.000		.813	GSLEEVE	
	SHAFT RANGE: 1.559 - 1.565						SHAFT RANGE 4.998 - 5.006				
99825	1.578		.512	GSLEEVE		99860	.910		.313	GSLEEVE	
	SHAFT RANGE 39.929 - 40.081MM						SHAFT RANGE 0.908 - 0.912				
99826	1.625		.563	GSLEEVE		99862	5.875		1.000	GSLEEVE	
	SHAFT RANGE 1.622 - 1.628						SHAFT RANGE 5.871 - 5.879				
99827	1.750		.563	GSLEEVE		99863	2.165		.787	GSLEEVE	
	SHAFT RANGE 1.747 - 1.753						SHAFT RANGE 2.162 - 2.169				
99828	1.750		.750	GSLEEVE		□ 99866	28.00		9.52	GSLEEVE	
	SHAFT RANGE 1.747 - 1.753						SHAFT RANGE 27.94 MM - 28.04 MM				
99829	1.766		.563	GSLEEVE		▲ 100042	10.000	11.000	.375	HMS4	R
	SHAFT RANGE 1.761 - 1.767					▲ 100044	10.000	11.252	.625	CRWHA1	R
99830	1.772		.551	GSLEEVE		▲ 100051	10.000	12.000	.625	CRWH1	R
	SHAFT RANGE 44.933 - 45.085MM					▲ 100075	10.000	12.000	.625	†CRWA1	R
99832	1.875		.563	GSLEEVE		□ 102360	260.00	280.00	16.00	HMS1	V
	SHAFT RANGE 1.872 - 1.878						W/STAINLESS STEEL SPRING				
99833	1.938		.563	GSLEEVE		□ 102365	260.00	300.00	20.00	CRS1	R
	SHAFT RANGE 1.934 - 1.940					▲ 102520	10.250	11.250	.563	CRWH1	R
99834	2.000		.563	GSLEEVE		102530	10.250	12.000	.625	HDS3	D
	SHAFT RANGE 1.997 - 2.003						W/4 EA .500 ADJ. LUGS				
99835	2.000		.875	GSLEEVE		▲ 102540	10.250	12.250	.625	CRWH1	R
	SHAFT RANGE 1.997 - 2.003					□ 104300	265.00	290.00	16.00	CRSH13	R
99836	2.125		.781	GSLEEVE		▲ 105010	10.500	11.750	.625	CRWH1	R
	SHAFT RANGE 2.124 - 2.130					▲ 105051	10.500	12.500	.625	CRWH1	R
99837	2.250		.781	GSLEEVE		105080	10.500	12.125	.625	HDS3	D
	SHAFT RANGE 2.249 - 2.255						W/4 EA .500 ADJ. LUGS				
99839	2.375		.781	GSLEEVE		▲ 106205	10.625	11.375	.313	HM14	R
	SHAFT RANGE 2.374 - 2.380					▲ 107551	10.750	12.750	.625	CRWH1	R
99840	2.500		.781	GSLEEVE		107591	10.750	13.371	1.250	HDSB1	RD
	SHAFT RANGE 2.500 - 2.506					108710	10.875	12.969	1.540	HDDF1	R
99841	2.559		.787	GSLEEVE			SHAFT RANGE 64.922 - 65.075 MM				
	SHAFT RANGE 2.559 - 2.565					108711	10.875			HDDFBV1	R
99842	2.625		.781	GSLEEVE			SHAFT RANGE 2.625 - 2.631				
	SHAFT RANGE 2.625 - 2.631					▲ 110030	11.000	12.250	.625	CRWHA1	R
99843	2.750		.781	GSLEEVE		▲ 110051	11.000	13.000	.625	CRWH1	R
	SHAFT RANGE 2.745 - 2.751					□ 110222	280.00	310.00	16.00	HMS4	R
99844	2.750		.781	GSLEEVE		▲ □ 110245	280.00	320.00	20.00	†CRWA1	R
	SHAFT RANGE 2.750 - 2.756					□ 110246	280.00	320.00	20.00	†CRWA1	V
						▲ 113740	11.375	13.000	.625	CRW1	R

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 ▲ WasteWatcher numbers

## Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
▲ <b>115021</b>	11.500	13.000	.625	CRWH1	R	400065	.250		.180	VR2	V
115025	11.500	13.000	.750	HDSA1	RD		SHAFT RANGE .210 - .260				
▲ <b>115041</b>	11.500	13.500	.625	CRWH1	R	<b>400070</b>	.281		.120	VR1	R
116500	11.625	13.250	1.290	HDDF1	R		SHAFT RANGE .260 - .310				
	O.D. LISTED IS SEAL I.D.					400071	.281		.180	VR2	R
116501	11.625			HDDFBV1	R		SHAFT RANGE .260 - .310				
117570	11.750	13.750	.625	HDS3	D	<b>400074</b>	.281		.120	VR1	V
	W/4 EA .500 ADJ. LUGS						SHAFT RANGE .260 - .310				
□ <b>118100</b>	300.00	340.00	18.00	HMS4	R	400075	.281		.180	VR2	V
□ 118101	300.00	335.00	18.00	CRSH11	R		SHAFT RANGE .260 - .310				
□ 118102	300.00	340.00	16.00	HMS46	R	<b>400080</b>	.313		.120	VR1	R
□ <b>118103</b>	300.00	340.00	16.00	HMS4	R		SHAFT RANGE .310 - .370				
□ <b>118106</b>	300.00	340.00	16.00	HMSA7	R	400081	.313		.180	VR2	R
120045	12.000	13.625	.625	HDS3	D		SHAFT RANGE .310 - .370				
	W/4 EA .500 ADJ. LUGS					<b>400084</b>	.313		.120	VR1	V
▲ <b>120060</b>	12.000	14.000	.625	CRW1	R		SHAFT RANGE .310 - .370				
▲ <b>122555</b>	12.250	13.375	.625	CRWH1	R	400085	.313		.180	VR2	V
▲ <b>122580</b>	12.250	13.813	.625	CRW1	R		SHAFT RANGE .310 - .370				
▲ <b>122590</b>	12.250	14.250	1.000	CRWHA1	R	<b>400100</b>	.375		.180	VR1	R
124020	12.400	14.375	1.656	HDDF1	R		SHAFT RANGE .370 - .450				
						400101	.375		.260	VR2	R
124021	12.400			HDDFBV1	R		SHAFT RANGE .370 - .450				
<b>127540</b>	12.750	13.625	.563	HMSA7	R	<b>400104</b>	.375		.180	VR1	V
137570	13.750	15.817	1.875	HDDF1	R		SHAFT RANGE .370 - .450				
	O.D. LISTED IS SEAL I.D.					400105	.375		.260	VR2	V
137571	13.750			HDDFBV1	R		SHAFT RANGE .370 - .450				
140080	14.000	16.750	.930	†HMSA22	D	<b>400120</b>	.500		.180	VR1	R
	P.F. WIDTH .700						SHAFT RANGE .450 - .530				
161550	16.125	17.375	.930	†HMSA11	D	400121	.500		.260	VR2	R
	P.F. WIDTH .700						SHAFT RANGE .450 - .530				
171025	17.125	19.240	1.531	HDDF1	R	<b>400124</b>	.500		.180	VR1	V
171026	17.125			HDDFBV1	R		SHAFT RANGE .450 - .530				
	BELLEVILLE WASHERS (2 EA/KIT)					400125	.500		.260	VR2	V
178750	17.875	19.137	.930	†HMSA11	D		SHAFT RANGE .450 - .530				
	P.F. WIDTH .930					<b>400130</b>	.531		.180	VR1	R
191021	19.125			HDDFBV1	R		SHAFT RANGE .490 - .570				
191022	19.125	21.500	1.640	HDDF1	R	<b>400134</b>	.531		.180	VR1	V
							SHAFT RANGE .490 - .570				
238020	23.875	26.875	2.125	HDDF1	R	<b>400140</b>	.570		.180	VR1	R
							SHAFT RANGE .530 - .610				
238021	23.875			HDDFBV1	R	400141	.563		.260	VR2	R
<b>400030</b>	.125		.100	VR1	R	<b>400144</b>	.563		.180	VR1	V
	SHAFT RANGE .110 - .140						SHAFT RANGE .530 - .610				
<b>400034</b>	.118		.100	VR1	V	400145	.563		.260	VR2	V
	SHAFT RANGE .110 - .140						SHAFT RANGE .530 - .610				
<b>400040</b>	.156		.120	VR1	R	<b>400160</b>	.625		.180	VR1	R
	SHAFT RANGE .140 - .180						SHAFT RANGE .610 - .690				
<b>400044</b>	.156		.120	VR1	V	400161	.625		.260	VR2	R
	SHAFT RANGE .140 - .180						SHAFT RANGE .610 - .690				
<b>400050</b>	.188		.120	VR1	R	<b>400164</b>	.625		.180	VR1	V
	SHAFT RANGE .180 - .210						SHAFT RANGE .610 - .690				
400051	.188		.180	VR2	R	400165	.625		.260	VR2	V
	SHAFT RANGE .180 - .210						SHAFT RANGE .610 - .690				
<b>400054</b>	.188		.120	VR1	V	<b>400180</b>	.688		.180	VR1	R
	SHAFT RANGE .180 - .210						SHAFT RANGE .690 - .750				
400055	.188		.180	VR2	V	400181	.688		.260	VR2	R
	SHAFT RANGE .180 - .210						SHAFT RANGE .690 - .770				
<b>400060</b>	.250		.120	VR1	R	<b>400184</b>	.688		.180	VR1	V
	SHAFT RANGE .210 - .260						SHAFT RANGE .690 - .750				
400061	.250		.180	VR2	R	400185	.688		.260	VR2	V
	SHAFT RANGE .210 - .260						SHAFT RANGE .690 - .770				
<b>400064</b>	.250		.120	VR1	V	<b>400200</b>	.750		.236	VR1	R
	SHAFT RANGE .210 - .260						SHAFT RANGE .750 - .830				

## Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
400201	.813		.350	VR2	R	400401	1.500		.430	VR2	R
	SHAFT RANGE .770 - .830						SHAFT RANGE 1.500 - 1.700				
<b>400204</b>	.750		.240	VR1	V	<b>400404</b>	1.500		.280	VR1	V
	SHAFT RANGE .750 - .830						SHAFT RANGE 1.500 - 1.700				
400205	.813		.350	VR2	V	400405	1.500		.430	VR2	V
	SHAFT RANGE .770 - .830						SHAFT RANGE 1.500 - 1.700				
<b>400220</b>	.875		.240	VR1	R	<b>400450</b>	1.750		.280	VR1	R
	SHAFT RANGE .830 - .950						SHAFT RANGE 1.700 - 1.890				
400221	.875		.350	VR2	R	400451	1.750		.430	VR2	R
	SHAFT RANGE .830 - .950						SHAFT RANGE 1.700 - 1.890				
<b>400224</b>	.875		.240	VR1	V	<b>400454</b>	1.750		.280	VR1	V
	SHAFT RANGE .830 - .950						SHAFT RANGE 1.700 - 1.890				
400225	.875		.350	VR2	V	400455	1.750		.430	VR2	V
	SHAFT RANGE .830 - .950						SHAFT RANGE 1.700 - 1.890				
<b>400250</b>	1.000		.240	VR1	R	<b>400500</b>	2.000		.280	VR1	R
	SHAFT RANGE .950 - 1.070						SHAFT RANGE 1.890 - 2.090				
400251	1.000		.350	VR2	R	400501	2.000		.430	VR2	R
	SHAFT RANGE .950 - 1.070						SHAFT RANGE 1.890 - 2.090				
<b>400254</b>	1.000		.240	VR1	V	<b>400504</b>	2.000		.280	VR1	V
	SHAFT RANGE .950 - 1.070						SHAFT RANGE 1.890 - 2.090				
400255	1.000		.350	VR2	V	400505	2.000		.430	VR2	V
	SHAFT RANGE .950 - 1.070						SHAFT RANGE 1.890 - 2.090				
<b>400280</b>	1.125		.240	VR1	R	400509	2.000		.193	VRINGSP	R
	SHAFT RANGE 1.070 - 1.140						SHAFT RANGE 1.890 - 2.090				
400281	1.125		.350	VR2	R	<b>400550</b>	2.125		.280	VR1	R
	SHAFT RANGE 1.070 - 1.140						SHAFT RANGE 2.090 - 2.290				
<b>400284</b>	1.125		.240	VR1	V	400551	2.125		.430	VR2	R
	SHAFT RANGE 1.070 - 1.140						SHAFT RANGE 2.090 - 2.290				
400285	1.125		.350	VR2	V	<b>400554</b>	2.125		.280	VR1	V
	SHAFT RANGE 1.070 - 1.140						SHAFT RANGE 2.090 - 2.290				
<b>400300</b>	1.188		.240	VR1	R	400555	2.125		.430	VR2	V
	SHAFT RANGE 1.140 - 1.220						SHAFT RANGE 2.090 - 2.290				
400301	1.188		.350	VR2	R	<b>★ 400578</b>	2.250		.469	VR1	R
	SHAFT RANGE 1.140 - 1.220						SHAFT RANGE 2.090 - 2.290				
<b>400304</b>	1.188		.240	VR1	V	<b>400600</b>	2.375		.280	VR1	R
	SHAFT RANGE 1.140 - 1.220						SHAFT RANGE 2.290 - 2.480				
400305	1.188		.350	VR2	V	400601	2.375		.430	VR2	R
	SHAFT RANGE 1.140 - 1.220						SHAFT RANGE 2.290 - 2.480				
<b>400320</b>	1.250		.240	VR1	R	<b>400604</b>	2.375		.280	VR1	V
	SHAFT RANGE 1.220 - 1.300						SHAFT RANGE 2.290 - 2.480				
400321	1.250		.350	VR2	R	400605	2.375		.430	VR2	V
	SHAFT RANGE 1.220 - 1.300						SHAFT RANGE 2.290 - 2.480				
<b>400324</b>	1.250		.240	VR1	V	<b>400650</b>	2.500		.280	VR1	R
	SHAFT RANGE 1.220 - 1.300						SHAFT RANGE 2.480 - 2.680				
400325	1.250		.350	VR2	V	400651	2.500		.430	VR2	R
	SHAFT RANGE 1.220 - 1.300						SHAFT RANGE 2.480 - 2.680				
<b>400350</b>	1.375		.240	VR1	R	<b>400654</b>	2.500		.280	VR1	V
	SHAFT RANGE 1.300 - 1.420						SHAFT RANGE 2.480 - 2.680				
400351	1.375		.350	VR2	R	400655	2.500		.430	VR2	V
	SHAFT RANGE 1.300 - 1.420						SHAFT RANGE 2.480 - 2.680				
<b>400354</b>	1.375		.240	VR1	V	400659	2.500		.410	VR1-SPL	R
	SHAFT RANGE 1.300 - 1.420						SHAFT RANGE 2.480 - 2.680				
400355	1.375		.350	VR2	V	<b>400700</b>	2.750		.350	VR1	R
	SHAFT RANGE 1.300 - 1.420						SHAFT RANGE 2.680 - 2.880				
<b>400380</b>	1.438		.240	VR1	R	400701	2.750		.530	VR2	R
	SHAFT RANGE 1.420 - 1.500						SHAFT RANGE 2.680 - 2.880				
400381	1.438		.350	VR2	R	<b>400704</b>	2.750		.350	VR1	V
	SHAFT RANGE 1.420 - 1.500						SHAFT RANGE 2.680 - 2.880				
<b>400384</b>	1.438		.240	VR1	V	400705	2.750		.530	VR2	V
	SHAFT RANGE 1.420 - 1.500						SHAFT RANGE 2.680 - 2.880				
400385	1.438		.350	VR2	V	<b>400750</b>	3.000		.350	VR1	R
	SHAFT RANGE 1.420 - 1.500						SHAFT RANGE 2.880 - 3.070				
<b>400400</b>	1.500		.280	VR1	R	400751	3.000		.530	VR2	R
	SHAFT RANGE 1.500 - 1.700						SHAFT RANGE 2.880 - 3.070				

★ Contact manufacturer for availability  
**Bold numbers** are preferred designs

□ Metric numbers

† Includes Bore-Tite on O.D.  
▲ WasteWatcher numbers



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Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
<b>400754</b>	3.000		.350	VR1	V	401301	5.125		.610	VR2	R
	SHAFT RANGE 2.880 - 3.070						SHAFT RANGE 4.920 - 5.320				
400755	3.000		.530	VR2	V	<b>401304</b>	5.125		.410	VR1	V
	SHAFT RANGE 2.880 - 3.070						SHAFT RANGE 4.920 - 5.320				
<b>400800</b>	3.125		.350	VR1	R	401305	5.125		.610	VR2	V
	SHAFT RANGE 3.070 - 3.270						SHAFT RANGE 4.920 - 5.320				
400801	3.125		.530	VR2	R	<b>401400</b>	5.500		.410	VR1	R
	SHAFT RANGE 3.070 - 3.270						SHAFT RANGE 5.320 - 5.710				
<b>400804</b>	3.125		.350	VR1	V	401401	5.500		.610	VR2	R
	SHAFT RANGE 3.070 - 3.270						SHAFT RANGE 5.320 - 5.710				
400805	3.125		.530	VR2	V	401402	5.500		.310	VR3	R
	SHAFT RANGE 3.070 - 3.270						SHAFT RANGE 5.320 - 5.710				
<b>400850</b>	3.375		.350	VR1	R	<b>401404</b>	5.500		.410	VR1	V
	SHAFT RANGE 3.270 - 3.470						SHAFT RANGE 5.320 - 5.710				
400851	3.375		.530	VR2	R	401405	5.500		.610	VR2	V
	SHAFT RANGE 3.270 - 3.470						SHAFT RANGE 5.320 - 5.710				
<b>400854</b>	3.375		.350	VR1	V	401406	5.500		.310	VR3	V
	SHAFT RANGE 3.270 - 3.470						SHAFT RANGE 5.320 - 5.710				
400855	3.375		.530	VR2	V	<b>401500</b>	5.875		.410	VR1	R
	SHAFT RANGE 3.270 - 3.470						SHAFT RANGE 5.710 - 6.100				
<b>400900</b>	3.500		.350	VR1	R	401501	5.875		.610	VR2	R
	SHAFT RANGE 3.470 - 3.660						SHAFT RANGE 5.710 - 6.100				
400901	3.500		.530	VR2	R	401502	5.875		.310	VR3	R
	SHAFT RANGE 3.470 - 3.660						SHAFT RANGE 5.710 - 6.100				
<b>400904</b>	3.500		.350	VR1	V	<b>401504</b>	5.875		.410	VR1	V
	SHAFT RANGE 3.470 - 3.660						SHAFT RANGE 5.710 - 6.100				
400905	3.500		.530	VR2	V	401505	5.875		.610	VR2	V
	SHAFT RANGE 3.470 - 3.660						SHAFT RANGE 5.710 - 6.100				
<b>400950</b>	3.750		.350	VR1	R	401506	5.875		.310	VR3	V
	SHAFT RANGE 3.660 - 3.860						SHAFT RANGE 5.710 - 6.100				
400951	3.750		.530	VR2	R	<b>401600</b>	6.250		.470	VR1	R
	SHAFT RANGE 3.660 - 3.860						SHAFT RANGE 6.100 - 6.500				
<b>400954</b>	3.750		.350	VR1	V	401601	6.250		.710	VR2	R
	SHAFT RANGE 3.660 - 3.860						SHAFT RANGE 6.100 - 6.500				
400955	3.750		.530	VR2	V	401602	6.250		.310	VR3	R
	SHAFT RANGE 3.660 - 3.860						SHAFT RANGE 6.100 - 6.500				
<b>401000</b>	4.000		.350	VR1	R	<b>401604</b>	6.250		.470	VR1	V
	SHAFT RANGE 3.860 - 4.140						SHAFT RANGE 6.100 - 6.500				
401001	4.000		.530	VR2	R	401605	6.250		.710	VR2	V
	SHAFT RANGE 3.860 - 4.140						SHAFT RANGE 6.100 - 6.500				
<b>401004</b>	4.000		.350	VR1	V	401606	6.250		.310	VR3	V
	SHAFT RANGE 3.860 - 4.140						SHAFT RANGE 6.100 - 6.500				
401005	4.000		.530	VR2	V	401608	6.250		.275	VR1-SPL	#
	SHAFT RANGE 3.860 - 4.140						SHAFT RANGE 6.100 - 6.500				
<b>401100</b>	4.250		.410	VR1	R	<b>401700</b>	6.750		.470	VR1	R
	SHAFT RANGE 4.140 - 4.530						SHAFT RANGE 6.500 - 6.890				
401101	4.250		.610	VR2	R	401701	6.750		.710	VR2	R
	SHAFT RANGE 4.140 - 4.530						SHAFT RANGE 6.500 - 6.890				
<b>401104</b>	4.250		.410	VR1	V	401702	6.750		.310	VR3	R
	SHAFT RANGE 4.140 - 4.530						SHAFT RANGE 6.500 - 6.890				
401105	4.250		.610	VR2	V	<b>401704</b>	6.750		.470	VR1	V
	SHAFT RANGE 4.140 - 4.530						SHAFT RANGE 6.500 - 6.890				
<b>401200</b>	4.625		.410	VR1	R	401705	6.750		.710	VR2	V
	SHAFT RANGE 4.530 - 4.920						SHAFT RANGE 6.500 - 6.890				
401201	4.625		.610	VR2	R	401706	6.750		.310	VR3	V
	SHAFT RANGE 4.530 - 4.920						SHAFT RANGE 6.500 - 6.890				
<b>401204</b>	4.625		.410	VR1	V	<b>401800</b>	7.000		.470	VR1	R
	SHAFT RANGE 4.530 - 4.920						SHAFT RANGE 6.890 - 7.290				
401205	4.625		.610	VR2	V	401801	7.000		.710	VR2	R
	SHAFT RANGE 4.530 - 4.920						SHAFT RANGE 6.890 - 7.290				
401208	4.625		.260	VR1-SPL	#	401802	7.000		.310	VR3	R
	SHAFT RANGE 4.531 - 4.917						SHAFT RANGE 6.890 - 7.290				
<b>401300</b>	5.125		.410	VR1	R	<b>401804</b>	7.000		.470	VR1	V
	SHAFT RANGE 4.920 - 5.320						SHAFT RANGE 6.890 - 7.290				

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Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
401805	7.000		.710	VR2	V	<b>403203</b>	12.598		.196	VR4	R
	SHAFT RANGE 6.890 - 7.290						SHAFT RANGE 12.598-12.795				
401806	7.000		.310	VR3	V	<b>403250</b>	12.625		.790	VR1	R
	SHAFT RANGE 6.890 - 7.290						SHAFT RANGE 12.200 - 13.190				
<b>401900</b>	7.500		.470	VR1	R	403252	12.625		.310	VR3	R
	SHAFT RANGE 7.290 - 7.680						SHAFT RANGE 12.200 - 13.190				
401901	7.500		.710	VR2	R	<b>403254</b>	12.625		.790	VR1	V
	SHAFT RANGE 7.290 - 7.680						SHAFT RANGE 12.200 - 13.190				
401902	7.500		.310	VR3	R	403256	12.625		.310	VR3	V
	SHAFT RANGE 7.290 - 7.680						SHAFT RANGE 12.200 - 13.190				
<b>401904</b>	7.500		.470	VR1	V	<b>403500</b>	13.750		.790	VR1	R
	SHAFT RANGE 7.290 - 7.680						SHAFT RANGE 13.190 - 14.370				
401905	7.500		.710	VR2	V	403502	13.750		.310	VR3	R
	SHAFT RANGE 7.290 - 7.680						SHAFT RANGE 13.190 - 14.370				
401906	7.500		.310	VR3	V	<b>403504</b>	13.750		.790	VR1	V
	SHAFT RANGE 7.290 - 7.680						SHAFT RANGE 13.190 - 14.370				
<b>401990</b>	8.000		.470	VR1	R	403506	13.750		.310	VR3	V
	SHAFT RANGE 7.680 - 8.270						SHAFT RANGE 13.190 - 14.370				
401991	8.000		.710	VR2	R	<b>403603</b>	14.173		.196	VR4	R
	SHAFT RANGE 7.680 - 8.270						SHAFT RANGE 14.173-14.370				
<b>401994</b>	8.000		.470	VR1	V	<b>403750</b>	14.875		.790	VR1	R
	SHAFT RANGE 7.680 - 8.270						SHAFT RANGE 14.370 - 15.350				
401995	8.000		.710	VR2	V	403752	14.875		.310	VR3	R
	SHAFT RANGE 7.680 - 8.270						SHAFT RANGE 14.370 - 15.150				
<b>402000</b>	7.875		.790	VR1	R	<b>403753</b>	14.764		.196	VR4	R
	SHAFT RANGE 7.480 - 8.270						SHAFT RANGE 14.764-14.961				
402002	8.000		.310	VR3	R	<b>403754</b>	14.875		.790	VR1	V
	SHAFT RANGE 7.680 - 8.270						SHAFT RANGE 14.370 - 15.350				
<b>402004</b>	7.875		.790	VR1	V	403756	14.875		.310	VR3	V
	SHAFT RANGE 7.480 - 8.270						SHAFT RANGE 14.370 - 15.150				
402006	8.000		.310	VR3	V	<b>403903</b>	15.354		.196	VR4	R
	SHAFT RANGE 7.680 - 8.270						SHAFT RANGE 15.354-15.551				
<b>402200</b>	8.661		.787	VR1	R	<b>404000</b>	16.000		.790	VR1	R
	SHAFT RANGE 8.268 - 9.252						SHAFT RANGE 15.350 - 16.930				
402202	8.750		.310	VR3	R	404002	16.000		.310	VR3	R
	SHAFT RANGE 8.270 - 9.170						SHAFT RANGE 15.150 - 16.730				
<b>402204</b>	8.750		.790	VR1	V	<b>404003</b>	15.748		.196	VR4	R
	SHAFT RANGE 8.270 - 9.250						SHAFT RANGE 15.748-15.945				
402206	8.750		.310	VR3	V	<b>404004</b>	16.000		.790	VR1	V
	SHAFT RANGE 8.270 - 9.170						SHAFT RANGE 15.350 - 16.930				
<b>402500</b>	9.875		.790	VR1	R	404006	16.000		.310	VR3	V
	SHAFT RANGE 9.250 - 10.430						SHAFT RANGE 15.150 - 16.930				
402502	9.750		.310	VR3	R	<b>404103</b>	16.142		.196	VR4	R
	SHAFT RANGE 9.170 - 10.240						SHAFT RANGE 16.142-16.339				
<b>402504</b>	9.875		.790	VR1	V	<b>404303</b>	16.929		.196	VR4	R
	SHAFT RANGE 9.250 - 10.430						SHAFT RANGE 16.929-17.126				
402506	9.750		.310	VR3	V	<b>404500</b>	18.000		.790	VR1	R
	SHAFT RANGE 9.170 - 10.240						SHAFT RANGE 16.930 - 18.900				
<b>402750</b>	11.000		.790	VR1	R	404502	18.000		.310	VR3	R
	SHAFT RANGE 10.430 - 11.420						SHAFT RANGE 16.730 - 18.700				
402752	10.750		.310	VR3	R	<b>404503</b>	17.717		1.969	VR4	R
	SHAFT RANGE 10.240 - 11.220						SHAFT RANGE 17.717-17.913				
<b>402754</b>	11.000		.790	VR1	V	<b>404504</b>	18.000		.790	VR1	V
	SHAFT RANGE 10.430 - 11.420						SHAFT RANGE 16.930 - 18.900				
402756	10.750		.310	VR3	V	404506	18.000		.310	VR3	V
	SHAFT RANGE 10.240 - 11.220						SHAFT RANGE 16.730 - 18.700				
<b>403000</b>	11.875		.790	VR1	R	<b>404553</b>	17.913		.196	VR4	R
	SHAFT RANGE 11.420 - 12.200						SHAFT RANGE 17.913-18.110				
403002	11.750		.310	VR3	R	<b>404603</b>	18.110		1.969	VR4	R
	SHAFT RANGE 11.220 - 12.200						SHAFT RANGE 18.110-18.307				
<b>403004</b>	11.875		.790	VR1	V	<b>404703</b>	18.504		.196	VR4	R
	SHAFT RANGE 11.420 - 12.200						SHAFT RANGE 18.504-18.701				
403006	11.750		.310	VR3	V	<b>404803</b>	18.898		.196	VR4	R
	SHAFT RANGE 11.220 - 12.200						SHAFT RANGE 18.898-19.094				

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† Includes Bore-Tite on O.D.  
 ▲ WasteWatcher numbers

## Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
<b>404853</b>	19.094		.196	VR4	R	<b>407000</b>	27.000		.790	VR1	R
	SHAFT RANGE 19.094-19.291						SHAFT RANGE 26.180 - 27.760				
<b>404903</b>	19.291		.196	VR4	R	<b>407003</b>	27.559		.196	VR4	R
	SHAFT RANGE 19.291-19.488						SHAFT RANGE 27.559-27.953				
<b>405000</b>	19.875		.790	VR1	R	<b>407250</b>	28.500		.790	VR1	R
	SHAFT RANGE 18.900 - 20.870						SHAFT RANGE 27.760 - 29.330				
405002	19.875		.310	VR3	R	<b>407254</b>	28.540		.790	VR1	V
	SHAFT RANGE 18.900 - 20.870						SHAFT RANGE 27.760 - 29.330				
<b>405003</b>	19.685		.196	VR4	R	<b>407303</b>	28.740		.196	VR4	R
	SHAFT RANGE 19.685-19.882						SHAFT RANGE 28.740-29.134				
<b>405004</b>	19.875		.790	VR1	V	<b>407403</b>	29.134		.196	VR4	R
	SHAFT RANGE 18.900 - 20.870						SHAFT RANGE 29.134-29.528				
405006	19.875		.310	VR3	V	<b>407500</b>	30.125		.790	VR1	R
	SHAFT RANGE 18.700 - 20.080						SHAFT RANGE 29.330 - 30.910				
<b>405103</b>	20.079		.196	VR4	R	407502	29.823		.315	VR3	R
	SHAFT RANGE 20.079-20.276						SHAFT RANGE 29.130 -30.510				
<b>405203</b>	20.472		.196	VR4	R	<b>407503</b>	29.528		.196	VR4	R
	SHAFT RANGE 20.472-20.669						SHAFT RANGE 29.528-29.843				
405252	20.700		.310	VR3	R	<b>407603</b>	29.921		.196	VR4	R
	SHAFT RANGE 20.080 - 21.260						SHAFT RANGE 29.843-30.157				
<b>405303</b>	20.866		.196	VR4	R	<b>407703</b>	30.315		.196	VR4	R
	SHAFT RANGE 20.866-21.063						SHAFT RANGE 30.157-30.472				
<b>405500</b>	21.875		.790	VR1	R	<b>407803</b>	30.709		.196	VR4	R
	SHAFT RANGE 20.870 - 22.830						SHAFT RANGE 30.472-30.827				
405502	21.875		.310	VR3	R	<b>408000</b>	31.750		.790	VR1	R
	SHAFT RANGE 20.870 - 22.830						SHAFT RANGE 30.910 - 32.680				
<b>405503</b>	21.654		.196	VR4	R	<b>408003</b>	31.496		.196	VR4	R
	SHAFT RANGE 21.654-21.850						SHAFT RANGE 31.181-31.535				
<b>405504</b>	21.875		.790	VR1	V	<b>408500</b>	33.500		.790	VR1	R
	SHAFT RANGE 20.870 - 22.830						SHAFT RANGE 32.680 - 34.450				
<b>405603</b>	22.047		.196	VR4	R	<b>408503</b>	33.465		.196	VR4	R
	SHAFT RANGE 22.047-22.244						SHAFT RANGE 33.110-33.504				
<b>405703</b>	22.441		.196	VR4	R	<b>408903</b>	35.039		.196	VR4	R
	SHAFT RANGE 22.441-22.638						SHAFT RANGE 34.724-35.118				
<b>405753</b>	22.638		.196	VR4	R	<b>409000</b>	35.313		.790	VR1	R
	SHAFT RANGE 22.638-22.835						SHAFT RANGE 34.450 - 36.220				
<b>405803</b>	22.835		.196	VR4	R	<b>409003</b>	35.433		.196	VR4	R
	SHAFT RANGE 22.835-23.031						SHAFT RANGE 35.315-36.102				
<b>405903</b>	23.228		.196	VR4	R	<b>409203</b>	36.220		.196	VR4	R
	SHAFT RANGE 23.228-23.622						SHAFT RANGE 35.906-36.299				
<b>406000</b>	23.750		.790	VR1	R	<b>409500</b>	37.125		.790	VR1	R
	SHAFT RANGE 22.830 - 24.800						SHAFT RANGE 36.220 - 37.990				
406002	23.750		.310	VR3	R	<b>409503</b>	37.402		.196	VR4	R
	SHAFT RANGE 22.830 - 24.800						SHAFT RANGE 37.165-37.598				
<b>406003</b>	23.622		.196	VR4	R	<b>409703</b>	38.189		.196	VR4	R
	SHAFT RANGE 23.622-24.016						SHAFT RANGE 38.031-38.465				
<b>406004</b>	23.750		.790	VR1	V	<b>409808</b>	38.583		.196	VR4	R
	SHAFT RANGE 22.830 - 24.800						SHAFT RANGE 38.465-38.898				
<b>406103</b>	24.016		.196	VR4	R	<b>410000</b>	39.500		.790	VR1	R
	SHAFT RANGE 24.016-24.409						SHAFT RANGE 37.990 - 39.960				
<b>406203</b>	24.409		.196	VR4	R	<b>410003</b>	39.370		.196	VR4	R
	SHAFT RANGE 24.409-24.803						SHAFT RANGE 39.331-39.764				
<b>406303</b>	24.803		.196	VR4	R	<b>410500</b>	41.000		.790	VR1	R
	SHAFT RANGE 24.803-25.197						SHAFT RANGE 39.960 - 41.930				
<b>406403</b>	25.197		.196	VR4	R	<b>410503</b>	41.000		2.000	VR4	R
	SHAFT RANGE 25.197-25.591						SHAFT RANGE 40.550 - 41.350				
<b>406500</b>	25.500		.790	VR1	R	<b>410603</b>	41.732		.196	VR4	R
	SHAFT RANGE 24.800 - 26.180						SHAFT RANGE 41.142-41.929				
<b>406503</b>	25.591		.196	VR4	R	<b>411000</b>	43.000		.790	VR1	R
	SHAFT RANGE 25.591-25.984						SHAFT RANGE 41.930 - 43.900				
<b>406803</b>	26.772		.196	VR4	R	<b>411003</b>	43.307		.196	VR4	R
	SHAFT RANGE 26.772-27.165						SHAFT RANGE 42.717-43.504				
<b>406903</b>	27.165		.196	VR4	R	<b>411004</b>	43.307		.790	VR1	V
	SHAFT RANGE 27.165-27.559						SHAFT RANGE 41.929-43.897				

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Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	
411500	44.875		.790	VR1	R	419500	76.500		.790	VR1	R	
	SHAFT RANGE 43.900 - 45.870						SHAFT RANGE 75.590 - 77.560					
411603	45.669		.196	VR4	R	419503	76.772		.196	VR4	R	
	SHAFT RANGE 45.079-45.866						SHAFT RANGE 75.000-76.969					
412000	47.244		.787	VR1	R	419990	78.500		.790	VR1	R	
	SHAFT RANGE 45.870 - 47.840						SHAFT RANGE 77.560 - 79.530					
412003	47.244		.196	VR4	R	419993	78.740		.196	VR4	R	
	SHAFT RANGE 46.654-47.441						SHAFT RANGE 76.969-79.134					
412500	49.000		.790	VR1	R	420503	80.709		.196	VR4	R	
	SHAFT RANGE 47.840 - 50.000						SHAFT RANGE 79.134-81.496					
412503	49.000		2.000	VR4	R	450024	5.125			AXGSKT1		
	SHAFT RANGE 48.520 - 49.320						8-.516 DIA BOLT HOLES					
413000	51.000		.790	VR1	R	450155	7.000			AXGSKT1		
	SHAFT RANGE 50.000 - 51.970						8-.688 DIA BOLT HOLES					
413003	51.181		.196	VR4	R	450158	7.250			AXGSKT1		
	SHAFT RANGE 50.984-51.772						10-.656 DIA BOLT HOLES					
413500	53.000		.790	VR1	R	450166	3.000			AXGSKT6		
	SHAFT RANGE 51.970 - 53.940						4-.328 DIA BOLT HOLES					
413503	53.150		.196	VR4	R	450176	2.700			AXGSKT1		
	SHAFT RANGE 52.756-53.740						.406 DIA BOLT HOLE					
414000	55.000		.790	VR1	R	450189	5.250			AXGSKT1		
	SHAFT RANGE 53.940 - 55.910						6-.469 DIA BOLT HOLES					
414003	55.118		.196	VR4	R	450194	4.000			AXGSKT1		
	SHAFT RANGE 54.724-55.709						6-.469 DIA BOLT HOLES					
414500	56.875		.790	VR1	R	450431	5.047			AXGSKT1		
	SHAFT RANGE 55.910 - 57.870						8-.531 DIA BOLT HOLES					
414503	57.087		.196	VR4	R	450447	5.688		.035	AXGSKT1		
	SHAFT RANGE 56.693-57.677						8-.688 DIA BOLT HOLES					
415000	57.875		.790	VR1	R	451032	.938	1.188	.063	BUW	T	
	SHAFT RANGE 57.870 - 59.840						451033	9.313	10.000	.063	BUW	#
415003	59.055		.196	VR4	R	451037	2.000	2.375	.063	BUW	#	
	SHAFT RANGE 58.661-59.646						451046	1.625	2.000	.063	BUW	#
415500	60.875		.790	VR1	R	451047	1.000	1.313	.063	BUW	#	
	SHAFT RANGE 59.840 - 61.810						451056	.375	.625	.063	BUW	#
415503	61.024		.196	VR4	R	★451058	2.375	2.750	.063	BUW	#	
	SHAFT RANGE 60.630-61.811						451063	1.188	1.500	.063	BUW	T
416000	62.750		.790	VR1	R	451065	3.500	4.000	.063	BUW	#	
	SHAFT RANGE 61.810 - 63.780						451066	6.375	7.000	.063	BUW	#
416003	62.992		.196	VR4	R	451068	3.750	4.250	.063	BUW	#	
	SHAFT RANGE 62.992-64.567						451069	2.125	2.500	.063	BUW	#
416500	64.750		.790	VR1	R	451078	2.250	2.625	.063	BUW	#	
	SHAFT RANGE 63.780 - 65.750						451079	1.438	1.750	.063	BUW	#
416503	64.961		.196	VR4	R	451080	1.250	1.563	.063	BUW	#	
	SHAFT RANGE 64.567-66.142						451081	.625	.875	.063	BUW	#
417000	66.750		.790	VR1	R	451094	1.375	1.688	.063	BUW	#	
	SHAFT RANGE 65.750 - 67.720						451096	7.375	8.000	.063	BUW	#
417003	66.929		.196	VR4	R	451100	2.813	3.250	.063	BUW	#	
	SHAFT RANGE 66.142-67.717						451225	.500	.750	.063	BUW	#
417500	68.750		.790	VR1	R	★451232	.438	.688	.063	BUW	#	
	SHAFT RANGE 67.720 - 69.690						★451240	.563	.813	.063	BUW	#
417503	68.898		.196	VR4	R	451242	.875	1.125	.063	BUW	#	
	SHAFT RANGE 67.717-69.488						451245	.750	1.000	.063	BUW	#
418000	70.625		.790	VR1	R	451246	.813	1.063	.063	BUW	#	
	SHAFT RANGE 69.690 - 71.650						451248	2.500	2.938	.063	BUW	#
418003	70.866		.196	VR4	R	451249	1.875	2.250	.063	BUW	#	
	SHAFT RANGE 69.488-71.260						451253	2.500	2.875	.063	BUW	#
418500	72.625		.790	VR1	R	★451258	1.313	1.625	.063	BUW	#	
	SHAFT RANGE 71.650 - 73.620						451264	1.750	2.125	.063	BUW	#
418503	72.835		.196	VR4	R	451265	3.000	3.438	.063	BUW	#	
	SHAFT RANGE 71.260-73.031						451266	4.000	4.500	.063	BUW	#
419000	74.625		.790	VR1	R	451268	2.563	3.000	.063	BUW	#	
	SHAFT RANGE 73.620 - 75.590						451273	3.375	3.875	.063	BUW	#
419003	74.803		.196	VR4	R	451275	3.250	3.625	.063	BUW	#	
	SHAFT RANGE 73.031-75.000						451276	4.250	4.750	.063	BUW	#
						451284	.688	.938	.063	BUW	#	

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Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
451286	1.125	1.438	.063	BUW	#	480261	2.625	4.438	.781	KIT	R
451290	2.750	3.188	.063	BUW	#	SPEEDI-SLEEVE & SEAL KIT					
451291	3.063	3.500	.063	BUW	#	480262	2.625	4.563	.781	KIT	P
451293	5.125	5.750	.063	BUW	#	SPEEDI-SLEEVE & SEAL KIT					
451300	13.000	14.000	.063	BUW	#	480273	2.750	3.543	.781	KIT	P
451352	4.500	5.000	.063	BUW	#	SPEEDI-SLEEVE & SEAL KIT					
★451439	5.375	6.000	.063	BUW	#	480274	2.750	3.751	.781	†KIT	P
451486	.125	.313	.063	BUW	#	SPEEDI-SLEEVE & SEAL KIT					
451487	1.500	1.875	.063	BUW	#	480275	2.750	3.876	.781	KIT	P
451488	2.688	3.125	.063	BUW	#	SPEEDI-SLEEVE & SEAL KIT					
451489	2.938	3.375	.063	BUW	#	480278	2.750	4.249	.781	KIT	P
451490	3.313	3.750	.063	BUW	#	SPEEDI-SLEEVE & SEAL KIT					
451491	4.688	5.250	.063	BUW	#	480293	2.938	3.938	.781	KIT	P
★451493	4.938	5.500	.063	BUW	#	SPEEDI-SLEEVE & SEAL KIT					
451495	5.500	6.125	.063	BUW	#	480294	2.938	4.003	.781	KIT	P
480050	.500	.750		KIT	R	SPEEDI-SLEEVE & SEAL KIT					
480074	.750	.999		KIT	R	480299	3.000	3.751	.813	KIT	R
SPEEDI-SLEEVE & SEAL KIT						SPEEDI-SLEEVE & SEAL KIT					
480097	1.000	1.250	.313	KIT	R	480300	3.000	4.003	.813	KIT	P
SPEEDI-SLEEVE & SEAL KIT						SPEEDI-SLEEVE & SEAL KIT					
480098	1.000	1.499	.313	KIT	R	480303	3.000	4.249	.813	KIT	P
SPEEDI-SLEEVE & SEAL KIT						SPEEDI-SLEEVE & SEAL KIT					
480099	1.000	1.499	.313	KIT	R	480325	3.250	4.249	.813	†KIT	P
SPEEDI-SLEEVE & SEAL KIT						SPEEDI-SLEEVE & SEAL KIT					
480125	1.250	2.000	.313	KIT	R	480350	3.500	4.501	.813	KIT	P
SPEEDI-SLEEVE & SEAL KIT						SPEEDI-SLEEVE & SEAL KIT					
480148	1.500	2.372	.563	†KIT	R	480450	4.500	5.501	.813	KIT	R
SPEEDI-SLEEVE & SEAL KIT						SPEEDI-SLEEVE & SEAL KIT					
480149	1.550	2.254	.563	†KIT	R	504260	.500	1.000	.281	†SC	R
SPEEDI-SLEEVE & SEAL KIT						504261	.625	1.124	.281	SC	R
480150	1.500	2.377	.563	KIT	R	504262	.750	1.250	.281	SC	R
SPEEDI-SLEEVE & SEAL KIT						504263	.875	1.375	.281	SC	R
480151	1.500	2.502	.563	KIT	R	504264	1.000	1.500	.281	SC	R
SPEEDI-SLEEVE & SEAL KIT						504265	1.125	1.628	.281	SC	R
480152	1.500	2.374	.563	KIT	R	504266	1.250	1.752	.281	SC	R
SPEEDI-SLEEVE & SEAL KIT						504267	1.375	1.874	.281	SC	R
480168	1.688	2.502	.835	†KIT	R	504268	1.500	2.000	.281	SC	R
SPEEDI-SLEEVE & SEAL KIT						504269	1.625	2.125	.281	SC	R
480173	1.750	2.374	.563	†KIT	R	504270	1.750	2.250	.281	SC	R
SPEEDI-SLEEVE & SEAL KIT						504271	1.875	2.375	.281	SC	R
480176	1.750	2.718	.563	KIT	R	504272	2.000	2.502	.281	SC	R
SPEEDI-SLEEVE & SEAL KIT						504273	2.000	2.623	.281	SC	R
480177	1.766	2.412	.563	†KIT	R	504275	2.250	2.750	.281	SC	R
SPEEDI-SLEEVE & SEAL KIT						504277	2.500	3.000	.281	SC	R
480184	1.868	2.518	.889	†KIT	P	504279	2.750	3.250	.281	SC	R
SPEEDI-SLEEVE & SEAL KIT						504281	3.000	3.500	.281	SC	R
480185	1.875	2.561	.563	†KIT	P	504283	3.250	3.875	.328	SC	R
SPEEDI-SLEEVE & SEAL KIT						504285	3.500	4.125	.328	SC	R
480186	1.875	2.561	.563	KIT	P	504287	3.750	4.375	.328	SC	R
SPEEDI-SLEEVE & SEAL KIT						504289	4.000	4.625	.328	SC	R
480187	1.875	2.760	.563	†KIT	S	504291	4.250	4.875	.328	SC	R
SPEEDI-SLEEVE & SEAL KIT						504293	4.500	5.125	.328	SC	R
480198	2.000	2.745	.563	KIT	S	504297	5.500	6.127	.359	SC	R
SPEEDI-SLEEVE & SEAL KIT						505774	2.500	3.125	.281	SC	R
480219	2.188	3.188	.781	KIT	R	509543	1.688	2.183	.313	SC	R
SPEEDI-SLEEVE & SEAL KIT						510304	10.750	12.938	.719	HS9	R
480233	2.328	3.000	.750	KIT	P	510871	16.000	17.500	.734	HS9	R
SPEEDI-SLEEVE & SEAL KIT						510966	9.000	10.500	.609	HS9	R
480249	2.500	3.500	.781	KIT	R	511156	15.000	16.500	.734	HS9	R
SPEEDI-SLEEVE & SEAL KIT						511193	6.500	7.500	.350	HD1	D
480250	2.500	3.251	.781	KIT	R	QUILL WIPER					
SPEEDI-SLEEVE & SEAL KIT						511195	8.000	9.000	.350	HD1	D
480260	2.625	3.623	.781	†KIT	P	QUILL WIPER					
SPEEDI-SLEEVE & SEAL KIT						511196	8.000	9.500	.350	HD1	D
						QUILL WIPER					







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Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
524226	38.000	.813	1.250	CT1	R	524591	26.000	.938	1.375	CT1	R
	BORE DIA. IS SHOULDER WIDTH						BORE DIA. IS SHOULDER WIDTH				
524227	41.000	1.063	1.500	CT1	R	524592	27.250	.938	1.375	CT1	R
	BORE DIA. IS SHOULDER WIDTH						BORE DIA. IS SHOULDER WIDTH				
524228	41.500	1.063	1.500	CT1	R	524599	21.500	.813	1.250	CT1	R
	BORE DIA. IS SHOULDER WIDTH						BORE DIA. IS SHOULDER WIDTH				
524229	44.000	1.063	1.500	CT1	R	524657	22.750	.938	1.375	CT1	R
	BORE DIA. IS SHOULDER WIDTH						BORE DIA. IS SHOULDER WIDTH				
524230	47.500	1.063	1.500	CT1	R	524768	37.125	.813	1.250	CT1	R
	BORE DIA. IS SHOULDER WIDTH						BORE DIA. IS SHOULDER WIDTH				
524231	48.250	1.063	1.500	CT1	R	524815	16.750	.875	1.313	CT1	R
	BORE DIA. IS SHOULDER WIDTH						BORE DIA. IS SHOULDER WIDTH				
524232	51.500	1.063	1.500	CT1	R	524853	29.375	1.063	1.500	CT1	R
	BORE DIA. IS SHOULDER WIDTH						BORE DIA. IS SHOULDER WIDTH				
524294	32.250	.813	1.250	CT1	R	524909	43.375	.813	1.250	CT1	R
	BORE DIA. IS SHOULDER WIDTH						BORE DIA. IS SHOULDER WIDTH				
524347	22.000	.813	1.250	CT1	R	524928	11.000	.813	1.250	CT1	R
	BORE DIA. IS SHOULDER WIDTH						BORE DIA. IS SHOULDER WIDTH				
524360	17.000	.813	1.000	CT3	R	524940	29.000	1.063	1.500	CT1	R
	BORE DIA. IS SHOULDER WIDTH						BORE DIA. IS SHOULDER WIDTH				
524362	21.500	.813	1.000	CT3	R	524973	29.750	1.063	1.500	CT1	R
	BORE DIA. IS SHOULDER WIDTH						BORE DIA. IS SHOULDER WIDTH				
524363	22.000	.813	1.000	CT3	R	525029	13.563	.688	.875	CT3	R
	BORE DIA. IS SHOULDER WIDTH						BORE DIA. IS SHOULDER WIDTH				
524364	23.500	.938	1.375	CT1	R	525030	20.313	.750	.938	CT3	R
	BORE DIA. IS SHOULDER WIDTH						BORE DIA. IS SHOULDER WIDTH				
524365	23.750	.813	1.250	CT1	R	525031	23.438	.688	1.125	CT1	R
	BORE DIA. IS SHOULDER WIDTH						BORE DIA. IS SHOULDER WIDTH				
524366	28.000	.813	1.000	CT3	R	525032	28.813	.688	1.125	CT1	R
	BORE DIA. IS SHOULDER WIDTH						BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT				
524367	32.500	.813	1.250	CT1	R	525033	30.063	.688	1.125	CT1	R
	BORE DIA. IS SHOULDER WIDTH						BORE DIA. IS SHOULDER WIDTH				
524368	37.250	.813	1.250	CT1	R	525034	32.188	.813	1.250	CT1	R
	BORE DIA. IS SHOULDER WIDTH						BORE DIA. IS SHOULDER WIDTH				
524369	43.500	1.063	1.500	CT1	R	□ 525035	1016.00	25.40	36.53	CT1	R
	BORE DIA. IS SHOULDER WIDTH						BORE DIA. IS SHOULDER WIDTH				
524370	44.000	.813	1.250	CT1	R	525036	41.125	1.063	1.500	CT1	R
	BORE DIA. IS SHOULDER WIDTH						BORE DIA. IS SHOULDER WIDTH				
524371	48.865	1.063	1.500	CT1	R	525091	47.500	.813	1.250	CT1	R
	BORE DIA. IS SHOULDER WIDTH						BORE DIA. IS SHOULDER WIDTH				
524372	51.500	.813	1.250	CT1	R	525092	75.750	.813	1.250	CT1	R
	BORE DIA. IS SHOULDER WIDTH						BORE DIA. IS SHOULDER WIDTH				
524373	71.000	.813	1.250	CT1	R	525212	31.000	.813	1.250	CT1	R
	BORE DIA. IS SHOULDER WIDTH						BORE DIA. IS SHOULDER WIDTH				
524375	8.875	.688	.875	CT3	R	525320	37.000	1.063	1.500	CT1	R
	BORE DIA. IS SHOULDER WIDTH						BORE DIA. IS SHOULDER WIDTH				
524380	12.000	.688	.875	CT3	R	525327	1.181	1.654	.281	SC	R
	BORE DIA. IS SHOULDER WIDTH						525426				
524381	13.125	.688	.875	CT3	R		BORE DIA. IS SHOULDER WIDTH				
	BORE DIA. IS SHOULDER WIDTH						525448				
524382	15.313	.688	.875	CT3	R		9.625 11.000 .750 HDS1				
	BORE DIA. IS SHOULDER WIDTH						525582				
524383	15.313	.750	.938	CT3	R		12.000 1.063 1.500 CT1				
	BORE DIA. IS SHOULDER WIDTH						BORE DIA. IS SHOULDER WIDTH				
524386	16.313	.688	.875	CT3	R	525627	23.375	.938	1.375	CT1	R
	BORE DIA. IS SHOULDER WIDTH						BORE DIA. IS SHOULDER WIDTH				
524388	17.313	.688	.875	CT3	R	525633	40.875	1.063	1.500	CT1	R
	BORE DIA. IS SHOULDER WIDTH						BORE DIA. IS SHOULDER WIDTH				
524389	17.688	.750	.938	CT3	R	525637	23.750	.938	1.375	CT1	R
	BORE DIA. IS SHOULDER WIDTH						BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT				
524434	10.188	.688	.875	CT3	R	525669	11.500	13.500	1.000	HS6	R
	BORE DIA. IS SHOULDER WIDTH						525708				
524587	20.000	.813	1.250	CT1	R		18.500 .688 1.125 CT1				
	BORE DIA. IS SHOULDER WIDTH						BORE DIA. IS SHOULDER WIDTH				
						525737	17.500	.938	1.375	CT1	R
							BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT				
						525953	50.625	.813	1.250	CT1	R
							BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT				

Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
526021	47.500	.938	1.375	CT1	R	528036	11.968	.688	.875	CT3	R
	BORE DIA. IS SHOULDER WIDTH						BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT				
526192	18.500	.813	1.250	CT1	R	528070	17.688	3.313	3.750	CT4	R
	BORE DIA. IS SHOULDER WIDTH						BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT				
526244	31.750	.688	.875	CT3	R	528210	31.500	.813	1.250	CT1	R
	BORE DIA. IS SHOULDER WIDTH						BORE DIA. IS SHOULDER WIDTH				
526245	37.000	.813	1.000	CT3	R	528232	8.813	9.375	.250	HD1	D
	BORE DIA. IS SHOULDER WIDTH						QUILL WIPER				
526246	37.000	.813	1.250	CT1	R	528267	23.750	1.375	1.813	CT4	R
	BORE DIA. IS SHOULDER WIDTH						BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT				
526277	24.250	.813	1.000	CT3	R	528268	27.750	1.938	2.375	CT4	R
	BORE DIA. IS SHOULDER WIDTH						BORE DIA. IS SHOULDER WIDTH				
526302	9.500	11.500	.625	HDS1	R	528269	29.000	1.313	1.750	CT4	R
526339	22.000	24.000	1.250	HDS1	D		BORE DIA. IS SHOULDER WIDTH				
526582	37.500	.813	1.250	CT1	R	528270	29.375	1.125	1.563	CT4	R
	BORE DIA. IS SHOULDER WIDTH						BORE DIA. IS SHOULDER WIDTH				
526618	49.250	51.125	.813	HS7	R	528271	41.969	2.063	2.500	CT4	R
526650	16.750	19.250	1.000	HDS1	R		BORE DIA. IS SHOULDER WIDTH				
	W/LIGHT SPRING					528272	41.875	1.188	1.625	CT4	R
526651	16.500	19.000	1.000	HDS1	R		BORE DIA. IS SHOULDER WIDTH				
	W/LIGHT SPRING					528273	44.000	1.313	1.750	CT4	R
526715	31.750	.813	1.250	CT1	R		BORE DIA. IS SHOULDER WIDTH				
	BORE DIA. IS SHOULDER WIDTH					528307	14.000	16.250	1.000	HDSA2	VD
526741	21.500	3.313	3.750	CT4	R	528308	18.000	20.250	1.000	HDSA2	VD
	BORE DIA. IS SHOULDER WIDTH					528377	7.250	8.250	.500	HS7	R
526806	39.500	.813	1.250	CT1	R	528415	44.000	.938	1.375	CT1	R
	BORE DIA. IS SHOULDER WIDTH						BORE DIA. IS SHOULDER WIDTH				
526807	55.000	.813	1.250	CT1	R	528416	36.000	.688	1.125	CT1	R
	BORE DIA. IS SHOULDER WIDTH						BORE DIA. IS SHOULDER WIDTH				
526808	63.500	.813	1.250	CT1	R	528525	57.000	.813	1.250	CT1	R
	BORE DIA. IS SHOULDER WIDTH						BORE DIA. IS SHOULDER WIDTH				
526809	70.000	.813	1.250	CT1	R	528526	53.000	.813	1.250	CT1	R
	BORE DIA. IS SHOULDER WIDTH						BORE DIA. IS SHOULDER WIDTH				
526867	33.063	.813	1.250	CT1	R	528532	40.500	1.063	1.500	CT1	R
	BORE DIA. IS SHOULDER WIDTH						BORE DIA. IS SHOULDER WIDTH				
527099	10.875	12.875	.578	HS6	R	528535	17.000	1.063	1.500	CT1	R
527120	61.250	63.438	.953	HS9	R		BORE DIA. IS SHOULDER WIDTH				
527121	63.250	65.434	.953	HS9	R	528536	20.875	.688	.875	CT3	R
527211	47.000	1.063	1.500	CT1	R		BORE DIA. IS SHOULDER WIDTH				
	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT					<b>528623</b>	25.750	26.875	.500	HS8	R
527232	28.000	.813	1.250	CT1	R		2 PKGS REQ'D - 1 CUT EACH				
	BORE DIA. IS SHOULDER WIDTH					□ 528631	229.01	18.11	29.21	CT1	R
527301	6.500	7.500	.625	HS7	R		BORE DIA. IS SHOULDER WIDTH				
527312	10.750	12.750	.750	HDS1	V	528651	23.750	1.375	1.813	CT4	R
527345	.551	1.063	.281	SC	R		BORE DIA. IS SHOULDER WIDTH				
527474	41.500	.813	1.250	CT1	R	528720	9.000	10.500	.625	HS7	R
	BORE DIA. IS SHOULDER WIDTH					528745	8.000	.688	.875	CT3	R
527664	2.205	2.716	.281	SC	R		BORE DIA. IS SHOULDER WIDTH				
□ 527806	254.00	17.48	28.57	CT1	R	528759	.375	.625	.125	BB	R
	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT						W/STAINLESS STEEL CASE				
527819	9.000	.688	1.125	CT1	R	528762	.750	1.250	.125	BB	R
	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT						W/STAINLESS STEEL CASE				
527820	8.250	.688	1.125	CT1	R	□ 528780	254.00	20.62	25.40	CT3	R
	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT						BORE DIA. IS SHOULDER WIDTH				
□ 527903	1016.00	27.00	38.10	CT1	R	528926	27.000	.813	1.000	CT3	R
	BORE DIA. IS SHOULDER WIDTH						BORE DIA. IS SHOULDER WIDTH				
▲ 527935	.375	.625	.125	BB	R	528927	52.000	1.063	1.500	CT1	R
▲ 527937	.625	1.125	.125	BB	R		BORE DIA. IS SHOULDER WIDTH				
▲ 527938	.750	1.250	.125	BB	R	528975	67.750	.813	1.250	CT1	R
▲ 527939	1.000	1.563	.188	BB	R		BORE DIA. IS SHOULDER WIDTH				
528002	44.000	1.313	1.750	CT4	R	529086	46.500	.813	1.250	CT1	R
	BORE DIA. IS SHOULDER WIDTH						BORE DIA. IS SHOULDER WIDTH				
528035	8.000	.688	.875	CT3	R	□ 529129	1270.00	23.83	34.92	CT1	R
	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT						BORE DIA. IS SHOULDER WIDTH				

★ Contact manufacturer for availability  
**Bold numbers** are preferred designs

□ Metric numbers

† Includes Bore-Tite on O.D.  
 ▲ WasteWatcher numbers

## Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
529130	51.250	.938	1.375	CT1	R	<b>534952</b>	1.375	2.047	.276	†CRWA1	V
	BORE DIA. IS SHOULDER WIDTH					<b>534953</b>	.875	1.624	.256	†CRWA1	V
529276	24.250	1.438	1.875	CT4	R	<b>534954</b>	4.250	5.251	.374	†CRWA1	V
	BORE DIA. IS SHOULDER WIDTH					<b>534955</b>	1.250	2.125	.256	†CRWA1	V
529379	39.875	1.063	1.500	CT1	R	<b>534956</b>	.748	2.047	.276	†CRWA1	V
	BORE DIA. IS SHOULDER WIDTH					<b>534957</b>	1.875	2.441	.315	CRWA1	V
529452	39.500	.688	1.125	CT1	R	<b>534958</b>	1.563	2.047	.276	†CRWA1	V
	BORE DIA. IS SHOULDER WIDTH					535107	1.189	1.654	.236	HM3	H
529489	6.625	.688	1.125	CT1	R	536585	1.312	1.813	.280	HMS-SPL	R
	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT					536587	1.245	1.750	.312	HMS-SPL	R
529490	8.625	.688	1.125	CT1	R	536588	1.245	1.750	.390	HMS-SPL	R
	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT					<b>536589</b>	.788	1.262	.250	CRWA6	R
529517	77.500	.813	1.250	CT1	R	536599	.815	1.623	.248	HMS-SPL	R
	BORE DIA. IS SHOULDER WIDTH					538266	1.000	2.356	.270	X15	R
<b>529601</b>	7.750	8.750	.500	HS8	R	★ <b>538338</b>	1.562	2.460	.374	CRWA1	V
<b>529752</b>	9.938	12.000	1.000	HDS2	R	538565	1.399	1.964	.235	SPL	R
529760	16.000	.688	.875	CT3	R	539171	3.625	4.235	.195	SLINGER	R
	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT					<b>541651</b>	2.375	3.251	.433	†CRWHA1	R
529823	26.875	.813	1.000	CT3	R	<b>541974</b>	4.375	6.063	.500	CRWH1	R
	BORE DIA. IS SHOULDER WIDTH					<b>542726</b>	1.875	2.875	.315	CRWH1	R
529858	15.500	17.500	1.031	HDSA2	VD	<b>544167</b>	1.000	1.499	.374	†CRWA5	P
530096	8.875	.688	.875	CT3	R	<b>544257</b>	1.000	1.686	.256	†CRW1	V
	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT					<b>546751</b>	2.750	3.500	.250	†HM14	V
530396	40.063	1.718	2.156	CT4	R	<b>546770</b>	3.500	4.125	.250	†HM14	V
	BORE DIA. IS SHOULDER WIDTH					<b>546953</b>	1.500	2.000	.313	CRW1	V
<b>530414</b>	33.000	34.250	.625	HS5	D	<b>546966</b>	.500	1.250	.250	†CRW1	V
530441	48.000	.813	1.000	CT3	R	550074	1.000	1.442	.250	HMS1	P
	BORE DIA. IS SHOULDER WIDTH					550085	2.063	2.875	.375	†CRSA1	R
530448	41.375	.875	1.313	CT1	R	550095	1.375	1.947	.563	F2	RF
	BORE DIA. IS SHOULDER WIDTH					<b>550154</b>	1.750	2.441	.313	†CRWA1	R
530466	36.000	.813	1.250	CT1	R	<b>550185</b>	1.875	2.830	.391	HMS4	R
	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT					550189	.859	1.574	.630	HMSA127	R
530468	20.500	.813	1.000	CT3	R	□ <b>550199</b>	40.00	62.00	11.50	HMS4	R
	BORE DIA. IS SHOULDER WIDTH					▲ <b>550217</b>	1.496	2.051	.335	HMSA33	R
530484	1.000	1.781	.250	HM21	R		W/2.275 FLANGE				
<b>530513</b>	11.688	13.500	.866	HS8	R	550224	1.281	2.047	.625	HMSA92	R
	1 PKG/2 CUTS						P.F. WIDTH .451				
530589	23.750	.813	1.000	CT3	R	□ <b>550225</b>	48.00	65.00	7.00	HMA2	R
	BORE DIA. IS SHOULDER WIDTH					□ <b>★550227</b>	36.00	52.00	9.50	HMA10	R
530606	47.500	.750	1.188	CT1	R	▲□ <b>550228</b>	43.00	55.00	8.00	HMA3	R
	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT					▲□ <b>550230</b>	40.00	62.00	10.00	HMA10	R
530661	51.500	.938	1.375	CT1	R	□ <b>550231</b>	35.00	55.00	11.00	HMSA7	R
	BORE DIA. IS SHOULDER WIDTH					▲□ <b>550232</b>	41.00	56.00	7.00	HMS4	R
530733	14.000	1.063	1.500	CT1	R	550234	1.535	2.913	.433	†HMSA2	R
	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT					★ <b>550235</b>	1.535	2.559	.472	HMSA35	R
531069	35.125	.688	.875	CT3	R		W/AXIAL DIRT LIP				
	BORE DIA. IS SHOULDER WIDTH					□ <b>550237</b>	42.00	55.00	7.00	HMSA3	R
<b>531194</b>	7.874	9.055	.625	HDS2	R	□ <b>550241</b>	55.00	82.00	10.00	†HM3	R
<b>531331</b>	9.500	11.000	.625	HS8	R	550242	1.890	2.441	.354	HMA31	R
531456	73.000	1.063	1.500	CT1	R		P.F. WIDTH .354				
	BORE DIA. IS SHOULDER WIDTH					▲□ <b>550244</b>	43.00	65.00	12.00	†HMSA2	R
<b>531572</b>	60.250	62.313	.750	HS8	R	▲ <b>550247</b>	1.575	2.049	.354	HMSA32	R
531635	8.938	.688	1.125	CT1	R		W/2.204 FLANGE				
	BORE DIA. IS SHOULDER WIDTH					★ <b>550250</b>	1.496	2.165	.315	†CRWA1	R
531679	9.500	11.500	1.250	HSDS1	VV	★ <b>550253</b>	1.654	2.480	.276	HMS4	R
531719	28.188	.688	.875	CT3	R	★ <b>550259</b>	1.575	2.205	.276	HMS4	R
	BORE DIA. IS SHOULDER WIDTH					▲ <b>550270</b>	1.496	2.047	.335	HMSA33	R
532293	10.500	11.500	.350	HD1	D		W/2.266 FLANGE				
	QUILL WIPER					□ <b>550280</b>	48.00	63.00	11.00	HMSA7	R
<b>532866</b>	1.063	1.512	.256	†CRW1	P	□ <b>550284</b>	22.00	40.00	12.00	HMSA7	R
<b>533803</b>	1.618	2.254	.235	CRW1	R	□ <b>550294</b>	45.00	68.00	8.00	†CRWA1	R
<b>534948</b>	.625	1.850	.276	CRWA1	V	<b>555364</b>	1.378	1.851	.276	HMSA7	R
<b>534949</b>	.945	2.441	.315	CRWA1	V	<b>562456</b>	5.512	6.693	.591	HMSA7	V
<b>534950</b>	1.312	2.062	.315	CRWA1	V	590015	9.620	10.875	.625	HDS1	R
<b>534951</b>	1.378	1.850	.276	CRWA1	V	590039	9.250	11.250	1.375	HSDS1	DD

Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
590062	9.000	10.375	.625	HDS1	R	590750	8.250	10.500	.875	HDS1	R
590070	9.500	11.125	.625	HDS1	R	590751	8.500	10.500	.688	HDS1	R
590093	9.250	10.750	.750	HDS1	R	590754	8.500	10.500	1.000	HDS1	R
590133	9.750	11.000	.750	HDS1	R	590755	8.500	10.500	1.125	HDSA1	RD
590166	9.500	11.000	.750	HS7	R	590756	8.500	10.500	1.250	HDS1	R
590174	9.125	11.125	.688	HDS1	R	590757	8.500	10.500	1.250	HDS1	RR
590237	8.250	10.250	.813	HDS1	R	590758	8.625	10.500	.750	HDS1	R
590244	8.500	10.500	1.000	HDS1	R	590761	9.000	10.500	.688	HDS1	R
	W/4 EA	.188	LUGS			590762	9.250	10.500	.625	HDS1	R
590245	8.500	10.500	1.250	HDSA1	RD	590763	9.250	10.500	.750	HDS1	R
590252	8.250	10.250	.688	HDS1	R	590764	9.375	10.625	.625	HS7	R
590270	9.125	10.625	.688	HDS1	R	590765	8.375	10.625	.875	HDS1	R
590284	9.438	11.500	.875	HDS1	R	590766	8.625	10.625	.688	HDS1	R
590312	8.125	10.125	.750	HDS1	R	□ 590767	240.00	270.00	16.00	HDS1	R
590326	8.000	10.000	.750	HS7	R	590769	8.750	10.750	.875	HDS1	R
590351	9.938	12.000	1.000	HDS1	R	590770	8.750	10.750	1.000	HDS1	R
590357	8.250	10.250	1.250	HDSB1	RD	590773	8.750	10.750	1.750	HDSE1	RR
590358	8.250	10.250	1.000	HDS1	R	590774	9.000	10.750	.750	HDS1	R
590363	9.875	11.375	.750	HDS1	R	590775	9.250	10.750	.688	HDS1	R
590375	9.500	11.500	1.250	HDSA1	RD	590776	9.500	10.750	.625	HDS1	R
590376	8.063	10.062	1.000	HDS1	R	590778	8.661	10.819	.950	HDS1	R
590408	8.750	10.000	.625	HDS1	R	590779	9.375	10.875	.750	HS7	R
<b>590419</b>	9.000	10.000	.500	HS8	R	590780	8.875	10.875	.750	HDS1	R
590422	9.750	12.000	.875	HDS1	R	590781	8.875	10.875	1.000	HDS1	R
590442	9.125	10.625	.750	HDS1	R	590782	9.563	10.875	.625	HDS1	R
590444	9.938	11.938	.875	HDS1	R	590783	9.625	10.875	.750	HDS1	R
590448	8.750	10.500	.750	HDS1	R	590784	9.625	10.875	.875	HDS1	R
590463	8.000	10.000	.750	HDS1	R	590785	9.750	11.000	.625	HS7	R
590465	8.438	10.438	.875	HDS1	R	<b>590787</b>	9.000	11.000	.750	HDS2	R
590472	9.250	11.375	.875	HDS1	R	<b>590788</b>	9.000	11.000	.875	HDS2	D
590485	9.375	11.000	.750	HDS1	R	590791	9.250	11.000	1.375	HDS1	RR
590492	9.000	10.000	.625	HS7	R	590792	9.500	11.000	.625	HDS1	R
590503	8.500	10.000	.625	HDS1	R		W/4 EA	.125	LUGS		
590546	8.750	10.250	.750	HDS1	R	590795	9.750	11.125	.750	HDS1	R
590567	9.125	11.000	.750	HDS1	R	590797	9.250	11.250	.750	HDS1	R
590568	8.750	11.000	.875	HDS1	R	590798	9.250	11.250	1.000	HDS1	R
590578	8.500	10.500	.750	HS7	R	590800	9.750	11.250	.750	HDS1	R
590609	9.125	11.125	1.000	HDS1	R	590806	9.375	11.375	.750	HDS1	R
590622	9.000	10.375	.750	HDS1	R	590810	9.438	11.438	.875	HDS1	R
□ <b>590632</b>	230.00	280.00	16.00	HDS2	R	590811	9.000	11.500	1.000	HDS1	R
	W/4 EA	3.20MM	LUGS			590812	9.375	11.500	.875	HDS1	R
590653	9.500	11.000	.625	HDS1	R	590813	9.500	11.500	.750	HDS1	R
590655	9.750	11.250	.625	HDS1	R	590814	9.500	11.500	.813	HDS1	R
590665	9.719	11.625	.700	HDS1	R	590816	9.500	11.500	.938	HDS1	R
590688	9.375	12.750	1.250	HDSB1	RD	<b>590817</b>	9.500	11.500	.938	HDS2	R
590701	9.250	11.250	.688	HDS1	R	590818	9.500	11.500	.938	HDS1	R
590720	8.250	9.750	.625	HDS1	R		W/6 EA	.125	LUGS		
590723	8.750	10.000	.625	HS7	R	<b>590819</b>	9.500	11.500	.938	HDS2	R
590724	9.000	10.000	.500	HS7	R		W/6 EA	.250	LUGS		
590725	8.000	10.000	.688	HDS1	R	590820	9.500	11.500	1.000	HDS1	R
<b>590726</b>	8.000	10.000	.750	HDS2	R	590828	8.625	11.750	1.000	HDS1	R
	W/3 EA	.125	LUGS			590832	9.750	11.750	.750	HDS1	R
590727	8.000	10.000	1.250	HDSC1	RD	590839	9.449	11.803	.984	HDS1	R
590729	8.250	10.000	.750	HDS1	R	590841	9.875	11.875	.688	HDS1	R
590730	8.500	10.000	.688	HDS1	R	590842	9.875	11.875	.875	HDS1	R
590731	8.500	10.000	1.000	HDSA1	RD	<b>590848</b>	8.500	10.500	.750	HS8	R
590732	8.625	10.000	.750	HDS1	R	590850	9.875	12.000	.875	HDS1	R
590733	8.000	10.002	1.000	HDSB1	RD	590851	9.875	12.000	1.000	HDS1	R
590735	8.625	10.125	.688	HDS1	R	591881	9.250	10.500	.625	HS7	R
590738	9.000	10.125	.750	HDS1	R	591897	9.750	11.750	.688	HDS1	R
590739	8.125	10.250	.875	HDS1	R	591905	9.875	10.875	.500	HS7	R
590741	8.250	10.250	.875	HDS1	R	591921	8.250	10.250	.875	HDSB1	RD
590746	8.375	10.375	1.000	HDS1	R	591929	8.250	10.250	.750	HS7	R
<b>590747</b>	9.188	10.375	.750	HDS2	D	591932	9.500	11.250	.625	HDS1	R
590749	9.500	10.500	.500	HS7	R	591939	8.625	10.750	1.000	HDS1	R

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† Includes Bore-Tite on O.D.  
 ▲ WasteWatcher numbers

## Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
□ 591941	250.00	280.00	16.00	HDS1	D	<b>592600</b>	9.000	10.500	.750	HS8	R
591960	9.500	11.500	1.250	HDSC1	DD	<b>592607</b>	9.500	10.500	.500	HS8	R
591973	9.250	10.750	.688	HDS1	R	<b>592623</b>	9.563	10.563	.500	HS8	R
	W/4 EA .125 LUGS					<b>592626</b>	8.750	10.000	.625	HDS2	R
591977	8.000	10.000	.875	HDSA1	RD	<b>592627</b>	8.750	10.000	.625	HS8	R
591978	8.375	10.375	.750	HDS1	R	<b>592631</b>	8.500	10.000	.500	HS8	R
<b>591981</b>	9.620	10.625	.500	HS8	R	592642	9.375	11.375	1.000	HDS1	R
591984	8.875	10.875	.875	HDSA1	RD	592650	8.875	11.000	.875	HDS1	R
591988	9.375	10.875	.750	HDS1	R	<b>592651</b>	9.375	11.375	.875	HS8	R
592013	9.125	11.375	.875	HDS1	R	592652	8.625	10.625	1.000	HDS1	R
592016	9.250	10.875	.750	HDS1	R	592653	9.125	10.375	.625	HDS1	R
592028	9.000	11.000	1.250	HDS1	RR	592654	9.000	11.250	.875	HDS1	R
592042	9.500	11.000	.625	HS7	R	592661	8.625	10.250	.750	HDS1	R
592051	9.438	10.625	.750	HDS1	R	592669	9.000	10.250	.750	HDS1	D
592075	8.000	10.000	1.125	HDSA2	RD	592683	9.055	10.621	.630	HDS1	R
592092	8.375	9.625	.625	HS7	R	<b>592692</b>	8.500	10.500	.625	HS8	R
592126	9.438	10.688	.625	HS7	R	<b>592693</b>	9.500	11.000	.625	HDS2	R
592149	8.500	10.500	1.000	HDSB1	RD	592707	8.188	10.188	1.000	HDS1	R
592161	8.000	10.000	.906	HDSB1	RD	592713	9.375	10.625	.625	HS6	R
592180	8.250	9.500	.625	HS7	R	592714	9.000	11.054	.750	HDS1	R
592199	9.620	10.625	.500	HS7	R	592723	8.250	9.500	.625	HDS1	R
592206	8.625	10.125	.750	HDS1	R		W/4 EA .125 LUGS				
592209	9.500	10.750	.625	HS7	R	592727	9.875	11.500	.750	HDS1	R
592214	9.000	10.625	.625	HDS1	R	<b>592731</b>	9.938	11.438	.750	HS8	R
592217	8.625	10.125	.750	HS7	R	<b>592741</b>	9.250	10.500	.750	HDS2	R
592272	9.750	11.500	.750	HDS1	R	<b>592763</b>	9.875	11.375	.750	HDS2	R
592289	8.875	10.125	.625	HDS1	R	<b>592773</b>	25.980	27.625	1.500	HDS2	R
592327	8.750	10.750	1.375	HDSE1	RR		W/4EA .500 LUGS				
592328	8.000	10.000	1.000	HDSB1	RD	<b>592779</b>	9.000	10.674	.703	HS8	R
592336	8.000	10.000	1.250	HDSA1	RD	592780	8.250	9.500	.875	HDS1	R
592345	9.125	11.125	.813	HDS1	R	□ 592787	335.00	375.00	18.00	HDS1	R
<b>592348</b>	9.250	10.750	.750	HDS2	D	592795	8.858	11.016	.906	HDS1	R
<b>592358</b>	8.625	10.625	.750	HDS2	R	592796	47.375	48.875	.750	HS7	R
<b>592376</b>	8.000	9.250	.625	HS8	R	592798	8.500	10.500	.875	HDSA1	VD
592380	8.250	10.250	1.750	HDSE1	RR	592800	8.125	10.135	.750	HDS1	R
592397	9.438	11.500	1.000	HDS1	R	592816	9.938	12.125	1.000	HDS1	R
592404	8.625	10.125	.625	HS7	R	592817	33.000	35.000	.813	HS7	D
<b>592420</b>	9.625	10.875	.750	HDS2	R	592826	8.063	10.190	.875	HDS1	R
592428	8.750	10.625	.750	HDS1	R	592830	8.375	10.375	.750	HS7	R
592433	8.625	10.625	.750	HDS1	R	<b>592835</b>	8.250	9.500	.625	HDS2	R
592452	9.250	11.000	1.375	HDSA1	RD		W/4 EA .125 LUGS				
592458	8.875	10.125	.625	HS7	R	<b>592845</b>	28.000	29.500	.750	HDS2	R
<b>592459</b>	8.875	10.125	.625	HS8	R	592847	9.875	11.875	1.000	HDSA2	RD
592462	9.375	11.375	.750	HDS1	D	<b>592858</b>	9.250	11.250	.750	HS8	R
592463	9.938	12.000	.750	HDS1	D	592865	15.313	17.313	.813	HDSA2	RD
592464	8.875	11.250	.875	HDSA1	RD	□ 592869	320.00	350.00	18.00	HDS1	R
592480	8.500	10.000	.750	HDS1	R	592879	45.000	47.000	.813	HDS1	R
592483	8.750	10.750	.750	HDS1	R	592880	51.000	53.000	.813	HDS1	R
592488	8.500	10.500	.875	HDSA1	RD	592914	9.000	11.062	.750	HDS1	R
592492	8.750	10.750	.875	HDSA1	RD	592915	11.417	12.984	.630	HDS1	R
<b>592493</b>	8.000	10.000	.875	HDS2	D	592917	9.842	11.016	.630	HDS1	R
<b>592501</b>	9.750	11.125	.750	HDS2	R	<b>592920</b>	13.125	15.125	.750	HS8	R
<b>592514</b>	9.000	10.187	.625	HDS2	R	592934	16.250	3.063	3.500	CT4	R
□ 592515	220.00	260.00	16.00	HDS1	R		BORE DIA. IS SHOULDER WIDTH				
<b>592519</b>	6.750	8.000	.625	HS8	R	<b>592939</b>	18.500	20.500	.875	HDS2	D
592520	9.625	11.125	.625	HS7	R	<b>592942</b>	8.250	9.500	.625	HDS2	D
592529	9.938	11.438	.750	HS7	R	□ 592944	454.03	504.83	19.05	HDS1	R
<b>592546</b>	9.375	11.375	1.000	HS8	R		W/SS CASE				
<b>592556</b>	8.250	10.250	.750	HS8	R	□ 592964	240.00	300.00	25.00	HDS1	R
	W/HOOK & EYE SPRING CONNECTOR					592982	8.000	11.000	1.000	HDS1	R
592562	9.250	11.500	.875	HDS1	R	592988	9.750	10.750	.500	HS7	R
592572	8.500	10.500	.750	HDS1	R	<b>592991</b>	8.875	10.375	.750	HS8	R
592576	8.625	10.750	.875	HDS1	R	593020	8.500	9.750	.625	HDS1	R
592580	9.063	11.214	1.000	HDSA1	RD	593037	14.000	.938	1.375	CT1	R
592581	9.000	10.250	.625	HS7	R		BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT				



Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	
593047	43.500	45.500	.875	HDS1	R	593374	9.438	11.500	.875	HDS3	D	
	W/6 EA .125 LUGS											
593053	9.750	11.000	.875	HDSA1	RD	593375	9.500	10.750	.625	HDS3	D	
593081	9.500	11.500	1.250	HDS1	RR		W/4 EA .500 ADJ. LUGS					
593129	9.438	11.250	.625	HDS1	R	<b>593376</b>	9.500	10.750	.625	HS8	R	
<b>593133</b>	9.500	11.000	.625	HDS2	R	W/HOOK & EYE SPRING CONNECTOR						
<b>593138</b>	9.000	10.500	.625	HDS2	D	593378	9.500	11.250	.625	HDS3	D	
□ 593171	380.00	27.00	38.10	CT1	R		W/4 EA .500 ADJ. LUGS					
	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT						593380	9.625	10.875	.750	HDS3	D
593177	9.750	11.250	.750	HS7	R		W/4 EA .500 ADJ. LUGS					
593180	44.000	1.063	1.500	CT1	R	<b>593382</b>	9.750	11.000	.625	HS8	R	
	BORE DIA. IS SHOULDER WIDTH						W/HOOK & EYE SPRING CONNECTOR					
593198	8.125	9.378	.625	HDS1	R	593384	9.750	11.250	.625	HDS3	D	
593212	8.375	10.500	.875	HDS1	R		W/4 EA .500 ADJ. LUGS					
<b>593239</b>	8.125	10.000	.625	HDS2	RR	593385	9.750	11.250	.625	HS7	R	
593263	9.250	11.250	1.375	HDSE2	RR	<b>593386</b>	9.750	11.250	.625	HS8	R	
593285	36.563	.688	1.125	CT1	R	W/HOOK & EYE SPRING CONNECTOR						
	BORE DIA. IS SHOULDER WIDTH					593387	9.750	11.500	.750	HDS3	D	
593302	9.063	10.750	.625	HDS1	R		W/4 EA .500 ADJ. LUGS					
593312	9.250	11.250	.875	HDSA1	VD	593388	9.750	11.750	.750	HDS3	D	
593315	15.000	16.500	1.250	HDS1	VV		W/4 EA .500 ADJ. LUGS					
593340	8.125	10.125	.625	HDS3	D	593389	9.875	11.875	.688	HDS3	D	
	W/4 EA .500 ADJ. LUGS						W/4 EA .500 ADJ. LUGS					
<b>593342</b>	8.250	9.500	.625	HS8	R	<b>593392</b>	8.500	10.500	.625	HS8	R	
	W/HOOK & EYE SPRING CONNECTOR					<b>593393</b>	8.750	10.000	.625	HS8	R	
593344	8.250	11.500	.750	HDS3	D	W/HOOK & EYE SPRING CONNECTOR						
	W/4 EA .500 ADJ. LUGS					<b>593394</b>	8.875	10.125	.625	HS8	R	
593345	8.375	10.375	.750	HDS3	D	W/HOOK & EYE SPRING CONNECTOR						
	W/4 EA .500 ADJ. LUGS					<b>593395</b>	9.000	10.250	.625	HS8	R	
<b>593346</b>	8.375	10.375	.750	HS8	R	W/HOOK & EYE SPRING CONNECTOR						
	W/HOOK & EYE SPRING CONNECTOR					<b>593396</b>	9.000	10.500	.625	HS8	R	
593349	8.500	10.500	.625	HS7	R	W/HOOK & EYE SPRING CONNECTOR						
593350	8.625	10.625	.625	HDS3	D	<b>593397</b>	9.375	10.625	.625	HS8	R	
	W/4 EA .500 ADJ. LUGS					W/HOOK & EYE SPRING CONNECTOR						
593351	8.750	10.000	.625	HDS3	D	<b>593398</b>	9.500	10.500	.500	HS8	R	
	W/4 EA .500 ADJ. LUGS					W/HOOK & EYE SPRING CONNECTOR						
593352	8.750	10.250	.688	HDS3	D	593428	9.750	11.000	1.000	HDSA1	DD	
	W/4 EA .500 ADJ. LUGS					593434	8.250	10.385	.875	HDS1	R	
593353	8.750	10.750	.750	HDS3	D	□ 593438	210.00	245.00	16.00	HDS1	R	
	W/4 EA .500 ADJ. LUGS					<b>593446</b>	8.000	10.000	.750	HDS2	R	
593354	8.875	10.875	.750	HDS3	D	<b>593460</b>	9.016	10.236	.625	HS8	R	
	W/4 EA .500 ADJ. LUGS					<b>593467</b>	9.250	11.250	.625	HDS2	R	
593355	8.875	11.000	.875	HDS3	D	593487	8.688	10.500	.625	HDS1	R	
	W/4 EA .500 ADJ. LUGS					□ 593489	224.00	260.00	16.00	HDS1	R	
<b>593357</b>	9.000	10.000	.625	HS8	R	<b>593492</b>	9.750	11.000	.625	HDS2	R	
	W/HOOK & EYE SPRING CONNECTOR						W/4 EA .375 LUGS					
<b>593362</b>	9.000	11.000	.625	HS8	R	<b>593499</b>	12.500	14.500	.750	HDS2	R	
	W/HOOK & EYE SPRING CONNECTOR					<b>593511</b>	8.250	10.000	.750	HDS2	R	
593363	9.125	10.625	.688	HDS3	D	593517	13.500	15.500	1.250	HDSB1	VD	
	W/4 EA .500 ADJ. LUGS					□ 593525	1270.00	20.62	25.40	CT3	R	
593365	9.250	10.500	.625	HDS3	D	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT						
	W/4 EA .500 ADJ. LUGS					593526	15.313	.688	.875	CT3	R	
<b>593366</b>	9.250	10.500	.625	HS8	R	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT						
	W/HOOK & EYE SPRING CONNECTOR					□ 593546	230.00	285.00	23.00	HDS1	R	
593368	9.250	11.000	.750	HDS3	D	593564	42.563	.813	1.000	CT3	R	
	W/4 EA .500 ADJ. LUGS					BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT						
593369	9.250	11.250	.750	HDS3	D	593604	26.911	2.438	2.875	CT4	R	
	W/4 EA .500 ADJ. LUGS					BORE DIA. IS SHOULDER WIDTH						
593370	9.250	11.250	.750	HS7	R	593606	36.000	.688	1.125	CT1	R	
593371	9.250	11.500	.875	HDS3	D	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT						
	W/4 EA .500 ADJ. LUGS					<b>593607</b>	9.134	10.624	.688	HDS2	D	
593372	9.375	10.625	.625	HDS3	D	<b>593611</b>	9.750	11.000	.625	HDS2	R	
	W/4 EA .500 ADJ. LUGS					<b>593624</b>	14.500	15.906	.770	HS8	R	
593373	9.375	11.375	.750	HDS3	D	W/HOOK & EYE SPRING CONNECTOR						
	W/4 EA .500 ADJ. LUGS											

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## Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
593625	9.250	11.250	.625	HS7	R	□ 594241	533.00	20.65	31.75	CT1	R
593629	11.750	.688	1.125	CT1	R		BORE DIA. IS SHOULDER WIDTH				
	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT					594250	15.250	.688	1.125	CT1	R
□ 593637	185.00	24.99	30.00	CT1	R		BORE DIA. IS SHOULDER WIDTH				
	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT					□ 594271	220.00	260.00	20.00	HDS1	R
<b>593644</b>	8.250	10.250	.750	HDS2	D	□ 594272	280.00	330.00	24.00	HDS1	R
<b>593646</b>	9.750	11.000	.625	HDS2	D	594292	9.625	11.625	1.500	HDSE1	RR
593650	12.000	13.500	.750	HS9	R		W/8 EA LUBE HOLES				
593659	9.625	11.625	1.000	HDSC1	RD	<b>594316</b>	76.000	78.000	.813	HS8	R
<b>593666</b>	9.500	11.500	.625	HDS2	D	<b>594318</b>	8.500	10.000	.625	HS8	R
593667	9.500	11.500	1.250	HDSA2	DD	<b>594326</b>	14.000	15.000	.625	HS8	V
<b>593729</b>	9.000	10.250	.625	HDS2	D	<b>594327</b>	12.750	14.250	.625	HS8	V
	W/4 EA .500 LUGS					594330	12.100	14.000	1.250	HDSB1	R
<b>593740</b>	8.500	10.000	.625	HDS2	D	594333	8.750	10.250	.875	HDSC1	RD
<b>593743</b>	9.000	10.500	.625	HDS2	R	594334	6.625	.688	1.125	CT1	R
□ 593764	1260.00	1300.00	18.00	HDS1	R		BORE DIA. IS SHOULDER WIDTH				
<b>593768</b>	8.500	9.750	.625	HDS2	D	<b>594341</b>	7.087	8.087	.500	HS8	V
<b>593779</b>	8.875	10.125	.625	HDS2	D	594343	8.500	.813	1.000	CT3	R
<b>593782</b>	8.500	10.000	.625	HDS2	R		BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT				
593789	20.000	21.500	.875	HDSA1	VD	594356	21.500	23.500	1.000	HDSA1	RD
593810	23.000	24.500	.875	HDSC1	DD	<b>594360</b>	21.750	23.250	.625	HS8	R
<b>593855</b>	8.540	9.750	.625	HDS2	D	<b>594361</b>	24.000	25.500	.750	HS8	R
<b>593880</b>	22.000	24.000	1.250	HDS2	D	<b>594362</b>	25.000	27.000	.875	HS8	R
593894	9.438	10.635	.750	HDS1	R	<b>594364</b>	9.875	11.375	.750	HDS2	R
593907	8.625	10.000	.625	HDS1	R		W/4 EA .500 ADJ. LUGS				
<b>593936</b>	9.790	11.125	.625	HDS2	D	594369	10.750	.688	1.125	CT1	R
593949	32.375	.813	1.250	CT1	R		BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT				
	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT					<b>594375</b>	25.000	26.500	.750	HS8	D
<b>593959</b>	22.000	25.750	1.250	HDS2	R	<b>594376</b>	11.500	12.750	.625	HDS2	R
<b>593960</b>	22.000	26.000	1.750	HDS2	R	594395	41.250	.688	.875	CT3	R
<b>593975</b>	8.750	10.625	.750	HDS2	R		BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT				
594007	9.000	11.000	1.250	HDS1	VV	594396	53.000	.813	1.000	CT3	R
594025	15.000	.688	1.125	CT1	R		BORE DIA. IS SHOULDER WIDTH				
	BORE DIA. IS SHOULDER WIDTH					□ <b>594397</b>	240.00	270.00	16.00	HDS2	R
<b>594057</b>	13.375	14.875	.625	HS8	R		W/6 EA 3.20MM LUGS				
594059	24.000	.813	1.000	CT3	R	□ 594431	600.00	18.90	30.00	CT1	R
	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT					594432	15.500	.688	.875	CT3	R
594080	9.688	10.875	.625	HDS1	R		BORE DIA. IS SHOULDER WIDTH				
594082	163.078	.813	1.250	CT1	R	594494	42.000	1.063	1.500	CT4	R
	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT						BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT				
594083	103.000	.813	1.250	CT1	R	<b>594502</b>	9.500	10.500	.500	HS8	V
	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT					594503	8.500	9.500	.500	HS7	V
594084	25.625	27.750	1.000	HDSA1	VL	<b>594508</b>	7.438	8.438	.500	HS8	V
594110	13.813	1.063	1.500	CT1	R	594528	9.435	10.500	.625	HS7	R
	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT					<b>594536</b>	6.614	7.638	.512	HS8	D
<b>594146</b>	9.563	10.563	.500	HS8	D	<b>594641</b>	9.000	10.500	.625	HS5	R
	W/HOOK & EYE SPRING CONNECTOR					594648	7.000	1.063	1.500	CT1	R
594163	59.000	1.188	1.625	CT4	R		BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT				
	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT					594653	15.313	.750	.938	CT3	R
594181	19.500	.688	1.125	CT1	R		BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT				
	BORE DIA. IS SHOULDER WIDTH					594654	17.688	.750	.938	CT3	R
594186	8.345	10.750	1.250	HDS1	R		BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT				
□ 594190	389.99	20.62	25.40	CT3	R	594681	16.813	.813	1.000	CT3	R
	BORE DIA. IS SHOULDER WIDTH						BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT				
<b>594196</b>	14.000	16.000	.625	HS8	R	□ <b>594732</b>	250.00	280.00	15.00	HS8	R
	W/HOOK & EYE SPRING CONNECTOR					□ 594734	300.00	19.23	24.00	CT3	R
<b>594197</b>	15.000	17.000	.625	HS8	R		BORE DIA. IS SHOULDER WIDTH				
	W/HOOK & EYE SPRING CONNECTOR					594740	15.000	16.000	.350	HD1	D
<b>594200</b>	10.500	11.500	.500	HS8	V		QUILL WIPER				
<b>594201</b>	21.000	23.000	.813	HS8	V	594744	7.000	8.250	.625	HDS1	R
594202	36.563	2.523	2.960	CT4	R	<b>594745</b>	8.500	9.500	.500	HS8	V
	BORE DIA. IS SHOULDER WIDTH					<b>594753</b>	9.938	11.188	.625	HS8	R
<b>594211</b>	7.480	8.480	.500	HS8	D	594760	6.438	7.688	.625	HS7	R
<b>594222</b>	13.500	15.500	.813	HS8	R		W/HOOK & EYE SPRING CONNECTOR				

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Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	
594768	7.000	8.250	.625	HS6	R	□ 595110	410.00	12.50	23.83	CT1	R	
	W/HOOK & EYE SPRING CONNECTOR						BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT					
□ 594770	530.00	575.00	20.00	HS5	R	□ 595118	978.00	1018.00	18.00	HS5	R	
□ 594780	240.00	23.80	28.57	CT3	R	□ 595122	250.00	285.00	16.00	HDS2	D	
	BORE DIA. IS SHOULDER WIDTH						595126	6.000	7.702	.734	HS8	R
□ 594784	655.00	28.91	40.00	CT4	R	595127	8.875	10.125	.875	HDSA2	DD	
	BORE DIA. IS SHOULDER WIDTH						595130	9.375	11.375	.875	HDS1	V
□ 594785	825.00	17.48	28.57	CT1	R	□ 595139	200.00	230.00	15.87	HDS1	R	
	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT						595145	7.875	9.375	.625	HDS2	D
594799	32.500	.500	.688	CT3	R		W/SPARK FREE I.D.					
	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT						595146	7.750	9.250	.625	HDS2	D
□ 594814	300.00	19.23	24.00	CT3	R		W/SPARK FREE I.D.					
	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT						□ 595165	240.00	270.00	15.00	HS8	R
594828	6.625	8.125	.875	HDSA2	V	□ 595167	778.00	818.00	20.50	HS5	D	
594829	9.000	10.125	.625	HS8	R	□ 595168	712.00	757.00	20.50	HS5	D	
594846	7.000	8.500	.750	HS6	R	□ 595169	490.00	530.00	20.50	HS5	D	
	W/HOOK & EYE SPRING CONNECTOR						595175	14.361	15.748	.709	HS4	R
□ 594849	410.00	454.00	20.00	HS5	R	595181	11.500	12.500	.500	HS5	R	
594850	11.500	13.250	.750	HS5	R	□ 595185	186.00	226.00	16.00	HS8	R	
594856	29.000	.688	.875	CT3	R	595189	9.063	10.300	.625	HDS1	R	
	BORE DIA. IS SHOULDER WIDTH						□ 595190	240.00	279.00	22.00	HS5	R
□ 594857	190.00	230.00	16.00	HS8	R	□ 595191	350.00	400.00	25.40	HS5	R	
□ 594874	573.00	18.99	31.97	CT1	R	□ 595192	520.00	570.00	24.00	HS5	R	
	BORE DIA. IS SHOULDER WIDTH						□ 595193	280.00	325.00	24.00	HS5	R
594889	10.000	12.000	.625	HS8	V	□ 595194	400.00	450.00	25.00	HS5	R	
594890	6.750	8.250	.750	HS8	R	□ 595195	230.00	269.00	22.00	HS5	R	
□ 594897	240.00	280.00	16.00	HDS2	D	□ 595196	215.00	270.00	23.00	HDS2	R	
594902	8.500	10.500	1.000	HDSA2	VD	□ 595199	480.00	530.00	25.00	HS5	R	
594903	9.000	11.000	1.000	HDSA2	VD	□ 595203	250.00	310.00	25.00	HDS1	R	
594906	9.688	11.500	.625	HDS3	D	595206	6.875	8.125	.625	HS8	R	
	W/4 EA .500 ADJ. LUGS						595207	7.625	8.875	.625	HS8	R
□ 594916	185.00	220.00	12.70	HS8	R	595208	125.000	126.250	.625	HS8	R	
□ 594917	220.00	260.00	14.27	HS8	R	□ 595210	2850.00	2900.00	20.62	HS8	D	
594926	106.000	107.000	.500	HS8	R	□ 595211	3000.00	3050.00	20.62	HS8	D	
594934	8.750	10.250	.625	HDS1	R	595214	171.900	173.876	.812	HS8	R	
594935	8.000	9.000	.625	HS8	V	□ 595215	1055.00	1100.00	25.00	HS5	D	
594939	8.750	10.000	.750	HDS1	V	595219	9.844	11.409	.875	HDSC2	R	
594941	8.500	10.000	.500	HS8	D	595248	9.000	10.250	.625	HS8	V	
594954	15.250	.688	1.125	CT1	R	□ 595249	225.00	257.00	16.00	HDS1	R	
	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT						595267	7.000	8.500	.625	HDS2	R
594967	8.500	10.500	.625	HDS2	V	595276	9.063	11.214	1.257	HDS2	DD	
594972	7.000	8.375	.688	HS8	R	595279	8.500	9.750	.625	HDS1	D	
594974	9.750	11.125	.875	HDSA2	D		W/ LT. SPRING					
594975	7.000	8.375	.625	HS8	R	□ 595291	400.00	444.00	20.00	HS5	R	
595004	8.938	9.938	.625	HS7	R	□ 595294	160.00	200.00	15.88	HS8	D	
595012	7.250	8.250	.500	HS8	R		W/ LT. SPRING					
595014	6.750	8.000	.625	HS8	V	□ 595298	240.00	270.00	16.00	HDS2	V	
595016	36.750	1.063	1.500	CT1	R		W/4 EA 3.20MM LUGS					
	BORE DIA. IS SHOULDER WIDTH						595304	8.500	9.750	.625	HS7	R
595022	8.000	9.000	.500	HS8	V	□ 595315	240.00	290.00	20.00	HDS1	R	
595036	8.000	9.750	.750	HDS2	V	□ 595319	220.00	260.00	22.00	HDS2	D	
595042	8.750	10.000	.625	HS8	D	595322	16.250	.813	1.250	CT1	R	
595044	20.000	22.000	.500	HS5	R		BORE DIA. IS SHOULDER WIDTH					
595055	5.500	6.750	.750	HS7	R	595323	7.188	8.640	.625	HS7	R	
□ 595058	235.00	270.00	16.00	HDS2	R	595326	8.000	10.000	.750	HS6	R	
595063	7.875	9.375	1.281	HDSE1	RR	595327	8.000	10.000	.750	HS8	R	
□ 595073	170.00	200.00	16.00	HS8	V		W/HOOK & EYE SPRING CONNECTOR					
□ 595075	220.00	250.00	15.00	HS8	R	595328	8.188	10.000	.750	HDS2	R	
595079	6.250	1.000	1.437	CT1	R	595331	9.250	10.438	.875	HDSA1	VD	
	BORE DIA. IS SHOULDER WIDTH						595348	7.250	8.750	.625	HDS2	R
595093	7.000	8.000	.500	HS8	V	□ 595371	250.00	280.00	16.00	HDS2	D	
□ 595101	200.00	238.10	19.10	HS8	R	□ 595373	1612.00	20.65	25.40	CT3	R	
595106	9.875	11.875	1.000	HDS2	R		BORE DIA. IS SHOULDER WIDTH					
595109	7.086	.688	.876	CT3	R	595376	8.250	11.500	.750	HDS2	D	
	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT						595389	6.750	7.750	.625	HDS1	R

★ Contact manufacturer for availability  
**Bold numbers** are preferred designs

□ Metric numbers

† Includes Bore-Tite on O.D.  
 ▲ WasteWatcher numbers

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Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
<b>595404</b>	8.000	9.500	.625	HS5	R	<b>595718</b>	9.000	10.500	.750	HDS2	R
□ <b>595408</b>	200.00	240.00	20.00	HDS2	R		W/4 EA .250 LUGS				
□ <b>595409</b>	200.00	255.00	22.00	HDS2	R	595732	8.000	9.375	.750	HDS1	R
□ <b>595410</b>	210.00	265.00	23.00	HDS2	R	595752	8.900	10.625	.625	HDS1	R
□ <b>595411</b>	224.00	274.00	20.00	HDS2	R	<b>595761</b>	7.125	8.125	.500	HS5	R
□ <b>595412</b>	230.00	285.00	23.00	HDS2	R	<b>595762</b>	6.750	8.125	.750	HS8	R
□ <b>595413</b>	238.00	290.00	25.40	HDS2	R	□ <b>595763</b>	250.00	280.00	16.00	HDS2	R
	W/6 EA 12.70MM ADJ. LUGS					□ 595792	250.00	290.00	16.00	HDS1	R
□ <b>595414</b>	245.00	305.00	28.00	HDS2	R	595810	9.688	10.875	.625	HDS1	D
□ <b>595415</b>	250.00	285.00	16.00	HDS2	R	<b>595813</b>	7.750	8.750	.625	HS5	D
<b>595431</b>	9.500	11.500	1.000	HS8	R	<b>595822</b>	7.500	8.750	.625	HS5	D
595437	8.000	10.000	1.375	HDSE2	R	595826	6.000	7.000	.625	HSF1	R
	W/8 EA LUBE HOLE					□ 595831	250.00	280.00	16.00	HDS1	V
<b>595438</b>	9.000	11.000	.750	HDS2	H	□ 595847	250.00	290.00	16.50	HDS3	D
595455	20.313	.750	.938	CT3	R		W/6 EA 12.70MM ADJ. LUGS				
	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT					□ <b>595851</b>	220.00	260.00	22.00	HDS2	V
<b>595457</b>	8.500	9.750	.625	HS8	R	<b>595873</b>	16.000	17.000	.500	HS5	D
	W/HOOK & EYE SPRING CONNECTOR					□ 595880	210.00	245.00	16.00	HDS1	V
□ 595464	240.00	23.82	29.00	CT3	R	595881	53.000	54.875	.813	HS4	R
	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT					<b>595888</b>	8.000	10.000	.688	HS8	R
595473	8.500	10.000	.625	HDS1	V		W/HOOK & EYE SPRING CONNECTOR				
595474	7.750	9.250	.625	HDS1	V	595909	9.500	11.500	1.000	HDS1	R
595475	7.875	9.375	.625	HDS1	V		W/4 EA .375 LUGS				
<b>595476</b>	9.625	10.625	.500	HS8	V	<b>595922</b>	9.500	10.750	.625	HDS2	D
	W/HOOK & EYE SPRING CONNECTOR					□ <b>595930</b>	240.00	275.00	16.00	HDS2	D
<b>595485</b>	9.000	10.187	.625	HDS2	V	□ 595932	170.00	210.00	16.00	HDS1	R
<b>595493</b>	8.500	10.500	.625	HS8	H	595943	18.875	.750	.938	CT3	R
	W/HOOK & EYE SPRING CONNECTOR						BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT				
595513	8.500	9.750	.870	HDSA2	D	595958	6.875	8.375	.750	HS7	R
595514	9.750	11.250	.875	HDSA2	D	□ 595998	230.00	265.00	16.00	HDS1	R
595527	8.500	10.000	1.250	HDS1	DD		W/4 EA 12.70MM ADJ. LUGS				
	W/LUBE HOLES ON O.D.					□ 595999	220.00	255.00	16.00	HDS1	R
595529	9.438	11.250	.625	HDS3	D		W/4 EA 12.70MM ADJ. LUGS				
	W/4 EA .500 ADJ. LUGS					□ 596014	240.00	275.00	16.00	HDS1	R
595530	9.750	10.750	.500	HS6	R		W/4 EA 12.70MM ADJ. LUGS				
	W/HOOK & EYE SPRING CONNECTOR					□ 596016	230.00	270.00	16.00	HDS1	R
<b>595536</b>	9.000	10.500	.750	HS8	D	<b>596043</b>	6.438	7.688	.625	HS5	R
<b>595566</b>	8.625	10.125	.609	HS5	R	□ 596044	420.00	460.00	20.00	HDS1	V
595568	9.750	11.750	1.000	HDSA1	D	□ 596045	500.00	560.00	18.00	HDS1	V
□ 595573	240.00	280.00	23.00	HDSA1	R		W/6 EA 12.70MM ADJ. LUGS				
□ <b>595577</b>	240.00	270.00	16.00	HDS2	D	□ 596046	600.00	660.00	18.00	HDS1	V
595604	9.500	1.063	1.500	CT1	R		W/6 EA 12.70MM ADJ. LUGS				
	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT					<b>596047</b>	27.953	29.921	.787	HS8	D
595613	9.500	.688	1.125	CT1	R	□ <b>596048</b>	220.00	260.00	15.00	HS8	R
	BORE DIA. IS SHOULDER WIDTH					□ 596050	3810.00	20.65	31.75	CT3	R
595617	7.250	8.750	.625	HDS1	V		BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT				
	W/4 EA .250 LUGS					596054	8.661	9.661	.500	HS6	V
595635	23.250	.813	1.250	CT1	R		W/HOOK & EYE SPRING CONNECTOR				
	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT					596055	11.811	12.811	.500	HS6	V
595636	33.250	.813	1.250	CT1	R		W/HOOK & EYE SPRING CONNECTOR				
	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT					<b>596061</b>	8.875	10.375	.625	HS8	V
595637	18.750	.813	1.250	CT1	R	<b>596062</b>	9.840	11.020	.625	HS8	V
	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT					□ <b>596075</b>	519.00	560.00	25.00	HS5	D
<b>595643</b>	7.188	8.640	.625	HS5	R	<b>596076</b>	7.025	8.500	.625	HDS2	V
□ <b>595651</b>	224.00	260.00	16.00	HDS2	R	<b>596078</b>	7.938	9.500	.625	HDS2	V
□ 595668	240.00	280.00	20.00	HS7	R	<b>596079</b>	7.875	9.500	.625	HDS2	V
595670	36.563	.815	.875	CT1	R	<b>596080</b>	7.835	9.500	.625	HDS2	V
	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT					596098	12.625	1.063	1.500	CT1	R
595675	8.250	9.500	.625	HDS1	R		BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT				
□ <b>595680</b>	325.00	368.00	20.00	HS5	R	596110	10.438	1.063	1.500	CT1	R
□ <b>595681</b>	310.00	354.00	20.00	HS5	R		BORE DIA. IS SHOULDER WIDTH				
<b>595683</b>	9.000	10.125	.625	HS8	R	596111	8.375	9.875	.687	HDS1	R
<b>595687</b>	25.500	27.500	1.000	HS5	R	<b>596128</b>	7.188	8.640	.625	HDS2	R
□ 595693	200.00	238.00	19.00	HS6	R	□ <b>596132</b>	150.00	180.00	15.88	HS8	R

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Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	
596161	6.000	.687	.875	CT3	R	596570	22.750	.938	1.375	CT1	R	
	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT						BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT					
596174	8.653	10.039	.630	HDS1	R	596571	20.500	.813	1.000	CT3	R	
★596179	17.000	18.500	.625	HDS7	R		BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT					
596180	19.250	20.750	.625	HDS7	R	□597284	220.00	255.00	18.00	HDS2	R	
□596185	210.00	240.00	20.00	HDS1	V	□597287	240.00	275.00	18.00	HDS2	R	
596196	8.500	10.000	.875	HDSA1	V	□597293	230.00	260.00	15.00	HDS7	R	
596198	8.375	9.750	.750	HDS7	R	597304	5.750	7.202	.750	HS6	R	
596199	9.000	10.498	.750	HDS7	R	597334	6.250	1.000	1.437	CT1	R	
	W/4 EA .250 LUGS						BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT					
596200	9.000	10.498	.750	HDS7	R	□597336	2900.00	2959.00	17.33	HS6	R	
596207	7.938	9.500	.625	HDS2	R	597343	9.000	10.500	.875	HDSA1	RD	
□596225	220.00	250.00	16.00	HS8	D	700036	.258	.449	.109	BV	R	
596227	9.000	10.750	.250	HD1	D	700054	.313	.500	.094	BV	R	
	QUILL WIPER						700101	.438	.688	.125	BV	R
596233	8.813	10.125	.625	HDS3	D	701084	1.000	1.313	.156	BV	D	
	W/4 EA .500 ADJ. LUGS						702011	1.750	2.125	.188	BV	D
□596239	250.00	290.00	15.88	HS8	R	702028	2.000	2.375	.188	BV	D	
□596289	2500.00	20.73	25.50	CT3	R	703023	3.000	3.438	.219	BV	D	
	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT						704009	4.000	4.500	.250	BV	R
□596290	3980.00	20.73	25.50	CT3	R	★705012	5.125	5.750	.313	BV	R	
	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT						709001	.500	.802	.203	WS	R
□596296	200.00	240.00	16.00	HDS1	H	709002	.625	.927	.203	WS	R	
□596309	245.00	290.00	15.00	HS4	V	709003	.688	.990	.203	WS	R	
□596324	220.00	260.00	16.00	HS8	R	709004	.750	1.052	.203	WS	R	
596327	48.000	.812	1.000	CT3	R	709005	.875	1.240	.219	WS	R	
	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT						709006	1.000	1.365	.219	WS	R
□596335	230.00	260.00	16.00	HDS1	R	709007	1.125	1.490	.219	WS	R	
□596344	235.00	270.00	16.00	HDS7	H	709008	1.250	1.615	.219	WS	R	
□596345	235.00	270.00	15.00	HDS7	H	709009	1.375	1.740	.219	WS	R	
596346	8.071	9.843	.630	HDS1	R	709010	1.500	1.865	.219	WS	R	
596362	6.438	7.688	.625	HS8	R	709011	1.625	1.990	.219	WS	R	
596375	7.750	9.250	1.250	HDSE2	VV	709012	1.750	2.115	.219	WS	R	
□596382	290.00	350.00	25.00	HDS7	R	709014	2.000	2.365	.219	WS	R	
□596393	364.00	406.00	17.00	HDS7	D	709015	2.125	2.490	.219	WS	R	
596394	9.055	10.236	.591	HDS1	V	709016	2.250	2.745	.281	WS	R	
596400	42.000	3.313	3.750	CT4	R	709018	2.500	2.995	.281	WS	R	
	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT						709019	2.750	3.245	.281	WS	R
596405	77.500	2.938	3.375	CT4	R	709020	3.000	3.495	.281	WS	R	
	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT						709021	3.250	3.745	.281	WS	R
596414	10.000	12.000	.625	HS8	V	709022	3.500	3.995	.281	WS	R	
	W/HOOK & EYE SPRING CONNECTOR						709023	3.750	4.245	.281	WS	R
596415	8.500	10.000	.625	HDS7	R	709024	4.000	4.495	.281	WS	R	
596425	7.680	9.250	.500	HS8	R	709025	4.250	4.745	.281	WS	R	
	W/HOOK & EYE SPRING CONNECTOR						709026	4.500	4.995	.281	WS	R
596435	13.125	.687	.875	CT3	R	709029	5.000	5.495	.281	WS	R	
	BORE DIA. IS SHOULDER WIDTH W/BUTT JOINT						709030	5.250	5.745	.281	WS	R
□596450	170.00	200.00	15.00	HDS2	R	709031	5.500	5.995	.281	WS	R	
596455	9.750	10.750	.350	HD1	D	709034	6.000	6.495	.281	WS	R	
	QUILL WIPER						710087	2.125	2.500	.188	BV	D
□596462	230.00	260.00	15.88	HDS1	V	710212	.625	.875	.125	BV	R	
596465	6.938	9.000	.625	HDS1	V	★710695	9.313	10.000	.344	BV	D	
596466	9.250	10.500	.625	HDS2	V	710696	.563	.813	.125	BV	R	
□596468	210.00	240.00	20.00	HDS2	V	710989	1.250	1.563	.156	BV	R	
596487	9.188	10.938	.750	HDS1	R	711080	1.000	1.250	.125	BV	R	
□596490	310.00	350.00	18.00	HDS3	D	711566	11.250	12.000	.375	BV	R	
	W/4 EA 12.70MM ADJ. LUGS						711800	.125	.313	.094	BV	R
596517	13.250	14.750	.688	†HDS2	R	711801	.188	.375	.094	BV	R	
□596518	215.00	248.00	15.00	HDS1	R	711802	.188	.438	.125	BV	R	
□596548	230.00	270.00	16.00	HDS2	V	711803	.250	.500	.125	BV	R	
596556	6.938	9.000	.625	HDS1	V	711804	.313	.563	.125	BV	R	
596561	9.750	11.000	.625	HDS7	R	711805	.375	.625	.125	BV	R	
596566	9.500	11.000	.625	HDS7	H	711806	.500	.750	.125	BV	R	
596567	8.000	9.500	.625	HDS7	H	711807	.688	.938	.125	BV	R	
						711809	.813	1.063	.125	BV	R	

★Contact manufacturer for availability  
**Bold numbers** are preferred designs

□ Metric numbers

† Includes Bore-Tite on O.D.  
 ▲ WasteWatcher numbers

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Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
711810	.875	1.125	.125	BV	R	721503	.625	.875	.125	BV	V
711811	.938	1.188	.125	BV	R	721506	.813	1.063	.125	BV	D
711812	.938	1.250	.156	BV	R	721507	.813	1.063	.125	BV	V
711814	1.063	1.375	.156	BV	R	721508	1.125	1.438	.156	BV	D
711816	1.125	1.438	.156	BV	R	721509	1.875	2.250	.188	BV	D
711817	1.188	1.500	.156	BV	D	721510	.438	.688	.125	BV	D
711818	1.313	1.625	.156	BV	R	★721511	.938	1.188	.125	BV	D
711820	1.438	1.750	.156	BV	R	721512	.313	.563	.125	BV	V
711822	1.500	1.875	.188	BV	R	721513	.500	.750	.125	BV	V
711823	1.625	2.000	.188	BV	D	721514	.875	1.125	.125	BV	V
711824	1.875	2.250	.188	BV	R	721515	1.625	2.000	.188	BV	V
711825	.750	1.000	.125	BV	R	721516	.750	1.000	.125	BV	V
711826	1.375	1.688	.156	BV	D	721517	2.563	3.000	.219	BV	V
711828	2.375	2.750	.188	BV	R	721518	.500	.750	.125	BV	D
711829	2.500	2.875	.188	BV	R	721519	.188	.375	.094	BV	V
711831	2.563	3.000	.219	BV	D	721520	.625	.875	.125	BV	D
711832	2.750	3.188	.219	BV	R	721521	.375	.625	.125	BV	D
711833	2.688	3.125	.219	BV	R	★721522	.188	.375	.094	BV	D
711834	2.813	3.250	.219	BV	D	721523	.125	.313	.094	BV	V
711835	2.938	3.375	.219	BV	R	721524	.875	1.125	.125	BV	D
711836	3.063	3.500	.219	BV	R	721526	.250	.500	.125	BV	V
711838	3.250	3.625	.188	BV	R	721527	.438	.688	.125	BV	V
711839	3.375	3.875	.250	BV	R	721528	.938	1.250	.156	BV	V
711840	3.313	3.750	.219	BV	R	721529	1.000	1.313	.156	BV	V
711841	3.500	4.000	.250	BV	D	721530	1.125	1.438	.156	BV	V
★711844	3.750	4.250	.250	BV	R	721531	1.188	1.500	.156	BV	V
711845	4.250	4.750	.250	BV	R	721532	1.250	1.563	.156	BV	V
711846	4.688	5.250	.281	BV	R	721533	1.375	1.688	.156	BV	V
711848	4.938	5.500	.281	BV	R	721534	2.000	2.375	.188	BV	V
711849	5.000	5.563	.281	BV	D	721535	2.125	2.500	.188	BV	V
711850	5.375	6.000	.313	BV	D	721536	2.250	2.625	.188	BV	V
711851	5.500	6.125	.313	BV	D	721537	2.750	3.188	.219	BV	V
711852	6.375	7.000	.313	BV	D	721538	2.813	3.250	.219	BV	V
711853	7.375	8.000	.313	BV	D	721539	3.000	3.438	.219	BV	V
711854	13.000	14.000	.500	BV	D	721540	3.250	3.625	.188	BV	V
711856	2.250	2.625	.188	BV	R	721541	3.500	4.000	.250	BV	V
711857	4.500	5.000	.250	BV	D	721542	4.000	4.500	.250	BV	V
711878	1.500	1.813	.156	BV	R	721543	4.500	5.000	.250	BV	V
712120	.625	.927	.203	WS	V	721545	5.375	6.000	.313	BV	V
712121	1.000	1.365	.219	WS	V	★721547	6.375	7.000	.313	BV	V
712122	1.375	1.740	.219	WS	V	721548	7.375	8.000	.313	BV	V
712123	1.750	2.115	.219	WS	V	721550	11.000	12.000	.500	BV	V
712124	2.000	2.365	.219	WS	V	★721551	.750	1.000	.125	BV	D
712125	2.500	2.995	.281	WS	V	721552	1.750	2.125	.188	BV	V
712126	3.000	3.495	.281	WS	V	★721555	.688	.938	.125	BV	D
712127	4.500	4.995	.281	WS	V	721556	1.500	1.875	.188	BV	V
712128	5.000	5.495	.281	WS	V	721557	.563	.813	.125	BV	D
712129	5.500	5.995	.281	WS	V	721558	1.000	1.250	.125	BV	V
712130	.625	.875	.125	BV	V	721559	1.313	1.625	.156	BV	V
712131	1.000	1.250	.125	BV	V	721560	1.875	2.250	.188	BV	V
712132	1.375	1.688	.156	BV	V	721563	3.750	4.250	.250	BV	V
★712135	2.500	2.938	.219	BV	V	721564	4.250	4.750	.250	BV	V
712136	3.000	3.438	.219	BV	V	★721565	4.938	5.500	.281	BV	V
712138	5.000	5.563	.281	BV	V	721566	2.500	2.875	.188	BV	V
712542	3.500	3.995	.281	WS	V	721569	.563	.813	.125	BV	V
712548	4.438	5.000	.281	BV	V	721570	.688	.938	.125	BV	V
712549	5.375	6.000	.313	BV	V	721571	1.438	1.750	.156	BV	V
712550	6.375	7.000	.313	BV	V	721572	2.375	2.750	.188	BV	V
712552	9.313	10.000	.344	BV	V	721573	2.688	3.125	.219	BV	V
712564	1.750	2.125	.188	BV	V	721575	3.375	3.875	.250	BV	V
712589	1.000	1.500	.250	BV	R	721578	.125	.313	.094	BV	D
714884	4.000	4.495	.281	WS	V	★721580	.938	1.250	.156	BV	D
★714885	4.000	4.500	.250	BV	V	★721581	1.000	1.250	.125	BV	D
★718053	11.000	12.000	.500	BV	R	★721582	1.063	1.375	.156	BV	D
721502	.375	.625	.125	BV	V	750551	2.500	2.875	.188	BV	D



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Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
962952	9.625	11.625	1.500	HDSE2	RR	1000560	10.000	12.000	.875	HDS1	R
1000017	10.000	11.000	.500	HS7	R	<b>1000568</b>	10.000	12.000	.875	HS8	D
<b>1000018</b>	10.000	11.000	.562	HS8	R	1000580	10.000	12.000	1.000	HDS1	R
1000025	10.000	12.000	.625	HS7	V	<b>1000582</b>	10.000	12.000	1.000	HDS2	R
1000108	10.000	11.250	.625	HDS1	R	<b>1000588</b>	10.000	12.000	1.000	HS8	R
1000110	10.000	11.250	.625	HDS1	R	1000620	10.000	12.125	.875	HDS1	R
<b>1000111</b>	10.000	11.250	.625	HDS2	R	1000660	10.000	12.250	.875	HDS1	R
1000113	10.000	11.250	.625	HDS1	R	1000740	10.000	12.438	.875	HDS1	R
	W/4 EA .125 LUGS					1000910	10.000	11.250	.875	HDSA1	RD
<b>1000114</b>	10.000	11.250	.625	HDS2	V	1000914	10.000	11.250	.875	HDSA2	V
<b>1000115</b>	10.000	11.250	.625	HDS2	R	1000920	10.000	11.500	1.250	HDSA1	RD
	W/4 EA .125 LUGS					1000940	10.000	11.750	.938	HDSC1	RD
1000116	10.000	11.250	.625	HDS1	V	1000941	10.000	11.750	1.000	HDSC1	RD
	W/6 EA .125 LUGS					1000943	10.000	11.750	.938	HDSC2	DD
1000117	10.000	11.250	.625	HS7	R	1000948	10.000	11.875	1.250	HDSD2	RR
<b>1000118</b>	10.000	11.250	.625	HS8	R	1000950	10.000	12.000	.875	HDSA1	RD
	W/HOOK & EYE SPRING CONNECTOR					1000952	10.000	12.000	1.250	HDSA1	RD
1000119	10.000	11.250	.625	HDS3	D	1000953	10.000	12.000	1.250	HDSB1	RD
	W/4 EA .500 ADJ. LUGS					1000954	10.000	12.000	1.500	HDSA1	RD
<b>1000126</b>	10.000	11.250	.625	HDS2	V	1000955	10.000	12.000	1.250	HDSE1	RR
	W/4 EA .125 LUGS					1000958	10.000	12.000	1.750	HDSD2	RR
<b>1000128</b>	10.000	11.250	.625	HS8	D	1000971	10.000	12.500	1.000	HDSA1	RD
1000129	10.000	11.250	.625	HDS7	R	1006330	10.063	11.688	.750	HDS1	R
1000130	10.000	11.250	.750	HDS1	R	1006332	10.063	11.688	.750	HDS1	R
1000180	10.000	11.375	.750	HDS1	R		W/4 EA .125 LUGS				
<b>1000183</b>	10.000	11.370	.750	HDS2	V	<b>1012334</b>	10.125	11.750	.750	HS8	R
1000230	10.000	11.500	.625	HDS1	R		W/HOOK & EYE SPRING CONNECTOR				
<b>1000232</b>	10.000	11.500	.625	HDS2	R	<b>1012338</b>	10.125	11.750	.750	HS8	R
<b>1000233</b>	10.000	11.500	.625	HDS2	V	1012500	10.120	12.000	1.000	HDS1	R
1000237	10.000	11.500	.625	HS7	R	1013117	10.125	11.375	.625	HS7	R
<b>1000238</b>	10.000	11.500	.625	HS8	R	1013237	10.125	11.625	.625	HS7	R
	W/HOOK & EYE SPRING CONNECTOR					1013240	10.125	11.625	.688	HDS1	R
1000239	10.000	11.500	.625	HDS3	D	<b>1013242</b>	10.125	11.625	.688	HDS2	R
	W/4 EA .500 ADJ. LUGS					1013244	10.125	11.625	.688	HDS1	R
1000240	10.000	11.500	.688	HDS1	R		W/4 EA .125 LUGS				
<b>1000243</b>	10.000	11.500	.688	HDS2	V	<b>1013245</b>	10.125	11.625	.688	HDS2	R
1000250	10.000	11.500	.750	HDS1	R		W/4 EA .125 LUGS				
1000257	10.000	11.500	.750	HS7	R	1013249	10.125	11.625	.688	HDS3	D
<b>1000258</b>	10.000	11.500	.750	HS8	R		W/4 EA .500 ADJ. LUGS				
1000313	10.000	11.250	.625	HDS1	V	1013250	10.125	11.625	.750	HDS1	R
1000330	10.000	11.625	.750	HDS1	R	1013257	10.125	11.625	.750	HS7	R
1000335	10.000	11.687	.750	HDS1	R	1013320	10.125	11.750	.688	HDS1	R
1000360	10.000	11.750	.625	HDS1	R	1013329	10.125	11.750	.688	HDS3	D
1000367	10.000	11.750	.625	HS7	R		W/4 EA .500 ADJ. LUGS				
1000369	10.000	11.750	.625	HDS3	D	1013470	10.125	12.000	.750	HDS1	R
	W/4 EA .500 ADJ. LUGS					1013490	10.125	12.000	1.000	HDS1	R
1000380	10.000	11.750	.750	HDS1	R	<b>1013528</b>	10.125	12.125	.625	HS8	R
1000420	10.000	11.750	1.000	HDS1	R	1013560	10.125	12.125	.875	HDS1	R
1000450	10.000	11.875	.625	HDS1	R	1013620	10.125	12.250	.875	HDS1	R
1000520	10.000	12.000	.625	HDS1	R	1013660	10.125	12.375	.875	HDS1	R
<b>1000523</b>	10.000	12.000	.750	HDS2	V	1013930	10.125	11.750	.938	HDSC1	RD
1000527	10.000	12.000	.625	HS7	R	<b>1016018</b>	10.160	11.160	.500	HS8	R
<b>1000528</b>	10.000	12.000	.625	HS8	R	<b>1018019</b>	10.188	11.188	.500	HS8	D
	W/HOOK & EYE SPRING CONNECTOR					<b>1018452</b>	10.188	12.000	.750	HDS2	V
1000529	10.000	12.000	.625	HDS3	D	1019017	10.188	11.188	.500	HS7	R
	W/4 EA .500 ADJ. LUGS					<b>1019018</b>	10.188	11.188	.500	HS8	R
1000530	10.000	12.000	.688	HDS1	R	1019110	10.188	11.438	.625	HDS1	R
1000540	10.000	12.000	.750	HDS1	R	1019230	10.188	11.688	.625	HDS1	R
	W/4 EA .500 ADJ. LUGS					1019347	10.188	11.875	.625	HS7	R
1000541	10.000	12.000	.750	HDS1	R	1019560	10.188	12.188	.875	HDS1	R
	W/3 EA .125 LUGS					1019600	10.188	12.250	1.000	HDS1	R
<b>1000542</b>	10.000	12.000	.750	HDS2	R	1019620	10.188	12.313	.875	HDS1	R
1000543	10.000	12.000	.750	HDS1	V	1019640	10.188	12.372	.719	HDS1	R
1000550	10.000	12.000	.813	HDS1	R	1019660	10.188	12.438	.875	HDS1	R
<b>1000558</b>	10.000	12.000	.810	HS8	V	1022300	10.220	11.750	.750	HDS1	R

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**Bold numbers** are preferred designs

□ Metric numbers

† Includes Bore-Tite on O.D.  
 ▲ WasteWatcher numbers



## Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
□ 1023015	260.00	285.40	12.70	HS5	R	<b>1038563</b>	10.375	12.375	.875	HDS2	D
□ 1023282	260.00	300.00	16.00	HDS2	R	1038620	10.375	12.500	.875	HDS1	R
	W/ 4 EA	6.35MM	LUGS			1038660	10.375	12.625	.875	HDS1	R
□ 1023287	260.00	300.00	20.00	HDS1	V	<b>1041162</b>	10.415	11.625	.875	HDS2	D
□ 1023398	260.00	304.00	20.00	HS8	R	<b>1043148</b>	10.438	11.688	.875	HS8	R
□ 1023452	260.00	290.00	16.00	HDS2	R	□ 1043240	265.00	305.00	18.00	HDS1	R
□ 1023453	260.00	290.00	16.00	HDS2	V	□ 1043360	265.00	310.00	16.00	HDS1	R
□ 1023670	260.00	320.00	25.00	HDS1	V	□ 1043427	265.00	310.00	22.00	HS7	R
□ 1023972	260.00	320.00	25.00	HDS2	R	1044140	10.438	11.679	.875	HDS1	R
<b>1024018</b>	10.236	11.236	.500	HS8	R	1044257	10.438	11.938	.750	HS7	R
□ 1024068	260.00	290.00	16.00	HS8	R	1044550	10.438	12.430	1.000	HDS1	R
□ 1024081	260.00	290.00	16.00	HDS2	D	1044560	10.438	12.438	.875	HDS1	R
□ 1024218	260.00	300.00	20.00	HDS2	D	1044600	10.438	12.500	1.000	HDS1	R
□ 1024232	260.00	300.00	16.00	HDS2	R	1044620	10.438	12.563	.875	HDS1	R
□ 1024280	260.00	300.00	20.00	HDS1	R	1044640	10.438	12.625	1.000	HDS1	R
□ 1024632	260.00	315.00	24.00	HDS2	R	1044660	10.438	12.688	.875	HDS1	R
1024690	10.236	12.590	.984	HDS1	R	□ 1047388	266.00	310.00	20.00	HS8	R
1025017	10.250	11.250	.625	HS7	R	<b>1050014</b>	10.500	11.500	.500	HS8	R
<b>1025018</b>	10.250	11.250	.625	HS8	V	W/HOOK & EYE SPRING CONNECTOR					
1025104	10.250	11.438	1.000	HDS1	R	1050017	10.500	11.500	.500	HS7	R
<b>1025112</b>	10.250	11.500	.625	HDS2	D	<b>1050018</b>	10.500	11.500	.500	HS8	R
1025117	10.250	11.500	.625	HS7	R	1050037	10.500	11.500	.625	HS7	R
<b>1025118</b>	10.250	11.500	.625	HS8	R	<b>1050038</b>	10.500	11.500	.625	HS8	R
1025119	W/HOOK & EYE SPRING CONNECTOR					W/HOOK & EYE SPRING CONNECTOR					
	10.250	11.500	.625	HDS3	D	1050110	10.500	11.750	.625	HDS1	R
	W/4 EA	.500 ADJ.	LUGS			<b>1050112</b>	10.500	11.750	.625	HDS2	R
<b>1025133</b>	10.250	12.500	.750	HDS2	R	1050113	10.500	11.750	.625	HDS1	V
1025237	10.250	11.750	.625	HS7	R	1050117	10.500	11.750	.625	HS7	R
1025240	10.250	11.750	.688	HDS1	R	<b>1050118</b>	10.500	11.750	.625	HS8	R
<b>1025244</b>	10.250	11.750	.688	HDS2	V	W/HOOK & EYE SPRING CONNECTOR					
1025249	10.250	11.750	.688	HDS3	D	1050119	10.500	11.750	.625	HDS3	D
	W/4 EA	.500 ADJ.	LUGS			1050140	10.500	11.750	.875	HDS1	R
1025250	10.250	11.750	.750	HDS1	R	1050211	10.500	12.000	.688	HDS7	H
<b>1025252</b>	10.250	11.750	.750	HDS2	R	1050230	10.500	12.000	.625	HDS1	R
1025257	10.250	11.750	.750	HS7	R	<b>1050236</b>	10.500	12.000	.625	HS8	R
<b>1025368</b>	10.250	12.000	.625	HS8	R	W/HOOK & EYE SPRING CONNECTOR					
1025380	10.250	12.000	.750	HDS1	R	1050237	10.500	12.000	.625	HS7	R
<b>1025428</b>	10.250	12.017	.750	HS8	R	<b>1050238</b>	10.500	12.000	.625	HS8	R
<b>1025435</b>	10.250	12.017	.750	HS5	R	1050239	10.500	12.000	.625	HDS3	D
1025520	10.250	12.250	.625	HDS1	R	W/4 EA	.500 ADJ.	LUGS			
1025527	10.250	11.750	.625	HS7	R	1050240	10.500	12.000	.688	HDS1	R
<b>1025528</b>	10.250	12.250	.625	HS8	R	<b>1050242</b>	10.500	12.000	.688	HDS2	V
	W/HOOK & EYE SPRING CONNECTOR					<b>1050243</b>	10.500	12.000	.688	HDS2	R
1025529	10.250	12.250	.625	HDS3	D	<b>1050244</b>	10.500	12.000	.688	HDS2	D
	W/4 EA	.500 ADJ.	LUGS			<b>1050248</b>	10.500	12.000	.688	HDS2	V
1025540	10.250	12.250	.750	HDS1	R		W/4 EA	.250 LUGS			
1025543	10.250	12.250	.750	HDS1	V	1050250	10.500	12.000	.750	HDS1	R
1025580	10.250	12.250	1.000	HDS1	R	<b>1050251</b>	10.500	12.000	.750	HDS2	V
<b>1025582</b>	10.250	12.250	1.000	HDS2	D	<b>1050252</b>	10.500	12.000	.750	HDS2	R
1025620	10.250	12.375	.875	HDS1	R	<b>1050253</b>	10.500	12.000	.750	HDS2	R
1025660	10.250	12.500	.875	HDS1	R		W/4 EA	.188 LUGS			
1025951	10.250	12.250	1.250	HDSC1	RD	1050254	10.500	12.000	.750	HDS2	D
1031490	10.313	12.188	1.000	HDS1	R	1050257	10.500	12.000	.750	HS7	R
1037143	10.375	11.625	.875	HDS1	V	<b>1050258</b>	10.500	12.000	.750	HS8	R
1037912	10.375	11.625	.875	HDSA2	D	1050291	10.500	12.000	1.000	HDS1	D
1038117	10.375	11.625	.625	HS7	R	<b>1050312</b>	10.500	12.125	.625	HDS2	D
1038140	10.375	11.625	.875	HDS1	R	1050330	10.500	12.125	.750	HDS1	R
<b>1038142</b>	10.375	11.625	.875	HDS2	R	1050380	10.500	12.250	.750	HDS1	R
<b>1038143</b>	10.375	11.625	.875	HDS2	D	1050440	10.500	12.344	.906	HDS1	R
1038250	10.375	11.875	.750	HDS1	R	1050520	10.500	12.500	.625	HDS1	R
<b>1038252</b>	10.375	11.875	.750	HDS2	D	<b>1050523</b>	10.500	12.500	.625	HDS2	R
1038257	10.375	11.875	.750	HS7	R	<b>1050524</b>	10.500	12.500	.625	HDS2	V
1038440	10.375	12.197	1.000	HDS1	R	1050525	10.500	12.500	.625	HDS1	R
1038490	10.375	12.250	1.000	HDS1	R		W/6 EA	.125 LUGS			
1038560	10.375	12.375	.875	HDS1	R						

Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
1050527	10.500	12.500	.625	HS7	R	<b>1068693</b>	10.688	13.000	.688	HDS2	V
<b>1050528</b>	10.500	12.500	.625	HS8	R	1068940	10.688	12.500	1.000	HDSA1	RD
	W/HOOK & EYE SPRING CONNECTOR					1069540	10.688	12.688	.750	HDS1	R
1050529	10.500	12.500	.625	HDS3	D	1071110	10.709	11.960	.630	HDS1	R
	W/4 EA .500 ADJ. LUGS					<b>1071448</b>	10.710	12.511	.625	HS8	R
1050530	10.500	12.500	.688	HDS1	R	<b>1075018</b>	10.750	11.750	.500	HS8	R
1050540	10.500	12.500	.750	HDS1	R	1075110	10.750	12.000	.625	HDS1	R
<b>1050542</b>	10.500	12.500	.750	HDS2	R	<b>1075112</b>	10.750	12.000	.625	HDS2	R
1050543	10.500	12.000	.750	HDS1	V	<b>1075114</b>	10.750	12.000	.625	HDS2	V
<b>1050544</b>	10.500	12.500	.750	HDS2	V	<b>1075115</b>	10.750	12.000	.625	HDS2	R
1050550	10.500	12.500	.813	HDS1	R		W/4 EA .125 LUGS				
1050560	10.500	12.500	.875	HDS1	R	1075117	10.750	12.000	.625	HS7	R
1050570	10.500	12.500	.906	HDS1	R	<b>1075118</b>	10.750	12.000	.625	HS8	R
1050577	10.500	12.500	.916	HS7	R	<b>1075128</b>	10.750	12.000	.625	HS8	V
1050578	10.500	12.500	1.000	HDS1	D	1075230	10.750	12.250	.625	HDS1	R
1050580	10.500	12.500	1.000	HDS1	R	<b>1075232</b>	10.750	12.250	.625	HDS2	D
<b>1050582</b>	10.500	12.500	1.000	HDS2	R	1075237	10.750	12.250	.625	HS7	R
<b>1050593</b>	10.500	12.500	1.000	HDS2	V	<b>1075238</b>	10.750	12.250	.625	HS8	R
1050620	10.500	12.625	.875	HDS1	R		W/HOOK & EYE SPRING CONNECTOR				
1050630	10.500	12.625	1.000	HDS1	R	1075239	10.750	12.250	.625	HDS3	D
1050660	10.500	12.750	.875	HDS1	R		W/4 EA .500 ADJ. LUGS				
1050690	10.500	12.750	1.250	HDS1	R	1075240	10.750	12.250	.688	HDS1	R
<b>1050754</b>	10.500	13.000	.688	HDS2	V	1075250	10.750	12.250	.750	HDS1	R
1050912	10.500	12.000	1.250	HDSD2	RR	1075257	10.750	12.250	.750	HS7	R
1050916	10.500	12.000	.875	HDSC1	RD	1075310	10.750	12.375	.625	HDS1	R
1050956	10.500	12.500	1.000	HDSA1	RD	1075360	10.750	12.500	.625	HDS1	R
1050957	10.500	12.500	1.250	HDSD2	RR	<b>1075365</b>	10.750	12.500	.625	HDS2	R
	W/LUBE HOLES ON O.D.						W/4 EA .125 LUGS				
1050958	10.500	12.500	1.000	HDSB1	RD	<b>1075366</b>	10.750	12.500	.625	HDS2	V
1053237	10.531	12.031	.625	HS7	R	1075367	10.750	12.500	.625	HDS1	V
1062945	10.625	12.500	.969	HDSA1	RD	1075369	10.750	12.500	.625	HDS3	D
1063100	10.625	11.812	.625	HDS1	R		W/4 EA .500 ADJ. LUGS				
1063117	10.625	11.875	.625	HS7	R	<b>1075375</b>	10.750	12.500	.688	HDS2	R
□1063240	270.00	310.00	16.00	HDS1	R		W/4 EA .125 LUGS				
□ <b>1063242</b>	270.00	310.00	16.00	HDS2	R	1075470	10.750	12.625	.750	HDS1	R
□ <b>1063248</b>	270.00	310.00	20.00	HDS2	V	1075520	10.750	12.750	.625	HDS1	R
	W/SPRING KOVER					<b>1075523</b>	10.750	12.750	.625	HDS2	D
1063250	10.625	12.125	.750	HDS1	R	<b>1075524</b>	10.750	12.750	.625	HDS2	V
□ <b>1063252</b>	270.00	310.00	20.00	HDS2	R	1075527	10.750	12.750	.625	HS7	R
□1063253	270.00	310.00	16.00	HDS1	V	<b>1075528</b>	10.750	12.750	.625	HS8	R
1063257	10.625	12.125	.750	HS7	R		W/HOOK & EYE SPRING CONNECTOR				
□ <b>1063258</b>	270.00	310.00	20.00	HS8	R	1075529	10.750	12.750	.625	HDS3	D
□ <b>1063268</b>	270.00	310.00	20.00	HS8	R		W/4 EA .500 ADJ. LUGS				
	W/HOOK & EYE SPRING CONNECTOR					1075540	10.750	12.750	.750	HDS1	R
□ <b>1063284</b>	270.00	310.00	16.00	HDS2	V	1075550	10.750	12.750	.813	HDS1	R
□1063303	270.00	310.00	20.50	HDS3	D	1075560	10.750	12.750	.875	HDS1	R
	W/6 EA 12.70MM ADJ. LUGS					1075580	10.750	12.750	1.000	HDS1	R
1063310	10.630	12.254	.630	HDS1	R	<b>1075582</b>	10.750	12.750	1.000	HDS2	R
□1063318	270.00	310.00	16.00	HDS3	V	1075583	10.750	12.750	1.000	HDS1	V
	W/6 EA 12.70MM ADJ. LUGS					<b>1075584</b>	10.750	12.750	1.000	HDS2	V
1063330	10.625	12.250	.750	HDS1	R	1075620	10.750	12.875	.875	HDS1	R
1063380	10.625	12.375	.750	HDS1	R	1075642	10.750	12.900	1.375	HDS1	R
1063470	10.625	12.500	.750	HDS1	R	1075660	10.750	13.000	.875	HDS1	R
1063560	10.625	12.625	.875	HDS1	R	1075780	10.750	13.250	1.000	HDS1	R
1063620	10.625	12.750	.875	HDS1	R	1075910	10.750	12.250	1.025	HDSC1	R
1063660	10.625	12.875	.875	HDS1	R	1075912	10.750	12.000	1.375	HDSD2	RR
1063710	10.625	13.000	.750	HDS1	R		W/LUBE HOLES ON O.D.				
<b>1063712</b>	10.625	13.000	.750	HDS2	R	1075918	10.750	12.000	1.375	HDSE1	RR
□ <b>1063744</b>	270.00	330.00	25.00	HDS2	V		W/SS SPRING & LUBE HOLES				
□1063780	270.00	314.00	20.00	HDS1	R	1075920	10.750	12.250	.813	HDSA1	RD
□1063790	270.00	335.00	18.00	HDS1	R	1075923	10.750	12.250	1.250	HDSD2	VV
□1063960	270.00	330.00	25.40	HDSA1	R	1075928	10.750	12.250	.875	HDSC1	RD
1063971	10.625	13.000	1.000	HDSB1	RD	1075942	10.750	12.500	.875	HDSA2	RD
<b>1068453</b>	10.688	12.500	.625	HDS2	V	<b>1078192</b>	10.788	12.250	.688	HDS2	D
1068456	10.688	12.500	.625	HDS1	V	1082150	10.827	12.205	.630	HDS1	V

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## Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
□1082160	275.00	310.00	16.00	HDS1	R	<b>1100553</b>	11.000	13.000	.813	HDS2	R
1087253	10.875	12.375	.750	HDS1	V	<b>1100555</b>	11.000	13.000	.812	HDS2	R
<b>1087468</b>	10.875	12.750	.688	HS8	R		W/4 EA .500 ADJ. LUGS				
1088068	10.885	12.125	.625	HDS1	R	1100557	11.000	13.000	.813	HS7	R
1088110	10.875	12.125	.625	HDS1	R	<b>1100558</b>	11.000	13.000	.813	HS8	V
<b>1088118</b>	10.875	12.125	.625	HS8	R	1100560	11.000	13.000	.875	HDS1	R
1088190	10.875	12.260	1.000	HDS1	R	1100580	11.000	13.000	1.000	HDS1	R
1088250	10.875	12.375	.750	HDS1	R	<b>1100585</b>	11.000	13.000	1.000	HDS2	R
1088257	10.875	12.375	.750	HS7	R	1100620	11.000	13.125	.875	HDS1	R
1088340	10.875	12.500	1.000	HDS1	R	1100660	11.000	13.250	.875	HDS1	R
1088560	10.875	12.875	.875	HDS1	R	1100912	11.000	12.500	1.250	HDS2	RR
1088620	10.875	13.000	.875	HDS1	R	1100918	11.000	12.500	1.250	HDSA1	RD
1088660	10.875	13.125	.875	HDS1	R	1100950	11.000	13.000	.875	HDSA1	RD
1093440	10.938	12.750	.625	HDS1	R	1100951	11.000	13.000	1.000	HDSA1	RD
1094110	10.938	12.188	.625	HDS1	R	1100952	11.000	13.000	1.250	HDSA1	RD
1094360	10.938	12.688	.625	HDS1	R	1100953	11.000	13.000	1.250	HDSB1	RD
1100017	11.000	12.000	.500	HS7	R	1100954	11.000	13.000	1.250	HDSC1	RD
1100027	11.000	12.000	.625	HS7	R	1100958	11.000	13.000	1.250	HDSE1	RR
<b>1100048</b>	11.000	12.181	.591	HS8	R	1100971	11.000	13.500	1.250	HDSA1	RD
<b>1100102</b>	11.000	12.250	.625	HDS2	D	□1102012	280.00	310.00	16.00	HDS2	R
	W/4 EA .125 LUGS					<b>1102042</b>	11.026	12.256	.750	HDS2	R
1100103	11.000	12.250	.625	HDS1	V	□1102060	280.00	310.00	16.00	HDS1	V
<b>1100104</b>	11.000	12.250	.625	HDS2	V	□1102078	280.00	310.00	15.00	HS8	R
1100110	11.000	12.250	.625	HDS1	R	□1102080	280.00	310.00	16.00	HDS1	R
<b>1100112</b>	11.000	12.250	.625	HDS2	R	<b>1102082</b>	11.024	12.197	.630	HDS2	D
<b>1100113</b>	11.000	12.250	.625	HDS2	D	□1102108	280.00	310.00	16.00	HS8	R
<b>1100115</b>	11.000	12.250	.625	HDS2	R	□1102118	280.00	310.00	16.00	HDS2	D
	W/4 EA .125 LUGS					□1102218	280.00	320.00	18.00	HDS2	D
1100117	11.000	12.250	.625	HS7	R	□1102220	280.00	320.00	16.00	HDS1	R
<b>1100118</b>	11.000	12.250	.625	HS8	R	□1102250	280.00	320.00	20.00	HDS1	R
	W/HOOK & EYE SPRING CONNECTOR					□1102252	280.00	320.00	20.00	HDS2	R
1100119	11.000	12.250	.625	HDS3	D	□1102258	280.00	320.00	19.05	HS8	R
	W/4 EA .500 ADJ. LUGS					□1102260	280.00	320.00	18.00	HDS1	R
1100152	11.000	12.500	.750	HS6	R	□1102378	280.00	324.00	20.00	HS8	R
	W/HOOK & EYE SPRING CONNECTOR					1102690	11.024	13.378	.984	HDS1	R
1100220	11.000	12.500	.625	HDS1	R	□1102720	280.00	340.00	25.00	HDS1	R
	W/4 EA .500 ADJ. LUGS					1103027	11.031	12.031	.625	HS7	R
1100230	11.000	12.500	.625	HDS1	R	□1103258	280.00	320.00	18.00	HDS1	R
1100233	11.000	12.500	.625	HDS1	V		W/4 EA 12.70MM ADJ. LUGS				
1100237	11.000	12.500	.625	HS7	R	1105201	11.063	12.250	.750	HDS1	R
<b>1100238</b>	11.000	12.500	.625	HS8	R	1106200	11.063	12.500	.750	HDS1	R
	W/HOOK & EYE SPRING CONNECTOR					1106340	11.063	12.750	.750	HDS1	R
1100239	11.000	12.500	.625	HDS3	D	1106430	11.063	13.000	.750	HDS1	R
	W/4 EA .500 ADJ. LUGS					1106560	11.063	13.063	.875	HDS1	R
1100250	11.000	12.500	.750	HDS1	R	1106620	11.063	13.188	.875	HDS1	R
1100257	11.000	12.500	.750	HS7	R	1106660	11.063	13.313	.875	HDS1	R
<b>1100258</b>	11.000	12.500	.750	HS8	R	<b>1112018</b>	11.125	12.125	.500	HS8	R
1100270	11.000	12.500	.875	HDS1	R	<b>1113118</b>	11.125	12.375	.625	HS8	R
1100330	11.000	12.680	.750	HDS1	R	1113340	11.125	12.750	1.000	HDS1	R
1100518	11.000	13.000	.625	HDS3	D	1113490	11.125	13.000	1.000	HDS1	R
	W/4 EA .500 ADJ. LUGS & SS CASE					1113560	11.125	13.125	.875	HDS1	R
1100520	11.000	13.000	.625	HDS1	R	1113620	11.125	13.250	.875	HDS1	R
<b>1100521</b>	11.000	13.000	.625	HS8	D	1113660	11.125	13.375	.875	HDS1	R
	W/HOOK & EYE SPRING CONNECTOR					<b>1118122</b>	11.188	12.500	.625	HDS2	R
<b>1100523</b>	11.000	13.000	.625	HDS2	V	1118130	11.188	12.500	.750	HDS1	R
1100524	11.000	13.000	.625	HDS1	V	1118680	11.188	13.500	1.000	HDS1	R
<b>1100526</b>	11.000	13.000	.625	HS8	R	1119017	11.188	12.188	.500	HS7	R
	W/HOOK & EYE SPRING CONNECTOR					□1122162	285.00	320.00	16.00	HDS2	R
1100527	11.000	13.000	.625	HS7	R	□1122165	285.00	320.00	16.00	HDS2	R
<b>1100528</b>	11.000	13.000	.625	HS8	R		W/6 EA 12.70MM ADJ. LUGS				
1100529	11.000	13.000	.625	HDS3	D	□1122230	285.00	325.00	16.00	HDS1	R
	W/4 EA .500 ADJ. LUGS					1125027	11.250	12.250	.625	HS7	R
1100530	11.000	13.000	.688	HDS1	R	1125110	11.250	12.500	.625	HDS1	R
1100540	11.000	13.000	.750	HDS1	R	<b>1125111</b>	11.250	12.500	.625	HDS2	R
1100550	11.000	13.000	.813	HDS1	R	1125113	11.250	12.500	.625	HDS1	V

Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
1125117	11.250	12.500	.625	HS7	R	1138331	11.375	13.000	.750	HDS1	R
<b>1125218</b>	11.250	12.750	.750	HS8	V		W/4 EA .125 LUGS				
	W/HOOK & EYE SPRING CONNECTOR					1138334	11.375	13.000	.750	HDS1	R
1125219	11.250	12.750	.625	HS7	H		W/8 EA .250 LUGS				
1125230	11.250	12.750	.625	HDS1	R	1138550	11.375	13.375	.813	HDS1	R
<b>1125235</b>	11.250	12.750	.625	HS5	R	1138580	11.375	13.375	1.000	HDS1	R
1125237	11.250	12.750	.625	HS7	R	<b>1138588</b>	11.375	13.375	1.000	HS8	R
<b>1125238</b>	11.250	12.750	.625	HS8	R	1138620	11.375	13.500	.875	HDS1	R
	W/HOOK & EYE SPRING CONNECTOR					1138630	11.375	13.500	1.000	HDS1	R
1125239	11.250	12.750	.625	HDS3	D	1138660	11.375	13.625	.875	HDS1	R
	W/4 EA .500 ADJ. LUGS					<b>1141228</b>	11.417	12.981	.625	HS8	R
1125240	11.250	12.750	.688	HDS1	R	□ <b>1141258</b>	290.00	330.00	20.00	HS8	R
1125250	11.250	12.750	.750	HDS1	R	1141273	11.417	13.000	.875	HDSA2	V
<b>1125252</b>	11.250	12.750	.750	HDS2	D	□ <b>1141282</b>	290.00	330.00	18.00	HDS2	D
1125253	11.250	12.750	.750	HDS1	V		W/6 EA 9.00MM LUGS				
1125257	11.250	12.750	.750	HS7	R	□ 1141288	290.00	330.00	16.00	CRSA13	R
1125270	11.250	12.750	.875	HDS1	R	□ <b>1141744</b>	290.00	350.00	25.00	HDS2	V
<b>1125522</b>	11.250	13.250	.625	HDS2	R	1141937	11.417	12.994	.875	HDSA1	V
<b>1125524</b>	11.250	13.250	.625	HDS2	R	□ <b>1142242</b>	290.00	330.00	18.00	HDS2	R
	W/4 EA .375 LUGS					1142257	11.422	12.922	.750	HS7	R
1125527	11.250	13.250	.625	HS7	R	<b>1142332</b>	11.417	13.142	.750	HDS2	R
<b>1125528</b>	11.250	13.250	.625	HS8	R	<b>1142334</b>	11.417	13.142	.750	HDS2	R
	W/HOOK & EYE SPRING CONNECTOR						W/4 EA .375 LUGS				
1125529	11.250	13.250	.625	HDS3	D	□ 1142427	290.00	335.00	24.00	HS7	R
	W/4 EA .500 ADJ. LUGS					□ <b>1142732</b>	290.00	350.00	25.00	HDS2	R
1125550	11.250	13.250	.813	HDS1	R	1144300	11.438	13.000	.688	HDS1	R
<b>1125553</b>	11.250	13.250	.813	HDS2	R	1144305	11.438	13.000	.688	HDS1	R
1125557	11.250	13.250	.813	HS7	R		W/4 EA .500 LUGS				
1125560	11.250	13.250	.875	HDS1	R	1144560	11.446	13.430	.875	HDS1	R
1125570	11.250	13.250	.938	HDS1	R	1144620	11.438	13.625	.875	HDS1	R
1125580	11.250	13.250	1.000	HDS1	R	1144660	11.438	13.688	.875	HDS1	R
1125620	11.250	13.375	.875	HDS1	R	1150017	11.500	12.500	.625	HS7	R
1125660	11.250	13.500	.875	HDS1	R	<b>1150018</b>	11.500	12.500	.500	HS8	R
1125661	11.250	13.500	.875	HDS1	R	<b>1150019</b>	11.500	12.500	.500	HS8	D
	W/4 EA .125 LUGS						W/HOOK & EYE SPRING CONNECTOR				
1125680	11.250	13.500	1.000	HDS1	R	<b>1150028</b>	11.500	12.500	.625	HS8	R
<b>1125792</b>	11.250	13.500	1.000	HDS2	R		W/HOOK & EYE SPRING CONNECTOR				
1125920	11.250	12.750	1.250	HDSE1	RR	1150110	11.500	12.750	.625	HDS1	R
1131340	11.313	13.000	.625	HDS1	R	<b>1150112</b>	11.500	12.750	.625	HDS2	R
1131560	11.313	13.312	.875	HDS1	R	<b>1150113</b>	11.500	12.750	.625	HDS2	D
1131620	11.313	13.438	.875	HDS1	R	<b>1150114</b>	11.500	13.000	.625	HDS2	V
1131660	11.313	13.562	.875	HDS1	R	<b>1150116</b>	11.500	12.750	.625	HS8	R
1134117	11.344	12.594	.625	HS7	R		W/HOOK & EYE SPRING CONNECTOR				
1138017	11.375	12.375	.500	HS7	R	1150117	11.500	12.750	.625	HS7	R
1138117	11.375	12.625	.625	HS7	R	<b>1150118</b>	11.500	12.750	.625	HS8	R
1138250	11.375	12.875	.750	HDS1	R	1150119	11.500	12.750	.625	HDS3	D
1138251	11.375	12.875	.750	HDS1	R		W/4 EA .500 ADJ. LUGS				
	W/4 EA .125 LUGS					1150127	11.500	12.750	.625	HDS1	V
<b>1138252</b>	11.375	12.875	.750	HDS2	R	1150170	11.500	12.875	.688	HDS1	R
<b>1138256</b>	11.375	12.875	.750	HS8	R	<b>1150210</b>	11.500	13.000	.688	HDS2	V
	W/HOOK & EYE SPRING CONNECTOR					<b>1150212</b>	11.500	13.000	.688	HDS2	R
1138257	11.375	12.875	.750	HS7	R		W/4 EA .125 LUGS				
<b>1138258</b>	11.375	12.875	.750	HS8	R	1150237	11.500	13.000	.625	HS7	R
1138259	11.375	12.875	.750	HDS3	D	<b>1150238</b>	11.500	13.000	.625	HS8	R
	W/4 EA .500 ADJ. LUGS						W/HOOK & EYE SPRING CONNECTOR				
1138319	11.375	13.000	.625	HDS3	D	1150239	11.500	13.000	.625	HDS3	D
	W/4 EA .500 ADJ. LUGS						W/4 EA .500 ADJ. LUGS				
1138320	11.375	13.000	.688	HDS1	R	1150240	11.500	13.000	.688	HDS1	R
1138322	11.375	13.000	.688	HDS1	R	1150241	11.500	13.000	.709	HDS1	R
	W/4 EA .125 LUGS					1150242	11.500	13.000	.688	HDS1	R
<b>1138323</b>	11.375	13.000	.688	HDS2	R		W/6 EA .375 LUGS				
1138325	11.375	13.000	.688	HDS1	R	<b>1150243</b>	11.500	13.000	.688	HDS2	R
	W/8 EA .250 LUGS					<b>1150244</b>	11.500	13.000	.688	HDS2	R
1138330	11.375	13.000	.750	HDS1	R		W/6 EA .250 LUGS				
						1150250	11.500	13.000	.750	HDS1	R

★ Contact manufacturer for availability  
**Bold numbers** are preferred designs

□ Metric numbers

† Includes Bore-Tite on O.D.  
 ▲ WasteWatcher numbers

## Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
<b>1150253</b>	11.500	13.000	.750	HDS2	R	1175239	11.750	13.250	.625	HDS3	D
1150254	11.500	13.000	.750	HDS1	D		W/4 EA .500 ADJ. LUGS				
1150257	11.500	13.000	.750	HS7	R	1175240	11.750	13.250	.688	HDS1	R
<b>1150258</b>	11.500	13.000	.750	HS8	R	1175243	11.750	13.250	.688	HDS1	V
<b>1150259</b>	11.500	13.000	.750	HS8	D	1175250	11.750	13.250	.750	HDS1	R
	W/HOOK & EYE SPRING CONNECTOR					<b>1175252</b>	11.750	13.250	.750	HDS2	R
1150283	11.500	13.000	.750	HDS1	V	1175253	11.750	13.250	.750	HDS1	R
1150284	11.500	13.500	.688	HDS1	V		W/4 EA .125 LUGS				
1150340	11.500	13.125	1.000	HDS1	R	<b>1175254</b>	11.750	13.250	.750	HDS2	R
1150380	11.500	13.250	.750	HDS1	R		W/4 EA .125 LUGS				
1150470	11.500	13.375	.750	HDS1	R	<b>1175255</b>	11.750	13.250	.750	HDS2	V
<b>1150522</b>	11.500	13.500	.625	HDS2	R	1175257	11.750	13.250	.750	HS7	R
<b>1150524</b>	11.500	13.500	.625	HDS2	V	<b>1175258</b>	11.750	13.250	.750	HS8	V
<b>1150526</b>	11.500	13.500	.625	HS8	D		W/HOOK & EYE CONNECTOR				
1150527	11.500	13.500	.625	HS7	R	1175283	11.750	13.250	.750	HDS1	V
<b>1150528</b>	11.500	13.500	.625	HS8	R	1175300	11.750	13.252	.750	HDS1	R
	W/HOOK & EYE SPRING CONNECTOR					1175360	11.750	13.500	.625	HDS1	R
1150529	11.500	13.500	.625	HDS3	D	1175527	11.750	13.750	.625	HS7	R
	W/4 EA .500 ADJ. LUGS					1175557	11.750	13.750	.813	HS7	R
1150530	11.500	13.500	.688	HDS1	R	1175560	11.750	13.750	.875	HDS1	R
1150540	11.500	13.500	.750	HDS1	R	<b>1175563</b>	11.750	13.750	.875	HDS2	D
<b>1150546</b>	11.500	13.500	.750	HDS2	R	<b>1175565</b>	11.750	13.750	.875	HDS2	R
	W/4 EA .125 LUGS						W/4 EA .125 LUGS				
1150547	11.500	13.500	.750	HDS1	V	1175569	11.750	13.750	.875	HDS3	D
1150550	11.500	13.500	.813	HDS1	R		W/4 EA .500 ADJ. LUGS				
<b>1150552</b>	11.500	13.500	.813	HDS2	V	1175580	11.750	13.750	1.000	HDS1	R
1150553	11.500	13.500	.813	HDS1	V	<b>1175582</b>	11.750	13.750	1.000	HDS2	R
1150557	11.500	13.500	.813	HS7	R	1175583	11.750	13.750	1.000	HDS1	V
1150560	11.500	13.500	.875	HDS1	R	1175587	11.750	13.750	1.000	HS7	R
<b>1150572</b>	11.500	13.500	1.000	HDS2	D	1175595	11.750	13.750	1.813	HDS1	R
<b>1150578</b>	11.500	13.500	1.000	HS8	R	1175620	11.750	13.875	.875	HDS1	R
1150580	11.500	13.500	1.000	HDS1	R	1175660	11.750	14.000	.875	HDS1	R
<b>1150582</b>	11.500	13.500	1.000	HDS2	R	1175680	11.750	14.000	1.000	HDS1	R
1150587	11.500	13.500	1.000	HS7	R	1175920	11.750	13.250	.875	HDSC1	RD
1150620	11.500	13.625	.875	HDS1	R	1175924	11.750	13.250	.875	HDSA2	VD
1150660	11.500	13.750	.875	HDS1	R	1175952	11.750	13.750	1.250	HDSB1	RD
1150912	11.500	12.750	1.500	HDSE2	DD	1180257	11.808	13.308	.750	HS7	R
1150919	11.500	13.000	.750	HDSA1	DD	<b>1180614</b>	11.813	14.000	.750	HDS2	R
1150920	11.500	13.000	1.063	HDSA1	RD		W/4 EA .250 LUGS				
1150925	11.500	13.000	.875	HDSA1	DD	1181017	11.813	12.813	.500	HS7	R
1150953	11.500	13.500	1.250	HDS01	RR	□ <b>1181052</b>	300.00	332.00	16.00	HDS2	R
1150954	11.500	13.500	1.250	HDS02	RR	□ <b>1181182</b>	300.00	335.00	18.00	HDS2	R
1158017	11.575	12.575	.500	HS7	R	1181195	11.813	13.250	1.000	HDS1	R
□ 1161170	295.00	330.00	17.48	HDS1	V	<b>1181218</b>	11.811	13.311	.750	HS8	R
□ <b>1161174</b>	295.00	330.00	17.48	HDS2	V	□ 1181220	300.00	340.00	18.00	HDS1	D
□ 1161300	295.00	335.00	18.00	HDS1	R	□ 1181231	300.00	340.00	18.00	HDS7	R
<b>1162112</b>	11.625	12.875	.625	HDS2	R	□ <b>1181232</b>	300.00	340.00	18.00	HDS2	R
1162216	11.625	13.125	.750	HS6	R	□ <b>1181234</b>	300.00	340.00	20.00	HDS2	V
<b>1163244</b>	11.625	13.125	.688	HDS2	V	□ <b>1181252</b>	300.00	338.09	19.05	HDS2	R
1163250	11.625	13.191	.750	HDS1	R	1181257	11.813	13.313	.750	HS7	R
1163257	11.625	13.125	.750	HS7	R	<b>1181258</b>	11.811	13.386	.787	HS8	R
<b>1163259</b>	11.625	13.125	.750	HS8	D		W/HOOK & EYE SPRING CONNECTOR				
1163290	11.625	13.125	1.000	HDS1	R	□ <b>1181262</b>	300.00	340.00	18.00	HDS2	V
1163557	11.625	13.625	.813	HS7	R	□ <b>1181268</b>	300.00	340.00	20.00	HS8	R
1169110	11.688	12.938	.625	HDS1	R	1181300	11.811	13.378	.709	HDS1	R
1169180	11.688	13.062	.750	HDS1	R	□ 1181303	300.00	340.00	16.50	HDS3	D
1169235	11.688	13.188	.625	HS7	V		W/6 EA 12.70MM ADJ. LUGS				
<b>1175118</b>	11.750	13.000	.625	HS8	R	□ 1181307	300.00	340.00	18.00	HDS1	V
1175190	11.750	13.188	.875	HDS1	R	□ 1181310	300.00	340.00	16.00	HDS1	R
1175219	11.750	13.250	.688	HDS7	R	□ <b>1181372</b>	300.00	344.00	20.00	HDS2	V
<b>1175224</b>	11.750	13.250	.688	HDS2	V	□ 1181410	300.00	345.00	22.00	HDS1	R
<b>1175236</b>	11.750	13.250	.625	HS8	R	□ 1181420	300.00	350.00	25.00	HDS1	R
	W/HOOK & EYE SPRING CONNECTOR					<b>1181428</b>	11.811	13.575	.984	HS8	R
1175237	11.750	13.250	.625	HS7	R		W/HOOK & EYE SPRING CONNECTOR				
<b>1175238</b>	11.750	13.250	.625	HS8	R	1181500	11.811	13.780	.984	HDS1	R



Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
1181560	11.813	13.812	.875	HDS1	R	1200254	12.000	13.500	.750	HDS1	R
1181577	11.813	13.780	1.000	HS7	R		W/8 EA .125 LUGS				
□ 1181587	300.00	345.00	22.00	HS7	R	<b>1200255</b>	12.000	13.500	.750	HDS2	R
<b>1181593</b>	11.813	14.000	.875	HDS2	V	1200257	12.000	13.500	.750	HS7	R
1181619	11.813	14.000	.750	HDS3	D	<b>1200258</b>	12.000	13.500	.750	HS8	R
		W/4 EA .500 ADJ. LUGS				1200259	12.000	13.500	.750	HS7	V
1181620	11.813	13.938	.875	HDS1	R	1200280	12.000	13.500	.625	HDS1	D
1181640	11.813	14.000	.875	HDS1	R	1200300	12.000	13.625	.688	HDS1	D
1181641	11.813	14.000	1.000	HDS1	R	1200320	12.000	13.625	.688	HDS1	R
1181660	11.813	14.063	.875	HDS1	R	1200324	12.000	13.625	.688	HDS1	R
□ <b>1181704</b>	300.00	360.00	25.00	HDS2	V		W/4 EA .250 LUGS				
□ <b>1181712</b>	300.00	360.00	25.00	HDS2	R	1200330	12.000	13.625	.750	HDS1	R
□ 1181921	300.00	340.00	22.22	†HDSA2	R	1200338	12.000	13.625	.750	HDS1	D
		W/ BORE-TITE ON OD				1200340	12.000	13.688	.875	HDS1	R
1181960	11.813	14.000	1.250	HDSE1	RR	1200380	12.000	13.750	.750	HDS1	R
<b>1187028</b>	11.875	12.875	.625	HS8	R	1200500	12.000	13.938	.688	HDS7	R
		W/HOOK & EYE SPRING CONNECTOR				1200518	12.000	14.000	.625	HDS3	D
<b>1188118</b>	11.875	13.125	.625	HS8	R		W/4 EA .500 ADJ LUGS & SS CASE				
1188257	11.875	13.375	.750	HS7	R	1200520	12.000	14.000	.625	HDS1	R
1191117	11.906	13.156	.625	HS7	R	1200521	12.000	14.000	.812	HDS7	R
1194520	11.938	13.938	.625	HDS1	R	1200522	12.000	14.000	.625	HDS1	R
1194527	11.938	13.938	.625	HS7	R		W/4 EA .125 LUGS				
<b>1194588</b>	11.947	13.947	1.000	HS8	R	1200523	12.000	14.000	.625	HDS1	V
1195530	11.950	14.000	.688	HDS1	R	<b>1200524</b>	12.000	14.000	.625	HS8	R
<b>1195588</b>	11.952	13.952	1.000	HS8	R		W/HOOK & EYE SPRING CONNECTOR				
<b>1196588</b>	11.963	13.963	1.000	HS8	R	<b>1200526</b>	12.000	14.000	.625	HDS2	R
<b>1197588</b>	11.971	13.771	1.000	HS8	R		W/4 EA .125 LUGS				
<b>1200015</b>	12.000	13.000	.500	HS5	R	1200527	12.000	14.000	.625	HS7	R
1200017	12.000	13.000	.500	HS7	R	1200529	12.000	14.000	.625	HDS3	D
<b>1200018</b>	12.000	13.000	.500	HS8	R		W/4 EA .500 ADJ. LUGS				
<b>1200028</b>	12.000	13.000	.500	HS8	D	1200530	12.000	14.000	.688	HDS1	R
1200037	12.000	13.000	.625	HS7	R	1200533	12.000	14.000	.688	HDS1	V
1200100	12.000	13.250	1.000	HDS1	V	1200535	12.000	14.000	.688	HDS1	R
<b>1200103</b>	12.000	13.279	1.000	HDS2	V		W/4 EA .500 LUGS				
1200110	12.000	13.250	.625	HDS1	R	<b>1200538</b>	12.000	14.000	.688	HS8	R
1200117	12.000	13.250	.625	HS7	R		W/HOOK & EYE SPRING CONNECTOR				
<b>1200118</b>	12.000	13.250	.625	HS8	R	1200540	12.000	14.000	.750	HDS1	R
		W/HOOK & EYE SPRING CONNECTOR				<b>1200541</b>	12.000	14.000	.750	HDS2	R
1200119	12.000	13.250	.625	HDS3	D	<b>1200545</b>	12.000	14.000	.750	HDS2	R
		W/4 EA .500 ADJ. LUGS					W/4 EA .125 LUGS				
1200150	12.000	13.250	1.000	HDS1	R	1200550	12.000	14.000	.813	HDS1	R
1200220	12.000	13.500	.688	HDS1	R	<b>1200553</b>	12.000	14.000	.813	HDS2	R
		W/4 EA .500 ADJ. LUGS				1200557	12.000	14.000	.813	HS7	R
1200230	12.000	13.500	.625	HDS1	R	<b>1200558</b>	12.000	14.000	.813	HS8	R
<b>1200231</b>	12.000	13.500	.625	HDS2	R	<b>1200559</b>	12.000	14.000	.813	HS8	D
1200233	12.000	13.500	.625	HDS1	V	1200560	12.000	14.000	.875	HDS1	R
<b>1200235</b>	12.000	13.500	.625	HDS2	R	1200580	12.000	14.000	1.000	HDS1	R
		W/ 4 EA .125" LUGS				<b>1200585</b>	12.000	14.000	1.000	HDS2	R
<b>1200236</b>	12.000	13.500	.625	HS8	R	1200587	12.000	14.000	1.000	HS7	R
		W/HOOK & EYE SPRING CONNECTOR				1200593	12.000	14.000	1.000	HDS1	V
1200237	12.000	13.500	.625	HS7	R	1200640	12.000	14.188	1.000	HDS1	R
<b>1200238</b>	12.000	13.500	.625	HS8	R	1200660	12.000	14.250	.875	HDS1	R
1200239	12.000	13.500	.625	HDS3	D	1200680	12.000	14.250	1.000	HDS1	R
		W/4 EA .500 ADJ. LUGS				<b>1200691</b>	12.000	14.250	1.188	HDS2	R
1200240	12.000	13.500	.688	HDS1	R	1200730	12.000	14.375	1.000	HDS1	R
1200241	12.000	13.500	.688	HDS1	R	1200760	12.000	14.500	.875	HDS1	R
		W/4 EA .063 LUGS				1200782	12.000	14.500	1.000	HDS1	D
1200242	12.000	13.500	.688	HDS1	R	1200820	12.000	14.750	.875	HDS1	R
		W/4 EA .125 LUGS				1200920	12.000	13.500	.875	HDSA1	RD
<b>1200243</b>	12.000	13.500	.688	HDS2	R	1200940	12.000	13.992	1.750	HDS1	RR
1200245	12.000	13.500	.688	HDS1	R	1200952	12.000	14.000	1.250	HDSB1	RD
		W/4 EA .375 LUGS				1200955	12.000	14.000	1.000	HDSA2	RD
1200250	12.000	13.500	.750	HDS1	R	1200958	12.000	14.000	1.000	†HDSB1	RD
1200252	12.000	13.500	.750	HDS1	R	1200962	12.000	14.000	.844	HDSA2	VD
		W/4 EA .188 LUGS					W/LIGHT SPRING				

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† Includes Bore-Tite on O.D.  
 ▲ WasteWatcher numbers



## Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
1200968	12.000	14.000	1.250	HSDS1	RR	1225500	12.250	14.250	.719	HDS1	R
1205144	12.050	13.313	.750	HDS1	R	<b>1225518</b>	12.250	14.250	.500	HS8	R
1206030	12.063	13.125	.875	HDS1	R	<b>1225523</b>	12.250	14.250	.640	HDS2	D
1206130	12.063	13.313	.750	HDS1	R	<b>1225525</b>	12.250	14.250	.640	HDS2	R
<b>1212018</b>	12.125	13.125	.500	HS8	R	1225529	12.250	14.250	.640	HDS3	D
<b>1213118</b>	12.125	13.375	.625	HS8	R		W/4 EA .500 ADJ. LUGS				
1213160	12.125	13.500	.625	HDS1	R	<b>1225532</b>	12.250	14.250	.625	HDS2	R
1213210	12.000	13.500	.625	HDS7	R	1225540	12.250	14.250	.750	HDS1	R
1213211	12.000	13.500	.625	HDS7	R	1225541	12.250	14.250	.750	HDS1	R
	W/4 EA .313 LUGS						W/4 EA .125 LUGS				
1213380	12.125	13.875	.750	HDS1	R	<b>1225542</b>	12.250	14.250	.750	†HDS2	R
<b>1213382</b>	12.125	13.875	.750	HDS2	R	<b>1225543</b>	12.250	14.250	.750	HDS2	D
1213490	12.125	14.000	1.000	HDS1	R	1225544	12.250	14.250	.750	HDS1	R
1213620	12.125	14.250	.875	HDS1	R		W/4 EA .250 LUGS				
1215110	12.156	13.500	.625	HDS1	R	<b>1225545</b>	12.250	14.250	.750	HDS2	R
<b>1215508</b>	12.125	14.000	.855	HS8	R		W/4 EA .250 LUGS				
<b>1218238</b>	12.188	13.688	.625	HS8	R	1225549	12.250	14.250	.750	HDS7	R
<b>1219112</b>	12.188	13.438	.625	HDS2	R	1225550	12.250	14.250	.813	HDS1	R
1219230	12.188	13.688	.625	HDS1	R	<b>1225554</b>	12.250	14.250	.813	HDS2	V
1219237	12.188	13.688	.625	HS7	R	1225557	12.250	14.250	.813	HS7	R
□1220055	310.00	340.00	15.00	HS8	V	<b>1225573</b>	12.250	14.250	.750	HDS2	V
□1220058	310.00	340.00	15.00	HS8	R	1225580	12.250	14.250	1.000	HDS1	R
□1220224	310.00	350.00	18.00	HDS2	V	<b>1225582</b>	12.250	14.250	1.000	HDS2	D
□1220228	310.00	350.00	20.00	HDS2	D	<b>1225583</b>	12.250	14.250	1.000	HDS2	R
□1220254	310.00	350.00	18.00	HS8	R	1225588	12.250	14.250	1.250	HDSA2	RD
	W/HOOK & EYE SPRING CONNECTOR					1225589	12.250	14.250	1.250	HDS7	R
□1220283	310.00	350.00	20.00	HDS3	D	1225590	12.250	14.250	1.125	HDS1	R
	W/6 EA 12.70MM ADJ. LUGS					1225600	12.250	14.250	1.250	HDS1	R
□1220289	310.00	350.00	20.00	HS8	D	1225660	12.250	14.500	.875	HDS1	R
□1220343	310.00	354.00	20.50	HDS3	D	1225912	12.250	14.250	1.250	HDSE2	RR
	W/6 EA 12.70MM ADJ. LUGS						W/8 EA .125 LUBE HOLES on O.D.				
□1220720	310.00	370.00	25.00	HDS1	R	1225918	12.250	14.250	1.250	HDSE1	RR
□1220722	310.00	370.00	25.00	HDS2	D		W/8 EA .125 LUBE HOLES ON O.D.				
□1220960	310.00	370.00	25.40	HDSA1	R	1225920	12.250	13.750	1.105	HDSC1	R
□1220972	310.00	370.00	25.00	HDS2	R	1225928	12.250	13.750	.875	HDSC1	RD
□1221728	310.00	370.00	25.00	HDS1	R	1225960	12.250	14.250	1.250	HDSA1	RD
	W/4 EA 4.77MM LUGS					<b>1228172</b>	12.283	13.750	.688	HDS2	D
<b>1223312</b>	12.238	13.750	.750	HDS2	H	1238237	12.375	13.875	.625	HS7	R
<b>1225118</b>	12.250	13.500	.625	HS8	R	1238240	12.375	13.875	.688	HDS1	R
<b>1225125</b>	12.250	13.750	.750	HS5	R	<b>1238242</b>	12.373	13.875	.688	HDS2	D
1225230	12.250	13.750	.625	HDS1	R	1238250	12.375	13.875	.750	HDS1	R
<b>1225232</b>	12.250	13.750	.625	HDS2	V	1238257	12.375	13.875	.750	HS7	R
1225237	12.250	13.750	.625	HS7	R	1238330	12.375	14.000	.750	HDS1	R
<b>1225238</b>	12.250	13.750	.625	HS8	R	1238480	12.375	14.250	.875	HDS1	R
	W/HOOK & EYE SPRING CONNECTOR					1238580	12.375	14.375	1.000	HDS1	R
1225239	12.250	13.750	.625	HDS3	D	1238620	12.375	14.500	.875	HDS1	R
	W/4 EA .500 ADJ. LUGS					1238630	12.375	14.500	1.000	HDS1	R
1225240	12.250	13.750	.688	HDS1	R	□1240230	315.00	355.00	20.00	HDS1	V
1225241	12.250	13.750	.719	HDS1	R	□1240234	315.00	355.00	16.00	HS4	V
<b>1225245</b>	12.250	13.750	.688	HDS2	R	□1240240	315.00	355.00	18.00	HDS1	V
	W/4 EA .125 LUGS					□1240250	315.00	355.00	18.00	HDS1	R
1225247	12.250	13.750	.688	HDS1	V	□1240470	315.00	365.00	20.00	HDS1	R
1225250	12.250	13.750	.750	HDS1	R	1247300	12.469	14.000	.750	HDS1	R
<b>1225252</b>	12.250	13.750	.750	HDS2	R	□1248920	317.00	352.00	23.00	HDSA1	RD
1225257	12.250	13.750	.750	HS7	R	1250017	12.500	13.500	.500	HS7	R
1225259	12.250	13.750	.750	HDS7	D	<b>1250018</b>	12.500	13.500	.500	HS8	R
<b>1225282</b>	12.250	13.750	.688	HDS2	D	1250027	12.500	13.500	.500	HS7	R
<b>1225283</b>	12.250	13.813	.625	HDS2	V	1250110	12.500	13.750	.625	HDS1	R
1225300	12.250	13.813	.719	HDS1	R	1250113	12.500	13.750	.625	HDS1	V
1225370	12.250	14.250	.812	HDS7	R	<b>1250115</b>	12.500	13.750	.625	HDS2	V
1225379	12.250	14.000	.688	HDS7	R	1250117	12.500	13.750	.625	HS7	R
1225380	12.250	14.000	.750	HDS1	R	<b>1250118</b>	12.500	13.750	.625	HS8	R
1225410	12.250	14.000	.875	HDS1	R		W/HOOK & EYE SPRING CONNECTOR				
<b>1225495</b>	12.250	14.250	.665	HDS2	R	1250119	12.500	13.750	.625	HDS3	D
1225496	12.250	14.250	.665	HDS1	R		W/4 EA .500 ADJ. LUGS				

Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
<b>1250128</b>	12.500	13.750	.625	HS8	H	□ <b>1259288</b>	320.00	360.00	20.00	HS8	R
1250130	12.500	13.750	.750	HDS1	R	W/THREADED SPRING CONNECTOR					
1250230	12.500	14.000	.625	HDS1	R	1259300	12.590	14.125	1.000	HDS1	R
<b>1250238</b>	12.500	14.000	.625	HS8	R	□ <b>1259343</b>	320.00	364.00	20.00	HDS2	D
1250239	12.500	14.000	.688	HDS7	R	□1259370	320.00	360.00	18.00	HDS1	R
1250240	12.500	14.000	.688	HDS1	R	□1259380	320.00	360.00	20.00	HDS1	R
<b>1250242</b>	12.500	14.000	.688	HDS2	R	1259476	12.598	14.492	.750	HS6	R
<b>1250244</b>	12.500	14.000	.688	HDS2	R	□1259670	320.00	380.00	25.00	HDS1	R
	W/4 EA .125 LUGS					□1259720	320.00	380.00	28.00	HDS7	R
1250249	12.500	14.000	.688	HDS3	D	□1259928	320.00	360.00	25.00	HDSB2	RD
	W/4 EA .500 ADJ. LUGS					□1259937	320.00	360.00	22.23	HDSC1	VD
1250250	12.500	14.000	.750	HDS1	R	□1259962	320.00	380.00	28.00	HDSA2	RD
<b>1250252</b>	12.500	14.000	.750	HDS2	R	□1260690	320.00	380.00	25.00	HDS1	R
1250257	12.500	14.000	.750	HS7	R	□1260720	320.00	380.00	30.00	HDS1	R
<b>1250258</b>	12.500	14.000	.750	HS8	R	□ <b>1260732</b>	320.00	380.00	25.00	HDS2	R
1250260	12.500	14.000	.813	HDS1	R	<b>1262112</b>	12.625	13.875	.625	HDS2	R
1250272	12.500	14.000	.875	HDSA2	D	1262340	12.620	14.250	.750	HDS1	R
1250350	12.500	14.250	.875	HDS1	V	1263117	12.625	13.875	.625	HS7	R
1250410	12.500	14.250	.875	HDS1	R	1263237	12.625	14.125	.750	HS7	R
1250540	12.500	14.500	.750	HDS1	R	<b>1263238</b>	12.625	14.125	.625	HS8	R
<b>1250542</b>	12.500	14.500	.750	HDS2	R	1263250	12.625	14.125	.750	HDS1	R
1250549	12.500	14.500	.750	HDS3	D	<b>1263252</b>	12.625	14.125	.750	HDS2	D
	W/4 EA .500 ADJ. LUGS					1263290	12.625	14.125	1.000	HDS1	R
1250550	12.500	14.500	.813	HDS1	R	1263330	12.625	14.250	.750	HDS1	R
<b>1250553</b>	12.500	14.500	.813	HDS2	R	1263480	12.625	14.500	.875	HDS1	R
<b>1250554</b>	12.500	14.500	.813	HDS2	V	1263490	12.625	14.500	1.000	HDS1	R
<b>1250555</b>	12.500	14.500	.813	HDS2	R	1263569	12.625	14.625	.875	HDS3	D
	W/4 EA .500 LUGS					W/4 EA .500 ADJ. LUGS					
1250557	12.500	14.500	.813	HS7	R	1263580	12.625	14.625	1.000	HDS1	R
<b>1250558</b>	12.500	14.500	.813	HS8	R	<b>1263583</b>	12.625	14.625	1.000	HDS2	D
1250560	12.500	14.500	.875	HDS1	R	1263620	12.625	14.750	.875	HDS1	R
1250561	12.500	14.500	.875	HDS1	R	1263710	12.625	15.000	.875	HDS1	R
	W/4 EA .125 LUGS					<b>1268018</b>	12.688	13.688	.500	HS8	R
<b>1250564</b>	12.500	14.500	.875	HDS2	R	1268130	12.688	14.000	.750	HDS1	R
1250565	12.500	14.500	.875	HDS1	R	1269290	12.688	14.250	.750	HDS1	R
	W/4 EA .375 LUGS					1269557	12.688	14.688	.813	HS7	R
1250566	12.500	14.500	.875	HDS1	R	1269600	12.688	14.750	1.000	HDS1	R
	W/4 EA .188 LUGS					1269700	12.688	15.000	.875	HDS1	R
<b>1250567</b>	12.500	14.500	.875	HDS2	R	1269800	12.688	15.250	.875	HDS1	R
	W/4 EA .125 LUGS					<b>1269900</b>	12.688	16.500	.688	HDS2	R
1250570	12.500	14.000	.906	HDS1	R	1275219	12.750	14.250	.625	HDS7	H
1250574	12.500	14.500	.906	HDS1	R	<b>1275238</b>	12.750	14.250	.625	HS8	R
	W/4 EA .438 LUGS					1275240	12.750	14.250	.688	HDS1	R
<b>1250578</b>	12.500	14.500	1.000	HS8	R	<b>1275242</b>	12.750	14.250	.688	HDS2	R
1250580	12.500	14.500	1.000	HDS1	R	<b>1275243</b>	12.750	14.250	.688	HDS2	V
<b>1250582</b>	12.500	14.500	1.000	HDS2	R	1275244	12.750	14.250	.688	HDS1	V
1250630	12.500	14.625	1.000	HDS1	R	<b>1275246</b>	12.750	14.250	.688	HDS2	D
1250660	12.500	14.750	.875	HDS1	R	W/4 EA .500 LUGS					
1250680	12.500	14.750	1.000	HDS1	R	1275249	12.750	14.250	.688	HDS3	D
1250750	12.500	15.000	.813	HDS1	R	W/4 EA .500 ADJ. LUGS					
1250912	12.500	13.750	.906	HDSA2	RD	1275250	12.750	14.250	.750	HDS1	R
1250922	12.500	14.000	.875	HDSA2	D	<b>1275252</b>	12.750	14.250	.750	HDS2	R
1250924	12.500	14.000	.906	HDSA2	V	1275255	12.750	14.250	.750	HS7	V
1250950	12.500	14.500	1.250	HDSA1	RD	<b>1275256</b>	12.750	14.250	.688	HDS2	V
1250952	12.500	14.500	1.250	HSDS1	RR	W/4 EA .500 ADJ. LUGS					
□ <b>1252340</b>	318.00	360.00	20.00	HDS2	R	1275257	12.750	14.250	.750	HS7	R
1256250	12.565	14.063	.750	HDS1	R	<b>1275368</b>	12.750	14.500	.625	HS8	R
1256330	12.563	14.250	.750	HDS1	R	<b>1275373</b>	12.750	14.500	.688	HDS2	V
□1259100	320.00	350.00	16.00	HDS1	R	1275560	12.750	14.750	.875	HDS1	R
□1259160	320.00	355.00	16.00	HDS1	R	1275569	12.750	14.750	.875	HDS3	D
□1259220	320.00	360.00	16.00	HDS1	R	W/4 EA .500 ADJ. LUGS					
	W/6 EA 12.70MM ADJ. LUGS					1275580	12.750	14.750	1.000	HDS1	R
□1259240	320.00	358.00	19.00	HDS1	R	<b>1275582</b>	12.750	14.750	1.000	HDS2	R
□ <b>1259247</b>	320.00	360.00	18.00	HDS2	V	1275590	12.750	14.750	1.250	HDS1	R
□1259280	320.00	360.00	20.00	HDS1	V	1275660	12.750	15.000	.875	HDS1	R

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Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
1325339	13.250	14.875	.750	HDS3	D	□1339110	340.00	372.00	16.00	HDS1	R
	W/4 EA .500 ADJ. LUGS					□1339114	340.00	372.00	16.00	HDS2	V
1325340	13.250	14.875	.938	HDS1	R	□1339128	340.00	372.00	18.00	HS8	R
1325380	13.250	15.000	.750	HDS1	R	□1339211	340.00	380.00	18.00	HDS1	V
1325389	13.250	15.000	.750	HDS3	D	□1339214	340.00	380.00	18.00	HDS2	V
	W/4 EA .500 ADJ. LUGS					□1339251	340.00	380.00	20.00	HDS2	H
1325410	13.250	15.000	.875	HDS1	R	□1339252	340.00	380.00	20.00	HDS2	R
1325420	13.250	15.000	1.000	HDS1	R	□1339300	340.00	380.00	20.00	HDS1	R
1325480	13.250	15.125	.875	HDS1	R	□1339301	340.00	380.00	18.00	HDS1	R
1325540	13.250	15.250	.750	HDS1	R	□1339302	340.00	380.00	18.00	HDS2	R
1325549	13.250	15.250	.750	HDS3	D	□1339490	340.00	390.00	25.40	HDS1	R
	W/4 EA .500 ADJ. LUGS					1339680	13.386	15.748	1.094	HDS1	R
1325557	13.250	15.250	.813	HS7	R	1339690	13.386	15.740	.984	HDS1	R
1325560	13.250	15.250	.875	HDS1	R	1347017	13.469	14.469	.500	HS7	R
1325569	13.250	15.250	.750	HDS7	R	<b>1350014</b>	13.500	14.500	.500	HS8	R
1325580	13.250	15.250	1.000	HDS1	R	<b>1350018</b>	13.500	14.500	.500	HS8	R
<b>1325588</b>	13.250	15.250	1.000	HS8	R	<b>1350028</b>	13.500	14.500	.500	HS8	R
1325590	13.250	15.250	1.125	HDS1	R	W/HOOK & EYE SPRING CONNECTOR					
1325600	13.250	15.250	1.250	HDS1	R	<b>1350112</b>	13.500	14.750	.625	HDS2	R
<b>1325605</b>	13.250	15.250	1.250	HDS2	R	<b>1350158</b>	13.500	14.922	.500	HS8	R
<b>1325606</b>	13.250	15.250	1.250	HDS2	D	<b>1350212</b>	13.500	15.000	.750	HDS2	V
1325630	13.250	15.375	1.000	HDS1	R	1350230	13.500	15.000	.625	HDS1	R
1325660	13.250	15.500	.875	HDS1	R	<b>1350232</b>	13.500	15.000	.625	HDS2	D
1325680	13.250	15.500	1.000	HDS1	R	W/4 EA .125 LUGS					
1325760	13.250	15.750	.875	HDS1	R	<b>1350233</b>	13.500	15.000	.625	HDS2	D
1325820	13.250	16.000	.875	HDS1	R	<b>1350235</b>	13.500	15.000	.625	HS5	D
1325922	13.250	14.750	.906	HDSA2	D	1350237	13.500	15.000	.625	HS7	R
1325928	13.250	14.750	.906	HDSA2	V	<b>1350238</b>	13.500	15.000	.625	HS8	R
1325932	13.250	14.875	1.000	HDSA2	D	W/HOOK & EYE SPRING CONNECTOR					
1325940	13.250	15.000	1.250	HDSA1	RD	1350239	13.500	15.000	.625	HDS3	D
1325950	13.250	15.250	1.000	HDSA1	RD	W/4 EA .500 ADJ. LUGS					
1331300	13.313	14.875	.750	HDS1	R	1350240	13.500	15.000	.688	HDS1	R
1331340	13.313	15.000	.750	HDS1	R	1350245	13.500	15.000	.688	HDS1	V
<b>1331348</b>	13.313	15.000	1.000	HS8	R	1350250	13.500	15.000	.750	HDS1	R
1331500	13.313	15.250	.875	HDS1	R	1350251	13.500	15.000	.750	HDS1	R
1331600	13.313	15.375	.875	HDS1	R	W/4 EA .125 LUGS					
1331620	13.313	15.438	.875	HDS1	R	<b>1350252</b>	13.500	15.000	.750	HDS2	R
1331630	13.313	15.500	.875	HDS1	R	1350253	13.500	15.000	.750	HDS1	D
1331640	13.313	15.500	1.000	HDS1	R	1350257	13.500	15.000	.750	HS7	R
1331740	13.313	15.750	.875	HDS1	R	<b>1350258</b>	13.500	15.000	.750	HS8	R
1331800	13.313	16.000	.875	HDS1	R	<b>1350259</b>	13.500	15.000	.750	HS8	D
1335340	13.358	15.000	.750	HDS1	R	1350330	13.500	15.125	.750	HDS1	R
<b>1337712</b>	13.375	15.750	.875	HDS2	R	1350380	13.500	15.250	.750	HDS1	R
	WITH 4 EA .252 FIXED LUGS					1350387	13.500	15.250	.750	HS7	R
1338017	13.375	14.375	.500	HS7	R	1350410	13.500	15.250	.875	HDS1	R
□1338233	340.00	380.00	20.00	HDS3	D	1350444	13.500	15.312	.625	HDS1	R
	W/4 EACH 12.70MM ADJ.LUGS					1350480	13.500	15.375	.875	HDS1	R
<b>1338235</b>	13.375	14.875	.625	HS5	R	1350510	13.500	15.438	.875	HDS1	R
<b>1338238</b>	13.375	14.875	.625	HS8	R	1350520	13.500	15.500	.812	HDS7	R
1338250	13.375	14.875	.750	HDS1	R	1350527	13.500	15.500	.625	HS7	R
1338257	13.375	14.875	.750	HS7	R	<b>1350532</b>	13.500	15.500	1.000	HDS2	R
1338273	13.386	15.000	.875	HDSA2	V	WITH SPRING KOVER					
□1338288	340.00	380.00	20.00	HS8	R	1350540	13.500	15.500	.750	HDS1	R
□1338304	340.00	380.00	20.00	HDS2	V	<b>1350542</b>	13.500	15.500	.750	HDS2	R
1338330	13.375	15.000	.750	HDS1	R	1350549	13.500	15.500	.750	HDS3	D
<b>1338332</b>	13.386	15.118	.787	HDS2	R	W/4 EA .500 ADJ. LUGS					
□1338340	340.00	384.00	20.00	HDS1	R	1350550	13.500	15.500	.813	HDS1	R
1338480	13.375	15.250	.875	HDS1	R	1350551	13.500	15.500	.813	HDS1	R
1338557	13.375	15.375	.813	HS7	R	W/4 EA .375 LUGS					
1338560	13.375	15.375	.875	HDS1	R	<b>1350552</b>	13.500	15.500	.813	HDS2	R
1338577	13.386	15.354	1.000	HS7	R	1350553	13.500	15.500	.813	HDS1	R
1338587	13.375	15.375	1.000	HS7	R	W/4 EA .375 LUGS					
1338620	13.375	15.500	.875	HDS1	R	<b>1350554</b>	13.500	15.500	.813	HDS2	R
1338710	13.375	15.750	.875	HDS1	R	W/4 EA .125 LUGS					
1338800	13.375	16.000	.875	HDS1	R	1350555	13.500	15.500	.813	HDS1	V

★Contact manufacturer for availability  
**Bold numbers** are preferred designs

□ Metric numbers

† Includes Bore-Tite on O.D.  
 ▲ WasteWatcher numbers

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Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
1350557	13.500	15.500	.813	HS7	R	1375543	13.750	15.750	.750	HDS1	V
1350560	13.500	15.500	.875	HDS1	R	<b>1375544</b>	13.750	15.750	.750	HDS2	V
<b>1350564</b>	13.500	15.500	.813	HDS2	V	1375550	13.750	15.750	.813	HDS1	R
1350580	13.500	15.500	1.000	HDS1	R	<b>1375553</b>	13.750	15.750	.813	HDS2	V
1350583	13.500	15.500	1.000	HDS1	V	1375557	13.750	15.750	.813	HS7	R
1350587	13.500	15.500	1.000	HS7	R	1375560	13.750	15.750	.875	HDS1	R
1350590	13.500	15.500	1.063	HDS1	R	1375580	13.750	15.750	1.000	HDS1	R
	W/4 EA .438 LUGS					<b>1375588</b>	13.750	15.750	1.000	HS8	R
1350591	13.500	15.500	1.250	HDS1	R	1375660	13.750	16.000	.875	HDS1	R
1350592	13.500	15.500	1.500	HDS1	R	1375680	13.750	16.000	1.000	HDS1	R
1350660	13.500	15.750	.875	HDS1	R	1375719	13.750	15.250	.625	HDS7	H
1350690	13.500	15.752	1.000	HDS1	R	1375760	13.750	16.250	.875	HDS1	R
1350750	13.500	16.500	1.000	HDS1	R	1375820	13.750	16.500	.875	HDS1	R
1350760	13.500	16.000	.875	HDS1	R	□ <b>1377040</b>	350.00	380.00	16.00	HDS2	V
1350900	13.500	17.300	1.000	HDS1	R	□ <b>1377050</b>	350.00	380.00	16.00	HDS2	R
1350953	13.500	15.500	1.250	HDSE1	RR	□1377100	350.00	380.00	16.00	HDS1	R
1350954	13.500	15.500	.875	HDSA2	RD	□ <b>1377242</b>	350.00	390.00	18.00	HDS2	D
1350962	13.500	15.500	1.375	HDS2	R	□1377280	350.00	390.00	18.00	HDS1	D
1350970	13.500	15.500	1.250	HDSB1	RD	□1377287	350.00	390.00	18.00	HDS1	V
1350980	13.500	15.500	1.375	HDS1	RR	□ <b>1378212</b>	350.00	390.00	18.00	HDS2	V
1352480	13.520	15.500	.813	HDS1	R	1378257	13.780	15.279	.750	HS7	R
1356257	13.563	15.063	.750	HS7	R	□ <b>1378268</b>	350.00	390.00	18.00	HS8	R
1358017	13.580	14.580	.500	HS7	R	□ <b>1378372</b>	350.00	380.00	20.50	HDS2	H
□ <b>1358418</b>	345.00	390.00	25.00	HS8	R	□ <b>1378392</b>	380.00	425.00	20.00	HDS2	R
<b>1363238</b>	13.625	15.125	.625	HS8	R	<b>1378508</b>	13.780	15.708	.787	HS8	R
1363490	13.625	15.500	1.000	HDS1	R	□1378540	350.00	400.00	17.00	HDS1	R
1363557	13.625	15.625	.813	HS7	R	1381600	13.813	16.000	1.000	HDS1	R
1363587	13.625	15.625	1.000	HS7	R	<b>1381602</b>	13.813	16.000	1.000	HDS2	R
1363790	13.625	16.125	1.250	HDS1	R	<b>1387238</b>	13.875	15.375	.625	HS8	R
1369290	13.688	15.188	1.000	HDS1	R		W/HOOK & EYE SPRING CONNECTOR				
1375017	13.750	14.750	.500	HS7	R	1387610	13.875	16.000	1.000	HDS7	R
<b>1375018</b>	13.750	14.750	.500	HS8	R	1387912	13.875	15.125	.875	HDSA2	RD
1375110	13.750	15.000	.625	HDS1	R	1388257	13.875	15.375	.750	HS7	R
1375130	13.750	15.000	.750	HDS1	R	1388300	13.875	15.440	.750	HDS1	R
1375131	13.750	15.000	.750	HDS1	D	<b>1388588</b>	13.875	15.875	1.000	HS8	R
<b>1375133</b>	13.750	15.000	.750	HDS2	R	1388630	13.875	16.000	1.000	HDS1	R
	W/4 EA .125 LUGS					1394230	13.938	15.438	.625	HDS1	R
<b>1375224</b>	13.750	15.250	.688	HDS2	V	1394240	13.938	15.438	.688	HDS1	R
1375230	13.750	15.250	.625	HDS1	R	1394250	13.938	15.438	.750	HDS1	R
<b>1375236</b>	13.750	15.250	.625	HS8	R	1394257	13.938	15.437	.750	HS7	R
	W/HOOK & EYE SPRING CONNECTOR					1394260	13.938	15.500	.750	HDS1	R
1375237	13.750	15.250	.625	HS7	R	<b>1394262</b>	13.938	15.500	.750	HDS2	R
<b>1375238</b>	13.750	15.250	.625	HS8	R	1394430	13.938	15.744	1.000	HDS1	R
1375239	13.750	15.250	.625	HDS3	D	<b>1394432</b>	13.938	15.744	1.000	HDS2	R
	W/4 EA .500 ADJ. LUGS					1394450	13.938	15.750	.938	HDS1	R
1375240	13.750	15.250	.688	HDS1	R	1394600	13.938	16.000	.875	HDS1	R
<b>1375242</b>	13.750	15.250	.688	HDS2	R	1394700	13.938	16.250	.875	HDS1	R
1375250	13.750	15.250	.750	HDS1	R	1394740	13.938	16.500	.875	HDS1	R
1375257	13.750	15.250	.750	HS7	R	1394942	13.938	15.744	1.250	HDSA2	RD
1375340	13.750	15.438	.750	HDS1	R	<b>1398232</b>	13.980	15.500	.625	HDS2	R
1375380	13.750	15.500	.750	HDS1	R	1400017	14.000	15.000	.500	HS7	R
<b>1375382</b>	13.750	15.500	.750	HDS2	R	<b>1400018</b>	14.000	15.000	.500	HS8	R
1375387	13.750	15.500	.750	HDS1	V	<b>1400222</b>	14.000	15.510	.688	HDS2	D
<b>1375388</b>	13.750	15.500	.750	HDS2	H	1400223	14.000	15.510	.688	HDS3	D
1375418	13.750	15.500	.875	HDSA1	VD		W/4 EA .500 ADJ. LUGS				
1375430	13.750	15.508	.750	HDS1	R	1400227	14.000	15.500	.625	HS7	D
1375445	13.750	15.563	1.000	HDS1	R	1400230	14.000	15.500	.625	HDS1	R
<b>1375522</b>	13.750	15.750	.625	HDS2	R	<b>1400232</b>	14.000	15.500	.625	HDS2	R
1375527	13.750	15.750	.625	HS7	R	<b>1400233</b>	14.000	15.500	.625	HDS2	D
<b>1375528</b>	13.750	15.750	.625	HS8	R	<b>1400234</b>	14.000	15.500	.625	HDS2	V
	W/HOOK & EYE SPRING CONNECTOR					<b>1400235</b>	14.000	15.500	.625	HDS2	R
1375529	13.750	15.750	.625	HDS3	D		W/4 EA .125 LUGS				
	W/4 EA .500 ADJ. LUGS					1400237	14.000	15.500	.625	HS7	R
1375540	13.750	15.750	.750	HDS1	R	<b>1400238</b>	14.000	15.500	.625	HS8	R
<b>1375542</b>	13.750	15.750	1.000	HDS2	R		W/HOOK & EYE SPRING CONNECTOR				



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Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
1400239	14.000	15.500	.625	HDS3	D	1400910	14.000	15.500	.985	HDSC1	R
	W/4 EA .500 ADJ. LUGS					1400925	14.000	15.500	1.000	HDSA1	RD
1400240	14.000	15.500	.688	HDS1	R	1400926	14.000	15.500	1.500	HDS2	DD
1400250	14.000	15.500	.750	HDS1	R	1400928	14.000	15.500	.875	HDSC1	RD
1400253	14.000	15.500	.750	HDS1	V	1400950	14.000	16.000	1.375	HDSA1	RD
1400254	14.000	15.500	.750	HDS1	D	1400958	14.000	16.000	1.000	HDSA1	RD
	W/4 EA .125 LUGS					1400965	14.000	16.250	1.000	HDSA2	RD
1400255	14.000	15.500	.750	HDS1	R	1400970	14.000	16.000	1.375	HDS1	RR
	W/4 EA .188 LUGS					1400972	14.000	16.000	1.375	HDS2	RR
1400257	14.000	15.500	.750	HS7	R	1400981	14.000	16.750	.968	HDSB2	RD
<b>1400258</b>	14.000	15.500	.750	HS8	R	1401257	14.013	15.513	.750	HS7	R
<b>1400259</b>	14.000	15.500	.750	HS8	D	<b>1402170</b>	14.016	15.500	.688	HDS2	D
1400300	14.000	15.562	.750	HDS1	R	1406557	14.063	16.063	.813	HS7	R
<b>1400303</b>	14.000	15.562	.750	HDS2	R	1413257	14.125	15.625	.750	HS7	R
1400309	14.000	15.562	.750	HDS3	D	<b>1413762</b>	14.125	16.712	.875	HDS2	D
	W/4 EA .500 ADJ. LUGS					<b>1413805</b>	14.125	16.745	.875	HDS2	D
1400310	14.000	15.625	.625	HDS1	R	1413975	14.125	16.745	1.703	HDS2	DD
1400313	14.000	15.625	.625	HDS1	R	1417047	14.173	15.354	.625	HS7	R
	W/4 EA .125 LUGS					□1417060	360.00	392.00	15.88	HDS1	R
1400314	14.000	15.625	.625	HDS1	V	□1417075	360.00	390.00	18.00	HS5	H
1400370	14.000	15.750	.688	HDS1	R	<b>1417102</b>	14.173	15.433	.787	HDS2	D
1400380	14.000	15.750	.750	HDS1	R	□1417130	360.00	392.00	20.00	HDS1	R
<b>1400382</b>	14.000	15.750	.750	HDS2	R	□1417220	360.00	404.00	16.00	HDS1	R
<b>1400383</b>	14.000	15.750	.750	HDS2	V		W/6 EA 12.70MM ADJ. LUGS				
<b>1400384</b>	14.000	15.750	.750	HDS2	R	□1417222	360.00	398.00	20.00	HDS2	R
	W/4 EA .125 LUGS					□1417245	360.00	400.00	17.00	HDS2	R
<b>1400388</b>	14.000	15.750	.750	HS8	R		W/4 EA 4.77MM LUGS				
	W/HOOK & EYE SPRING CONNECTOR					□1417250	360.00	400.00	18.00	HDS1	R
1400389	14.000	15.750	.750	HDS3	D	□1417251	360.00	400.00	20.00	HDS1	V
	W/4 EA .500 ADJ. LUGS					□1417252	360.00	400.00	17.00	HDS2	R
1400390	14.000	15.750	.813	HDS1	R		W/6 EA 12.70MM ADJ. LUGS				
1400410	14.000	15.750	.875	HDS1	R	□1417253	360.00	400.00	20.00	HDS2	R
1400430	14.000	15.752	.813	HDS1	R	1417257	14.173	15.673	.750	HS7	R
<b>1400528</b>	14.000	16.000	.625	HS8	R	<b>1417258</b>	14.173	15.673	.750	HS8	R
<b>1400538</b>	14.000	16.000	.625	HS8	R		W/HOOK & EYE SPRING CONNECTOR				
1400540	14.000	16.000	.750	HDS1	R	□1417268	360.00	400.00	18.00	HS8	R
1400543	14.000	16.000	.750	HDS1	V	□1417275	360.00	400.00	25.00	HDS2	R
<b>1400545</b>	14.000	16.000	.750	HDS2	R	□1417287	360.00	400.00	20.00	HS7	R
	W/4 EA .125 LUGS					□1417310	360.00	400.00	20.00	HDS1	R
1400548	14.000	16.000	.750	HS7	R	□1417337	360.00	400.00	18.00	HDS1	V
1400549	14.000	16.000	.750	HDS3	D	□1417342	360.00	404.00	20.00	HDS2	R
	W/4 EA .500 ADJ. LUGS					□1417351	360.00	404.00	20.00	HDS7	R
1400550	14.000	16.000	.813	HDS1	R	□1417442	360.00	390.00	15.88	HDS2	R
<b>1400553</b>	14.000	16.000	.813	HDS2	R	□1417588	360.00	410.80	22.26	HS8	R
1400554	14.000	16.000	.813	HDS1	V	□1417720	360.00	420.00	25.00	HDS1	R
1400557	14.000	16.000	.813	HS7	R	1417740	14.173	16.734	.844	HDS1	R
1400560	14.000	16.000	.875	HDS1	R	1417743	14.173	16.734	.844	HDS1	R
<b>1400578</b>	14.000	16.000	1.000	HS8	R		W/6 EA .063 LUGS				
	W/HOOK & EYE SPRING CONNECTOR					<b>1417760</b>	14.173	16.712	.875	HDS2	D
1400580	14.000	16.000	1.000	HDS1	R	1417973	14.173	16.712	1.703	HDS2	DD
<b>1400582</b>	14.000	16.000	1.000	HDS2	D	<b>1418118</b>	14.188	15.438	.625	HS8	R
1400583	14.000	16.000	1.000	HDS1	V	1418120	14.188	15.500	.688	HDS1	D
<b>1400585</b>	14.000	16.000	1.000	HDS2	R	1419140	14.188	15.500	.688	HDS1	R
1400587	14.000	16.000	1.000	HS7	R	1419300	14.188	15.750	.750	HDS1	R
<b>1400588</b>	14.000	16.000	1.000	HS8	R	1419440	14.188	16.000	.875	HDS1	R
<b>1400598</b>	14.000	16.000	1.000	HS8	R	1419550	14.188	16.188	.813	HDS1	R
1400680	14.000	16.250	1.000	HDS1	R	1419557	14.188	16.188	.813	HS7	R
1400683	14.000	16.250	1.000	HDS1	V	1419600	14.188	16.250	.875	HDS1	R
1400730	14.000	16.375	1.000	HDS1	R	1419700	14.188	16.500	.875	HDS1	R
1400750	14.000	16.500	.813	HDS1	R	1419790	14.188	16.742	.875	HDS1	R
1400753	14.000	16.500	.813	HDS1	V	1419800	14.188	16.750	.875	HDS1	R
1400780	14.000	16.500	1.000	HDS1	R	1425250	14.250	15.750	.750	HDS1	R
1400800	14.000	16.625	.625	HDS1	R	<b>1425252</b>	14.250	15.750	.750	HDS2	R
1400840	14.000	16.875	.750	HDS1	R	1425257	14.250	15.750	.750	HS7	R
1400905	14.000	18.000	.750	HDS1	R						

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**Bold numbers** are preferred designs

□ Metric numbers

† Includes Bore-Tite on O.D.  
 ▲ WasteWatcher numbers



## Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
<b>1425258</b>	14.250	15.750	.750	HS8	R	1450253	14.500	16.000	.750	HDS1	D
	W/HOOK & EYE SPRING CONNECTOR					1450257	14.500	16.000	.750	HS7	R
1425410	14.250	16.000	.875	HDS1	R	1450290	14.500	16.000	1.000	HDS1	R
1425520	14.250	16.250	.625	HDS1	R	1450360	14.500	16.250	.625	HDS1	R
1425550	14.250	16.250	.813	HDS1	R	1450380	14.500	16.250	.750	HDS1	R
<b>1425552</b>	14.250	16.250	.813	HDS2	R	1450390	14.500	16.250	.813	HDS1	R
1425557	14.250	16.250	.813	HS7	R	1450410	14.500	16.250	.875	HDS1	R
<b>1425558</b>	14.250	16.250	.813	HS8	R	1450420	14.500	16.250	1.000	HDS1	R
	W/HOOK & EYE SPRING CONNECTOR					1450540	14.500	16.500	.750	HDS1	R
1425559	14.250	16.250	.813	HDS3	D	<b>1450542</b>	14.500	16.500	.750	HDS2	R
	W/4 EA .500 ADJ. LUGS					1450549	14.500	16.500	.750	HDS3	D
1425560	14.250	16.250	.875	HDS1	R		W/4 EA .500 ADJ. LUGS				
1425580	14.250	16.250	1.000	HDS1	R	1450550	14.500	16.500	.813	HDS1	R
<b>1425585</b>	14.250	16.250	1.000	HDS2	R	<b>1450553</b>	14.500	16.500	.813	HDS2	D
1425587	14.250	16.250	1.000	HS7	R	1450557	14.500	16.500	.813	HS7	R
1425660	14.250	16.500	.875	HDS1	R	1450559	14.500	16.500	.813	HDS7	R
1425760	14.250	16.750	.875	HDS1	R	1450570	14.500	16.500	.938	HDS1	R
1425820	14.250	17.000	.875	HDS1	R	1450580	14.500	16.500	1.000	HDS1	R
1425920	14.250	15.750	1.000	HDSA1	RD	1450583	14.500	16.500	1.000	HDS1	V
1425950	14.250	16.250	1.000	HDSB1	RD	1450660	14.500	16.750	.875	HDS1	R
<b>1432343</b>	14.325	16.000	.688	HDS2	D	1450757	14.500	16.000	.688	HDS1	V
□1433962	364.00	420.00	25.00	HDSA2	RD	1450760	14.500	17.000	.875	HDS1	R
□1433970	364.00	420.00	25.00	HDSC7	RD	1450900	14.500	18.250	.875	HDS1	R
□1436170	365.00	400.00	17.00	HDS1	R	1450922	14.500	16.000	.870	HDSC2	DD
1437240	14.370	15.938	.709	HDS1	R	1450951	14.500	16.500	1.750	HDSE1	RR
□1437242	365.00	405.00	18.00	HDS2	R	1456200	14.563	16.000	.625	HDS1	R
□1437254	365.00	405.00	18.00	HDS2	V	□1456232	370.00	410.00	16.00	HDS2	R
□1437283	365.00	405.00	18.00	HDS3	R	□1456240	370.00	410.00	18.00	HDS1	R
	W/6 EA 12.70MM ADJ. LUGS					□1456490	370.00	420.00	25.00	HDS1	R
<b>1438215</b>	14.375	15.875	.750	HS8	V	□1456491	370.00	420.00	25.00	HDS1	R
1438250	14.375	15.875	.750	HDS1	R		W/4 EA 4.77MM LUGS				
<b>1438258</b>	14.375	15.875	.750	HS8	R	□1457230	360.00	410.00	17.00	HDS1	R
1438320	14.375	16.000	.688	HDS1	R	<b>1459743</b>	14.593	17.000	.875	HDS2	R
<b>1438321</b>	14.375	16.000	.688	HDS2	D	<b>1462018</b>	14.625	15.625	.500	HS8	R
<b>1438322</b>	14.375	16.000	.688	HDS2	R	<b>1462208</b>	14.625	16.133	.500	HS8	R
<b>1438323</b>	14.375	16.000	.688	HDS2	R	1462330	14.625	16.250	.750	HDS1	V
	W/4 EA .125 LUGS					1462912	14.625	16.133	1.250	HDSE2	RR
<b>1438324</b>	14.375	16.000	.688	HDS2	D		W/8 EA .125 LUBE HOLES on O.D.				
	W/4 EA .125 LUGS					1462918	14.625	16.133	1.250	HDSE1	RR
1438329	14.375	16.000	.688	HDS3	D		W/8 EA .125 LUBE HOLES ON O.D.				
	W/4 EA .500 ADJ. LUGS					1463250	14.625	16.125	.750	HDS1	R
1438547	14.375	16.375	.750	HS7	R	<b>1463252</b>	14.625	16.125	.750	HDS2	R
1440901	14.400	15.587	.875	HDSB1	RD	1463257	14.625	16.125	.750	HS7	R
1444230	14.438	15.938	.625	HDS1	R	1463330	14.625	16.250	.750	HDS1	R
<b>1450018</b>	14.500	15.500	.500	HS8	R	1463480	14.625	16.500	.875	HDS1	R
1450027	14.500	15.500	.625	HS7	R	<b>1463565</b>	14.625	16.625	.875	HDS2	R
1450140	14.500	15.750	.750	HDS1	R	1463600	14.625	16.742	1.000	HDS1	R
<b>1450212</b>	14.500	15.984	.688	HDS2	R	1463630	14.625	16.750	1.000	HDS1	R
<b>1450214</b>	14.500	15.984	.688	HDS2	R	1463710	14.625	17.000	.875	HDS1	R
	W/4 EA .125 LUGS					1463800	14.625	17.250	.875	HDS1	R
1450220	14.500	16.000	.688	HDS7	R	<b>1468129</b>	14.688	16.000	.688	HDS2	D
<b>1450228</b>	14.500	16.000	.625	HS8	V	1469230	14.688	16.188	.625	HDS1	R
	W/HOOK & EYE SPRING CONNECTOR					1469257	14.688	16.188	.750	HS7	R
1450230	14.500	16.000	.625	HDS1	V	1469557	14.688	16.688	.813	HS7	R
1450240	14.500	16.000	.688	HDS1	R	<b>1475218</b>	14.750	16.250	.750	HS8	V
1450241	14.500	16.000	.688	HDS1	R		W/HOOK & EYE SPRING CONNECTOR				
	W/4 EA .125 LUGS					<b>1475228</b>	14.750	16.250	.625	HS8	V
<b>1450242</b>	14.500	16.000	.688	HDS2	R	1475230	14.750	16.250	.625	HDS1	R
<b>1450244</b>	14.500	16.000	.688	HDS2	R	1475232	14.750	16.250	.625	HDS1	R
	W/4 EA .125 LUGS						W/4 EA .125 LUGS				
1450249	14.500	16.000	.688	HDS3	D	1475237	14.750	16.250	.625	HS7	R
	W/4 EA .500 ADJ. LUGS					<b>1475238</b>	14.750	16.250	.625	HS8	R
1450250	14.500	16.000	.750	HDS1	R		W/HOOK & EYE SPRING CONNECTOR				
	W/BORE-TITE					1475239	14.750	16.250	.625	HDS3	D
<b>1450252</b>	14.500	16.000	.750	HDS2	R		W/4 EA .500 ADJ. LUGS				

Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
1475240	14.750	16.250	.688	HDS1	R	□1496254	380.00	420.00	20.00	HDS2	R
1475242	14.750	16.250	.688	HDS1	R		W/4 EA 9.50MM LUGS				
<b>1475243</b>	14.750	16.250	.688	HDS2	D	□1496256	380.00	420.00	20.00	HDS2	V
1475244	14.750	16.250	.688	HDS1	V	□1496257	380.00	418.00	19.00	HS7	R
	W/4 EA .125 LUGS					□1496258	380.00	418.00	19.00	HS8	R
<b>1475245</b>	14.750	16.250	.688	HDS2	D	□1496259	380.00	420.00	20.00	HDS2	D
	W/4 EA .313 LUGS					□1496263	380.00	420.00	20.00	HDS3	D
1475250	14.750	16.250	.750	HDS1	R		W/4 EACH 12.70MM ADJ LUGS				
<b>1475252</b>	14.750	16.250	.750	HDS2	R	□1496268	380.00	420.00	19.05	HS8	V
<b>1475253</b>	14.750	16.250	.750	HDS2	V	□1496283	380.00	420.00	16.00	HDS3	D
1475257	14.750	16.250	.750	HS7	R		W/6 EA 12.70MM ADJ. LUGS				
<b>1475258</b>	14.750	16.250	.750	HS8	R	□1496289	380.00	420.00	20.00	HS8	D
<b>1475302</b>	14.750	16.252	.750	HDS2	R	□1496308	380.00	420.00	20.00	HS8	R
1475370	14.750	16.500	.688	HDS1	R	□1496384	380.00	424.00	20.00	HS8	R
1475371	14.750	16.500	.688	HDS1	R		W/HOOK & EYE SPRING CONNECTOR				
	W/4 EA .375 LUGS					□1496470	380.00	430.00	20.00	HS2	R
<b>1475372</b>	14.750	16.500	.688	HDS2	R	□1496508	380.00	430.00	20.00	HS8	R
<b>1475374</b>	14.750	16.500	.688	HDS2	R	□1496671	380.00	440.00	25.00	HDS1	R
	W/4 EA .375 LUGS					□1496672	380.00	440.00	25.00	HDS2	R
1475377	14.750	16.500	.688	HS7	R	□1496944	380.00	420.00	22.20	HDSA2	VD
<b>1475378</b>	14.750	16.500	.688	HS8	R	□1496972	380.00	440.00	28.00	HDSA2	RD
	W/HOOK & EYE SPRING CONNECTOR					1500017	15.000	16.000	.500	HS7	R
1475379	14.750	16.500	.688	HDS3	D	<b>1500018</b>	15.000	16.000	.500	HS8	R
	W/4 EA .500 ADJ. LUGS					1500157	15.000	16.420	.500	HS7	R
<b>1475383</b>	14.750	16.500	.688	HDS2	V	<b>1500222</b>	15.000	16.500	.750	HDS2	R
1475410	14.750	16.500	.875	HDS1	R	1500240	15.000	16.500	.688	HDS1	R
<b>1475411</b>	14.750	16.500	.875	HDS2	R	<b>1500243</b>	15.000	16.500	.688	HDS2	V
1475420	14.750	16.500	1.000	HDS1	R	<b>1500244</b>	15.000	16.500	.688	HDS2	D
1475430	14.750	16.500	.688	HDS7	R	<b>1500245</b>	15.000	16.500	.688	HDS2	R
1475557	14.750	16.750	.813	HS7	R	1500248	15.000	16.500	.688	HDS3	D
1475560	14.750	16.750	.875	HDS1	R		W/4 EA .500 ADJ. LUGS				
1475561	14.750	16.750	.875	HDS1	R	1500249	15.000	16.500	.688	HDS3	D
	W/4 EA .125 LUGS						W/4 EA .500 ADJ. LUGS				
1475660	14.750	17.000	.875	HDS1	R	1500250	15.000	16.500	.750	HDS1	R
1475760	14.750	17.250	.875	HDS1	R	1500252	15.000	16.500	.750	HDS1	D
1475820	14.750	17.500	.875	HDS1	R	1500253	15.000	16.500	.750	HDS1	V
1475942	14.750	16.500	1.250	HDS2	RR	<b>1500254</b>	15.000	16.500	.750	HDS2	V
□1476380	375.00	420.00	18.00	HDS1	R	1500257	15.000	16.500	.750	HS7	R
□1476432	375.00	420.00	18.00	HDS2	R	<b>1500258</b>	15.000	16.500	.750	HS8	R
1487337	14.875	16.500	.750	HDS1	V		W/HOOK & EYE SPRING CONNECTOR				
<b>1488252</b>	14.875	16.375	.750	HDS2	R	<b>1500283</b>	15.000	16.500	.688	HDS2	V
1488257	14.875	16.375	.750	HS7	R	1500290	15.000	16.500	1.000	HDS1	R
1488330	14.875	16.500	.750	HDS1	R	<b>1500292</b>	15.000	16.500	1.000	HDS2	R
<b>1488332</b>	14.875	16.500	.750	HDS2	R	1500380	15.000	16.750	.750	HDS1	R
1488480	14.875	16.750	.875	HDS1	R	1500383	15.000	16.750	.750	HDS1	V
1488557	14.875	16.875	.813	HS7	R	1500410	15.000	16.750	.875	HDS1	R
1488560	14.875	16.875	.875	HDS1	R	<b>1500432</b>	15.000	16.750	1.125	HDS2	R
1488580	14.875	16.875	1.000	HDS1	R	1500470	15.000	16.875	.750	HDS1	R
1488587	14.875	16.875	1.000	HS7	R	1500480	15.000	16.875	.875	HDS1	R
1488620	14.875	17.000	.875	HDS1	R	1500510	15.000	17.000	.812	HDS7	R
1488710	14.875	17.250	.875	HDS1	R	<b>1500522</b>	15.000	17.000	1.000	HDS2	R
1488800	14.875	17.500	.875	HDS1	R		WITH SPRING KOVER				
1488935	14.875	16.500	1.250	HDS2	RR	<b>1500528</b>	15.000	17.000	.625	HS8	R
1491600	14.906	17.000	.875	HDS1	R	1500540	15.000	17.000	.750	HDS1	R
<b>1491603</b>	14.906	17.000	.875	HDS2	R	<b>1500542</b>	15.000	17.000	.750	HDS2	D
1494257	14.938	16.438	.750	HS7	R	<b>1500543</b>	15.000	17.000	.750	HDS2	R
□1496223	380.00	420.00	16.00	HDS3	R	1500549	15.000	17.000	.750	HDS3	D
	W/4 EA .500 ADJ. LUGS						W/4 EA .500 ADJ. LUGS				
□1496238	380.00	420.00	20.00	HS8	D	1500550	15.000	17.000	.813	HDS1	R
□1496247	380.00	420.00	20.00	HS7	R	<b>1500552</b>	15.000	17.000	.813	HDS2	R
□1496248	380.00	420.00	20.00	HS8	H	<b>1500553</b>	15.000	17.000	.813	HDS2	V
□1496250	380.00	420.00	20.00	HDS1	R	1500555	15.000	17.000	.813	HDS1	R
□1496252	380.00	420.00	20.00	HDS2	R		W/4 EA .125 LUGS				
						1500556	15.000	17.000	.813	HDS1	R
							W/4 EA .063 LUGS				

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## Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
1500557	15.000	17.000	.813	HS7	R	1525560	15.250	17.250	.875	HDS1	R
<b>1500558</b>	15.000	17.000	.813	HS8	R	1525562	15.250	17.250	.875	HDS1	R
1500560	15.000	17.000	.875	HDS1	R	W/4 EA .250 LUGS					
<b>1500563</b>	15.000	17.000	.875	HDS2	R	1525580	15.250	17.250	1.000	HDS1	R
1500564	15.000	17.000	.875	HDS1	V	1525590	15.250	17.250	1.125	HDS1	R
<b>1500568</b>	15.000	17.000	.875	HS8	R	1525660	15.250	17.500	.875	HDS1	R
1500580	15.000	17.000	1.000	HDS1	R	1525740	15.250	17.750	.750	HDS1	R
1500590	15.000	17.000	1.250	HDS1	R	1525760	15.250	17.750	.875	HDS1	R
1500660	15.000	17.250	.875	HDS1	R	1525820	15.250	18.000	.875	HDS1	R
1500680	15.000	17.250	1.000	HDS1	R	1525952	15.250	17.250	1.500	HDSD2	RR
1500760	15.000	17.500	.875	HDS1	R	1531300	15.313	16.875	.688	HDS1	R
1500770	15.000	17.500	.938	HDS1	R	1531310	15.313	16.875	.750	HDS1	R
<b>1500772</b>	15.000	17.500	.938	HDS2	R	1531400	15.313	17.000	.750	HDS1	R
1500774	15.000	17.500	.938	HDS1	R	1531500	15.313	17.250	.875	HDS1	R
W/4 EA .125 LUGS						1531530	15.313	17.313	.688	HDS1	R
1500779	15.000	17.500	.938	HDS3	D	<b>1531532</b>	15.312	17.312	.688	HDS2	V
W/4 EA .500 ADJ. LUGS						1531534	15.313	17.313	.688	HDS1	R
1500780	15.000	17.500	1.000	HDS1	R	W/4 EA .125 LUGS					
1500790	15.000	17.500	1.125	HDS1	R	1531537	15.313	17.313	.688	HDS1	V
1500800	15.000	17.500	1.250	HDS1	R	1531540	15.313	17.313	.750	HDS1	R
1500820	15.000	17.750	.875	HDS1	R	1531541	15.313	17.313	.750	HDS1	R
<b>1500822</b>	15.000	17.750	.875	HDS2	R	W/4 EA .125 LUGS					
1500902	15.000	16.188	1.250	HDSE2	RR	1531550	15.313	17.313	.813	HDS1	R
1500920	15.000	16.500	1.250	HDSD1	RR	1531640	15.313	17.500	.875	HDS1	R
1500950	15.000	17.000	1.250	HDSA1	RD	1531740	15.313	17.750	.875	HDS1	R
1500951	15.000	17.000	.875	HDSA1	RD	1531800	15.313	18.000	.875	HDS1	R
1500956	15.000	17.000	.875	HDSC1	RD	1531950	15.313	17.313	.875	HDSA1	RD
W/4 EA .125 LUGS						<b>1534258</b>	15.344	16.875	.750	HS8	R
1500972	15.000	17.375	1.750	HDSD1	RR	1534900	15.335	18.875	.875	HDS1	R
1500973	15.000	17.500	1.000	HDSA1	RD	□ <b>1535242</b>	390.00	430.00	18.00	HDS2	R
1500974	15.000	17.500	1.250	HDSE2	RR	□ <b>1535248</b>	390.00	430.00	20.00	HDS2	D
1512912	15.125	16.375	.875	HDSA2	RD	1535257	15.350	16.850	.750	HS7	R
1513330	15.125	16.750	.750	HDS1	R	□ <b>1535284</b>	390.00	430.00	20.00	HDS2	V
<b>1518448</b>	15.188	17.000	.625	HS8	R	□1535300	390.00	430.00	16.00	HDS1	R
1519110	15.188	16.500	.625	HDS1	R	□ <b>1535304</b>	390.00	430.00	16.00	HDS2	R
<b>1525158</b>	15.250	16.625	.500	HS8	R	□1535340	390.00	434.00	18.00	HDS1	R
<b>1525162</b>	15.250	16.625	.625	HS8	R	W/6 EA 12.70MM ADJ. LUGS					
<b>1525168</b>	15.250	16.625	.593	HS8	R	□ <b>1535345</b>	390.00	434.00	20.00	HS5	R
1525220	15.250	16.754	.750	HDS1	R	□ <b>1535382</b>	390.00	434.00	20.00	HDS2	R
1525228	15.250	16.750	.688	HDS1	H	□1535710	390.00	450.00	25.00	HDS1	R
1525240	15.250	16.750	.688	HDS1	R	□1535934	390.00	434.00	22.00	HDSA2	V
1525241	15.250	16.750	.688	HDS1	R	1536690	15.359	17.709	.906	HDS1	R
W/4 EA .375 LUGS						1536691	15.359	17.709	.906	HDS7	R
<b>1525242</b>	15.250	16.750	.688	HDS2	R	1537142	15.375	16.625	.875	HDSA2	R
1525249	15.250	16.750	.688	HDS3	D	1538257	15.375	16.875	.750	HS7	R
W/4 EA .500 ADJ. LUGS						1538470	15.375	17.250	.750	HDS1	R
1525250	15.250	16.750	.750	HDS1	R	1538530	15.375	17.375	.688	HDS1	R
<b>1525252</b>	15.250	16.750	.750	HDS2	R	1538540	15.375	17.375	.750	HDS1	R
<b>1525253</b>	15.250	16.750	.750	HDS2	V	1538550	15.375	17.375	.813	HDS1	R
1525257	15.250	16.750	.750	HS7	R	<b>1538552</b>	15.375	17.375	.813	HDS2	R
<b>1525278</b>	15.250	16.750	.875	HS8	R	<b>1538554</b>	15.375	17.375	.813	HDS2	R
W/HOOK & EYE SPRING CONNECTOR						W/4 EA .375 LUGS					
<b>1525302</b>	15.250	16.752	.688	HDS2	R	1538557	15.375	17.375	.813	HS7	R
1525380	15.250	17.000	.750	HDS1	R	1538580	15.375	17.375	1.000	HDS1	R
1525410	15.250	17.000	.875	HDS1	R	1538581	15.375	17.375	1.000	HDS1	R
1525511	15.250	17.250	.625	HDS7	R	W/4 EA .125 LUGS					
<b>1525525</b>	15.250	17.250	.625	HDS2	R	1538587	15.375	17.375	1.000	HS7	R
W/4 EA .500 ADJ. LUGS						1538630	15.375	17.500	1.000	HDS1	R
1525540	15.250	17.250	.750	HDS1	R	1538700	15.375	17.728	.875	HDS1	R
<b>1525542</b>	15.250	17.250	.750	HDS2	R	1538710	15.375	17.750	.875	HDS1	R
1525549	15.250	17.250	.750	HDS3	D	<b>1544219</b>	15.438	16.938	.750	HS8	D
W/4 EA .500 ADJ. LUGS						1547530	15.472	17.502	.709	HDS1	R
1525550	15.250	17.250	.813	HDS1	R	<b>1550018</b>	15.500	16.500	.500	HS8	R
<b>1525554</b>	15.250	17.250	.813	HDS2	R	<b>1550028</b>	15.500	16.500	.500	HS8	D
1525557	15.250	17.250	.813	HS7	R	1550130	15.500	16.750	.750	HDS1	R

Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
1550137	15.500	16.750	.750	HS7	R	<b>1551568</b>	15.515	17.515	.813	HS8	R
1550160	15.500	16.875	.625	HDS1	R	□ <b>1555185</b>	395.00	430.00	18.00	HDS2	R
<b>1550162</b>	15.500	16.875	.625	HDS2	R		W/6 EA 12.70MM ADJ. LUGS				
<b>1550163</b>	15.500	16.875	.625	HDS2	V	□1555193	395.00	430.00	18.00	HDS1	V
1550169	15.500	16.875	.625	HDS3	D	1556190	15.563	16.929	.709	HDS1	R
		W/4 EA .500 ADJ. LUGS				1556560	15.563	17.625	.875	HDS1	R
1550250	15.500	17.000	.750	HDS1	R	1560146	15.604	16.974	.625	HDS1	R
1550252	15.500	17.000	.750	HDS1	R	1562118	15.625	16.875	1.250	HDS2	D
		W/4 EA .125 LUGS				1563250	15.625	17.125	.750	HDS1	R
1550253	15.500	17.000	.750	HDS1	V	1563257	15.625	17.125	.750	HS7	R
		W/8 EA .375 LUGS				1563480	15.625	17.500	.875	HDS1	R
1550254	15.500	17.000	.750	HDS1	V	1563560	15.625	17.625	.875	HDS1	R
		W/4 EA .188 LUGS				<b>1563588</b>	15.625	17.625	1.000	HS8	R
<b>1550255</b>	15.500	17.000	.750	HDS2	R	1563600	15.625	17.727	.875	HDS1	R
		W/4 EA .125 LUGS				1563620	15.625	17.750	.875	HDS1	R
1550257	15.500	17.000	.750	HS7	R	1563710	15.625	18.000	.875	HDS1	R
<b>1550258</b>	15.500	17.000	.750	HS8	R	□1574220	400.00	440.00	18.00	HDS1	R
<b>1550283</b>	15.500	17.000	.750	HDS2	V		W/6 EA 12.70MM ADJ. LUGS				
		W/4 EA .188 LUGS				1574240	15.740	17.250	.688	HDS1	R
<b>1550284</b>	15.500	17.000	.750	HDS2	V	<b>1574243</b>	15.740	17.250	.688	HDS2	D
1550290	15.500	17.000	1.000	HDS1	R	<b>1574245</b>	15.740	17.250	.688	HDS2	R
<b>1550292</b>	15.500	17.000	1.000	HDS2	R	□1574250	400.00	444.00	20.00	HDS7	R
<b>1550458</b>	15.500	16.875	.625	HS8	R	□ <b>1574264</b>	400.00	440.00	20.00	HDS2	V
<b>1550488</b>	15.500	17.375	.813	HS8	R	□1574267	400.00	440.00	20.00	HS7	R
<b>1550528</b>	15.500	17.500	1.000	HS8	R	□1574340	400.00	444.00	22.00	HDS1	R
1550530	15.500	17.500	.688	HDS1	R	□1574350	400.00	444.00	20.00	HDS1	R
1550540	15.500	17.500	.750	HDS1	R	□ <b>1574368</b>	400.00	444.00	13.50	HS8	R
1550541	15.500	17.500	.750	HDS1	R	1574443	15.748	17.717	.890	HS4	R
		W/4 EA .125 LUGS				□ <b>1574445</b>	400.00	447.00	20.00	HS5	R
<b>1550542</b>	15.500	17.500	.750	HDS2	R	□ <b>1574488</b>	400.00	450.00	25.00	HS8	R
<b>1550543</b>	15.500	17.500	.750	HDS2	V	□1574500	400.00	450.00	20.00	HDS1	R
<b>1550544</b>	15.500	17.500	.813	HDS2	V	□ <b>1574503</b>	400.00	450.00	20.00	HDS2	R
1550549	15.500	17.500	.750	HDS3	D	□ <b>1574504</b>	400.00	450.00	17.50	HDS2	R
		W/4 EA .500 ADJ. LUGS				□1574520	400.00	450.00	20.00	HDS1	V
1550550	15.500	17.500	.813	HDS1	R	□ <b>1574558</b>	400.00	451.00	22.22	HS8	R
1550551	15.500	17.500	.813	HDS7	R	□1574573	400.00	450.00	20.00	HDS3	D
		W/4 EA .250 LUGS					W/4 EA .500 ADJ. LUGS				
1550552	15.500	17.500	.813	HDS1	R	<b>1574722</b>	15.748	18.110	.984	HDS2	R
		W/4 EA .375 LUGS				□1574972	400.00	460.00	28.00	HDSA2	RD
<b>1550553</b>	15.500	17.500	.813	HDS2	R	1575110	15.750	17.000	.625	HDS1	R
1550554	15.500	17.500	.813	HDS1	V	1575210	15.750	17.250	.750	HDS7	H
<b>1550555</b>	15.500	17.500	.813	HDS2	R	□ <b>1575212</b>	400.00	440.00	20.00	HDS2	R
		W/4 EA .125 LUGS				1575240	15.750	17.250	.688	HDS1	R
1550557	15.500	17.500	.813	HS7	R	1575242	15.750	17.250	.688	HDS1	R
<b>1550558</b>	15.500	17.500	.813	HDS2	D		W/4 EA .250 LUGS				
1550559	15.500	17.500	.813	HDS7	R	<b>1575243</b>	15.750	17.250	.688	HDS2	D
1550560	15.500	17.500	.875	HDS1	R	1575244	15.750	17.250	.688	HDS1	V
<b>1550565</b>	15.500	17.500	.813	HDS2	R	<b>1575245</b>	15.750	17.250	.688	HDS2	R
		W/4 EA .250 LUGS				<b>1575246</b>	15.750	17.250	.688	HDS2	R
1550570	15.500	17.500	.950	HDS1	R		W/4 EA .250 LUGS				
<b>1550575</b>	15.500	17.500	.813	HDS2	R	<b>1575248</b>	15.750	17.250	.685	HS8	R
		W/4 EA .375 LUGS				1575249	15.750	17.250	.688	HDS3	D
1550580	15.500	17.500	1.000	HDS1	R		W/4 EA .500 ADJ. LUGS				
1550587	15.500	17.500	1.000	HS7	R	1575252	15.750	17.250	.750	HDS1	R
1550600	15.500	17.550	1.000	HDS1	R		W/4 EA .188 LUGS				
1550660	15.500	17.750	.875	HDS1	R	<b>1575253</b>	15.750	17.250	.750	HDS2	R
1550680	15.500	17.750	1.000	HDS1	R	<b>1575254</b>	15.750	17.250	.787	HDS2	R
1550760	15.500	18.000	.875	HDS1	R	1575257	15.750	17.250	.750	HS7	R
1550780	15.500	18.000	1.000	HDS1	R	□1575280	400.00	440.00	20.00	HDS1	R
<b>1550782</b>	15.500	18.000	1.000	HDS2	R	<b>1575283</b>	15.750	17.250	.688	HDS2	V
1550789	15.500	18.000	1.000	HDS3	D	□1575337	400.00	440.00	20.00	HDS1	V
		W/4 EA .500 ADJ. LUGS				1575370	15.750	17.500	.688	HDS1	R
<b>1550792</b>	15.500	18.000	1.000	HDS2	D	1575377	15.750	17.500	.688	HDS1	V
1550920	15.500	17.000	1.375	HDS1	RR	□ <b>1575382</b>	400.00	444.00	20.00	HDS2	R
□1551038	394.00	420.00	16.00	HMS46	R						

★Contact manufacturer for availability  
**Bold numbers** are preferred designs

□ Metric numbers

† Includes Bore-Tite on O.D.  
 ▲ WasteWatcher numbers

## Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
<b>1575532</b>	15.750	17.750	.688	HDS2	R	1600519	16.000	18.000	.813	HDS7	H
1575560	15.750	17.750	.875	HDS1	R	1600520	16.000	18.000	.813	HDS7	H
1575580	15.750	17.750	1.000	HDS1	R		W/4 EA .250 LUGS				
1575587	15.750	17.750	1.000	HS7	R	1600544	16.000	18.000	.750	HDS3	D
1575620	15.750	17.875	.875	HDS1	R		W/4 EA .500 ADJ. LUGS				
1575660	15.750	18.000	.875	HDS1	R	1600545	16.000	17.996	.813	HDS1	R
1575680	15.750	18.000	1.000	HDS1	R	1600546	16.000	17.996	.813	HDS1	R
□ 1575720	400.00	460.00	25.00	HDS1	R		W/4 EA .125 LUGS				
1575760	15.750	18.250	.875	HDS1	R	1600548	16.000	18.000	.750	HDS1	R
1575820	15.750	18.500	.875	HDS1	R	<b>1600549</b>	16.000	18.000	.750	HDS2	R
1575843	15.750	18.625	.875	HDS1	V	1600550	16.000	18.000	.813	HDS1	R
1575870	15.750	18.625	.875	HDS1	R	1600551	16.000	18.000	.813	HDS1	R
1575910	15.750	17.750	1.250	HDSA1	RD		W/4 EA .125 LUGS				
1579557	15.785	17.785	.813	HS7	R	1600552	16.000	18.000	.813	HDS1	R
1581200	15.813	17.312	.813	HDS1	R		W/4 EA .250 LUGS				
1582800	15.820	17.500	.688	HDS1	R	1600553	16.000	18.000	.813	HDS1	R
1587330	15.875	17.500	.750	HDS7	H		W/4 EA .500 LUGS				
1587331	15.875	17.500	.750	HDS7	R	1600554	16.000	18.000	.813	HDS1	R
<b>1587638</b>	15.875	18.000	.916	HS8	R		W/4 EA .188 LUGS				
1588257	15.875	17.375	.750	HS7	R	<b>1600555</b>	16.000	18.000	.813	HDS2	R
<b>1588332</b>	15.875	17.500	.750	HDS2	D	<b>1600556</b>	16.000	18.000	.813	HDS2	R
1588480	15.875	17.750	.875	HDS1	R		W/4 EA .250 LUGS				
1588550	15.875	17.875	.813	HDS1	R	1600557	16.000	18.000	.813	HS7	R
<b>1588552</b>	15.875	17.875	.813	HDS2	R	<b>1600558</b>	16.000	18.000	.813	HS8	R
1588560	15.875	17.875	.875	HDS1	R	<b>1600559</b>	16.000	18.000	.813	HDS2	D
1588563	15.875	17.875	.875	HDS1	R	1600560	16.000	18.000	.875	HDS1	R
1588620	15.875	18.000	.875	HDS1	R	1600561	16.000	18.000	.812	HDS7	R
1594160	15.938	17.313	.625	HDS1	R		W/4 EA .125 LUGS				
1594161	15.938	17.313	.625	HDS1	R	1600567	16.000	18.000	.938	HS7	R
	W/4 EA .125 LUGS					1600570	16.000	18.000	.938	HDS1	R
1594162	15.938	17.313	.625	HDS1	R	<b>1600572</b>	16.000	18.000	.938	HDS2	R
	W/4 EA .063 LUGS					<b>1600574</b>	16.000	18.000	.813	HDS2	V
1600014	16.000	17.000	.500	HS4	R	<b>1600575</b>	16.000	18.000	.938	HDS2	R
1600017	16.000	17.000	.500	HS7	R		W/4 EA .250 LUGS				
<b>1600018</b>	16.000	17.000	.500	HS8	R	1600577	16.000	18.000	.813	HS7	V
<b>1600019</b>	16.000	17.000	.500	HS8	D	<b>1600578</b>	16.000	18.000	.750	HS8	R
1600211	16.000	17.500	.625	HDS7	H	1600580	16.000	18.000	1.000	HDS1	R
<b>1600234</b>	16.000	17.500	.625	HS8	R	1600583	16.000	18.000	1.000	HDS1	V
	W/HOOK & EYE SPRING CONNECTOR					<b>1600584</b>	16.000	18.000	1.000	HDS2	V
<b>1600238</b>	16.000	17.500	.625	HS8	R	<b>1600585</b>	16.000	18.000	1.000	HDS2	R
1600240	16.000	17.500	.688	HDS1	R	1600587	16.000	18.000	1.000	HS7	R
1600241	16.000	17.500	.688	HDS1	R	1600620	16.000	18.125	.875	HDS1	R
	W/4 EA .063 LUGS					1600623	16.000	18.125	.875	HDS1	V
<b>1600242</b>	16.000	17.500	.688	HDS2	R	1600650	16.000	18.250	.750	HDS1	R
1600243	16.000	17.500	.688	HDS1	R	1600660	16.000	18.250	.875	HDS1	R
	W/4 EA .375 LUGS					1600690	16.000	18.311	1.000	HDS1	R
<b>1600244</b>	16.000	17.500	.688	HDS2	D	1600750	16.000	18.500	.813	HDS1	R
<b>1600245</b>	16.000	17.500	.688	HDS2	R	1600780	16.000	18.500	1.000	HDS1	R
	W/4 EA .063 LUGS					1600782	16.000	18.500	1.000	HDS1	D
1600249	16.000	17.500	.688	HDS3	D	1600860	16.000	19.000	.750	HDS1	R
	W/4 EA .500 ADJ. LUGS					1600924	16.000	17.500	1.250	HDSE1	RR
1600250	16.000	17.500	.750	HDS1	R	1600925	16.000	17.500	1.250	HDSE2	RR
<b>1600255</b>	16.000	17.500	.750	HDS2	R	1600926	16.000	17.500	.875	HDSA2	RD
1600256	16.000	17.500	.750	HS6	D		W/4 EA .063 LUGS				
1600257	16.000	17.500	.750	HS7	R	1600940	16.000	18.000	1.125	HDSB1	RD
<b>1600258</b>	16.000	17.500	.750	HS8	R	1600941	16.000	18.000	1.125	HDSA1	RD
<b>1600259</b>	16.000	17.500	.750	HS8	D	1600950	16.000	18.000	1.250	HDSA1	RD
1600283	16.000	17.500	.688	HDS1	V	1600951	16.000	18.000	.875	HDSA1	RD
<b>1600288</b>	16.000	17.500	.750	HS8	R	1600954	16.000	18.000	1.750	HDSE1	RR
	W/HOOK & EYE SPRING CONNECTOR						W/LUBE HOLES ON O.D.				
1600290	16.000	17.500	1.000	HDS1	R	1600955	16.000	18.000	1.000	HDSA2	RD
1600293	16.000	17.500	1.000	HDS1	V	1600958	16.000	18.000	1.250	HDSE1	HH
1600330	16.000	17.625	.750	HDS1	R	1600963	16.000	18.000	1.250	HDSE1	DD
1600340	16.000	17.625	1.000	HDS1	R		W/LUBE HOLES ON O.D.				
<b>1600342</b>	16.000	17.625	1.000	HDS2	R	1612473	16.125	18.000	.750	HDS1	V



Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
1613557	16.125	18.125	.813	HS7	R	1650132	16.500	17.750	.625	HDS1	R
□ 1614237	410.00	450.00	17.50	HDS1	V	<b>1650138</b>	16.500	17.750	.750	HS8	R
□ <b>1614242</b>	410.00	450.00	20.00	HDS2	R	W/HOOK & EYE SPRING CONNECTOR					
□ <b>1614388</b>	410.00	454.00	19.00	HS8	R	1650200	16.500	18.000	.750	HDS1	D
1614557	16.141	18.141	.813	HS7	R	1650220	16.500	18.000	.750	HDS1	D
□ <b>1614572</b>	410.00	460.00	22.00	HDS2	R	1650250	16.500	18.000	.750	HDS1	R
□ 1614720	410.00	470.00	25.00	HDS1	R	<b>1650252</b>	16.500	18.000	.750	HDS2	R
	W/4 EA 6.30MM LUGS					1650253	16.500	18.000	.750	HDS1	V
□ 1614721	410.00	470.00	25.00	HDS1	R	1650254	16.500	18.000	.750	HDS1	R
1619557	16.188	18.188	.813	HS7	R	W/6 EA .125 LUGS					
1623257	16.225	17.725	.750	HS7	R	<b>1650255</b>	16.500	18.000	.750	HDS2	R
1625210	16.250	17.750	.688	HDS7	R	W/4 EA .375 LUGS					
1625211	16.250	17.750	.688	HDS7	R	1650257	16.500	18.000	.750	HS7	R
	W/4 EA .125 LUGS					<b>1650258</b>	16.500	18.000	.750	HS8	R
<b>1625228</b>	16.250	17.750	.625	HS8	R	W/HOOK & EYE SPRING CONNECTOR					
1625230	16.250	17.750	.625	HDS1	R	1650259	16.500	18.000	.750	HDS3	D
1625237	16.250	17.750	.625	HS7	R	W/4 EA .500 ADJ. LUGS					
<b>1625238</b>	16.250	17.750	.625	HS8	R	1650280	16.500	18.000	.750	HDS7	R
	W/HOOK & EYE SPRING CONNECTOR					1650290	16.500	18.000	1.000	HDS1	R
1625239	16.250	17.750	.625	HDS3	D	<b>1650342</b>	16.535	18.102	.787	HDS2	D
	W/4 EA .500 ADJ. LUGS					1650380	16.500	18.250	.750	HDS1	R
1625240	16.250	17.750	.688	HDS1	R	1650390	16.500	18.250	.813	HDS1	R
1625242	16.250	17.750	.688	HDS1	R	1650540	16.500	18.500	.750	HDS1	R
	W/4 EA .125 LUGS					1650549	16.500	18.500	.750	HDS3	D
<b>1625243</b>	16.250	17.750	.688	HDS2	R	W/4 EA .500 ADJ. LUGS					
<b>1625245</b>	16.250	17.750	.688	HDS2	R	1650550	16.500	18.500	.813	HDS1	R
	W/4 EA .125 LUGS					<b>1650552</b>	16.500	18.500	.813	HDS2	V
1625250	16.250	17.750	.750	HDS1	R	<b>1650553</b>	16.500	18.500	.813	HDS2	R
<b>1625258</b>	16.250	17.750	.750	HS8	R	<b>1650555</b>	16.500	18.500	.813	HDS2	R
1625330	16.250	17.875	.750	HDS1	R	W/4 EA .250 LUGS					
<b>1625362</b>	16.250	18.000	.625	HDS2	R	1650557	16.500	18.500	.813	HS7	R
<b>1625364</b>	16.250	18.000	.625	HDS2	R	1650573	16.500	18.500	.813	HDS1	V
	W/4 EA .063 LUGS					<b>1650579</b>	16.500	18.500	1.000	HS8	D
1625369	16.250	18.000	.625	HDS3	D	1650580	16.500	18.500	1.000	HDS1	R
	W/4 EA .500 ADJ. LUGS					<b>1650582</b>	16.500	18.500	1.000	HDS2	R
1625380	16.250	18.000	.750	HDS1	R	1650587	16.500	18.500	1.000	HS7	R
1625383	16.250	18.000	.750	HDS1	V	1650660	16.500	19.000	.875	HDS1	R
1625390	16.250	18.000	.813	HDS1	R	1650769	16.500	19.000	.875	HDS3	D
1625410	16.250	18.000	.938	HDS1	R	W/4 EA .500 ADJ. LUGS					
1625412	16.250	18.000	.938	HDS1	R	1650780	16.500	19.000	1.000	HDS1	R
	W/4 EA .125 LUGS					1653257	16.531	18.031	.750	HS7	R
1625420	16.250	18.000	1.000	HDS1	R	□ <b>1653262</b>	420.00	460.00	20.00	HDS2	R
<b>1625422</b>	16.250	18.000	1.000	HDS2	R	□ 1653267	420.00	460.00	20.00	HS7	R
1625425	16.250	18.000	1.000	HDS1	R	<b>1653282</b>	16.535	18.110	.787	HDS2	D
	W/4 EA .500 LUGS					□ 1653300	420.00	460.00	20.00	HDS1	R
1625510	16.250	18.242	1.000	HDS1	R	□ <b>1653342</b>	420.00	464.00	20.00	HDS2	R
1625530	16.250	18.250	.688	HDS1	R	□ 1653502	420.00	470.00	20.00	HDS3	D
1625540	16.250	18.250	.750	HDS1	R	W/6 EA 12.70MM ADJ. LUGS					
1625557	16.250	18.250	.813	HS7	R	□ 1653570	420.00	470.00	22.00	HDS1	R
1625580	16.250	18.250	1.000	HDS1	R	W/6 EA 12.70MM ADJ. LUGS					
1625587	16.250	18.250	1.000	HS7	R	□ 1653742	420.00	470.00	20.00	HDS3	H
<b>1625588</b>	16.250	18.250	1.000	HS8	R	W/6 EA 12.70MM ADJ. LUGS					
1625690	16.250	18.500	1.250	HDS1	R	□ 1653927	420.00	460.00	22.23	HSDC1	VD
1631190	16.310	17.686	.688	HDS1	R	□ 1654730	420.00	480.00	25.00	HDS1	R
1635017	16.350	17.350	.500	HS7	R	□ 1654740	420.00	480.00	28.00	HDS1	R
1637901	16.375	17.562	1.000	HDSA1	RD	1663017	16.625	17.625	.500	HS7	R
1638250	16.375	17.875	.750	HDS1	R	<b>1675148</b>	16.750	18.000	.875	HS8	R
1638257	16.375	17.875	.750	HS7	R	1675240	16.750	18.250	.688	HDS1	R
1638557	16.375	18.375	.813	HS7	R	<b>1675242</b>	16.750	18.250	.688	HDS2	R
1638580	16.375	18.375	1.000	HDS1	R	1675250	16.750	18.250	.750	HDS1	R
<b>1640554</b>	16.400	18.500	.813	HDS2	R	1675257	16.750	18.250	.750	HS7	R
	W/4 EA .250 LUGS					<b>1675258</b>	16.750	18.250	.750	HS8	R
1640932	16.400	18.500	1.625	HSDS2	RR	1675410	16.750	18.500	.875	HDS1	R
1650017	16.500	17.500	.500	HS7	R	1675413	16.750	18.500	.875	HDS1	V
1650130	16.500	17.750	.750	HDS1	R	1675420	16.750	18.500	1.000	HDS1	R

★ Contact manufacturer for availability  
**Bold numbers** are preferred designs

□ Metric numbers

† Includes Bore-Tite on O.D.  
 ▲ WasteWatcher numbers



## Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
<b>1675510</b>	16.750	18.750	.875	HDS2	R	1700549	17.000	19.000	.750	HDS3	D
1675557	16.750	18.750	.813	HS7	R		W/4 EA .500 ADJ. LUGS				
1675560	16.750	18.750	.875	HDS1	R	1700550	17.000	19.000	.813	HDS1	R
<b>1675588</b>	16.750	18.750	1.000	HS8	R	<b>1700552</b>	17.000	19.000	.813	HDS2	R
	W/HOOK & EYE SPRING CONNECTOR					1700553	17.000	19.000	.813	HDS1	V
1675660	16.750	19.000	.875	HDS1	R	1700554	17.000	19.000	.813	HDS1	R
1675780	16.750	19.250	1.000	HDS1	R		W/4 EA .188 LUGS				
1688217	16.875	18.375	.500	HS7	R	1700557	17.000	19.000	.813	HS7	R
1688557	16.875	18.875	.813	HS7	R	<b>1700558</b>	17.000	19.000	.813	HS8	R
□ <b>1692502</b>	430.00	480.00	18.00	HDS2	R		W/HOOK & EYE SPRING CONNECTOR				
	W/4 EA 3.18MM LUGS					<b>1700559</b>	17.000	19.000	.813	HS8	D
□ 1692567	430.00	480.00	22.00	HDS1	V		W/HOOK & EYE SPRING CONNECTOR				
1693257	16.929	18.429	.750	HS7	R	1700560	17.000	19.000	.875	HDS1	R
1693460	16.929	18.898	.629	HDS1	R	1700562	17.000	19.000	.875	HDS1	R
□ <b>1693502</b>	430.00	480.00	25.00	HDS2	R		W/6 EA .063 LUGS				
□ <b>1693506</b>	430.00	480.00	16.00	HDS2	R	<b>1700565</b>	17.000	19.000	.906	HDS2	D
□ <b>1693562</b>	430.00	480.00	22.00	HDS2	R		W/6 EA .063 LUGS				
□ 1693780	430.00	490.00	25.00	HDS1	R	1700567	17.000	19.000	.906	HDS1	R
1694193	16.938	18.311	1.250	HDS1	R		W/6 EA .219 LUGS				
<b>1694692</b>	16.938	19.291	.906	HDS2	R	1700570	17.000	19.000	.938	HDS1	R
1694696	16.938	19.283	.906	HDS1	R	<b>1700573</b>	17.000	19.000	.813	HDS2	V
	W/6 EA .063 LUGS					1700576	17.000	19.000	.813	HS6	D
1694697	16.938	19.291	.906	HDS1	R		W/HOOK & EYE SPRING CONNECTOR				
1694700	16.938	19.291	1.063	HDS1	R	1700579	17.000	19.000	.813	HDS7	R
<b>1694725</b>	16.938	19.291	.906	HDS2	R	1700580	17.000	19.000	1.000	HDS1	R
	W/6 EA .063 LUGS					<b>1700584</b>	17.000	19.000	1.000	HDS2	D
<b>1700018</b>	17.000	18.000	.500	HS8	D	1700585	17.000	19.000	1.000	HDS1	D
1700110	17.000	18.250	.625	HDS1	R	1700587	17.000	19.000	1.000	HS7	R
<b>1700118</b>	17.000	18.250	.625	HS8	R	1700680	17.000	19.250	1.000	HDS1	R
1700142	17.000	18.250	.875	HDSA2	R	1700700	17.000	19.291	.875	HDS1	R
<b>1700212</b>	17.000	18.500	.750	HDS2	V	1700760	17.000	19.500	.875	HDS1	R
	W/4 EA .500 ADJ. LUGS					1700920	17.000	18.500	1.375	HDS1	RR
<b>1700228</b>	17.000	18.500	.625	HS8	V	1700922	17.000	18.500	1.375	HDS2	RR
1700230	17.000	18.500	.625	HDS1	R	1700950	17.000	19.000	1.250	HDSA1	RD
<b>1700232</b>	17.000	18.500	.625	HDS2	R	1700952	17.000	19.000	1.250	HDSE2	DD
1700237	17.000	18.500	.625	HS7	R	1700953	17.000	19.000	2.000	HDSE2	RR
<b>1700238</b>	17.000	18.500	.625	HS8	R	1700958	17.000	19.000	2.000	HDSE2	RR
	W/HOOK & EYE SPRING CONNECTOR						W/ LUBE HOLES ON O.D.				
1700239	17.000	18.500	.625	HDS3	D	□ 1712240	435.00	475.00	20.00	HDS1	R
	W/4 EA .500 ADJ. LUGS					□ <b>1712472</b>	435.00	485.00	18.00	HDS2	R
1700240	17.000	18.500	.688	HDS1	R		W/6 EA 9.50MM ADJ. LUGS				
1700242	17.000	18.500	.688	HDS1	R	□ <b>1712522</b>	435.00	485.00	18.00	HDS2	R
	W/6 EA .125 LUGS					□ <b>1712562</b>	435.00	485.00	18.00	HDS2	R
<b>1700243</b>	17.000	18.500	.688	HDS2	V		W/6 EA 12.70MM ADJ. LUGS				
<b>1700244</b>	17.000	18.500	.688	HDS2	R	1713017	17.125	18.125	.500	HS7	R
	W/4 EA .125 LUGS					1713257	17.125	18.625	.750	HS7	R
<b>1700245</b>	17.000	18.500	.688	HDS2	R	1713557	17.125	19.125	.813	HS7	R
<b>1700249</b>	17.000	18.500	.625	HS8	D	1717600	17.172	19.250	.750	HDS1	R
1700250	17.000	18.500	.750	HDS1	R	1719170	17.188	18.562	.688	HDS1	R
<b>1700251</b>	17.000	18.500	.750	HDS2	D	1725230	17.250	18.750	.625	HDS1	R
1700253	17.000	18.500	.750	HDS1	V	1725250	17.250	18.750	.750	HDS1	R
1700257	17.000	18.500	.750	HS7	R	<b>1725255</b>	17.250	18.750	.750	HDS2	R
1700280	17.000	18.500	.625	HDS7	R	1725257	17.250	18.750	.750	HS7	R
1700283	17.000	18.500	.688	HDS1	V	<b>1725258</b>	17.250	18.750	.750	HS8	R
1700523	17.000	19.000	.625	HDS3	D		W/HOOK & EYE SPRING CONNECTOR				
	W/4 EA .500 ADJ. LUGS					1725259	17.250	18.750	.750	HDS3	D
<b>1700528</b>	17.000	19.000	.625	HDS2	D		W/4 EA .500 ADJ. LUGS				
<b>1700532</b>	17.000	19.000	.688	HDS2	R	1725410	17.250	19.000	.875	HDS1	R
<b>1700534</b>	17.000	19.000	.687	HDS2	V	1725557	17.250	19.250	.813	HS7	R
1700537	17.000	19.000	.687	HDS1	V	1725560	17.250	19.250	.875	HDS1	R
1700540	17.000	19.000	.750	HDS1	R	1725570	17.250	19.250	.938	HDS1	R
<b>1700541</b>	17.000	19.000	.750	HDS2	R	1725571	17.250	19.250	.938	HDS1	D
1700542	17.000	19.000	.750	HDS1	R	1725580	17.250	19.250	1.000	HDS1	R
	W/4 EA .375 LUGS					1725583	17.250	19.250	1.000	HDS1	V
						1725587	17.250	19.250	1.000	HS7	R



## Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
1788710	17.875	20.250	.875	HDS1	R	1800890	18.000	21.000	1.500	HDS1	R
1790257	17.900	19.400	.750	HS7	R	<b>1800896</b>	18.000	21.000	1.125	HDS2	R
<b>1793442</b>	17.938	19.750	1.000	HDS2	R	W/4 EA .375 LUGS					
1793490	17.938	19.750	1.000	HDS1	R	1800912	18.000	19.500	1.250	HDSE2	RR
1800017	18.000	19.000	.500	HS7	R	W/8 EA .125 LUBE HOLES ON O.D.					
<b>1800018</b>	18.000	19.000	.500	HS8	R	1800918	18.000	19.500	1.250	HDSE1	RR
1800027	18.000	19.000	.625	HS7	R	W/8 EA .125 LUBE HOLES ON O.D.					
<b>1800218</b>	18.000	19.500	.688	HS8	R	1800922	18.000	19.500	1.438	HDSE2	RR
W/HOOK & EYE SPRING CONNECTOR											
<b>1800224</b>	18.000	19.500	.687	HDS2	V	1800950	18.000	20.000	1.500	HDSA1	RD
1800240	18.000	19.500	.688	HDS1	R	1800956	18.000	20.000	1.500	HDS1	RR
<b>1800244</b>	18.000	19.500	.688	HDS2	D	1800965	18.000	20.250	1.000	HDSA2	RD
W/4 EA .125 LUGS											
<b>1800245</b>	18.000	19.500	.688	HDS2	R	1800966	18.000	20.250	1.250	HDSE2	RR
<b>1800246</b>	18.000	19.500	.688	HDS2	D	<input type="checkbox"/> <b>1803452</b>	458.00	505.00	20.62	HDS2	R
1800249	18.000	19.500	.688	HDS3	D	1803557	18.031	20.031	.813	HS7	R
W/4 EA .500 ADJ. LUGS											
1800250	18.000	19.500	.750	HDS1	R	1806557	18.063	20.063	.813	HS7	R
1800257	18.000	19.500	.750	HS7	R	<input type="checkbox"/> 1811280	460.00	500.00	20.00	HDS1	R
1800290	18.000	19.500	1.000	HDS1	R	<input type="checkbox"/> 1811287	460.00	500.00	20.00	HDS1	V
1800300	18.000	19.515	.875	HDS1	R	<input type="checkbox"/> 1811300	460.00	500.00	23.00	HDS1	V
1800380	18.000	19.750	.750	HDS1	R	<input type="checkbox"/> 1811340	460.00	504.00	20.00	HDS1	R
<b>1800382</b>	18.000	19.750	.750	HDS2	R	<input type="checkbox"/> <b>1811452</b>	460.00	510.00	20.62	HDS2	R
1800387	18.000	19.750	.750	HS7	R	1811550	18.110	20.115	.813	HDS1	R
1800389	18.000	19.750	.750	HDS3	D	1811557	18.110	20.110	.813	HS7	R
W/4 EA .500 ADJ. LUGS											
1800410	18.000	19.750	.875	HDS1	R	<input type="checkbox"/> <b>1811564</b>	460.00	510.00	22.00	HDS2	V
1800423	18.000	19.750	1.000	HDS1	V	<b>1811632</b>	18.110	20.276	1.102	HDS2	R
1800430	18.000	19.750	.938	HDS1	R	<input type="checkbox"/> <b>1811722</b>	460.00	520.00	25.00	HDS2	R
1800470	18.000	19.875	.750	HDS1	R	<b>1813558</b>	18.125	20.125	.813	HS8	R
<b>1800520</b>	18.000	20.000	.625	HDS2	R	1813720	18.120	20.500	1.000	HDS1	R
1800540	18.000	20.000	.750	HDS1	R	1813730	18.125	20.500	1.000	HDS1	R
<b>1800542</b>	18.000	20.000	.750	HDS2	D	<input type="checkbox"/> 1815180	461.00	495.00	20.00	HDS7	H
1800543	18.000	20.000	.750	HDS1	R	<b>1817138</b>	18.175	19.500	.750	HS8	R
W/4 EA .375 LUGS											
1800549	18.000	20.000	.750	HDS3	D	W/HOOK & EYE SPRING CONNECTOR					
W/4 EA .500 ADJ. LUGS											
1800550	18.000	20.000	.813	HDS1	R	<b>1817258</b>	18.175	19.750	.750	HS8	R
1800557	18.000	20.000	.813	HS7	R	W/HOOK & EYE SPRING CONNECTOR					
<b>1800558</b>	18.000	20.000	.813	HS8	R	1819690	18.188	20.500	1.000	HDS1	R
<b>1800559</b>	18.000	20.000	.813	HS8	D	1825250	18.250	19.750	.750	HDS1	R
1800560	18.000	20.000	.875	HDS1	R	<b>1825252</b>	18.250	19.750	.750	HDS2	R
<b>1800563</b>	18.000	20.000	.875	HDS2	R	1825253	18.250	19.750	.750	HDS1	V
1800564	18.000	20.000	.875	HDS1	R	1825255	18.250	19.750	.750	HDS1	R
W/4 EA .125 LUGS											
<b>1800565</b>	18.000	20.000	.875	HDS2	R	W/4 EA .375 LUGS					
W/4 EA .125 LUGS											
1800570	18.000	20.000	1.250	HDSD2	RR	1825257	18.250	19.750	.750	HS7	R
<b>1800573</b>	18.000	20.000	.875	HDS2	V	<b>1825258</b>	18.250	19.750	.750	HS8	R
1800580	18.000	20.000	1.000	HDS1	R	<b>1825268</b>	18.250	19.781	.750	HS8	R
1800581	18.000	20.000	1.000	HDS1	R	1825300	18.250	19.867	1.000	HDS1	R
W/4 EA .375 LUGS											
<b>1800582</b>	18.000	20.000	1.000	HDS2	R	<b>1825338</b>	18.250	19.750	.750	HS8	H
1800583	18.000	20.000	.875	HDS3	D	1825340	18.250	19.875	.875	HDS1	R
W/4 EA .500 ADJ. LUGS											
1800587	18.000	20.000	1.000	HS7	R	1825350	18.250	19.875	1.000	HDS1	R
1800591	18.000	20.000	1.250	HDS1	R	<b>1825352</b>	18.250	19.875	1.000	HDS2	R
1800592	18.000	20.000	1.250	HDS1	R	1825410	18.250	20.000	.875	HDS1	R
W/4 EA .125 LUGS											
1800593	18.000	20.000	1.813	HDS1	R	1825486	18.250	20.125	.938	HDS1	R
1800680	18.000	20.250	1.000	HDS1	R	1825540	18.250	20.250	.750	HDS1	R
1800683	18.000	20.250	1.000	HDS1	V	1825550	18.250	20.250	.813	HDS1	R
1800790	18.000	20.500	1.125	HDS1	R	1825557	18.250	20.250	.813	HS7	R
1800800	18.000	20.500	1.250	HDS1	R	1825674	18.250	20.500	1.188	HDS1	V
1800850	18.000	21.000	.688	HDS1	R	1825680	18.250	20.500	1.000	HDS1	R
W/4 EA .250 LUGS											
W/4 EA .125 LUGS											
1800890	18.000	21.000	1.500	HDS1	R	1825900	18.250	21.250	1.500	HDS1	R
<b>1800896</b>	18.000	21.000	1.125	HDS2	R	1831070	18.313	19.492	.750	HDS1	R
W/4 EA .375 LUGS											
1800912	18.000	19.500	1.250	HDSE2	RR	1837570	18.375	20.375	.813	HDS1	R
W/8 EA .125 LUBE HOLES ON O.D.											
1800918	18.000	19.500	1.250	HDSE1	RR	<b>1837608</b>	18.375	20.500	.875	HS8	R
W/8 EA .125 LUBE HOLES ON O.D.											
1800922	18.000	19.500	1.438	HDSE2	RR	1838240	18.375	19.875	.688	HDS1	R
1800950	18.000	20.000	1.500	HDSA1	RD	<b>1838241</b>	18.375	19.875	.688	HDS2	R
1800956	18.000	20.000	1.500	HDS1	RR	<b>1838244</b>	18.375	19.875	.688	HDS2	R
1800965	18.000	20.250	1.000	HDSA2	RD	W/4 EA .250 LUGS					
1800966	18.000	20.250	1.250	HDSE2	RR	<b>1838245</b>	18.375	19.875	.688	HDS2	R
<input type="checkbox"/> <b>1803452</b>	458.00	505.00	20.62	HDS2	R	W/4 EA .125 LUGS					
1803557	18.031	20.031	.813	HS7	R						
1806557	18.063	20.063	.813	HS7	R						
<input type="checkbox"/> 1811280	460.00	500.00	20.00	HDS1	R						
<input type="checkbox"/> 1811287	460.00	500.00	20.00	HDS1	V						
<input type="checkbox"/> 1811300	460.00	500.00	23.00	HDS1	V						
<input type="checkbox"/> 1811340	460.00	504.00	20.00	HDS1	R						
<input type="checkbox"/> <b>1811452</b>	460.00	510.00	20.62	HDS2	R						
1811550	18.110	20.115	.813	HDS1	R						
1811557	18.110	20.110	.813	HS7	R						
<input type="checkbox"/> <b>1811564</b>	460.00	510.00	22.00	HDS2	V						
<b>1811632</b>	18.110	20.276	1.102	HDS2	R						
<input type="checkbox"/> <b>1811722</b>	460.00	520.00	25.00	HDS2	R						
<b>1813558</b>	18.125	20.125	.813	HS8	R						
1813720	18.120	20.500	1.000	HDS1	R						
1813730	18.125	20.500	1.000	HDS1	R						
<input type="checkbox"/> 1815180	461.00	495.00	20.00	HDS7	H						
<b>1817138</b>	18.175	19.500	.750	HS8	R						
W/HOOK & EYE SPRING CONNECTOR											
<b>1817258</b>	18.175	19.750	.750	HS8	R						
W/HOOK & EYE SPRING CONNECTOR											
1819690	18.188	20.500	1.000	HDS1	R						
1825250	18.250	19.750	.750	HDS1	R						
<b>1825252</b>	18.250	19.750	.750	HDS2	R						
1825253	18.250	19.750	.750	HDS1	V						
1825255	18.250	19.750	.750	HDS1	R						
W/4 EA .375 LUGS											
1825257	18.250	19.750	.750	HS7	R						
<b>1825258</b>	18.250	19.750	.750	HS8	R						
<b>1825268</b>	18.250	19.781	.750	HS8	R						
1825300	18.250	19.867	1.000	HDS1	R						
<b>1825338</b>	18.250	19.750	.750	HS8	H						
1825340	18.250	19.875	.875	HDS1	R						
1825350	18.250	19.875	1.000	HDS1	R						
<b>1825352</b>	18.250	19.875	1.000	HDS2	R						
1825410	18.250	20.000	.875	HDS1	R						
1825486	18.250	20.125	.938	HDS1	R						
1825540	18.250	20.250	.750	HDS1	R						
1825550	18.250	20.250	.813	HDS1	R						
1825557	18.250	20.250	.813	HS7	R						
1825674	18.250	20.500	1.188	HDS1	V						
1825680	18.250	20.500	1.000	HDS1	R						
1825900	18.250	21.250	1.500	HDS1	R						
1831070	18.313	19.492	.750	HDS1	R						
1837570	18.375	20.375	.813	HDS1	R						
<b>1837608</b>	18.375	20.500	.875	HS8	R						
1838240	18.375	19.875	.688	HDS1	R						
<b>1838241</b>	18.375	19.875	.688	HDS2	R						
<b>1838244</b>	18.375	19.875	.688	HDS2	R						
W/4 EA .250 LUGS											
<b>1838245</b>	18.375	19.875	.688	HDS2	R						
W/4 EA .125 LUGS											

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Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
1838249	18.375	19.875	.688	HDS3	D	□1850590	470.00	520.00	20.00	HDS1	R
	W/4 EA .500 ADJ. LUGS						W/4 EA 12.70MM ADJ. LUGS				
1838257	18.375	19.875	.750	HS7	R	□1850660	463.00	528.00	20.00	HDS1	R
1838300	18.375	19.938	.625	HDS1	R	□1850702	470.00	530.00	26.00	HDS2	R
1838301	18.375	19.938	.625	HDS1	R	□1850710	470.00	530.00	28.00	HDS7	R
	W/4 EA .063 LUGS					□1850720	470.00	530.00	25.00	HDS1	D
1838330	18.375	20.000	.750	HDS1	R	□1850722	470.00	530.00	25.00	HDS2	R
□1838342	467.00	510.00	20.00	HDS2	V	□1850728	470.00	530.00	25.00	HDS1	R
1838557	18.375	20.375	.813	HS7	R		W/4 EA 9.50MM LUGS				
1838558	18.375	20.375	.813	HS8	R	1850790	18.500	21.248	1.000	HDS1	R
1838560	18.375	20.375	.875	HDS1	R	1850905	18.500	22.750	1.000	HDS1	R
1838620	18.375	20.500	.875	HDS1	R	1850922	18.500	20.000	1.250	HDS2	RR
1838710	18.375	20.750	.875	HDS1	R	1850952	18.500	20.500	.968	HDSA2	V
1850017	18.500	19.500	.500	HS7	R	1856193	18.560	20.000	.750	HDS1	R
1850212	18.500	20.000	.750	HDS2	V	1863557	18.625	20.625	.813	HS7	R
1850248	18.500	20.000	.750	HS8	D	□1870504	475.00	525.00	25.00	HS4	R
1850250	18.500	20.000	.750	HDS1	R	1873440	18.730	20.500	.750	HDS1	R
□1850253	470.00	510.00	20.00	HDS2	V	1875017	18.750	19.750	.500	HS7	R
1850257	18.500	20.000	.750	HS7	R	1875250	18.750	20.250	.750	HDS1	R
□1850280	470.00	510.00	20.00	HDS1	R	1875253	18.750	20.250	.750	HDS2	R
□1850302	470.00	510.00	20.00	HDS2	R	1875257	18.750	20.250	.750	HS7	R
1850306	18.504	20.079	.787	HDS3	V	1875258	18.750	20.250	.750	HS8	R
	W/4 EA .500 ADJ LUGS					1875259	18.750	20.250	.750	HDS3	D
1850380	18.500	20.250	.750	HDS1	R		W/4 EA .500 ADJ. LUGS				
□1850503	470.00	520.00	20.70	HS4	R	1875380	18.750	20.500	.750	HDS1	R
□1850510	470.00	520.00	20.00	HDS1	V	1875381	18.750	20.500	.750	HDS1	V
1850540	18.500	20.500	.750	HDS1	R	1875410	18.750	20.500	.875	HDS1	R
1850542	18.500	20.500	.750	HDS2	R	1875412	18.750	20.500	.875	HDS2	R
1850543	18.500	20.500	.750	HDS1	R	1875433	18.750	20.563	.813	HDS2	R
	W/4 EA .125 LUGS						W/4 EA .063 LUGS				
1850545	18.500	20.500	.750	HDS2	R	1875513	18.750	20.750	.813	HDS1	D
	W/4 EA .125 LUGS					1875540	18.750	20.750	.750	HDS1	R
1850548	18.500	20.500	.750	HDS3	V	1875550	18.750	20.750	.813	HDS1	R
	W/4 EA .500 ADJ LUGS					1875553	18.750	20.750	.813	HDS2	R
1850549	18.500	20.500	.750	HDS3	D	1875557	18.750	20.750	.813	HS7	R
	W/4 EA .500 ADJ. LUGS					1875580	18.750	20.750	1.000	HDS1	R
1850550	18.500	20.500	.813	HDS1	R	1882557	18.818	20.818	.813	HS7	R
1850551	18.500	20.500	.813	HDS1	R	1888391	18.875	20.625	.875	HDS1	R
	W/4 EA .188 LUGS					1888557	18.875	20.875	.813	HS7	R
1850552	18.500	20.500	.813	HDS2	R	□1889260	480.00	520.00	20.00	HDS1	D
1850553	18.500	20.500	.875	HDS2	V	□1889284	480.00	520.00	20.00	HDS2	V
1850554	18.500	20.500	.813	HDS2	V	□1889502	480.00	530.00	20.00	HDS3	D
1850555	18.500	20.500	.813	HDS1	D		W/4 EA .500 ADJ. LUGS				
1850557	18.500	20.500	.813	HS7	R	□1889570	480.00	530.00	18.00	HDS1	R
1850560	18.500	20.500	.875	HDS1	R		W/6 EA 12.70MM ADJ. LUGS				
1850561	18.500	20.500	.875	HDS2	R	1889572	18.898	20.861	.866	HDS2	D
1850562	18.500	20.500	.875	HDS1	R	□1889742	480.00	530.00	20.00	HDS3	H
	W/4 EA .250 LUGS						W/4 EA .500 ADJ. LUGS				
1850563	18.500	20.500	.875	HDS1	R	□1890260	480.00	520.00	20.00	HDS1	R
	W/4 EA .438 LUGS					□1890548	480.00	530.00	20.00	HS8	R
1850564	18.500	20.500	.875	HDS1	R	1894557	18.937	20.937	.813	HS7	R
	W/4 EA .375 LUGS					1900017	19.000	20.000	.500	HS7	R
1850565	18.500	20.500	.875	HDS1	R	1900211	19.000	20.500	.750	HDS7	R
	W/4 EA .406 LUGS					1900232	19.000	20.500	.625	HDS2	H
1850567	18.500	20.500	.875	HDS2	R	1900250	19.000	20.500	.750	HDS1	R
	W/4 EA .375 LUGS					1900251	19.000	20.500	.750	HDS2	R
1850570	18.500	20.500	.906	HDS1	R		W/6 EA .375 LUGS				
1850572	18.500	20.500	.906	HDS1	R	1900252	19.000	20.500	.750	HDS1	R
	W/4 EA .250 LUGS						W/4 EA .250 LUGS				
1850576	18.500	20.500	.906	HDS2	R	1900253	19.000	20.500	.750	HDS1	R
	W/4 EA .250 LUGS						W/6 EA .250 LUGS				
1850580	18.500	20.500	1.000	HDS1	R	1900254	19.000	20.500	.750	HDS2	R
1850584	18.500	20.500	1.000	HDS2	D	1900255	19.000	20.500	.750	HDS2	R
1850585	18.500	20.500	1.000	HDS1	D		W/4 EA .125 LUGS				
1850587	18.500	20.500	1.000	HS7	R						

★Contact manufacturer for availability  
**Bold numbers** are preferred designs

□ Metric numbers

† Includes Bore-Tite on O.D.  
 ▲ WasteWatcher numbers

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Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
<b>1900256</b>	19.000	20.500	.750	HDS2	R	□1929218	490.00	530.00	20.00	HDS1	R
	W/6 EA .250 LUGS						W/4 EA 4.80MM ADJ. LUGS				
1900257	19.000	20.500	.750	HS7	R	□ <b>1929228</b>	490.00	530.00	20.00	HS8	R
<b>1900258</b>	19.000	20.500	.750	HS8	R	□1929250	490.00	530.00	20.00	HDS1	R
1900259	19.000	20.500	.750	HDS3	D	□1929570	490.00	540.00	25.00	HDS1	R
	W/4 EA .500 ADJ. LUGS					□1929576	490.00	541.00	20.70	HS6	R
<b>1900260</b>	19.000	20.500	.750	HDS2	V	□ <b>1929578</b>	490.00	540.00	25.00	HS8	R
<b>1900265</b>	19.000	20.500	.750	HDS2	V	1938340	19.375	21.000	.813	HDS1	R
	W/6 EA .375 LUGS					<b>1938345</b>	19.375	21.000	.813	HDS2	D
	W/4 EA .188 LUGS										
<b>1900274</b>	19.000	20.500	.875	HDS2	D	1938557	19.375	21.375	.813	HS7	R
<b>1900275</b>	19.000	20.500	.875	HDS2	D	1950017	19.500	20.500	.500	HS7	R
	W/4 EA .125 LUGS					1950211	19.500	21.500	.750	HDS7	R
1900282	19.000	20.500	.938	HDS1	R	1950250	19.500	21.000	.750	HDS1	R
	W/4 EA .125 LUGS					<b>1950518</b>	19.500	21.500	.813	HS8	R
<b>1900512</b>	19.000	21.000	1.000	HDS2	R	1950540	19.500	21.500	.750	HDS1	R
1900540	19.000	21.000	.750	HDS1	R	<b>1950542</b>	19.500	21.500	.750	HDS2	R
<b>1900548</b>	19.000	21.000	.750	HS8	R	<b>1950544</b>	19.500	21.500	.750	HDS2	R
1900557	19.000	21.000	.813	HS7	R		W/4 EA .375 LUGS				
1900560	19.000	21.000	.875	HDS1	R	1950549	19.500	21.500	.750	HDS3	D
<b>1900562</b>	19.000	21.000	.875	HDS2	V		W/4 EA .500 ADJ. LUGS				
<b>1900563</b>	19.000	21.000	.875	HDS2	R	1950557	19.500	21.500	.813	HS7	R
<b>1900564</b>	19.000	21.000	.875	HDS2	R	1950560	19.500	21.500	.875	HDS1	R
	W/4 EA .188 LUGS					<b>1950563</b>	19.500	21.500	.875	HDS2	V
<b>1900565</b>	19.000	21.000	.875	HDS2	R	1950570	19.500	21.500	.938	HDS1	R
	W/4 EA .125 LUGS					1950571	19.500	21.500	.938	HDS1	R
<b>1900566</b>	19.000	21.000	.875	HDS2	V		W/4 EA .125 LUGS				
	W/4 EA .125 LUGS					1950580	19.500	21.500	1.000	HDS1	R
1900569	19.000	21.000	.875	HDS3	D	1950583	19.500	21.500	1.000	HDS1	V
	W/4 EA .500 ADJ. LUGS					<b>1950588</b>	19.500	21.500	1.000	HS8	R
1900580	19.000	21.000	1.000	HDS1	R	1950640	19.500	21.688	.750	HDS1	R
1900592	19.000	21.000	1.313	HDS1	R	1950660	19.500	21.750	.875	HDS1	R
<b>1900616</b>	19.000	21.125	.813	HDS2	R	1950760	19.500	22.000	.875	HDS1	R
	W/4 EA .063 LUGS					1950800	19.500	22.125	.875	HDS1	R
1900660	19.000	21.250	.875	HDS1	R	1950820	19.500	22.250	.875	HDS1	R
1900740	19.000	21.500	.750	HDS1	R	1950950	19.500	21.500	1.250	HDSA1	RD
<b>1900741</b>	19.000	21.500	.750	HDS2	R	1963340	19.625	21.260	1.563	HDS1	R
1900800	19.000	21.500	1.250	HDS1	R	1963341	19.625	21.260	.787	HDS1	R
1900830	19.000	21.750	1.000	HDS1	R	1963550	19.625	21.625	.813	HDS1	R
1900950	19.000	21.000	1.250	HDSC1	RD	1963557	19.625	21.625	.813	HS7	R
<b>1901254</b>	19.000	20.500	.750	HDS2	D	1963570	19.625	21.625	.938	HDS1	R
1901257	19.000	20.500	.750	HS7	D	□1968190	500.00	540.00	20.00	HDS1	R
□1909500	485.00	535.00	22.00	HDS1	R	□1968223	500.00	540.00	20.00	HDS3	D
□1909503	485.00	535.00	20.00	HDS3	D		W/6 EA 12.70MM ADJ. LUGS				
	W/4 EA .500 ADJ. LUGS					□1968257	500.00	540.00	20.00	HDS1	V
1913017	19.125	20.125	.500	HS7	R	□1968280	500.00	540.00	20.00	HDS1	R
1913557	19.125	21.125	.813	HS7	R		W/4 EA 10.00MM LUGS				
1913960	19.125	21.250	1.750	HDS01	RR	□ <b>1968388</b>	500.00	550.00	25.00	HS8	R
1919170	19.188	20.563	.688	HDS1	R	□1968458	500.00	550.00	18.00	HDS1	D
1919557	19.188	21.188	.813	HS7	R	□ <b>1968462</b>	500.00	550.00	18.00	HDS2	D
1925250	19.250	20.750	.750	HDS1	R	□ <b>1968500</b>	500.00	550.00	18.00	HDS2	R
<b>1925252</b>	19.250	20.750	.750	HDS2	R	□1968570	500.00	550.00	18.00	HDS1	R
1925253	19.250	20.750	.750	HDS1	R		W/6 EA 12.70MM ADJ. LUGS				
	W/6 EA .125 LUGS					1968710	19.685	22.047	.984	HDS1	R
1925254	19.250	20.750	.750	HDS1	D	1969300	19.688	21.250	.787	HDS1	R
	W/4 EA .125 LUGS					<b>1975018</b>	19.750	20.750	.500	HS8	R
<b>1925255</b>	19.250	20.750	.750	HDS2	R	1975150	19.750	21.125	.875	HDS1	R
	W/6 EA .125 LUGS					1975420	19.750	21.500	1.000	HDS1	R
1925380	19.250	21.000	.750	HDS1	R	1975526	19.750	20.750	.625	HS6	R
1925540	19.250	21.250	.750	HDS1	R	<b>1975528</b>	19.750	21.750	.625	HS8	R
1925557	19.250	21.250	.813	HS7	R	<b>1975553</b>	19.750	21.750	.813	HDS2	V
1925570	19.250	21.250	.938	HDS1	R	1975557	19.750	21.750	.813	HS7	R
1925580	19.250	21.250	1.000	HDS1	R	1975560	19.750	21.750	.875	HDS1	R
1925660	19.250	21.500	.875	HDS1	R	1975569	19.750	21.750	.875	HDS3	D
1925920	19.250	20.750	.875	HDSA1	RD		W/4 EA .500 ADJ. LUGS				



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Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
1975580	19.750	21.750	1.000	HDS1	R	2000563	20.000	22.000	.875	HDS1	R
<b>1975582</b>	19.750	21.750	1.000	HDS2	R		W/8 EA .125 LUGS				
<b>1975585</b>	19.750	21.750	1.000	HDS2	R	2000564	20.000	22.000	.875	HDS1	V
	W/4 EA .125 LUGS					<b>2000565</b>	20.000	22.000	.875	HDS2	R
1975660	19.750	22.000	.875	HDS1	R	<b>2000566</b>	20.000	22.000	.875	HDS2	R
1975680	19.750	22.000	1.000	HDS1	R		W/4 EA .250 LUGS				
1975710	19.750	22.125	.875	HDS1	R	<b>2000568</b>	20.000	22.000	.875	HS8	R
<b>1975732</b>	19.750	22.125	1.000	HDS2	R	2000570	20.000	22.000	.906	HDS1	R
1975760	19.750	22.250	.875	HDS1	R	2000580	20.000	22.000	1.000	HDS1	R
1975972	19.750	22.125	1.000	HDSA1	RD	2000582	20.000	22.000	1.000	HDS1	R
□1985539	500.00	550.00	20.00	HDS7	D		W/6 EA .250 LUGS				
	W/6 EA 12.70MM ADJ. LUGS					<b>2000584</b>	20.000	22.000	1.000	HDS2	R
□ <b>1988462</b>	505.00	555.00	20.62	HDS2	R		W/6 EA .250 LUGS				
1988470	19.875	21.750	.750	HDS1	R	<b>2000585</b>	20.000	22.000	1.000	HDS2	R
<b>1988528</b>	19.875	21.875	.625	HS8	R	2000587	20.000	22.000	1.000	HS7	R
1988557	19.875	21.875	.813	HS7	R	2000590	20.000	22.000	1.812	HDS1	R
1988620	19.875	22.000	.875	HDS1	R	<b>2000592</b>	20.000	22.000	1.250	HDS2	R
1988630	19.875	22.000	1.000	HDS1	R	2000630	20.000	22.125	1.000	HDS1	R
1988710	19.875	22.250	.875	HDS1	R	<b>2000638</b>	20.000	22.125	.916	HS8	V
1989557	19.881	21.881	.813	HS7	R	<b>2000648</b>	20.000	22.125	.916	HS8	R
1994300	19.938	21.500	.750	HDS1	R	<b>2000649</b>	20.000	22.125	.916	HS8	D
1994360	19.938	21.688	.625	HDS1	R	2000660	20.000	22.250	.875	HDS1	R
1994361	19.938	21.688	.625	HDS1	R	2000760	20.000	22.500	.875	HDS1	R
	W/4 EA .063 LUGS					2000795	20.000	22.500	1.250	HDS1	R
1994363	19.938	21.688	.625	HDS1	R	<b>2000803</b>	20.000	22.625	.750	HDS2	R
	W/4 EA .125 LUGS					2000913	20.000	21.250	1.375	HDSA1	RD
1994430	19.938	21.750	.750	HDS1	R	2000920	20.000	21.500	.875	HDSA1	V
1998523	19.983	22.000	.625	HDS3	D	2000951	20.000	22.000	1.813	HDSE1	RR
	W/4 EA .500 ADJ. LUGS					□2007260	510.00	550.00	20.00	HDS1	D
1998603	19.983	22.000	.875	HDS3	D	□2007340	510.00	554.00	20.00	HDS1	D
	W/4 EA .500 ADJ LUGS					□ <b>2007502</b>	510.00	560.00	25.00	HDS2	D
2000017	20.000	21.000	.500	HS7	R	□2008570	510.00	560.00	25.00	HDS1	D
<b>2000018</b>	20.000	21.000	.500	HS8	D	2019690	20.188	22.500	1.000	HDS1	R
2000230	20.000	21.500	.625	HDS1	R	2025017	20.250	21.250	.500	HS7	R
<b>2000232</b>	20.000	21.500	.750	HDS2	R	<b>2025214</b>	20.250	21.750	.750	HDS2	V
2000237	20.000	21.500	.625	HS7	R	2025250	20.250	21.750	.750	HDS1	R
<b>2000238</b>	20.000	21.500	.625	HS8	R	2025251	20.250	21.750	.750	HDS1	R
2000239	20.000	21.500	.625	HDS3	D		W/4 EA .125 LUGS				
	W/4 EA .500 ADJ. LUGS					<b>2025252</b>	20.250	21.750	.750	HDS2	R
2000240	20.000	21.500	.750	HDS7	R	<b>2025254</b>	20.250	21.750	.750	HDS2	R
							W/4 EA .125 LUGS				
2000250	20.000	21.500	.750	HDS1	R	<b>2025284</b>	20.250	21.750	1.500	†HDS2	R
2000253	20.000	21.500	.750	HDS1	R	2025340	20.250	21.875	.875	HDS1	R
	W/8 EA .125 LUGS					2025380	20.250	22.000	.750	HDS1	R
2000254	20.000	21.500	.750	HDS1	R	<b>2025528</b>	20.250	22.250	.625	HS8	R
	W/4 EA .250 LUGS					2025543	20.250	22.250	.750	HDS1	V
<b>2000258</b>	20.000	21.500	.750	HS8	R	2025557	20.250	22.250	.813	HS7	R
<b>2000262</b>	20.000	21.500	.750	HDS2	V	2025560	20.250	22.250	.875	HDS1	R
2000283	20.000	21.500	.750	HDS1	V	<b>2025562</b>	20.250	22.250	.875	HDS2	R
2000380	20.000	21.750	.750	HDS1	R	2025564	20.250	22.250	.875	HDS1	R
<b>2000388</b>	20.000	21.750	.750	HS8	R		W/4 EA .125 LUGS				
2000500	20.000	22.000	.906	HDS1	R	2025568	20.250	22.250	1.000	HDS3	D
2000520	20.000	22.000	.625	HDS1	R		W/4 EA .500 ADJ. LUGS				
<b>2000522</b>	20.000	22.000	.625	HDS2	V	2025569	20.250	22.250	.875	HDS3	D
2000527	20.000	22.000	.625	HS7	R		W/4 EA .500 ADJ. LUGS				
<b>2000528</b>	20.000	22.000	.625	HS8	R	2025570	20.250	22.250	.875	HDS1	D
2000529	20.000	22.000	.625	HDS3	D	2025580	20.250	22.250	1.000	HDS1	R
	W/4 EA .500 ADJ. LUGS					2025630	20.250	22.375	1.000	HDS1	R
2000543	20.000	22.000	.750	HDS1	V	2025660	20.250	22.500	.875	HDS1	R
2000557	20.000	22.000	.813	HS7	R	<b>2025662</b>	20.250	22.500	.875	HDS2	R
<b>2000558</b>	20.000	22.000	.813	HS8	R	<b>2025664</b>	20.250	22.500	.875	HDS2	R
2000560	20.000	22.000	.875	HDS1	R		W/4 EA .375 LUGS				
2000561	20.000	22.000	.875	HDS1	R	<b>2025665</b>	20.250	22.500	.875	HDS2	R
	W/4 EA .125 LUGS						W/4 EA .500 ADJ. LUGS				
						2025901	20.250	24.000	1.000	HDS1	R

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□ Metric numbers

† Includes Bore-Tite on O.D.  
 ▲ WasteWatcher numbers



## Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
<b>2027118</b>	20.275	21.535	.630	HS8	R	2050660	20.500	22.750	.875	HDS1	R
□ 2027280	515.00	555.00	20.00	HDS7	R	2050740	20.500	22.999	1.125	HDS1	R
□ <b>2027282</b>	515.00	555.00	20.00	HDS2	R	2050750	20.500	22.999	1.250	HDS1	R
□ <b>2027295</b>	515.00	555.00	20.00	HS5	R	2050760	20.500	23.000	.875	HDS1	R
	W/SPRING KOVER					2050791	20.500	23.000	1.250	HDS1	R
□ <b>2028258</b>	515.00	555.00	20.00	HS8	R	2050793	20.500	23.000	1.250	HDS1	R
□ <b>2043308</b>	519.00	560.00	25.00	HS8	D	W/4 EA .250 LUGS					
2044580	20.438	22.500	1.000	HDSA1	R	2050953	20.500	22.500	1.500	HDSE2	RR
2044600	20.438	22.500	.750	HDS1	R	W/LUBE HOLES ON O.D.					
<b>2044602</b>	20.438	22.500	.750	HDS2	R	2050954	20.500	22.500	.875	HDSA2	V
<b>2044603</b>	20.438	22.500	.750	HDS2	R	2052557	20.515	22.515	.813	HS7	R
	W/4 EA .250 LUGS					2063300	20.625	22.265	1.000	HDS1	R
2044604	20.438	22.500	.750	HDS1	R	2063557	20.625	22.625	.813	HS7	R
	W/4 EA .250 LUGS					2063580	20.625	22.625	1.000	HDS1	R
2044790	20.438	23.000	.875	HDS1	R	□ 2066500	525.00	575.00	22.00	HDS1	R
2044793	20.438	23.000	1.250	HDS1	R	□ 2066503	525.00	575.00	20.70	HS4	R
2044800	20.438	23.125	.875	HDS1	R	□ 2066573	525.00	575.00	20.00	HDS3	D
□ 2047220	520.00	560.00	20.00	HDS1	R	W/4 EA .500 ADJ. LUGS					
□ 2047258	520.00	560.00	20.00	HDS1	R	2068710	20.866	22.866	.812	HDS1	R
	W/4 EA 9.50MM LUGS					2072200	20.719	22.125	.875	HDS1	R
□ 2047283	520.00	560.00	20.00	HDS1	V	2072440	20.719	22.500	.875	HDS1	R
□ 2047500	520.00	570.00	18.00	HDS1	R	2072500	20.719	22.625	.875	HDS1	R
	W/6 EA 12.70MM ADJ. LUGS					2072600	20.719	22.750	.875	HDS1	R
2047673	20.472	22.834	.984	HDS3	D	<b>2072954</b>	20.719	22.750	1.250	HDS2	D
	W/4 EA .500 ADJ. LUGS					<b>2075238</b>	20.750	22.750	.625	HS8	R
□ <b>2047692</b>	520.00	580.00	25.00	HDS2	R	2075340	20.750	22.375	.875	HDS1	R
□ 2047700	520.00	580.00	20.00	HDS1	R	2075540	20.750	22.750	.750	HDS1	R
□ <b>2047705</b>	520.00	580.00	25.00	HDS2	R	2075543	20.750	22.750	.750	HDS3	V
	W/6 EA 12.70MM ADJ. LUGS					W/4 EA .500 ADJ. LUGS					
<b>2050212</b>	20.500	22.000	.750	HDS2	R	2075549	20.750	22.750	.750	HDS3	D
	W/4 EA .188 LUGS					W/4 EA .500 ADJ. LUGS					
2050250	20.500	22.000	.750	HDS1	R	2075557	20.750	22.750	.813	HS7	R
<b>2050252</b>	20.500	22.000	.750	HDS2	R	2075560	20.750	22.750	.875	HDS1	R
<b>2050254</b>	20.500	22.000	.750	HDS2	V	2075561	20.750	22.750	.875	HDS1	D
<b>2050258</b>	20.500	22.000	.750	HS8	R	<b>2075562</b>	20.750	22.750	.875	HDS2	D
2050282	20.500	22.000	1.500	HDSA2	RD	<b>2075563</b>	20.750	22.750	.875	HDS2	R
2050520	20.500	22.500	.625	HDS1	R	2075569	20.750	22.750	.875	HDS7	D
<b>2050523</b>	20.500	22.500	.625	HDS2	D	2075580	20.750	22.750	1.000	HDS1	R
2050527	20.500	22.500	.625	HS7	R	<b>2075588</b>	20.750	22.750	1.000	HS8	R
<b>2050528</b>	20.500	22.500	.625	HS8	R	<b>2075602</b>	20.750	22.752	.875	HDS2	R
2050529	20.500	22.500	.625	HDS3	D	2075660	20.750	23.000	.875	HDS1	R
	W/4 EA .500 ADJ. LUGS					2075662	20.750	23.000	.875	HDS1	R
2050540	20.500	22.500	.750	HDS1	R	W/4 EA .188 LUGS					
<b>2050542</b>	20.500	22.500	.750	HDS2	R	2075907	20.750	23.750	1.188	HDS1	R
2050550	20.500	22.500	.844	HDS1	R	W/4 EA .313 LUGS					
<b>2050552</b>	20.500	22.500	.813	HDS2	R	2075908	20.750	23.750	1.500	HDS1	R
<b>2050553</b>	20.500	22.500	.813	HDS2	V	2075950	20.750	22.750	1.250	HDSA1	RD
2050557	20.500	22.500	.813	HS7	R	2083557	20.827	22.827	.813	HS7	R
<b>2050558</b>	20.500	22.500	.812	HS8	R	□ <b>2086448</b>	530.00	576.00	21.00	HS8	R
2050560	20.500	22.500	.875	HDS1	R	□ 2086500	530.00	580.00	22.00	HDS7	R
2050562	20.500	22.500	.875	HDS1	R	<b>2086502</b>	20.861	22.835	.860	HDS2	D
	W/4 EA .250 LUGS					□ <b>2086508</b>	530.00	580.00	20.00	HS8	R
<b>2050563</b>	20.500	22.500	.875	HDS2	R	□ 2086510	530.00	580.00	20.00	HDS1	R
2050565	20.500	22.500	.875	HDS1	R	□ 2086539	530.00	580.00	20.00	HDS7	D
	W/4 EA .125 LUGS					W/6 EA 12.70MM ADJ. LUGS					
<b>2050568</b>	20.500	22.500	.875	HS8	R	□ 2086540	530.00	580.00	22.00	HDS1	R
2050573	20.500	22.500	.906	HDS1	R	□ 2086541	530.00	580.00	22.00	HDS1	R
	W/4 EA .188 LUGS					W/6 EA 6.40MM LUGS					
<b>2050575</b>	20.500	22.500	.906	HDS2	R	□ 2086573	530.00	580.00	22.00	HDS3	D
	W/4 EA .250 LUGS					W/6 EA 12.70MM ADJ. LUGS					
2050580	20.500	22.500	1.000	HDS1	R	2086710	20.866	22.866	.812	HDS1	R
2050586	20.500	22.500	1.000	HDS1	R	2087490	20.875	22.750	1.000	HDS1	R
	W/4 EA .500 LUGS					□ 2087547	530.00	580.00	20.00	HDS1	V
2050596	20.500	22.500	1.500	HDS1	R	2087557	20.866	22.866	.813	HS7	R
						□ <b>2087568</b>	530.00	580.00	22.00	HS8	R

Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
2088540	20.875	22.875	.750	HDS1	R	<b>2100584</b>	21.000	23.000	1.000	HDS2	R
2088557	20.875	22.875	.813	HS7	R		W/4 EA .250 LUGS				
2088610	20.875	23.000	.750	HDS1	R	<b>2100588</b>	21.000	23.000	1.000	HS8	V
<b>2088648</b>	20.875	23.000	.750	HS8	R	2100660	21.000	23.250	.875	HDS1	R
2088700	20.875	23.228	.875	HDS1	R	2100760	21.000	23.500	.875	HDS1	R
2088702	20.875	23.228	.906	HDS1	R	2100780	21.000	23.500	1.000	HDS1	R
2088800	20.875	23.500	.875	HDS1	R	2100790	21.000	23.500	1.125	HDS1	R
2100017	21.000	22.000	.500	HS7	R	2100791	21.000	23.500	1.125	HDS1	R
<b>2100228</b>	21.000	22.580	.578	HS8	R		W/4 EA .125 LUGS				
2100250	21.000	22.500	.750	HDS1	R	2100800	21.000	23.500	1.250	HDS1	R
2100257	21.000	22.500	.750	HS7	R	2100870	21.000	24.000	.875	HDS1	R
<b>2100258</b>	21.000	22.500	.750	HS8	R	2100913	21.000	22.250	1.375	HDSA1	RD
2100370	21.000	22.750	.688	HDS1	R	2100951	21.000	23.000	.875	HDSA1	RD
2100380	21.000	22.750	.750	HDS1	R	2100952	21.000	23.000	.875	HDS2	RD
2100390	21.000	22.750	.813	HDS1	R		W/6 EA .500 LUGS				
2100391	21.000	22.750	.813	HDS1	R	2100955	21.000	23.000	.875	HDS2	RD
	W/4 EA .125 LUGS					2100957	21.000	23.000	.875	HDSA2	V
2100393	21.000	22.750	.813	HDS1	V	□ 2105443	535.00	580.00	20.00	HDS3	D
2100430	21.000	22.751	.813	HDS1	R		W/6 EA 12.70MM ADJ. LUGS				
2100432	21.000	22.751	.813	HDS1	R	2112570	21.125	23.125	1.000	HDS1	V
	W/4 EA .125 LUGS					2120550	21.204	23.204	.813	HDS1	R
2100490	21.000	22.938	1.000	HDS1	R	2121900	21.210	24.500	1.000	HDS1	R
<b>2100516</b>	21.000	23.000	.625	HDS2	V	2125257	21.250	22.750	.750	HS7	R
	W/4 EA .500 ADJ. LUGS					2125380	21.250	23.000	.750	HDS1	R
2100517	21.000	23.000	.813	HS7	V	2125520	21.250	23.250	.625	HDS1	R
2100520	21.000	23.000	.625	HDS1	R	2125527	21.250	23.250	.625	HS7	R
2100521	21.000	23.000	.625	HDS1	R	2125540	21.250	23.250	.750	HDS1	R
	W/4 EA .125 LUGS					<b>2125555</b>	21.250	23.250	.813	HDS2	D
<b>2100522</b>	21.000	23.000	.625	HDS2	R	2125557	21.250	23.250	.813	HS7	R
2100527	21.000	23.000	.625	HS7	R	2125560	21.250	23.250	.875	HDS1	R
<b>2100528</b>	21.000	23.000	.625	HS8	R	2125562	21.250	23.250	.875	HDS1	R
2100529	21.000	23.000	.625	HDS3	D		W/4 EA .313 LUGS				
	W/4 EA .500 ADJ. LUGS					<b>2125563</b>	21.250	23.250	.875	HDS2	R
<b>2100532</b>	21.000	23.000	.708	HDS2	R	<b>2125564</b>	21.250	23.250	.875	HDS2	V
2100539	21.000	23.000	.750	HDS7	R	2125660	21.250	23.500	.875	HDS1	R
	W/4 EA .125 LUGS					2125890	21.250	24.250	1.000	HDS1	R
2100540	21.000	23.000	.750	HDS1	R	2125895	21.250	24.250	1.000	HDS1	D
2100543	21.000	23.012	.750	HDS1	R	2125940	21.250	23.000	.875	HDSA1	RD
<b>2100544</b>	21.000	23.000	.750	HDS2	R	□ 2126280	540.00	580.00	20.00	HDS1	R
	W/4 EA .125 LUGS					□ 2126344	540.00	584.00	20.00	HS4	R
<b>2100545</b>	21.000	23.000	.750	HDS2	R	□ 2126502	540.00	590.00	20.00	HDS2	D
2100550	21.000	23.000	.813	HDS1	R	□ 2126504	540.00	590.00	20.00	HDS2	V
<b>2100553</b>	21.000	23.000	.813	HDS2	V	2126510	21.260	23.228	.984	HDS7	R
2100557	21.000	23.000	.813	HS7	R	□ 2126540	540.00	590.00	20.00	HDS1	R
<b>2100558</b>	21.000	23.000	.813	HS8	R	2126557	21.260	23.260	.813	HS7	R
2100560	21.000	23.000	.875	HDS1	R	2131440	21.313	23.125	.750	HDS1	R
2100561	21.000	23.000	.875	HDS1	R	2131560	21.313	23.312	.875	HDS1	R
	W/4 EA .125 LUGS					2131561	21.313	23.312	.875	HDS1	R
<b>2100562</b>	21.000	23.000	.875	HDS2	R		W/4 EA .063 LUGS				
	W/6 EA .125 LUGS					2131580	21.313	23.312	1.000	HDS1	R
2100563	21.000	23.000	.875	HDS1	R	2131640	21.313	23.500	.875	HDS1	R
	W/4 EA .500 LUGS					□ 2133181	542.00	578.00	16.00	HDS7	D
<b>2100564</b>	21.000	23.000	.875	HDS2	R		W/4 EACH .500 ADJ LUGS				
<b>2100565</b>	21.000	23.000	.875	HDS2	D	2138480	21.375	23.250	.875	HDS1	R
<b>2100566</b>	21.000	23.000	.875	HDS2	D	2138557	21.375	23.375	.813	HS7	R
	W/4 EA .250 LUGS					2138560	21.375	23.375	.875	HDS1	R
2100567	21.000	23.000	.875	HDS1	V	2138620	21.375	23.500	.875	HDS1	R
	W/4 EA .375 LUGS					2144300	21.438	23.000	.750	HDS1	R
2100568	21.000	23.000	.875	HDS3	D	2144360	21.438	23.188	.625	HDS1	R
	W/4 EA .125 LUGS					2144361	21.438	23.188	.625	HDS1	R
<b>2100575</b>	21.000	23.000	.875	HDS2	R		W/4 EA .125 LUGS				
	W/6 EA .500 ADJ. LUGS					2144362	21.438	23.188	.625	HDS1	R
2100580	21.000	23.000	1.000	HDS1	R		W/4 EA .031 LUGS				
2100583	21.000	23.000	1.000	HDS1	V	2144363	21.438	23.188	.625	HDS1	R
							W/4 EA .063 LUGS				

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Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
2144380	21.438	23.188	.750	HDS1	R	<b>2175545</b>	21.750	23.750	.750	HDS2	R
2144440	21.438	23.250	.875	HDS1	R		W/4 EA .500 LUGS				
2144600	21.438	23.500	.875	HDS1	R	2175557	21.750	23.750	.813	HS7	R
□ 2145500	545.00	595.00	22.00	HDS1	R	2175569	21.750	23.750	.875	HDS7	R
2146557	21.456	23.456	.813	HS7	R	2175580	21.750	23.750	1.000	HDS1	R
2150070	21.500	22.688	.625	HDS1	R	2175581	21.750	23.750	1.000	HDS1	R
<b>2150238</b>	21.500	23.000	.625	HS8	R		W/4 EA .063 LUGS				
2150257	21.500	23.000	.750	HS7	R	<b>2175585</b>	21.750	23.750	1.000	HDS2	R
<b>2150258</b>	21.500	23.000	.750	HS8	R		W/4 EA .500 LUGS				
2150380	21.500	23.250	.750	HDS1	R	2175660	21.750	24.000	.875	HDS1	R
<b>2150384</b>	21.500	23.250	.750	HDS2	V	<b>2175664</b>	21.750	24.000	.875	HDS2	R
2150387	21.500	23.250	.750	HDS1	V		W/4 EA .125 LUGS				
2150388	21.500	23.250	.750	HDS1	D	2175680	21.750	24.000	1.000	HDS1	R
2150520	21.500	23.500	.625	HDS1	R	2175760	21.750	24.250	.875	HDS1	R
2150527	21.500	23.500	.625	HS7	R	2175830	21.750	24.500	1.000	HDS1	R
2150540	21.500	23.500	.750	HDS1	R	2175895	21.750	24.750	1.500	HDS1	R
<b>2150542</b>	21.500	23.500	.750	HDS2	R	2175899	21.750	24.750	1.000	HDS3	D
2150549	21.500	23.500	.750	HDS3	D		W/4 EA .500 ADJ. LUGS				
	W/4 EA .500 ADJ. LUGS					2175920	21.750	24.750	1.500	HDSD1	RR
2150550	21.500	23.500	.813	HDS1	R	2175992	21.750	24.750	1.500	HDSD2	VV
2150554	21.500	23.500	.813	HDS1	R	2175997	21.750	24.750	1.500	HDSD1	VV
	W/6 EA .375 LUGS					2175998	21.750	24.750	1.500	HDSE1	VV
<b>2150555</b>	21.500	23.500	.813	HDS2	R	2188557	21.875	23.875	.813	HS7	R
	W/6 EA .375 LUGS					□ 2189637	556.00	610.00	25.40	HS7	R
2150557	21.500	23.500	.813	HS7	R	2200017	22.000	23.000	.500	HS7	R
2150560	21.500	23.500	.875	HDS1	R	2200027	22.000	23.000	.500	HS7	V
<b>2150562</b>	21.500	23.500	.875	HDS2	V	2200140	22.000	24.000	.875	HDS1	R
<b>2150565</b>	21.500	23.500	.875	HDS2	D		W/4 EA .188 LUGS				
<b>2150574</b>	21.500	23.500	.800	HDS2	V	<b>2200212</b>	22.000	23.500	.750	HDS2	D
2150580	21.500	23.500	1.000	HDS1	R	<b>2200213</b>	22.000	23.500	.750	HDS2	V
2150600	21.500	23.563	.875	HDS1	R	<b>2200218</b>	22.000	23.500	.750	HS8	R
2150660	21.500	23.750	.875	HDS1	R	2200230	22.000	23.500	.625	HDS1	R
2150760	21.500	24.000	.875	HDS1	R	2200237	22.000	23.500	.625	HS7	R
2150780	21.500	24.000	1.000	HDS1	R	<b>2200238</b>	22.000	23.500	.625	HS8	R
2150800	21.500	24.000	1.250	HDS1	R	2200239	22.000	23.500	.625	HDS3	D
2163380	21.625	23.375	.750	HDS1	R		W/4 EA .500 ADJ. LUGS				
2163557	21.625	23.625	.813	HS7	R	2200250	22.000	23.500	.750	HDS1	R
2163560	21.625	23.625	.875	HDS1	R	<b>2200252</b>	22.000	23.500	.750	HDS2	R
2163580	21.625	23.625	1.000	HDS1	R	2200253	22.000	23.500	.750	HDS1	D
2163620	21.625	23.750	.875	HDS1	R	<b>2200255</b>	22.000	23.500	.750	HDS2	R
□ <b>2163672</b>	550.00	610.00	25.00	HDS2	R		W/4 EA .250 LUGS				
□ 2165250	550.00	590.00	20.00	HDS1	R	2200256	22.000	23.500	.750	HDS1	R
□ 2165255	550.00	590.00	20.00	HDS1	R		W/6 EA .125 LUGS				
	W/4 EA 4.80MM LUGS					2200257	22.000	23.500	.750	HS7	R
2165257	21.653	23.153	.750	HS7	R	2200390	22.000	23.750	.813	HDS1	R
□ 2165258	550.00	590.00	20.00	HDS1	R	2200393	22.000	23.750	.813	HDS1	D
	W/4 EA 9.50MM LUGS					<b>2200398</b>	22.000	23.750	.813	HS8	D
□ <b>2165288</b>	550.00	590.00	20.00	HS8	R	2200513	22.000	24.000	.750	HDS3	V
□ <b>2165492</b>	550.00	600.00	25.00	HDS2	R		W/4 EA .500 ADJ. LUGS				
□ 2165500	550.00	600.00	20.00	HDS1	R	<b>2200522</b>	22.000	24.000	.625	HDS2	D
□ 2165720	550.00	610.00	25.00	HDS1	R		W/4 EA .375 LUGS				
□ 2165840	550.00	620.00	25.00	HDS1	V	<b>2200529</b>	22.000	24.000	.625	HS8	D
2169257	21.688	23.188	.750	HS7	R	2200540	22.000	24.000	.750	HDS1	R
2169557	21.691	23.691	.813	HS7	R	<b>2200542</b>	22.000	24.000	.750	HDS2	R
2175230	21.750	23.250	.625	HDS1	R	2200549	22.000	24.000	.750	HDS3	D
<b>2175232</b>	21.750	23.250	.625	HDS2	R		W/4 EA .500 ADJ. LUGS				
2175237	21.750	23.250	.625	HS7	R	2200550	22.000	24.000	.813	HDS1	R
<b>2175238</b>	21.750	23.250	.625	HS8	R	<b>2200555</b>	22.000	24.000	.812	HS8	V
2175250	21.750	23.250	.750	HDS1	R	2200557	22.000	24.000	.813	HS7	R
<b>2175252</b>	21.750	23.250	.750	HDS2	R	<b>2200558</b>	22.000	24.000	.813	HS8	D
2175253	21.750	23.250	.750	HDS1	R	2200560	22.000	24.000	.875	HDS1	R
	W/4 EA .125 LUGS					2200561	22.000	24.000	.875	HDS1	R
2175257	21.750	23.250	.750	HS7	R		W/4 EA .125 LUGS				
2175540	21.750	23.750	.750	HDS1	R	2200562	22.000	24.000	.875	HDS1	R
<b>2175542</b>	21.750	23.750	.750	HDS2	R		W/4 EA .250 LUGS				

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Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
<b>2200563</b>	22.000	24.000	.875	HDS2	R	<b>2225563</b>	22.250	24.250	.875	HDS2	R
	W/4 EA .125 LUGS						W/4 EA .125 LUGS				
<b>2200564</b>	22.000	24.000	.875	HDS2	D	2225564	22.250	24.250	.875	HDS1	R
<b>2200565</b>	22.000	24.000	.875	HDS2	R		W/4 EA .250 LUGS				
<b>2200566</b>	22.000	24.000	.875	HDS2	R	<b>2225565</b>	22.250	24.250	.875	HDS2	R
	W/4 EA .250 LUGS						W/4 EA .250 LUGS				
<b>2200567</b>	22.000	24.000	.875	HDS2	D	2225568	22.250	24.250	.875	HDS3	H
	W/4 EA .250 LUGS						W/4 EA .500 ADJ .LUGS				
2200580	22.000	24.000	1.000	HDS1	R	2225569	22.250	24.250	.875	HDS3	D
2200585	22.000	24.000	1.000	HDS1	R		W/4 EA .500 ADJ. LUGS				
	W/4 EA .125 LUGS					2225580	22.250	24.250	1.000	HDS1	R
2200587	22.000	24.000	1.000	HS7	R		W/4 EA .500 ADJ. LUGS				
2200590	22.000	24.000	1.250	HDS1	R	<b>2225588</b>	22.250	24.250	1.000	HS8	R
2200591	22.000	24.000	1.281	HDS1	R	2225660	22.250	24.500	.875	HDS1	R
<b>2200592</b>	22.000	24.000	1.250	HDS2	D	2225680	22.250	24.500	1.000	HDS1	R
2200680	22.000	24.250	1.000	HDS1	R	2237515	22.375	24.375	.750	HDS1	R
2200760	22.000	24.500	.875	HDS1	R		W/4 EA .125 LUGS				
2200762	22.000	24.500	.875	HDS1	R	2237541	22.375	24.375	.750	HDS1	R
	W/4 EA .250 LUGS						W/4 EA .125 LUGS				
2200780	22.000	24.500	1.000	HDS1	R	<b>2237710</b>	22.375	24.368	.875	HDS2	R
2200800	22.000	24.500	1.250	HDS1	R	2238470	22.375	24.250	.750	HDS1	R
2200804	22.000	24.500	1.250	HDS1	D	2238500	22.375	24.368	.875	HDS1	R
2200820	22.000	24.750	.875	HDS1	R	2238505	22.375	24.368	.875	HDS1	R
2200900	22.000	26.000	1.250	HDS1	R		W/4 EA .375 LUGS				
2200920	22.000	23.500	.875	HDSA1	RD	2238509	22.375	24.368	.875	HDS3	D
2200953	22.000	24.000	1.250	HDSD1	RR		W/4 EA .500 ADJ. LUGS				
2200954	22.000	24.000	.875	HDSA1	RL	2238540	22.375	24.375	.750	HDS1	R
2200955	22.000	24.000	.875	HDSA2	RL	2238550	22.375	24.373	.875	HDS1	R
2200958	22.000	24.000	1.250	HDSE2	DD	2238560	22.375	24.375	.875	HDS1	R
2200961	22.000	24.000	1.875	HDSE2	RR	2238563	22.375	24.375	.875	HDS1	R
	W/LUBE HOLES ON O.D.						W/4 EA .375 LUGS				
2200962	22.000	24.000	1.250	HDSD2	DD	<b>2238565</b>	22.375	24.368	.875	HDS2	D
<b>2201560</b>	22.000	24.000	.875	HDS2	D		W/4 EA .375 LUGS				
	W/4 EA .125 LUGS					2238610	22.375	24.500	.750	HDS1	R
2201564	22.000	24.000	.875	HDS1	D	2238620	22.375	24.500	.875	HDS1	R
2201565	22.000	24.000	.875	HDS1	R	2238710	22.375	24.750	.875	HDS1	R
	W/6 EA .125 LUGS					2243303	22.438	24.000	.750	HDS1	V
<input type="checkbox"/> <b>2204242</b>	560.00	600.00	18.00	HDS2	R	<b>2243468</b>	22.438	24.250	.688	HS8	R
<input type="checkbox"/> <b>2204332</b>	560.00	604.00	16.00	HDS2	R	<input type="checkbox"/> 2244260	570.00	610.00	20.00	HDS1	R
	W/4 EA 3.20MM LUGS					2244300	22.438	24.000	.750	HDS1	R
<input type="checkbox"/> 2204340	560.00	604.00	20.00	HDS1	R	2244440	22.438	24.250	.750	HDS1	R
<input type="checkbox"/> 2204380	560.00	604.00	20.00	HDS7	R	2244453	22.438	24.376	.875	HDS1	R
<input type="checkbox"/> 2204473	560.00	610.00	20.00	HDS1	V		W/4 EA .375 LUGS				
<input type="checkbox"/> 2204500	560.00	610.00	20.00	HDS1	R	2244540	22.438	24.438	.750	HDS1	R
	W/4 EA 12.70MM ADJ. LUGS					<b>2244542</b>	22.438	24.438	.906	HDS2	R
<input type="checkbox"/> 2204508	560.00	610.00	20.00	HMS46	R	<input type="checkbox"/> <b>2244552</b>	570.00	620.00	22.00	HDS2	R
<input type="checkbox"/> 2204510	560.00	610.00	22.00	HDS7	R		W/6 EA 12.70MM ADJ. LUGS				
<input type="checkbox"/> 2204720	560.00	620.00	29.34	HDS7	R	2244560	22.438	24.438	.875	HDS1	R
<input type="checkbox"/> 2204962	560.00	620.00	30.00	HDSA2	RD	2250100	22.500	23.688	.625	HDS1	R
<input type="checkbox"/> <b>2205382</b>	560.00	604.00	20.00	HDS2	R	2250105	22.500	23.688	.625	HDS1	D
2206557	22.063	24.063	.813	HS7	R	2250230	22.500	24.000	.625	HDS1	R
2213490	22.125	24.000	1.000	HDS1	R	2250380	22.500	24.250	.750	HDS1	R
2213550	22.125	24.125	.813	HDS1	R	2250381	22.500	24.250	.750	HDS1	R
2213557	22.125	24.125	.813	HS7	R		W/4 EA .063 LUGS				
2225230	22.250	23.750	.625	HDS1	R	2250388	22.500	24.250	.750	HDS3	R
2225350	22.250	24.000	.750	HDS1	V		W/4 EA .375 LUGS				
2225380	22.250	24.000	.750	HDS1	R	2250390	22.500	24.250	.813	HDS1	R
2225511	22.250	24.250	.875	HDS7	H	2250391	22.500	24.250	.813	HDS1	R
2225550	22.250	24.250	.813	HDS1	R		W/4 EA .063 LUGS				
<b>2225553</b>	22.250	24.250	.813	HDS2	V	2250400	22.500	24.260	.750	HDS1	R
2225557	22.250	24.250	.813	HS7	R	2250410	22.500	24.250	.875	HDS1	R
2225560	22.250	24.250	.875	HDS1	R	2250500	22.500	24.495	.875	HDS1	R
2225561	22.250	24.250	.875	HDS7	R	2250501	22.500	24.495	.875	HDS1	R
	W/4 EA .250 LUGS						W/4 EA .125 LUGS				
<b>2225562</b>	22.250	24.250	.875	HDS2	R						

\*Contact manufacturer for availability  
**Bold numbers** are preferred designs

Metric numbers

† Includes Bore-Tite on O.D.  
 ▲ WasteWatcher numbers

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Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
2250502	22.500	24.495	.875	HDS1	R	<b>2300559</b>	23.000	25.000	.813	HS8	D
	W/4 EA .313	LUGS				2300560	23.000	25.000	.875	HDS1	R
2250520	22.500	24.500	.625	HDS1	R	<b>2300561</b>	23.000	25.000	.875	HDS2	R
2250540	22.500	24.500	.750	HDS1	R	2300563	23.000	25.000	.875	HDS1	R
2250545	22.500	24.500	.750	HDS1	R		W/6 EA .250	LUGS			
	W/4 EA .125	LUGS				2300565	23.000	25.000	.875	HDS1	R
2250549	22.500	24.500	.750	HDS3	D		W/8 EA .125	LUGS			
	W/4 EA .500	ADJ. LUGS				2300569	23.000	25.000	.875	HDS3	D
<b>2250552</b>	22.500	24.500	.875	HDS2	V		W/4 EA .500	ADJ. LUGS			
2250557	22.500	24.500	.813	HS7	R	2300570	23.000	25.000	.938	HDS1	R
2250560	22.500	24.500	.875	HDS1	R	2300580	23.000	25.000	1.000	HDS1	R
2250580	22.500	24.500	1.000	HDS1	R	<b>2300582</b>	23.000	25.000	1.000	HDS2	R
2250660	22.500	24.750	.875	HDS1	R	2300591	23.000	25.000	1.281	HDS1	R
<b>2263548</b>	22.638	24.638	.750	HS8	D	2300660	23.000	25.250	.875	HDS1	R
2267257	22.673	24.173	.750	HS7	R	2300710	23.000	25.375	.875	HDS1	R
2275380	22.750	24.500	.750	HDS1	R	2300717	23.000	25.375	.875	HDS1	V
2275557	22.750	24.750	.813	HS7	R	2300760	23.000	25.500	.875	HDS1	R
<b>2275558</b>	22.750	24.750	.813	HS8	R	2300780	23.000	25.500	1.000	HDS1	R
2275560	22.750	24.750	.875	HDS1	R	2300800	23.000	25.500	1.250	HDS1	R
<b>2275562</b>	22.750	24.750	.875	HDS2	R	2300921	23.000	24.500	.875	HDSB1	RD
2275580	22.750	24.750	1.000	HDS1	R	2300952	23.000	25.000	1.000	HDSA2	RL
2275660	22.750	25.000	.875	HDS1	R	2300983	23.000	24.750	1.250	HDSE1	VV
2275820	22.750	25.500	.875	HDS1	R	<input type="checkbox"/> <b>2303192</b>	585.00	620.00	20.00	HDS2	R
<input type="checkbox"/> 2276740	578.00	640.00	30.00	HDS1	R	<b>2307558</b>	23.074	24.954	.813	HS8	R
<b>2281558</b>	22.814	24.814	.813	HS8	R	<input type="checkbox"/> 2307740	586.00	650.00	25.00	HDS1	R
<input type="checkbox"/> 2283228	580.00	620.00	20.00	HDS3	D	<b>2320558</b>	23.208	25.208	.813	HS8	R
	W/6 EA 12.70MM	ADJ. LUGS				<input type="checkbox"/> 2322218	590.00	630.00	20.00	HDS1	R
<input type="checkbox"/> <b>2283282</b>	580.00	620.00	20.00	HDS2	D		W/4 EA 4.80MM	ADJ. LUGS			
<input type="checkbox"/> 2283500	580.00	630.00	18.00	HDS1	R	<input type="checkbox"/> 2322221	590.00	630.00	20.00	HDS7	D
	W/6 EA 12.70MM	ADJ. LUGS					W/6 EA 12.70MM	ADJ. LUGS			
2283557	22.834	24.834	.813	HS7	R	<input type="checkbox"/> 2322250	590.00	630.00	20.00	HDS1	R
<input type="checkbox"/> 2283700	580.00	640.00	25.00	HDS1	R	<input type="checkbox"/> <b>2322498</b>	590.00	640.00	25.00	HS8	R
<input type="checkbox"/> 2283972	580.00	640.00	30.00	HDSA2	RD	<input type="checkbox"/> 2323253	590.00	630.00	20.00	HDS3	D
<input type="checkbox"/> 2284578	580.00	630.00	25.00	HDS1	R		W/6 EA 12.70MM	ADJ. LUGS			
	W/4 EA 4.77MM	ADJ. LUGS				<input type="checkbox"/> <b>2323562</b>	590.00	640.00	22.00	HDS2	R
<input type="checkbox"/> <b>2284732</b>	580.00	640.00	25.00	HDS2	R	2325380	23.250	25.000	.750	HDS1	R
2288557	22.875	24.875	.813	HS7	R	2325381	23.250	25.000	.750	HDS1	R
2300017	23.000	24.000	.500	HS7	R		W/4 EA .125	LUGS			
<b>2300214</b>	23.000	24.500	.750	HDS2	V	2325382	23.250	25.000	.750	HDS1	R
2300220	23.000	24.500	.750	HDS1	R		W/4 EA .250	LUGS			
	W/4 EA .500	ADJ. LUGS				2325383	23.250	25.000	.750	HDS1	R
2300250	23.000	24.500	.750	HDS1	R		W/6 EA .250	LUGS			
<b>2300252</b>	23.000	24.500	.750	HDS2	R	<b>2325385</b>	23.250	25.000	.750	HDS2	R
<b>2300254</b>	23.000	24.500	.750	HDS2	R	<b>2325386</b>	23.250	25.000	.750	HDS2	R
	W/4 EA .125	LUGS					W/4 EA .250	LUGS			
2300255	23.000	24.500	.750	HDS1	D	2325540	23.250	25.250	.750	HDS1	R
2300257	23.000	24.500	.750	HS7	R	2325550	23.250	25.250	.813	HDS1	R
<b>2300258</b>	23.000	24.500	.750	HS8	R	2325557	23.250	25.250	.813	HS7	R
	W/HOOK & EYE	SPRING CONNECTOR				2325560	23.250	25.250	.875	HDS1	R
2300259	23.000	24.500	.750	HDS3	D	2325562	23.250	25.250	.875	HDS1	R
	W/4 EA .500	ADJ. LUGS					W/6 EA .250	LUGS			
<b>2300370</b>	23.000	24.750	.688	HS8	R	2325660	23.250	25.500	.875	HDS1	R
2300380	23.000	24.750	.750	HDS1	R	2325780	23.250	25.750	1.000	HDS1	R
2300381	23.000	24.750	.750	HDS1	R	2330017	23.300	24.300	.500	HS7	R
	W/6 EA .063	LUGS				<b>2331568</b>	23.310	25.310	.875	HS8	R
<b>2300382</b>	23.000	24.750	.750	HDS2	R	2331580	23.313	25.313	1.000	HDS1	R
<b>2300383</b>	23.000	24.750	.750	HDS2	D	2338250	23.375	24.875	.750	HDS1	R
<b>2300384</b>	23.000	24.750	.750	HDS2	V	2338557	23.375	25.375	.813	HS7	R
2300388	23.000	24.750	.750	HDS1	D	2338580	23.375	25.375	1.000	HDS1	R
2300412	23.000	24.750	.938	HDS1	R	2350017	23.500	24.500	.500	HS7	R
	W/8 EA .125	LUGS				<b>2350238</b>	23.500	25.000	.625	HS8	R
2300540	23.000	25.000	.750	HDS1	R	2350380	23.500	25.250	.750	HDS1	R
<b>2300551</b>	23.000	25.000	.813	HS8	D	<b>2350382</b>	23.500	25.250	.750	HDS2	R
2300557	23.000	25.000	.813	HS7	R	2350540	23.500	25.500	.750	HDS1	R
<b>2300558</b>	23.000	25.000	.813	HS8	R	2350550	23.500	25.500	.813	HDS1	R



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Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	
2350557	23.500	25.500	.813	HS7	R	2400557	24.000	26.000	.813	HS7	R	
2350560	23.500	25.500	.875	HDS1	R	<b>2400558</b>	24.000	26.000	.813	HS8	R	
2350562	23.500	25.500	.875	HDS1	R	<b>2400559</b>	24.000	26.000	.875	HDS2	R	
	W/6 EA .250 LUGS					2400560	24.000	26.000	.875	HDS1	R	
2350567	23.000	25.500	.875	HDS1	V	2400561	24.000	26.000	.875	HDS1	R	
2350570	23.500	25.500	.875	HDS1	V		W/4 EA .125 LUGS					
2350580	23.500	25.500	1.000	HDS1	R	2400562	24.000	26.000	.875	HDS1	R	
<b>2350652</b>	23.500	25.250	.750	HDS2	V		W/4 EA .375 LUGS					
2350660	23.500	25.750	.875	HDS1	R	2400563	24.000	26.000	.875	HDS1	R	
2350840	23.500	26.375	1.000	HDS1	R		W/4 EA .250 LUGS					
2350955	23.500	25.500	1.250	HDS2	RR	2400565	24.000	26.000	.875	HDS1	R	
2356340	23.563	25.250	.750	HDS1	R		W/4 EA .063 LUGS					
<b>2356343</b>	23.563	25.250	.750	HDS2	D	<b>2400567</b>	24.000	26.000	.875	HDS2	V	
2356380	23.562	25.312	.750	HDS1	R	2400568	24.000	26.000	.875	HDS1	H	
2356383	23.562	25.312	.750	HDS3	R	2400580	24.000	26.000	1.000	HDS1	R	
	W/4 EA .375 LUGS					2400587	24.000	26.000	1.000	HS7	R	
2356440	23.563	25.375	.750	HDS1	R	<b>2400588</b>	24.000	26.000	1.000	HS8	R	
2356500	23.563	25.500	.750	HDS1	R	<b>2400598</b>	24.000	26.000	1.000	HS8	D	
2357257	23.570	25.070	.750	HS7	R	2400660	24.000	26.250	.875	HDS1	R	
2360557	23.595	25.095	.750	HS7	R	2400661	24.000	26.250	.875	HDS1	R	
□ 2362250	600.00	640.00	20.00	HDS1	R		W/4 EA .125 LUGS					
□ 2362253	600.00	640.00	20.00	HDS1	V	2400663	24.000	26.250	.875	HDS3	D	
<b>2362418</b>	23.625	25.375	.812	HDS2	D		W/4 EA .500 ADJ. LUGS					
□ 2362500	600.00	650.00	25.00	HDS1	R	2400680	24.000	26.250	1.000	HDS1	R	
□ 2362580	600.00	650.00	18.00	HDS1	R	2400682	24.000	26.250	1.000	HDS1	R	
	W/4 EA 12.70MM ADJ. LUGS						W/6 EA .250 LUGS					
2363557	23.625	25.625	.813	HS7	R	2400683	24.000	26.250	1.000	HDS1	R	
2363620	23.625	25.750	.875	HDS1	R		W/4 EA .375 LUGS					
2363710	23.625	26.000	.875	HDS1	R	<b>2400684</b>	24.000	26.250	1.000	HDS2	R	
2363800	23.625	26.250	.875	HDS1	R		W/6 EA .250 LUGS					
2375557	23.750	25.750	.813	HS7	R	<b>2400685</b>	24.000	26.250	1.000	HDS2	R	
2375580	23.750	25.750	1.000	HDS1	R	<b>2400718</b>	24.000	26.250	.688	HS8	R	
2375660	23.750	26.000	.875	HDS1	R	2400760	24.000	26.500	.875	HDS1	R	
2375746	23.750	26.242	.750	HDS1	R	2400761	24.000	26.500	.875	HDS1	R	
2375900	23.750	26.750	1.125	HDS1	R		W/4 EA .125 LUGS					
2375902	23.750	26.750	1.500	HDS1	R	<b>2400784</b>	24.000	26.500	1.000	HDS2	R	
2375903	23.750	26.750	1.500	HDS1	V	2400790	24.000	26.500	1.125	HDS1	R	
□ 2378190	604.00	640.00	22.00	HDS1	R	2400800	24.000	26.500	1.250	HDS1	R	
2387960	23.875	26.000	.875	HDSA1	RL	2400820	24.000	26.750	.875	HDS1	R	
2387962	23.875	26.000	.875	HDSA2	RL	2400962	24.000	26.250	.870	HDSA2	RL	
2387967	23.875	26.000	.875	HDSA2	V	□ <b>2407542</b>	610.00	660.00	20.00	HDS2	R	
2388017	23.875	24.875	.500	HS7	R	<b>2409557</b>	24.093	26.093	.813	HS8	R	
2388480	23.875	25.750	.875	HDS1	R	□ <b>2410488</b>	615.00	665.00	24.00	HS8	R	
2388620	23.875	26.000	.875	HDS1	R	2425410	24.250	26.000	.875	HDS1	R	
2388710	23.875	26.250	.875	HDS1	R	2425420	24.250	26.000	1.000	HDS1	R	
2394590	23.938	26.010	1.000	HDS1	R	<b>2425422</b>	24.250	26.000	1.000	HDS2	R	
2400220	24.000	25.500	.750	HDS1	D	2425440	24.250	26.063	.844	HDS1	R	
	W/4 EA .500 ADJ. LUGS					2425560	24.250	26.250	.875	HDS1	R	
2400250	24.000	25.500	.750	HDS1	R	<b>2425562</b>	24.250	26.250	.875	HDS2	V	
2400251	24.000	25.500	.750	HDS1	R	2425580	24.250	26.250	1.000	HDS1	R	
	W/4 EA .125 LUGS					<b>2425588</b>	24.250	26.250	1.000	HS8	R	
<b>2400255</b>	24.000	25.500	.750	HDS2	R	2425660	24.250	26.500	.875	HDS1	R	
	W/4 EA .250 LUGS					2425780	24.250	26.750	1.000	HDS1	R	
2400257	24.000	25.500	.750	HS7	R	2438540	24.375	26.375	.750	HDS1	R	
<b>2400258</b>	24.000	25.500	.750	HS8	R	<b>2438542</b>	24.375	26.375	.750	HDS2	R	
2400259	24.000	25.500	.750	HDS3	D	2438843	24.375	27.250	1.375	HDS1	R	
	W/4 EA .500 ADJ. LUGS					□ <b>2440509</b>	620.00	670.00	22.00	HS8	D	
<b>2400488</b>	24.000	25.875	.813	HS8	R	2440660	24.409	26.929	.787	HDS1	R	
2400550	24.000	26.000	.813	HDS1	R	□ 2440670	620.00	680.00	20.00	HDS1	R	
2400552	24.000	26.000	.813	HDS1	R		W/4 EA 12.70MM ADJ. LUGS					
	W/4 EA .375 LUGS					□ 2441540	620.00	670.00	20.00	HDS1	R	
<b>2400554</b>	24.000	26.000	.813	HS8	R	□ 2441548	620.00	670.00	20.00	HDS1	R	
	W/THREADED SPRING CONNECTOR							W/4 EA 3.18MM LUGS				
2400556	24.000	26.000	.813	HDS3	D	<b>2443544</b>	24.437	26.437	.750	HDS2	V	
	W/4 EA .500 ADJ. LUGS					2444300	24.438	26.000	.750	HDS1	R	

★ Contact manufacturer for availability  
**Bold numbers** are preferred designs

□ Metric numbers

† Includes Bore-Tite on O.D.  
 ▲ WasteWatcher numbers



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Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	
2444301	24.438	26.000	.750	HDS1	R	2488557	24.875	26.875	.813	HS7	R	
	W/4 EA .125 LUGS					2500017	25.000	26.000	.500	HS7	R	
2444302	24.438	26.000	.750	HDS1	R	2500217	25.000	26.500	.750	HDS1	V	
	W/4 EA .250 LUGS					2500247	25.000	26.500	.750	HS7	D	
<b>2444304</b>	24.438	26.000	.750	HDS2	R	<b>2500249</b>	25.000	26.500	.750	HS8	D	
2444305	24.438	26.000	.750	HDS1	R	2500250	25.000	26.500	.750	HDS1	R	
	W/6 EA .500 LUGS					2500251	25.000	26.500	.750	HDS1	R	
<b>2444306</b>	24.438	26.000	.750	HDS2	R		W/6 EA .125 LUGS					
	W/4 EA .250 LUGS					2500252	25.000	26.500	.750	HDS1	R	
2444430	24.438	26.250	.750	HDS1	R		W/6 EA .375 LUGS					
2444520	24.438	26.438	.625	HDS1	R	<b>2500253</b>	25.000	26.500	.750	HDS2	R	
2444521	24.438	26.438	.625	HDS1	R	<b>2500254</b>	25.000	26.500	.750	HDS2	R	
	W/4 EA .063 LUGS						W/6 EA .125 LUGS					
<b>2444536</b>	24.438	26.438	.719	HDS2	R	2500255	25.000	26.500	.750	HDS1	D	
	W/4 EA .063 LUGS					2500256	25.000	26.500	.750	HDS1	D	
2444540	24.438	26.438	.750	HDS1	R		W/6 EA .125 LUGS					
2444541	24.438	26.438	.750	HDS1	R	2500257	25.000	26.500	.750	HS7	R	
	W/4 EA .063 LUGS					<b>2500258</b>	25.000	26.500	.750	HS8	R	
<b>2444542</b>	24.438	26.438	.750	HDS2	R	2500259	25.000	26.500	.750	HDS3	D	
2444550	24.438	26.438	.813	HDS1	R		W/4 EA .500 ADJ. LUGS					
2444560	24.438	26.438	.875	HDS1	R	2500540	25.000	27.000	.750	HDS1	R	
2448950	24.438	26.438	1.500	HDS1	RR	2500544	25.000	27.000	.750	HDS1	R	
	W/LUBE HOLES ON O.D.						W/4 EA .125 LUGS					
2450017	24.500	25.500	.500	HS7	R	2500545	25.000	27.000	.750	HDS3	D	
<b>2450018</b>	24.500	25.500	.500	HS8	R		W/4 EA .500 ADJ. LUGS					
<b>2450068</b>	24.500	25.625	.625	HS8	R	<b>2500553</b>	25.000	27.000	.813	HDS2	V	
2450257	24.500	26.000	.750	HS7	R	2500557	25.000	27.000	.813	HS7	R	
2450557	24.500	26.500	.813	HS7	R	<b>2500558</b>	25.000	27.000	.813	HS8	D	
2450560	24.500	26.500	.875	HDS1	R		W/HOOK & EYE CONNECTOR					
<b>2450563</b>	24.500	26.500	.875	HDS2	R	<b>2500559</b>	25.000	27.000	.916	HS8	D	
2450564	24.500	26.500	.875	HDS1	V	2500560	25.000	27.000	.875	HDS1	R	
<b>2450565</b>	24.500	26.500	.875	HDS2	R	2500562	25.000	27.000	.875	HDS1	R	
	W/6 EA .250 LUGS						W/4 EA .125 LUGS					
<b>2450567</b>	24.500	26.500	.875	HDS2	V	<b>2500563</b>	25.000	27.000	.875	HDS2	V	
2450569	24.500	26.500	.875	HDS3	D	<b>2500564</b>	25.000	27.000	.875	HDS2	R	
	W/4 EA .500 ADJ. LUGS						W/4 EA .125 LUGS					
2450580	24.500	26.500	1.000	HDS1	R	<b>2500565</b>	25.000	27.000	.875	HDS2	R	
2450587	24.500	26.500	1.000	HS7	R	2500569	25.000	27.000	.875	HDS3	D	
2450710	24.500	26.875	.875	HDS1	R		W/4 EA .500 ADJ. LUGS					
2450790	24.500	27.000	1.125	HDS1	R	2500570	25.000	27.000	.906	HDS1	R	
2450800	24.500	27.000	1.250	HDS1	R	2500580	25.000	27.000	1.000	HDS1	R	
2450820	24.500	27.250	.875	HDS1	R	<b>2500582</b>	25.000	27.000	1.000	HDS2	R	
□ 2460220	625.00	665.00	25.00	HDS1	R	2500587	25.000	27.000	1.000	HS7	R	
□ <b>2460548</b>	625.00	676.00	19.00	HS8	D	<b>2500588</b>	25.000	27.000	1.000	HS8	R	
	2475520	24.750	26.750	.625	HDS1	R	2500660	25.000	27.250	.875	HDS1	R
	2475540	24.750	26.750	.750	HDS1	R	2500680	25.000	27.250	1.000	HDS1	R
	2475557	24.750	26.750	.813	HS7	R	2500682	25.000	27.250	1.000	HDS1	R
	<b>2475558</b>	24.750	26.750	.813	HS8	R		W/4 EA .188 LUGS				
	2475587	24.750	26.750	1.000	HS7	R	2500691	25.000	27.250	1.188	HDS1	R
□ <b>2480242</b>	630.00	670.00	20.00	HDS2	R	2500692	25.000	27.250	1.188	HDS1	R	
	W/6 EA 12.70MM ADJ. LUGS						W/4 EA .188 LUGS					
□ 2480250	630.00	670.00	20.00	HDS1	R	2500740	25.000	27.375	.875	HDS1	R	
□ 2480253	630.00	670.00	20.00	HDS1	V	2500760	25.000	27.500	.875	HDS1	R	
□ 2480255	630.00	670.00	20.00	HDS3	R	<b>2500762</b>	25.000	27.500	.875	HDS2	R	
	W/6 EA 12.70MM ADJ. LUGS					<b>2500764</b>	25.000	27.500	.875	HDS2	D	
	2480257	24.803	26.303	.750	HS7	R		W/4 EA .250 LUGS				
□ <b>2480258</b>	630.00	670.00	20.00	HS8	R	2500769	25.000	27.500	.875	HDS3	D	
	W/HOOK & EYE SPRING CONNECTOR						W/4 EA .500 ADJ. LUGS					
□ 2480283	630.00	670.00	20.00	HDS3	D	<b>2500772</b>	25.000	27.500	1.000	HDS2	D	
	W/4 EA .500 ADJ. LUGS					2500780	25.000	27.500	1.000	HDS1	R	
□ 2480300	630.00	670.00	20.00	HDS1	R	<b>2500783</b>	25.000	27.500	1.000	HDS2	R	
	W/ 6 EA. 12.70 MM LUGS					2500793	25.000	27.500	1.250	HDS1	R	
□ 2480380	630.00	674.00	20.00	HDS1	R	2500920	25.000	26.500	1.125	HDSA1	RL	
2481557	24.813	26.813	.813	HS7	R	2500952	25.000	27.000	.875	HDSA2	DL	
2487101	24.875	26.126	.813	HDS1	R		W/4 EA .500 ADJ. LUGS					

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Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
2500970	25.000	27.500	1.000	HDSA1	RL	2563630	25.625	27.750	1.000	HDS1	R
2500971	25.000	27.500	1.000	HDSB1	RL	2563730	25.625	28.000	1.000	HDS1	R
2500972	25.000	27.500	1.000	HDSA2	D	2563800	25.625	28.250	1.000	HDS1	R
2500990	25.000	28.375	.875	HDS1	R	2575017	25.750	26.750	.500	HS7	R
2513017	25.125	26.125	.500	HS7	R	2575057	25.750	26.875	.500	HS7	R
2513330	25.125	26.750	.750	HDS1	R	2575250	25.750	27.250	.750	HDS1	R
<b>2518332</b>	25.188	26.875	.750	HDS2	H	<b>2575252</b>	25.750	27.250	.750	HDS2	R
<b>2518344</b>	25.188	26.875	.750	HDS2	V	<b>2575258</b>	25.750	27.250	.750	HS8	R
2518346	25.188	26.875	.750	HDS3	V	2575557	25.750	27.750	.813	HS7	R
	W/4 EA .500 ADJ. LUGS					<b>2575558</b>	23.750	25.750	.813	HS8	R
□ 2519300	640.00	680.00	20.00	HDS1	V	<b>2575572</b>	25.750	27.750	1.000	HDS2	R
2519340	25.188	26.875	.750	HDS1	R	<b>2575588</b>	25.750	27.750	1.000	HS8	R
<b>2519344</b>	25.188	26.875	.750	HDS2	R	2575903	25.750	28.755	1.250	HDS1	R
	W/4 EA .188 LUGS						W/6 EA .250 LUGS				
2519380	25.188	26.938	.750	HDS1	R	2575904	25.750	28.755	1.500	HDS1	R
2519440	25.188	27.000	.875	HDS1	R	<b>2581113</b>	25.813	27.063	.625	HDS2	R
□ 2519490	640.00	690.00	25.00	HDS1	R	2588017	25.875	26.875	.500	HS7	R
□ 2519511	640.00	690.00	25.00	HDS7	R	2588557	25.875	27.875	.813	HS7	R
2519557	25.188	27.188	.813	HS7	R	2588620	25.875	28.000	.875	HDS1	R
2522557	25.219	27.219	.813	HS7	R	2588710	25.875	28.250	.875	HDS1	R
2525250	25.250	26.750	.750	HDS1	R	2588800	25.875	28.500	.875	HDS1	R
2525557	25.250	27.250	.813	HS7	R	□ 2598240	660.00	700.00	18.00	HDS1	R
2525560	25.250	27.250	.875	HDS1	R	2598330	25.988	27.625	.750	HDS1	R
<b>2525562</b>	25.250	27.250	.875	HDS2	R	<b>2598332</b>	25.988	27.625	.750	HDS2	R
<b>2525588</b>	25.250	27.250	1.000	HS8	R	<b>2598342</b>	25.988	27.625	1.000	HDS2	R
2525660	25.250	27.500	.875	HDS1	R	□ 2598670	660.00	724.00	25.00	HDS1	R
2525820	25.250	28.000	.875	HDS1	R	2598932	26.000	27.625	1.000	HDSB1	RL
2525844	25.250	28.125	1.500	HDS1	R	2600017	26.000	27.000	.500	HS7	R
2525890	25.250	28.250	1.000	HDS1	R	2600330	26.000	27.625	.750	HDS1	R
<b>2525893</b>	25.250	28.250	1.000	HDS2	D	<b>2600332</b>	26.000	27.625	.750	HDS2	R
2525903	25.500	28.250	1.500	HDS1	R	<b>2600334</b>	26.000	27.625	.750	HDS2	V
2537583	25.375	27.375	1.000	HDS1	V	2600339	26.000	27.625	.750	HDS3	D
2537900	25.375	28.500	1.500	HDS1	R		W/4 EA .500 ADJ. LUGS				
□ 2547541	647.00	700.00	25.00	HDS7	H	<b>2600344</b>	26.000	27.620	.750	HDS2	V
2550250	25.500	27.000	.750	HDS1	R	2600347	26.000	27.730	.730	HS7	R
<b>2550258</b>	25.500	27.000	.750	HS8	R	2600550	26.000	28.000	.813	HDS1	R
2550540	25.500	27.500	.750	HDS1	R	2600557	26.000	28.000	.813	HS7	R
2550549	25.500	27.500	.750	HDS3	D	2600560	26.000	28.000	.875	HDS1	R
	W/4 EA .500 ADJ. LUGS					2600562	26.000	28.000	.875	HDS1	R
2550557	25.500	27.500	.813	HS7	R		W/4 EA .250 LUGS				
2550560	25.500	27.500	.875	HDS1	R	<b>2600563</b>	26.000	28.000	.875	HDS2	R
2550561	25.500	27.500	.875	HDS1	R	2600564	26.000	28.000	.875	HDS1	V
	W/4 EA .125 LUGS					2600580	26.000	28.000	1.000	HDS1	R
<b>2550564</b>	25.500	27.500	.875	HDS2	D	2600587	26.000	28.000	1.000	HS7	R
	W/4 EA .250 LUGS					2600630	26.000	28.125	1.000	HDS1	R
<b>2550565</b>	25.500	27.500	.875	HDS2	R	<b>2600648</b>	26.000	28.125	.916	HS8	R
2550580	25.500	27.500	1.000	HDS1	R	2600680	26.000	28.250	1.000	HDS1	R
2550584	25.500	27.500	1.000	HDS1	R	2600760	26.000	28.500	.875	HDS1	R
	W/4 EA .250 LUGS					2600761	26.000	28.500	.875	HDS1	R
<b>2550585</b>	25.500	27.500	1.000	HDS2	R		W/4 EA .125 LUGS				
2550587	25.500	27.500	1.000	HS7	R	2600770	26.000	28.500	.938	HDS1	R
<b>2550588</b>	25.500	27.500	1.000	HS8	V	2600780	26.000	28.500	1.000	HDS1	R
2550792	25.500	28.000	1.250	HDS1	R	2600903	26.000	29.000	1.500	HDS1	R
2550900	25.500	28.500	1.125	HDS1	R	2600953	26.000	28.000	.875	HDSA3	D
2550912	25.500	28.500	1.250	HDS2	RR		W/4 EA .500 ADJ. LUGS				
2553257	25.531	27.031	.750	HS7	R	2612563	26.125	28.125	.875	HDS1	V
2559017	25.590	26.590	.500	HS7	R	<b>2612564</b>	26.125	28.125	.875	HDS2	V
2559257	25.590	27.090	.750	HS7	R	2613250	26.125	27.625	.750	HDS1	R
□ <b>2559488</b>	650.00	700.00	20.00	HS8	R	2613480	26.125	28.000	.875	HDS1	R
□ <b>2559502</b>	650.00	700.00	22.00	HDS2	D	2613550	26.125	28.125	.813	HDS1	R
□ <b>2559504</b>	650.00	700.00	22.00	HDS2	V	2613551	26.125	28.125	.813	HDS1	R
2559567	25.591	27.591	.875	HS7	R		W/6 EA .063 LUGS				
□ <b>2559702</b>	650.00	710.00	25.00	HDS2	R	2613557	26.125	28.125	.813	HS7	R
2562630	25.625	27.750	1.000	HDSA1	RL	2613560	26.125	28.125	.875	HDS1	R
2563017	25.625	26.625	.500	HS7	R	<b>2613562</b>	26.125	28.125	.875	HDS2	R

\*Contact manufacturer for availability  
**Bold numbers** are preferred designs

□ Metric numbers

† Includes Bore-Tite on O.D.  
 ▲ WasteWatcher numbers

## Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
2613620	26.125	28.250	.875	HDS1	R	<b>2700218</b>	27.000	28.500	.625	HS8	R
<b>2613622</b>	26.125	28.250	.875	HDS2	R	2700237	27.000	28.500	.625	HS7	R
2619540	26.188	28.188	.750	HDS1	R	2700540	27.000	29.000	.750	HDS1	R
2625557	26.250	28.250	.813	HS7	R	<b>2700542</b>	27.000	29.000	.750	HDS2	R
2625780	26.250	28.750	1.000	HDS1	R	2700549	27.000	29.000	.750	HDS3	D
<b>2637118</b>	26.375	27.627	.625	HS8	R	W/4 EA .500 ADJ. LUGS					
□ 2637218	670.00	710.00	20.00	HDS1	R	<b>2700555</b>	27.000	29.000	.813	HS5	R
	W/4 EA 4.77MM LUGS					2700557	27.000	29.000	.813	HS7	R
□ 2637250	670.00	710.00	20.00	HDS1	R	<b>2700558</b>	27.000	29.000	.813	HS8	R
□ 2637413	670.00	714.00	20.00	HDS3	D	<b>2700559</b>	27.000	29.000	.813	HS8	D
	W/6 EA 12.70MM ADJ. LUGS					2700560	27.000	29.000	.875	HDS1	R
2637510	26.375	28.375	1.000	HDS1	R	<b>2700564</b>	27.000	29.000	.875	HDS2	R
	W/4 EA .125 LUGS					2700568	27.000	29.000	.866	HDS1	R
<b>2637558</b>	26.378	28.378	.812	HS8	R	W/4 EA 9.50MM LUGS					
	W/HOOK & EYE SPRING CONNECTOR					<b>2700574</b>	27.000	29.000	.875	HDS2	V
□ 2637740	670.00	734.00	22.00	HDS1	R	2700580	27.000	29.000	1.000	HDS1	R
	W/6 EA 12.70MM ADJ. LUGS					2700583	27.000	29.000	1.000	HDS1	V
2637942	26.375	28.250	.875	HDSA2	RL	<b>2700584</b>	27.000	29.000	1.000	HDS2	R
2638250	26.375	27.875	.750	HDS1	R	W/4 EA .250 LUGS					
2638350	26.375	28.188	.750	HDS1	R	2700780	27.000	29.500	1.000	HDS1	R
2638351	26.375	28.188	.750	HDS1	R	2700783	27.000	29.500	1.000	HDS1	R
	W/4 EA .125 LUGS					W/4 EA .250 LUGS					
2638480	26.375	28.250	.875	HDS1	R	2700790	27.000	29.500	1.250	HDS1	R
<b>2638482</b>	26.375	28.250	.875	HDS2	R	2700792	27.000	29.500	1.250	HDS1	R
2638557	26.375	28.375	.813	HS7	R	W/4 EA .125 LUGS					
2638580	26.375	28.375	1.000	HDS1	R	2700800	27.000	29.625	1.000	HDS1	R
2650240	26.500	28.000	.750	HDS7	R	2700844	27.000	29.813	1.500	HDS1	R
2650241	26.500	28.000	.750	HDS7	R	2700870	27.000	30.000	.875	HDS1	R
	W/4 EA .125 LUGS					2700900	27.000	30.000	1.125	HDS1	R
2650250	26.500	28.000	.750	HDS1	R	2700901	27.000	30.000	1.125	HDS1	R
<b>2650253</b>	26.500	28.000	.750	HDS2	D	W/6 EA .500 LUGS					
2650254	26.500	28.000	.750	HDS1	V	2700902	27.000	30.000	1.500	HDS1	R
2650257	26.500	28.000	.750	HS7	R	2700903	27.000	30.000	1.500	HDS1	R
<b>2650258</b>	26.500	28.000	.750	HS8	R	W/6 EA .125 LUGS					
2650259	26.500	28.000	.750	HDS3	D	2700953	27.000	29.000	1.875	HDSE2	DD
	W/4 EA .500 ADJ. LUGS					2700990	27.000	30.000	1.625	HDSB1	RL
<b>2650283</b>	26.500	28.000	.750	HDS2	V	2713480	27.125	29.000	.875	HDS1	R
2650290	26.500	28.000	1.000	HDS1	R	2713630	27.125	29.250	1.000	HDS1	R
2650295	26.500	28.000	1.000	HDS1	R	□ 2716210	690.00	730.00	20.00	HDS1	R
	W/4 EA .250 LUGS					□ <b>2716288</b>	690.00	730.00	20.00	HS8	R
<b>2650512</b>	26.500	28.500	.875	HDS2	R	2719600	27.188	29.250	.875	HDS1	R
2650557	26.500	28.500	.813	HS7	R	2719700	27.188	29.500	.875	HDS1	R
2650560	26.500	28.500	.875	HDS1	R	2725550	27.250	29.250	.813	HDS1	R
2650660	26.500	28.750	.875	HDS1	R	2725552	27.250	29.250	.813	HDS1	R
2650900	26.500	29.500	1.125	HDS1	R	W/6 EA .125 LUGS					
2650902	26.500	29.500	1.500	HDS1	R	<b>2725553</b>	27.250	29.250	.813	HDS2	R
2650920	26.500	28.000	1.000	HDSB1	RL	<b>2725554</b>	27.250	29.250	.813	HDS2	R
□ 2661790	676.00	740.00	22.00	HDS1	R	W/6 EA .125 LUGS					
	W/6 EA 12.70MM ADJ. LUGS					2725557	27.250	29.250	.813	HS7	R
<b>2662558</b>	26.625	28.625	.813	HS8	R	<b>2725563</b>	27.250	29.250	.875	HDS2	R
2669557	26.688	28.688	.813	HS7	R	2725566	27.250	29.250	.875	HDS1	R
2675557	26.750	28.750	.813	HS7	R	W/6 EA .625 LUGS					
2677017	26.771	27.771	.500	HS7	R	□ 2736840	695.00	770.00	30.00	HDS1	R
□ <b>2677542</b>	680.00	730.00	20.00	HDS2	R	2738557	27.375	29.375	.813	HS7	R
□ 2677570	680.00	730.00	25.00	HDS1	V	2740590	27.402	29.500	.750	HDS1	R
□ <b>2677572</b>	680.00	730.00	25.00	HDS2	V	2744710	27.440	29.815	.875	HDS1	R
	W/6 EA 12.70MM ADJ. LUGS					2750117	27.500	28.750	.625	HS7	R
□ 2677577	680.00	730.00	20.00	HDS1	V	<b>2750218</b>	27.500	29.000	.750	HS8	R
□ <b>2677702</b>	680.00	740.00	30.00	HDS2	R	W/HOOK & EYE SPRING CONNECTOR					
	W/6 EA 12.70MM ADJ. LUGS					2750250	27.500	29.000	.750	HDS1	R
2678557	26.781	28.781	.813	HS7	R	2750257	27.500	29.000	.750	HDS1	V
<b>2681612</b>	26.813	29.000	.750	HDS2	R	2750557	27.500	29.500	.813	HS7	R
2682557	26.815	28.815	.813	HS7	R	2750560	27.500	29.500	.875	HDS1	R
2688557	26.875	28.875	.813	HS7	R	2750562	27.500	29.500	.875	HDS1	R
<b>2693612</b>	26.938	29.000	.750	HDS2	R	W/6 EA .250 LUGS					
□ <b>2696192</b>	685.00	720.00	20.00	HDS2	R						

Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
<b>2750564</b>	27.500	29.500	.875	HDS2	R	2800562	28.000	30.000	.875	HDS1	R
<b>2750565</b>	27.500	29.500	.875	HDS2	R		W/4 EA .125 LUGS				
		W/6 EA .250 LUGS				2800563	28.000	30.000	.875	HDS1	R
2750569	27.500	29.500	.875	HDS3	D		W/6 EA .125 LUGS				
		W/4 EA .500 ADJ. LUGS				<b>2800564</b>	28.000	30.000	.875	HDS2	D
<b>2750574</b>	27.500	29.500	.875	HDS2	V		W/4 EA .125 LUGS				
2750580	27.500	29.500	1.000	HDS1	R	<b>2800565</b>	28.000	30.000	.875	HDS2	R
2750760	27.500	30.000	.875	HDS1	R	<b>2800566</b>	28.000	30.000	.875	HDS2	R
2750900	27.500	30.688	.813	HDS1	R		W/4 EA .125 LUGS				
□ 2755250	700.00	740.00	20.00	HDS1	R	2800567	28.000	30.000	.875	HDS1	V
□ <b>2755285</b>	700.00	740.00	20.00	HS5	D	2800573	28.000	30.000	.875	HDS1	V
□ 2755490	700.00	750.00	20.00	HDS1	R	<b>2800585</b>	28.000	30.000	.875	HDS2	R
□ 2755491	700.00	750.00	20.00	HDS1	R		W/6 EA .250 LUGS				
		W/4 EA 4.77MM LUGS				2800700	28.000	30.250	1.250	HDS1	R
<b>2755502</b>	27.500	29.520	.984	HDS2	R	<b>2800702</b>	28.000	30.250	1.250	HDS2	R
□ <b>2755508</b>	700.00	750.00	20.00	HS8	R	<b>2800752</b>	28.000	30.500	1.000	HDS2	D
□ 2755700	700.00	760.00	25.00	HDS1	R	2800760	28.000	30.500	.875	HDS1	R
		W/4 EA 3.20MM ADJ. LUGS				2800762	28.000	30.500	.875	HDS1	R
2755962	27.559	29.750	1.370	HDSA2	RL		W/6 EA .250 LUGS				
2763250	27.625	29.125	.750	HDS1	R	<b>2800764</b>	28.000	30.500	.875	HDS2	R
2763470	27.625	29.500	.750	HDS1	R	<b>2800766</b>	28.000	30.500	.875	HDS2	R
2763540	27.625	29.625	.750	HDS1	R		W/6 EA .250 LUGS				
2763543	27.625	29.625	.750	HDS1	R	2800769	28.000	30.500	.875	HDS3	D
		W/4 EA .250 LUGS					W/6 EA .500 ADJ. LUGS				
2763730	27.625	30.000	1.000	HDS1	R	2800780	28.000	30.500	1.000	HDS1	R
<b>2769622</b>	27.688	29.812	.875	HDS2	R	<b>2800782</b>	28.000	30.500	1.000	HDS2	R
2769915	27.688	29.812	1.250	HDSE2	RR	2800800	28.000	30.535	.875	HDS1	R
<b>2775562</b>	27.750	29.812	.875	HDS2	R	<b>2800802</b>	28.000	30.535	.875	HDS2	R
<b>2781562</b>	27.812	29.812	.875	HDS2	R	2800870	28.000	31.000	.875	HDS1	R
2788500	27.875	29.812	.875	HDS1	R	<b>2800872</b>	28.000	31.000	.875	HDS2	R
<b>2788502</b>	27.875	29.812	.875	HDS2	R	2800900	28.000	31.000	1.125	HDS1	R
2788510	27.875	29.815	.875	HDS1	R	2800902	28.000	31.000	1.500	HDS1	R
<b>2788512</b>	27.875	29.815	.875	HDS2	D	2800920	28.000	29.500	.875	HDS1	RL
2788557	27.875	29.875	.813	HS7	R	2800972	28.000	30.500	1.000	HDSA2	D
2788600	27.875	29.815	.875	HDS7	R	2800998	28.000	31.000	1.250	HDS2	DD
2788630	27.875	30.000	1.000	HDS1	R	2803998	28.038	31.038	1.000	HDS2	VL
□ 2793700	710.00	770.00	25.00	HDS1	R	<b>2813058</b>	28.125	29.250	.500	HS8	R
		W/6 EA 12.70MM ADJ. LUGS				2813100	28.125	29.250	.625	HDS1	R
□ <b>2795482</b>	710.00	760.00	22.20	†HDS2	D	<b>2813102</b>	28.125	29.250	.625	HDS2	R
		W/4 EA 3.20MM ADJ. LUGS				2825557	28.250	30.250	.813	HS7	R
□ <b>2795502</b>	710.00	760.00	25.00	HDS2	D	□ <b>2834500</b>	720.00	770.00	25.00	HDS2	R
□ 2795507	710.00	760.00	20.00	HDS1	V	□ <b>2834578</b>	720.00	771.10	21.00	HS8	D
□ <b>2795512</b>	710.00	760.00	25.00	HDS2	D		W/4 EA 4.80MM LUGS				
		W/4 EA 4.80MM LUGS				2844800	28.438	31.000	1.125	HDS1	R
□ <b>2795542</b>	710.00	760.00	20.00	HDS2	R	2844801	28.438	31.000	1.188	HDS1	R
□ <b>2795544</b>	710.00	760.00	20.00	HDS2	V	2850017	28.500	29.500	.500	HS7	R
		W/4 EA .125 LUGS				2850211	28.500	30.500	.875	HDS7	H
2795557	27.953	29.953	.813	HS7	R	2850386	28.500	30.218	.750	HS6	R
2800217	28.000	29.500	.750	HDS1	V	2850520	28.500	30.500	.625	HDS1	R
2800240	28.000	29.500	.750	HDS7	R	2850527	28.500	30.500	.625	HS7	R
2800241	28.000	29.500	.750	HDS7	R	<b>2850528</b>	28.500	30.500	.625	HS8	R
		W/4 EA .125 LUGS				2850529	28.500	30.500	.625	HDS3	D
2800250	28.000	29.500	.750	HDS1	R		W/6 EA .500 ADJ. LUGS				
2800255	28.000	29.500	.750	HDS1	R	2850540	28.500	30.500	.750	HDS1	R
		W/4 EA .250 LUGS				<b>2850542</b>	28.500	30.500	.750	HDS2	R
2800257	28.000	29.500	.750	HS7	R	<b>2850543</b>	28.500	30.500	.750	HDS2	V
<b>2800272</b>	28.000	29.500	.875	HDS2	R	2850557	28.500	30.500	.813	HS7	R
2800330	28.000	29.625	.750	HDS1	R	2850560	28.500	30.500	.875	HDS1	R
<b>2800331</b>	28.000	29.625	.750	HDS2	R	2850562	28.500	30.500	.875	HDS1	R
2800332	28.000	29.625	.750	HDS1	R		W/4 EA .250 LUGS				
		W/4 EA .125 LUGS				<b>2850563</b>	28.500	30.500	.875	HDS2	D
2800425	28.000	29.812	.750	HDS1	R	2850564	28.500	30.500	.875	HDS1	V
		W/4 EA .250 LUGS					W/6 EA .250 LUGS				
<b>2800551</b>	28.000	30.000	.813	HS8	D	<b>2850565</b>	28.500	30.500	.875	HDS2	R
2800557	28.000	30.000	.813	HS7	R	2850580	28.500	30.500	1.000	HDS1	R
<b>2800558</b>	28.000	30.000	.813	HS8	R	2850760	28.500	31.000	.875	HDS1	R
2800560	28.000	30.000	.875	HDS1	R						

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 ▲ WasteWatcher numbers

## Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
2850765	28.500	31.000	.875	HDS1	R	2950557	29.500	31.500	.813	HS7	R
	W/6 EA .250 LUGS					2950560	29.500	31.500	.875	HDS1	R
2850780	28.500	31.000	1.000	HDS1	R	<b>2950564</b>	29.500	31.500	.875	HDS2	D
<b>2850832</b>	28.500	31.250	1.000	HDS2	R	<b>2950565</b>	29.500	31.500	.875	HDS2	R
2850903	28.500	31.500	1.500	HDS1	R		W/4 EA .500 ADJ. LUGS				
2875557	28.750	30.750	.813	HS7	R	2950580	29.500	31.500	.875	HDS1	R
2875560	28.750	30.750	.875	HDS1	R		W/4 EA .500 ADJ. LUGS				
2875561	28.750	30.750	.875	HDS1	R	2950758	29.500	32.000	1.250	HDS1	RR
	W/4 EA .125 LUGS						OUTER LIP IS SPRINGLESS				
<b>2875562</b>	28.750	30.750	.875	HDS2	R	2950760	29.500	32.000	.875	HDS1	R
2875563	28.750	30.750	.875	HDS1	R	2950762	29.500	32.000	.875	HDS1	R
	W/8 EA .250 LUGS						W/8 EA .250 LUGS				
2875567	28.750	30.750	.875	HDS1	V	<b>2950765</b>	29.500	32.000	.875	HDS2	R
2888557	28.875	30.875	.813	HS7	R	2950769	29.500	32.000	.875	HDS3	D
<b>2900218</b>	29.000	30.500	.750	HS8	R		W/4 EA .500 ADJ. LUGS				
2900250	29.000	30.500	.750	HDS1	R	2950770	29.500	32.000	.938	HDS1	R
2900257	29.000	30.500	.750	HS7	R	<b>2950772</b>	29.500	32.000	.938	HDS2	R
2900270	29.000	30.500	.875	HDSA1	RL	2950780	29.500	32.000	1.000	HDS1	R
2900557	29.000	31.000	.813	HS7	R	<b>2950783</b>	29.500	32.000	1.000	HDS2	R
2900560	29.000	31.000	.875	HDS1	R	2950830	29.500	32.250	1.000	HDS1	R
2900561	29.000	31.000	.875	HDS1	R	<b>2950835</b>	29.500	32.250	1.000	HDS2	R
	W/4 EA .125 LUGS					<b>2950836</b>	29.500	32.250	1.000	HDS2	D
2900562	29.000	31.000	.875	HDS1	R	2950841	29.500	32.250	1.375	HDS1	R
	W/4 EA .250 LUGS					2950850	29.500	32.250	1.250	HDS1	R
<b>2900563</b>	29.000	31.000	.875	HDS2	R	2950870	29.500	32.500	.875	HDS1	R
<b>2900564</b>	29.000	31.000	.875	HDS2	R	2950880	29.500	32.500	.938	HDS1	R
	W/4 EA .125 LUGS					<b>2950882</b>	29.500	32.500	.938	HDS2	R
<b>2900565</b>	29.000	31.000	.875	HDS2	R	2950903	29.500	32.500	1.500	HDS1	R
	W/4 EA .250 LUGS					□ 2952287	750.00	790.00	23.00	HDS1	V
2900569	29.000	31.000	.875	HDS3	D	□ <b>2952502</b>	750.00	800.00	25.00	HDS2	R
	W/6 EA .500 ADJ. LUGS					2952585	29.528	32.047	.984	HDS1	R
2900580	29.000	31.000	1.000	HDS1	R	□ 2952700	750.00	810.00	25.00	HDS1	R
2900590	29.000	31.000	1.125	HDS1	R	2953017	29.527	30.527	.500	HS7	R
2900760	29.000	31.500	.875	HDS1	R	□ 2953100	750.00	780.00	18.00	HDS1	R
2900870	29.000	32.000	.875	HDS1	R	□ 2953740	750.00	814.00	25.00	HDS1	R
2900872	29.000	32.000	.875	HDS1	R		W/6 EA 12.70MM ADJ. LUGS				
	W/4 EA .125 LUGS					2956557	29.563	31.563	.813	HS7	R
2900903	29.000	32.000	1.500	HDS1	R	<b>2962258</b>	29.625	31.125	.770	HS8	R
2900954	29.000	31.000	1.750	HDS1	RR	2963557	29.625	31.625	.813	HS7	R
2900960	29.000	31.500	.875	HDSA1	RL	2963580	29.625	31.625	1.000	HDS1	R
□ 2901636	737.00	790.00	15.88	HS6	R	2963680	29.625	32.000	1.000	HDS1	R
□ 2913220	740.00	780.00	16.50	HDS1	R	2963844	29.625	32.500	1.500	HDS1	R
□ 2913225	740.00	780.00	16.50	HDS1	R	2963904	29.625	32.750	1.500	HDS1	R
	W/6 EA 3.20MM LUGS					2969557	29.688	31.688	.813	HS7	R
□ 2913240	740.00	780.00	16.50	HDS1	V	<b>2975258</b>	29.750	31.250	.770	HS8	R
□ 2913276	740.00	780.00	16.50	HDS1	V	<b>2975558</b>	29.750	31.750	.813	HS8	R
	W/6 EA 3.20MM LUGS					2988557	29.875	31.875	.813	HS7	R
□ <b>2913488</b>	740.00	790.00	15.88	HS8	R	□ <b>2992268</b>	760.00	800.00	20.60	HS8	R
□ <b>2913505</b>	740.00	790.00	25.00	HDS2	R	□ 2992283	760.00	800.00	20.00	HDS1	V
	W/4 EA .125 LUGS					□ 2992286	760.00	800.00	20.00	HDS3	V
□ <b>2913508</b>	740.00	790.00	25.00	HS8	R		W/6 EA 12.70MM ADJ. LUGS				
2913550	29.125	31.125	.813	HDS1	R	□ <b>2992498</b>	760.00	810.00	20.60	HS8	R
2913844	29.125	32.000	1.500	HDS1	R	□ 2992500	760.00	810.00	25.00	HDS1	R
2913903	29.125	32.125	1.500	HDS1	R	□ 2992510	760.00	810.00	25.00	HDS7	R
2913904	29.125	32.250	1.500	HDS1	R	□ 2992570	760.00	810.00	25.00	HDS1	R
2925017	29.250	30.250	.500	HS7	R		W/6 EA 4.77MM LUGS				
2925557	29.250	31.250	.813	HS7	R	□ <b>2992698</b>	760.00	820.00	17.50	HS8	R
<b>2950258</b>	29.500	31.000	.750	HS8	R	□ 2992700	760.00	820.00	25.00	HDS1	R
<b>2950348</b>	29.500	31.219	.734	HS8	R		W/6 EA 12.70MM ADJ. LUGS				
<b>2950438</b>	29.500	31.219	.734	HS8	D	□ 2992770	760.00	824.00	22.00	HDS1	R
	W/HOOK & EYE SPRING CONNECTOR						W/6 EA 12.70MM ADJ. LUGS				
2950540	29.500	31.500	.750	HDS1	R	<b>2999332</b>	29.990	31.613	.750	HDS2	R
2950549	29.500	31.500	.750	HDS3	D	3000017	30.000	31.000	.500	HS7	R
	W/4 EA .500 ADJ. LUGS					<b>3000111</b>	30.000	31.250	.625	HDS2	R
<b>2950552</b>	29.500	31.500	.875	HDS2	V	<b>3000118</b>	30.000	31.250	.625	HS8	R



Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
3000250	30.000	31.500	.750	HDS1	R	3031846	30.313	33.277	1.500	HDS1	R
3000251	30.000	31.500	.750	HDS1	R	□3032840	770.00	845.00	27.79	HDS1	R
	W/6 EA .125 LUGS					3038550	30.375	32.375	.813	HDS1	R
3000253	30.000	31.500	.750	HDS1	V	3038557	30.375	32.375	.813	HS7	R
3000257	30.000	31.500	.750	HS7	R	3050511	30.500	32.500	.875	HDS7	H
3000280	30.000	31.616	.750	HDS1	R	3050540	30.500	32.500	.750	HDS1	R
3000300	30.000	31.600	.775	HDS1	R	<b>3050542</b>	30.500	32.500	.750	HDS2	R
3000302	30.000	31.606	.750	HDS1	R	<b>3050544</b>	30.500	32.500	.750	HDS2	V
<b>3000303</b>	30.000	31.606	.750	HDS2	R	<b>3050546</b>	30.500	32.500	.750	HDS2	V
<b>3000312</b>	30.000	31.625	.625	HDS2	R		W/8 EA .250 LUGS				
<b>3000313</b>	30.000	31.625	.625	HDS2	D	3050549	30.500	32.500	.750	HDS3	D
3000330	30.000	31.625	.750	HDS1	R		W/6 EA .500 ADJ. LUGS				
3000340	30.000	31.630	.750	HDS1	R	3050557	30.500	32.500	.813	HS7	R
3000350	30.000	31.655	.750	HDS1	R	3050560	30.500	32.500	.875	HDS1	R
<b>3000518</b>	30.000	32.000	1.000	HS8	R	3050561	30.500	32.500	.875	HDS1	R
<b>3000519</b>	30.000	32.000	1.000	HS8	H		W/6 EA .063 LUGS				
3000550	30.000	32.000	.813	HDS1	R	3050562	30.500	32.500	.875	HDS1	R
3000552	30.000	32.000	.813	HDS1	R		W/8 EA .125 LUGS				
	W/6 EA .125 LUGS					3050563	30.500	32.500	.875	HDS1	R
3000553	30.000	32.000	.813	HDS1	D		W/8 EA .250 LUGS				
<b>3000555</b>	30.000	32.000	.813	HDS2	D	<b>3050565</b>	30.500	32.500	.875	HDS2	R
<b>3000556</b>	30.000	32.000	.813	HS8	R	<b>3050582</b>	30.500	32.500	1.000	HDS2	R
3000557	30.000	32.000	.813	HS7	R	3050680	30.500	32.750	1.000	HDS1	R
<b>3000558</b>	30.000	32.000	.813	HS8	D	3050780	30.500	33.000	1.000	HDS1	R
3000559	30.000	32.000	.813	HDS3	D	<b>3050785</b>	30.500	33.000	1.000	HDS2	R
	W/6 EA .500 ADJ. LUGS					<b>3050790</b>	30.500	33.032	1.000	HDS2	R
3000560	30.000	32.000	.875	HDS1	R	3050791	30.500	33.000	.750	HDS1	R
3000562	30.000	32.000	.875	HDS1	D	<b>3050793</b>	30.500	33.000	.750	HDS2	R
3000577	30.000	32.000	.916	HS7	R	3050799	30.500	33.000	.750	HDS3	D
<b>3000578</b>	30.000	32.000	1.000	HS8	D		W/6 EA .500 ADJ. LUGS				
3000580	30.000	32.000	1.000	HDS1	R	3050840	30.500	33.492	1.000	HDS1	R
<b>3000588</b>	30.000	32.000	1.000	HS8	R	3050870	30.500	33.500	.875	HDS1	R
3000690	30.000	32.250	1.125	HDS1	R	<b>3050872</b>	30.500	33.500	.875	HDS2	R
3000700	30.000	32.250	1.156	HDS1	R	3050890	30.500	33.500	1.000	HDS1	R
<b>3000702</b>	30.000	32.250	1.156	HDS2	R	<b>3050892</b>	30.500	33.500	1.000	HDS2	R
3000760	30.000	32.500	.875	HDS1	R	3050903	30.500	33.500	1.500	HDS1	R
3000761	30.000	32.500	.875	HDS1	V	3056557	30.563	32.563	.813	HS7	R
3000780	30.000	32.500	1.000	HDS1	R	<b>3061715</b>	30.615	33.268	1.094	HDS2	R
3000820	30.000	32.750	.875	HDS1	R	3061721	30.615	33.268	1.094	HDS7	R
3000834	30.000	32.750	1.500	HDS1	R	3063257	30.625	32.125	.750	HS7	R
3000870	30.000	33.000	.875	HDS1	R	□3070247	780.00	820.00	19.05	HDS1	V
3000900	30.000	33.000	1.125	HDS1	R	□ <b>3070248</b>	780.00	820.00	18.00	HS8	R
3000995	30.000	33.000	1.750	HDSB1	RL	□ <b>3070252</b>	780.00	820.00	19.05	HDS2	R
3013017	30.125	31.125	.500	HS7	R	□ <b>3070565</b>	780.00	830.00	22.00	HS5	R
3025540	30.250	32.250	.750	HDS1	R	3075017	30.750	31.750	.500	HS7	R
<b>3025542</b>	30.250	32.250	.750	HDS2	V	3075510	30.750	32.742	.875	HDS1	R
3025561	30.250	32.250	.875	HDS1	R	3075513	30.750	32.742	.875	HDS1	R
	W/4 EA .125 LUGS						W/4 EA .375 LUGS				
3025660	30.250	32.500	.875	HDS1	R	3090017	30.900	31.900	.500	HS7	R
3025661	30.250	32.500	.875	HDS1	R	3100017	31.000	32.000	.500	HS7	R
	W/4 EA .125 LUGS					<b>3100018</b>	31.000	32.000	.500	HS8	R
<b>3025782</b>	30.250	32.750	1.000	HDS2	V		W/HOOK & EYE SPRING CONNECTOR				
3031257	30.313	31.813	.750	HS7	R	3100250	31.000	32.500	.750	HDS1	R
□3031280	770.00	810.00	20.00	HDS1	V	3100255	31.000	32.500	.750	HDS1	D
3031590	30.310	32.314	1.000	HDS1	R	3100257	31.000	32.500	.750	HS7	R
3031600	30.313	32.375	.875	HDS1	R	3100290	31.000	32.500	1.000	HDS1	R
3031640	30.313	32.500	.875	HDS1	R	3100550	31.000	33.000	.813	HDS1	R
3031650	30.313	32.500	1.000	HDS1	R	3100551	31.000	33.000	.813	HDS1	R
3031740	30.313	32.750	1.000	HDS1	R		W/4 EA .063 LUGS				
□ <b>3031762</b>	770.00	834.00	25.00	HDS2	R	3100552	31.000	33.000	.813	HDS1	R
3031800	30.313	33.000	1.000	HDS1	R		W/6 EA .125 LUGS				
3031830	30.313	33.250	1.500	HDS1	R	3100557	31.000	33.000	.813	HS7	R
3031840	30.313	33.260	.906	HDS1	R	3100560	31.000	33.000	.875	HDS1	R
3031845	30.313	33.260	.906	HDS1	R	3100561	31.000	33.000	.875	HDS1	R
	W/8 EA .563 LUGS						W/4 EA .125 LUGS				

★Contact manufacturer for availability  
**Bold numbers** are preferred designs

□ Metric numbers

† Includes Bore-Tite on O.D.  
 ▲ WasteWatcher numbers



## Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
<b>3100562</b>	31.000	33.000	.875	HDS2	D	<b>3200562</b>	32.000	34.000	.875	HDS2	D
<b>3100563</b>	31.000	33.000	.875	HDS2	R	<b>3200563</b>	32.000	34.000	.875	HDS2	R
3100567	31.000	33.000	.875	HS7	R	3200564	32.000	34.000	.875	HDS1	R
3100757	31.000	33.500	.875	HDS1	V		W/8 EA .250 LUGS				
3100760	31.000	33.500	.875	HDS1	R	3200569	32.000	34.000	.875	HDS3	D
3100778	31.000	33.500	.875	HDS1	R		W/6 EA .500 ADJ. LUGS				
		W/8 EA .125 LUGS				3200580	32.000	34.000	1.000	HDS1	R
3100840	31.000	34.000	.813	HDS1	R	3200680	32.000	34.250	1.000	HDS1	R
3100849	31.000	34.000	.813	HDS3	D	3200760	32.000	34.500	.875	HDS1	R
		W/6 EA .500 ADJ. LUGS				3200782	32.000	34.500	1.000	HDS1	R
3100870	31.000	34.000	.875	HDS1	R		W/6 EA .063 LUGS				
<b>3100872</b>	31.000	34.000	.875	HDS2	R	3200790	32.000	34.500	1.250	HDS1	R
3100890	31.000	34.000	1.000	HDS1	R	3200954	32.000	34.000	.875	HDSA2	V
<b>3100895</b>	31.000	34.000	1.000	HDS2	R	3212563	32.125	34.125	.875	HDS1	V
3100951	31.000	33.000	.875	HDSA1	RL	3213237	32.125	33.625	.625	HS7	R
3100952	31.000	33.000	.875	HDSA2	RL	3213557	32.125	34.125	.813	HS7	R
3100992	31.000	34.000	1.250	HSDS2	RR	3213560	32.125	34.125	.875	HDS1	R
□ 3110340	790.00	834.00	25.00	HDS1	R	<b>3213562</b>	32.125	34.125	.875	HDS2	D
□ 3110780	790.00	850.00	25.00	HDS1	V	<b>3213564</b>	32.125	34.125	.875	HDS2	R
□ <b>3110784</b>	790.00	850.00	25.00	HDS2	V		W/6 EA .250 LUGS				
□ <b>3110786</b>	790.00	850.00	25.00	HDS2	V	3213569	32.125	34.125	.875	HDS3	D
		W/6 EA 12.70MM ADJ. LUGS					W/6 EA .500 ADJ. LUGS				
□ 3110978	790.00	850.00	25.00	HDSA1	RL	3213620	32.125	34.250	.875	HDS1	R
3125250	31.250	32.750	.750	HDS1	R	3213710	32.125	34.500	.875	HDS1	R
<b>3125252</b>	31.250	32.750	.750	HDS2	R	3213740	32.125	34.625	.750	HDS1	R
3125290	31.250	32.750	1.000	HDS1	R	3213742	32.125	34.625	.750	HDS1	R
3125540	31.250	33.250	.750	HDS1	R		W/6 EA .313 LUGS				
3125543	31.250	33.250	.750	HDS1	R	3213760	32.125	34.625	.875	HDS1	R
		W/6 EA .125 LUGS				3219557	32.188	34.188	.813	HS7	R
<b>3125544</b>	31.250	33.250	.750	HDS2	R	<b>3225512</b>	32.250	34.250	1.000	HDS2	R
		W/4 EA .250 LUGS				3225557	32.250	34.250	.813	HS7	R
<b>3125548</b>	31.250	33.250	.750	HDS2	D	3231600	32.125	34.375	.875	HDS1	R
<b>3134558</b>	31.340	33.340	.813	HS8	R	<b>3231622</b>	32.313	34.500	.875	HDS2	H
□ 3149465	800.00	850.00	20.00	HDS1	R	3231640	32.313	34.500	.875	HDS1	R
		W/6 EACH 1.57MM LUGS				<b>3231642</b>	32.313	34.500	.875	HDS2	R
3149470	31.496	33.465	.984	HDS7	R	<b>3231648</b>	32.313	34.500	.906	HS8	R
□ 3149500	800.00	860.00	25.00	HDS1	R		W/HOOK & EYE SPRING CONNECTOR				
		W/6 EA 12.70MM ADJ. LUGS				3231800	32.125	35.000	.875	HDS1	R
<b>3149798</b>	31.491	34.020	.980	HDS2	D	3231840	32.125	35.125	.875	HDS1	R
3150017	31.500	32.500	.500	HS7	R	3231844	32.125	35.125	1.500	HDS1	R
3150210	31.500	33.000	.750	HDS1	R	<b>3237518</b>	32.375	34.375	1.000	HS8	R
3150557	31.500	33.500	.813	HS7	R	<b>3237519</b>	32.375	34.375	1.000	HS8	H
□ <b>3150578</b>	800.00	850.00	25.40	HS8	R	3238117	32.375	33.625	.625	HS7	R
3150875	31.500	34.500	.875	HDS1	R	3238790	32.375	34.875	1.250	HDS1	R
		W/4 EA .250 LUGS				□ <b>3248192</b>	825.00	860.00	20.00	HDS2	R
3162580	31.625	33.625	1.000	HDS1	R	3250117	32.500	33.625	.563	HS7	R
3175557	31.750	33.750	.813	HS7	R	<b>3250365</b>	32.500	34.250	.625	HDS2	R
3175560	31.750	33.750	.875	HDS1	R	3250410	32.500	34.250	.875	HDS1	R
<b>3175562</b>	31.750	33.750	.875	HDS2	R	3250440	32.500	34.250	1.250	HDS1	R
3175565	31.750	33.750	.875	HDS1	R	3250550	32.500	34.500	.813	HDS1	R
		W/4 EA .125 LUGS				3250557	32.500	34.500	.813	HS7	R
3175569	31.750	33.750	.875	HDS3	D	3250560	32.500	34.500	.875	HDS1	R
		W/6 EA .500 ADJ. LUGS				3250561	32.500	34.500	.875	HDS1	R
3175900	31.750	35.250	.875	HDS1	R		W/6 EA .063 LUGS				
□ 3189280	810.00	850.00	20.00	HDS1	V	3250562	32.500	34.500	.875	HDS1	R
□ <b>3189502</b>	810.00	860.00	25.00	HDS2	R		W/4 EA .125 LUGS				
□ 3189557	810.00	860.00	20.65	HS7	R	<b>3250566</b>	32.500	34.500	.875	HDS2	R
<b>3190558</b>	31.900	33.900	.813	HS8	D	<b>3250567</b>	32.500	34.500	.875	HDS2	R
<b>3200239</b>	32.000	33.500	.750	HS8	D		W/4 EA .250 LUGS				
		W/THREADED SPRING CONNECTOR				3250569	32.500	34.500	.875	HDS3	D
3200540	32.000	34.000	.750	HDS1	R		W/6 EA .500 ADJ. LUGS				
3200541	32.000	34.000	.750	HDS1	V	3250570	32.500	34.500	.938	HDS1	R
3200550	32.000	34.000	.813	HDS1	R	<b>3250574</b>	32.500	34.500	.938	HDS2	R
3200557	32.000	34.000	.813	HS7	R	3250577	32.500	34.500	.916	HS7	R
3200560	32.000	34.000	.875	HDS1	R	<b>3250588</b>	32.500	34.500	1.000	HS8	R

Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
3250660	32.500	34.750	.875	HDS1	R	<b>3300782</b>	33.000	35.500	1.000	HDS2	V
3269557	32.688	34.688	.813	HS7	R	<b>3300785</b>	33.000	35.500	1.000	HDS2	R
<b>3270542</b>	32.700	34.680	.750	HDS2	R	3300790	33.000	35.500	.750	HDS1	R
3275250	32.750	34.250	.750	HDS1	R	<b>3300792</b>	33.000	35.500	.750	HDS2	R
3275410	32.750	34.500	.875	HDS1	R	3300800	33.000	35.625	.875	HDS1	R
3275420	32.750	34.500	1.000	HDS1	R	3300820	33.000	35.750	.875	HDS1	R
3275557	32.750	34.750	.813	HS7	R	<b>3300852</b>	33.000	36.000	1.000	HDS2	V
3275580	32.750	34.750	1.000	HDS1	R	3300870	33.000	36.000	.875	HDS1	R
3275592	32.750	34.750	1.250	HDS1	R	3300890	33.000	36.000	1.000	HDS1	R
3275680	32.750	35.000	1.000	HDS1	R	3300903	33.000	36.000	1.500	HDS1	R
3275780	32.750	35.250	1.000	HDS1	R	3300920	33.000	34.500	1.250	HDSD1	RR
3275802	32.750	35.375	1.000	HDS1	R	3300921	33.000	34.500	1.250	HDSE1	RR
3275803	32.750	35.375	1.000	HDS1	R	3300951	33.000	35.250	.875	HDSA1	RL
	W/4 EA .063 LUGS					3300958	33.000	35.000	1.000	HDSC2	RL
3275805	32.750	35.375	.938	HDS1	R	3300990	33.000	36.000	1.000	HDSB2	V
	W/4 EA .063 LUGS										
3275806	32.750	35.375	2.000	HDS1	R	□ 3307546	840.00	892.00	18.00	HS6	R
	W/4 EA .063 LUGS					<b>3325588</b>	33.250	35.250	1.000	HS8	R
3275830	32.750	35.500	1.000	HDS1	R	□ 3346700	850.00	910.00	25.00	HDS1	R
3275890	32.750	35.750	1.000	HDS1	R						
3275903	32.750	35.750	1.500	HDS1	R	□ 3346840	850.00	925.00	27.00	HDS1	R
<b>3295343</b>	32.950	34.688	.750	HDS2	R	□ 3346961	850.00	910.00	50.00	HDSE1	RR
3297300	32.972	34.683	.750	HDS1	R	3347560	33.469	35.469	.875	HDS1	R
<b>3298342</b>	32.980	34.688	.750	HDS2	R	3347850	33.469	36.409	.906	HDS1	R
3300017	33.000	34.000	.500	HS7	R	3347854	33.469	36.409	.906	HDS1	R
<b>3300212</b>	33.000	34.500	.750	HDS2	H		W/8 EA .219 LUGS				
<b>3300222</b>	33.000	34.500	.750	HDS2	D	3347855	33.469	36.409	.906	HDS1	R
3300237	33.000	34.500	.625	HS7	R		W/8 EA .531 LUGS				
3300250	33.000	34.500	.750	HDS1	R	3350557	33.500	35.500	.813	HS7	R
3300260	33.000	34.502	.750	HDS1	R	3350560	33.500	35.500	.875	HDS1	R
3300280	33.000	34.554	.775	HDS1	R	3350561	33.500	35.500	.875	HDS1	R
3300290	33.000	34.609	.750	HDS1	R		W/6 EA .125 LUGS				
3300300	33.000	34.613	.750	HDS1	R	3350562	33.500	35.500	.875	HDS1	R
3300330	33.000	34.625	.750	HDS1	R		W/6 EA .250 LUGS				
<b>3300331</b>	33.000	34.625	.750	HDS2	R	<b>3350588</b>	33.500	35.500	1.000	HS8	R
3300332	33.000	34.688	.750	HDSA2	DL	3350620	33.500	35.625	.875	HDS1	R
<b>3300334</b>	33.000	34.625	.750	HDS2	D	3350630	33.500	35.625	1.000	HDS1	R
3300340	33.000	34.630	.750	HDS1	R	3350660	33.500	35.750	.875	HDS1	R
<b>3300342</b>	33.000	34.630	.750	HDS2	R	3350740	33.500	35.995	.938	HDS1	R
3300345	33.000	34.630	.750	HDS1	D	3350760	33.500	36.000	.875	HDS1	R
3300350	33.000	34.688	.750	HDS1	R	3350762	33.500	36.000	.875	HDS1	R
<b>3300351</b>	33.000	34.688	.750	HDS2	R		W/6 EA .250 LUGS				
<b>3300353</b>	33.000	34.688	.750	HDS2	D	<b>3350765</b>	33.500	36.000	.875	HDS2	R
3300540	33.000	35.000	.750	HDS1	R	3350766	33.500	36.000	.906	HDS1	R
3300547	33.000	35.000	.750	HDS1	V		W/8 EA .188 LUGS				
3300549	33.000	35.000	.750	HDS3	D	3350769	33.500	36.000	.875	HDS3	D
	W/6 EA .500 ADJ. LUGS						W/6 EA .500 ADJ. LUGS				
3300557	33.000	35.000	.813	HS7	R	3350770	33.500	36.000	.938	HDS1	R
3300560	33.000	35.000	.875	HDS1	R	3350790	33.500	36.002	.938	HDS1	R
3300561	33.000	35.000	.875	HDS1	R	3350791	33.500	36.002	.938	HDS1	R
	W/4 EA .125 LUGS						W/6 EA .125 LUGS				
<b>3300562</b>	33.000	35.000	.875	HDS2	R	3350820	33.500	36.250	.875	HDS1	R
	W/4 EA .125 LUGS					3350824	33.500	36.250	.875	HDS1	R
<b>3300565</b>	33.000	35.000	.875	HDS2	R		W/6 EA .063 LUGS				
3300568	33.000	35.000	.875	HDS3	H	3350840	33.500	36.417	.875	HDS1	R
	W/4 EA .500 ADJ. LUGS					3350844	33.500	36.417	1.500	HDS1	R
3300611	33.000	35.125	.770	HDS1	R	3350902	33.500	36.500	1.500	HDS1	R
3300660	33.000	35.250	.875	HDS1	R	3350950	33.500	35.500	1.750	HDSE1	RR
3300760	33.000	35.500	.875	HDS1	R	□ 3357743	853.00	917.00	22.10	HDS3	D
<b>3300765</b>	33.000	35.500	.875	HDS2	R		W/6 EA .500 ADJ. LUGS				
3300769	33.000	35.500	.875	HDS3	D	□ 3358743	853.00	917.00	20.00	HDS3	D
	W/6 EA .500 ADJ. LUGS						W/6 EA 12.70MM ADJ. LUGS				
3300770	33.000	35.500	.938	HDS1	R	□ 3358803	853.00	917.00	25.00	HDS3	D
<b>3300772</b>	33.000	35.500	.938	HDS2	R		W/6 EA .500 ADJ. LUGS				
3300780	33.000	35.500	1.000	HDS1	R	3363560	33.625	35.625	.875	HDS1	R

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□ Metric numbers

† Includes Bore-Tite on O.D.  
 ▲ WasteWatcher numbers

## Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
3363562	33.625	35.625	.875	HDS1	R	3450580	34.500	36.500	1.000	HDS1	R
	W/6 EA	.125	LUGS			<b>3450582</b>	34.500	36.500	1.000	HDS2	R
3363870	33.625	36.625	.875	HDS1	R	3450660	34.500	36.750	.875	HDS1	R
3375557	33.750	35.750	.813	HS7	R	3450760	34.500	37.000	.875	HDS1	R
<b>3375588</b>	33.750	35.750	1.000	HS8	R	3450860	34.500	37.500	.750	HDS1	R
3375950	33.750	35.750	1.000	HDSA1	RL	<b>3450862</b>	34.500	37.500	.750	HDS2	R
□ 3385700	860.00	920.00	25.00	HDS1	R	3450950	34.500	36.500	1.000	HDSA1	RL
3388560	33.875	35.875	.875	HDS1	R	□ <b>3464702</b>	880.00	940.00	25.00	HDS2	R
3388620	33.875	36.000	.875	HDS1	R	□ 3464705	880.00	940.00	25.00	HDS3	R
3388780	33.875	36.375	1.000	HDS1	R		W/6 EA 12.70MM	ADJ. LUGS			
3388800	33.875	36.500	.875	HDS1	R	□ 3464770	880.00	944.00	22.00	HDS1	R
3400017	34.000	35.000	.500	HS7	R		W/6 EA 12.70MM	ADJ. LUGS			
<b>3400534</b>	34.000	36.000	.875	HDS2	R	□ <b>3464782</b>	880.01	944.00	25.00	HDS2	R
3400539	34.000	36.000	.875	HDS3	D	□ 3464783	880.00	944.00	25.00	HDS3	D
	W/6 EA	.500	ADJ. LUGS				W/6 EA	12.70MM	ADJ. LUGS		
3400550	34.000	36.000	.813	HDS1	R	□ 3464787	880.00	944.00	25.00	HDS1	V
3400557	34.000	36.000	.813	HS7	R	<b>3475470</b>	34.750	36.625	.750	HDS2	R
3400560	34.000	36.000	.875	HDS1	R	3475560	34.750	36.750	.875	HDS1	R
3400561	34.000	36.000	.875	HDS1	R	<b>3475562</b>	34.750	36.750	.875	HDS2	R
	W/4 EA	.250	LUGS			3475564	34.750	36.750	.875	HDS1	R
<b>3400564</b>	34.000	36.000	.875	HDS2	R		W/8 EA	.375	LUGS		
<b>3400565</b>	34.000	36.000	.875	HDS2	R	3475565	34.750	36.750	.875	HDS1	R
	W/4 EA	.250	LUGS				W/8 EA	.250	LUGS		
<b>3400566</b>	34.000	36.000	.875	HDS2	R	3475660	34.750	37.000	.875	HDS1	R
	W/4 EA	.125	LUGS			3475800	34.750	37.375	.875	HDS1	R
3400580	34.000	36.000	1.000	HDS1	R	3475820	34.750	37.500	.875	HDS1	R
3400587	34.000	36.000	1.000	HS7	R	3475903	34.750	37.750	1.500	HDS1	R
3400690	34.000	36.250	1.125	HDS1	R	3500017	35.000	36.000	.500	HS7	R
3400700	34.000	36.250	1.250	HDS1	R	3500237	35.000	36.500	.625	HS7	R
<b>3400702</b>	34.000	36.250	1.250	HDS2	R	3500257	35.000	36.500	.750	HS7	R
3400760	34.000	36.500	.875	HDS1	R	3500550	35.000	37.000	.813	HDS1	R
3400890	34.000	37.000	1.000	HDS1	R	3500557	35.000	37.000	.813	HS7	R
3400903	34.000	37.000	1.500	HDS1	R	3500560	35.000	37.000	.875	HDS1	R
3403557	34.032	36.032	.813	HS7	R	3500561	35.000	37.000	.875	HDS1	R
□ <b>3405438</b>	865.00	911.00	18.00	HS8	R		W/4 EA	.063	LUGS		
□ 3413566	867.00	920.00	15.88	HS6	R	3500562	35.000	37.000	.875	HDS1	R
★ 3425455	34.250	36.062	.688	HS4	R		W/4 EA	.188	LUGS		
□ <b>3425478</b>	870.00	920.00	15.88	HS8	R	<b>3500563</b>	35.000	37.000	.875	HDS2	R
3425557	34.250	36.250	.813	HS7	R		W/6 EA	.500	LUGS		
3425560	34.250	36.250	.875	HDS1	R	3500564	35.000	37.000	.875	HDS3	R
3425660	34.250	36.500	.875	HDS1	R		W/4 EA	.500	ADJ. LUGS		
3425760	34.250	36.750	.875	HDS1	R	<b>3500565</b>	35.000	37.000	.875	HDS2	R
3425761	34.250	36.750	.875	HDS1	R	<b>3500566</b>	35.000	37.000	.875	HDS2	R
	W/6 EA	.375	LUGS				W/6 EA	.188	LUGS		
3438790	34.375	36.875	1.250	HDS1	R	3500567	35.000	37.000	.875	HDS1	V
3450250	34.500	36.000	.750	HDS1	R	<b>3500568</b>	35.000	37.000	.875	HS8	R
3450252	34.500	36.000	.750	HDS1	R	3500569	35.000	37.000	.875	HDS3	D
	W/6 EA	.250	LUGS				W/6 EA	.500	ADJ. LUGS		
<b>3450253</b>	34.500	36.000	.750	HDS2	R	3500579	35.000	37.000	.875	HDS3	D
3450255	34.500	36.000	.750	HDS1	R		W/6 EA	.500	ADJ. LUGS		
	W/6 EA	.125	LUGS			3500584	35.000	37.000	1.000	HDS1	R
<b>3450258</b>	34.500	36.000	.750	HS8	R		W/6 EA	.125	LUGS		
3450290	34.500	36.000	1.000	HDS1	R	3500730	35.000	37.375	1.000	HDS1	R
<b>3450518</b>	34.500	36.500	.875	HDS2	H	3500740	35.000	37.500	.750	HDS1	R
3450557	34.500	36.500	.813	HS7	R	3500760	35.000	37.500	.875	HDS1	R
3450560	34.500	36.500	.875	HDS1	R	<b>3500762</b>	35.000	37.500	.875	HDS2	R
<b>3450563</b>	34.500	36.500	.875	HDS2	D	3500765	35.000	37.500	.875	HDS1	R
<b>3450564</b>	34.500	36.500	.875	HDS2	R		W/6 EA	.500	LUGS		
	W/6 EA	.156	LUGS			3500769	35.000	37.500	.875	HDS3	D
3450565	34.500	36.500	.875	HDS1	R		W/6 EA	.500	ADJ. LUGS		
	W/6 EA	.250	LUGS			3500770	35.000	37.500	.938	HDS1	R
<b>3450566</b>	34.500	36.500	.875	†HDS2	V	3500772	35.000	37.500	.938	HDS1	R
3450569	34.500	36.500	.875	HDS3	D		W/6 EA	.125	LUGS		
	W/6 EA	.500	ADJ. LUGS			3500773	35.000	37.500	.938	HDS1	R
<b>3450574</b>	34.500	36.500	1.000	HDS2	V		W/6 EA	.063	LUGS		

Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
3500780	35.000	37.500	1.000	HDS1	R	3600523	36.000	38.228	.875	HDS3	H
3500820	35.000	37.750	.875	HDS1	R		W/6 EA .500 ADJ. LUGS				
3500903	35.000	38.000	1.500	HDS1	R	3600557	36.000	38.000	.813	HS7	R
3500952	35.000	37.000	.875	HDSA2	RL	<b>3600558</b>	36.000	38.000	.813	HS8	R
3500958	35.000	37.000	.875	HDSA2	VL	3600560	36.000	38.000	.875	HDS1	R
3501952	35.000	37.000	1.000	HDSA2	RL	<b>3600562</b>	36.000	38.000	.875	HDS2	R
□ 3515138	893.00	925.00	20.00	HDS2	H	<b>3600565</b>	36.000	38.000	.875	HDS2	R
<b>3525558</b>	35.250	37.250	.813	HS8	R		W/6 EA .250 LUGS				
3525560	35.250	37.250	.875	HDS1	R	3600569	36.000	38.000	.875	HDS3	D
3525567	35.250	37.250	.875	HDS1	V		W/6 EA .500 ADJ. LUGS				
3525660	35.250	37.500	.875	HDS1	R	<b>3600572</b>	36.000	38.000	.875	HDS2	D
3525850	35.250	38.250	.688	HDS1	R	3600680	36.000	38.250	1.000	HDS1	R
<b>3525852</b>	35.250	38.250	.688	HDS2	R	3600760	36.000	38.500	.875	HDS1	R
<b>3525862</b>	35.250	38.250	.813	HDS2	R	<b>3600762</b>	36.000	38.500	.875	HDS2	R
3525900	35.250	38.250	1.125	HDS1	R	3600769	36.000	38.500	.875	HDS3	D
3525902	35.250	38.250	1.500	HDS1	R		W/6 EA .500 ADJ. LUGS				
3537587	35.375	37.375	.875	HDS1	V	3600780	36.000	38.500	1.000	HDS1	R
3538557	35.375	37.375	.813	HS7	R	<b>3600783</b>	36.000	38.500	1.000	HDS2	R
3538560	35.375	37.375	.875	HDS1	R	3600830	36.000	38.750	1.000	HDS1	R
3538580	35.375	37.375	1.000	HDS1	R	3600903	36.000	39.000	1.500	HDS1	R
3538620	35.375	37.500	.875	HDS1	R	3600904	36.000	39.500	1.500	HDS1	R
3543257	35.438	36.938	.750	HS7	R	3600954	36.000	38.000	1.500	HDSE2	RR
□ 3543700	900.00	960.00	30.00	HDS1	R	□ 3622690	920.00	980.00	30.00	HDS1	R
□ 3543710	900.00	960.00	25.00	HDS1	R	□ 3622747	920.00	984.00	25.00	HDS1	V
	W/6 EA 12.70MM ADJ. LUGS					□ 3622784	920.00	984.00	25.00	HDS2	V
3544590	35.438	37.500	1.000	HDS1	R	3625580	36.250	38.250	1.000	HDS1	R
3548900	35.438	38.583	.906	HDS1	R	<b>3625588</b>	36.250	38.250	1.000	HS8	R
3548905	35.438	38.583	.906	HDS1	R	3625680	36.250	38.500	1.000	HDS1	R
	W/8 EA .563 LUGS					3625780	36.250	38.750	1.000	HDS1	R
3550557	35.500	37.500	.813	HS7	R	3625830	36.250	39.000	1.000	HDS1	R
3550560	35.500	37.500	.875	HDS1	R	□ 3641509	925.00	975.00	22.00	HS8	D
3550562	35.500	37.500	.875	HDS1	R	<b>3646588</b>	36.460	38.460	1.000	HS8	R
	W/6 EA .125 LUGS					□ 3649572	927.00	978.00	22.00	HDS2	D
<b>3550566</b>	35.500	37.500	.875	HDS2	D	3650250	36.500	38.000	.750	HDS1	R
	W/6 EA .125 LUGS					3650290	36.500	38.000	1.000	HDS1	R
3550569	35.500	37.500	.875	HDS3	D	3650297	36.500	38.000	1.000	HS7	R
	W/6 EA .500 ADJ. LUGS					<b>3650398</b>	36.500	38.250	.813	HS8	R
3550580	35.500	37.500	1.000	HDS1	R	<b>3650525</b>	36.500	38.500	.625	HS8	V
3550680	35.500	37.750	1.000	HDS1	R	3650545	36.500	38.500	.750	HDS1	R
3550770	35.500	38.000	1.000	HDS1	V		W/8 EA .079 LUGS				
3550780	35.500	38.000	1.000	HDS1	R	3650557	36.500	38.500	.813	HS7	R
<b>3550794</b>	35.500	38.000	1.000	HDS2	V	3650560	36.500	38.500	.875	HDS1	R
3550830	35.500	38.250	1.000	HDS1	R	3650565	36.500	38.500	.875	HDS1	R
3550903	35.500	38.500	1.500	HDS1	R		W/12 EA .125 LUGS				
3550974	35.500	38.000	1.250	HDSE2	VV	<b>3650588</b>	36.500	38.500	1.000	HS8	R
3575557	35.750	37.750	.813	HS7	R	3650680	36.500	38.750	1.000	HDS1	R
<b>3575558</b>	35.750	37.750	.813	HS8	R	3650750	36.500	39.000	.625	HDS1	R
□ 3582646	910.00	966.00	17.86	HS6	R	<b>3650752</b>	36.500	39.000	.625	HDS2	R
□ <b>3582648</b>	910.00	966.00	17.86	HS5	R	<b>3650753</b>	36.500	39.000	.625	HDS2	D
<b>3582742</b>	35.827	38.076	.703	HDS2	H	3650780	36.500	39.000	1.000	HDS1	R
□ 3582770	910.00	974.00	22.00	HDS1	R	3650781	36.500	39.000	1.000	HDS1	R
	W/6 EA 12.70MM ADJ. LUGS						W/6 EA .250 LUGS				
<b>3583658</b>	35.826	38.076	.703	HDS2	D	□ 3661546	930.00	982.00	22.23	HS6	R
<b>3583659</b>	35.827	38.076	.688	HS8	D	3663557	36.625	38.625	.813	HS7	R
3588560	35.875	37.875	.875	HDS1	R	3675557	36.750	38.750	.813	HS7	R
3588620	35.875	38.000	.875	HDS1	R	<b>3675558</b>	36.750	38.750	.813	HS8	R
3600257	36.000	37.500	.750	HS7	R	3675560	36.750	38.750	.875	HDS1	R
3600300	36.000	37.620	.750	HDS1	R	3675564	36.750	38.750	.875	HDS1	R
3600500	36.000	37.998	.875	HDS1	R		W/6 EA .125 LUGS				
3600501	36.000	37.998	.875	HDS1	R	3675580	36.750	38.750	1.000	HDS1	R
	W/4 EA .125 LUGS					3675587	36.750	38.750	1.000	HS7	R
3600505	36.000	37.998	.875	HDS1	R	3675660	36.750	39.000	.875	HDS1	R
	W/8 EA .469 LUGS					3675760	36.750	39.250	.875	HDS1	R
<b>3600522</b>	36.000	38.228	.875	HDS2	H	3675764	36.750	39.250	.875	HDS1	R
							W/6 EA .125 LUGS				

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Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
<b>3675765</b>	36.750	39.250	.875	HDS2	R	□ 3779670	960.00	1000.00	25.00	HDS1	D
3675780	36.750	39.250	1.000	HDS1	R	□ 3779680	960.00	1020.00	25.00	HDS1	D
3688960	36.875	39.000	.875	HDSA1	RL	□ <b>3779692</b>	960.00	1020.00	25.00	HDS2	D
3700017	37.000	38.000	.500	HS7	R		W/8 EA 10.00MM LUGS				
3700557	37.000	39.000	.813	HS7	R	□ <b>3779706</b>	960.00	1020.00	25.00	HDS2	V
3700560	37.000	39.000	.875	HDS1	R		W/4 EA 4.77MM LUGS				
3700562	37.000	39.000	.875	HDS1	R	□ <b>3779784</b>	960.00	1024.00	25.00	HDS2	V
	W/4 EA .375 LUGS					□ 3779788	960.00	1020.00	25.00	HDS3	D
<b>3700563</b>	37.000	39.000	.875	HDS2	R		W/6 EA .500" ADJ LUGS				
<b>3700564</b>	37.000	39.000	.875	HDS2	R	□ 3780728	960.00	1020.00	25.00	HDS1	D
	W/6 EA .375 LUGS						W/4 EA 4.77MM LUGS				
3700569	37.000	39.000	.875	HDS3	D	□ <b>3780729</b>	960.00	1020.00	25.00	HDS2	H
	W/6 EA .500 ADJ. LUGS					□ <b>3780901</b>	960.00	1040.00	23.00	HDS2	R
3700576	37.000	39.000	1.000	HS6	R	□ 3780902	960.00	1040.00	23.00	HDS1	R
3700580	37.000	39.000	1.000	HDS1	R		W/6 EA 12.70MM LUGS				
<b>3700588</b>	37.000	39.000	1.000	HS8	R	□ 3780904	960.00	1040.00	23.00	HDS1	R
3700660	37.000	39.250	.875	HDS1	R	□ <b>3780905</b>	960.00	1040.00	23.00	HDS2	R
□ 3700703	940.00	1000.00	25.00	HDS3	D		W/8 EA 5.60MM LUGS				
	W/6 EA 12.70MM ADJ. LUGS					□ <b>3780908</b>	960.00	1040.00	23.00	HDS2	V
□ 3700728	940.00	1000.00	25.00	HDS1	R	3781557	37.813	39.813	.813	HS7	R
	W/4 EA 12.70MM ADJ. LUGS					3781640	37.813	40.000	.875	HDS1	R
3700895	37.000	40.000	1.500	HDS1	R	3781800	37.813	40.500	1.000	HDS1	R
□ 3701728	940.00	1000.00	25.00	HDS1	D	3781844	37.813	40.750	1.500	HDS1	R
	W/6 EA 9.50MM ADJ. LUGS					3781900	37.813	40.945	.875	HDS1	R
□ 3716478	939.00	971.00	15.87	HDS3	H	3781904	37.813	40.954	1.500	HDS1	R
	W/6 EA 12.70MM ADJ. LUGS					3788580	37.875	39.875	1.000	HDS1	R
□ <b>3716488</b>	939.00	971.00	22.23	HDS2	H	3788630	37.875	40.000	1.000	HDS1	R
3725560	37.250	39.250	.875	HDS1	R	3788800	37.875	40.500	1.000	HDS1	R
<b>3725563</b>	37.250	39.250	.875	HDS2	R	3788844	37.875	40.750	1.500	HDS1	R
3725570	37.250	39.250	.938	HDS1	R	<b>3800222</b>	38.000	39.500	.750	HDS2	H
3725580	37.250	39.250	1.000	HDS1	R	<b>3800252</b>	38.000	39.500	.750	HDS2	D
<b>3725588</b>	37.250	39.250	1.000	HS8	R	<b>3800254</b>	38.000	39.500	.750	HDS2	V
3725660	37.250	39.500	.875	HDS1	R	<b>3800258</b>	38.000	39.500	.750	HDS2	D
3738120	37.375	38.625	.688	HDS1	R	<b>3800288</b>	38.000	39.500	.750	HS8	D
3738557	37.375	39.375	.813	HS7	R		W/THREADED SPRING CONNECTOR				
□ 3740100	950.00	980.00	18.00	HDS1	R	<b>3800338</b>	38.000	39.625	.750	HS8	R
□ 3740560	950.00	1000.00	25.00	HDS1	R	3800557	38.000	40.000	.813	HS7	R
□ <b>3740652</b>	950.00	1006.00	20.00	HDS2	R	3800560	38.000	40.000	.875	HDS1	R
□ 3740700	950.00	1010.00	25.00	HDS1	R	3800563	38.000	40.000	.875	HDS1	R
	W/6 EA 12.70MM ADJ. LUGS						W/6 EA .250 LUGS				
3744600	37.438	39.500	.875	HDS1	R	<b>3800565</b>	38.000	40.000	.875	HDS2	R
3744800	37.438	40.000	.875	HDS1	R	<b>3800566</b>	38.000	40.000	.875	HDS2	R
3744904	37.438	40.500	1.500	HDS1	R		W/6 EA .250 LUGS				
3750270	37.500	39.000	.875	HDS1	R	3800569	38.000	40.000	.875	HDS3	D
<b>3750272</b>	37.500	39.000	.875	HDS2	R		W/6 EA .500 ADJ. LUGS				
<b>3750274</b>	37.500	39.000	.875	HDS2	R	3800760	38.000	40.500	.875	HDS1	R
	W/6 EA .125 LUGS					3800780	38.000	40.500	1.000	HDS1	D
3750276	37.500	39.000	.875	HDS1	R	<b>3800784</b>	38.000	40.500	1.000	HDS2	R
	W/4 EA .250 LUGS					<b>3800785</b>	38.000	40.500	1.000	HDS2	R
3750540	37.500	39.500	.750	HDS1	R	3800820	38.000	40.750	.875	HDS1	R
<b>3750542</b>	37.500	39.500	.750	HDS2	R	3800860	38.000	41.000	.750	HDS1	R
3750557	37.500	39.500	.813	HS7	R	<b>3800862</b>	38.000	41.000	.750	HDS2	R
3750560	37.500	39.500	.875	HDS1	R	3800900	38.000	41.000	1.125	HDS1	R
3750561	37.500	39.500	.875	HDS1	D	3800902	38.000	41.000	1.188	HDS1	R
3750562	37.500	39.500	.875	HDS1	R		W/6 EA .313 LUGS				
	W/6 EA .125 LUGS					3800903	38.000	41.000	1.500	HDS1	R
<b>3750563</b>	37.500	39.500	.875	HDS2	D	3800904	38.000	41.250	1.500	HDS1	R
<b>3750564</b>	37.500	39.500	.875	HDS2	R	3800950	38.000	40.000	1.312	HDSE1	RR
	W/6 EA .125 LUGS					3812580	38.125	40.125	1.000	HDS1	R
<b>3750565</b>	37.500	39.500	.875	HDS2	R	3825560	38.250	40.250	.875	HDS1	R
<b>3750572</b>	37.500	39.500	.875	HDS2	V	<b>3825562</b>	38.250	40.250	.875	HDS2	R
3750587	37.500	39.500	1.000	HS7	R	3825660	38.250	40.500	.875	HDS1	R
3750660	37.500	39.750	.875	HDS1	R	3825680	38.250	40.500	1.000	HDS1	R
3750830	37.500	40.250	1.000	HDS1	R	3825750	38.250	40.750	.750	HDS1	R
3750980	37.500	40.250	1.250	HDSC1	RL	<b>3825752</b>	38.250	40.750	.750	HDS2	R



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Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
3825760	38.250	40.750	.875	HDS1	R	□3937565	1000.00	1050.00	23.00	HDS2	R
3825761	38.250	40.750	.875	HDS1	R		W/6 EA 3.97MM LUGS				
						□3937582	1000.00	1050.00	23.00	HDS2	R
3825763	38.258	40.750	.875	HDS1	R	□3937595	1000.00	1050.00	23.00	HDS2	R
							W/6 EA 12.70MM ADJ. LUGS				
<b>3825765</b>	38.250	40.750	.875	HDS2	R	□3937670	940.00	1000.00	25.00	HDS1	D
3825844	38.250	41.000	1.500	HDS1	R	□3937702	1000.00	1060.00	25.00	HDS2	R
3825870	38.250	41.250	.875	HDS1	R	□3937705	1000.00	1060.00	25.00	HDS3	R
3825894	38.250	41.250	1.000	HDS1	R		W/6 EA 12.70MM ADJ. LUGS				
						3950017	39.500	40.500	.500	HS7	R
3825903	38.250	41.250	1.500	HDS1	R	3950557	39.500	41.500	.813	HS7	R
3850477	38.500	40.375	.750	HS7	R	3950900	39.500	42.500	1.125	HDS1	R
3850557	38.500	40.500	.813	HS7	R	3950901	39.500	42.500	1.250	HDS1	R
<b>3850652</b>	38.500	40.750	.750	HDS2	R	3950902	39.500	42.500	1.250	HDS1	R
3850780	38.500	41.000	1.000	HDS1	R		W/6 EA .125 LUGS				
<b>3850782</b>	38.500	41.000	1.000	HDS2	R	3975500	39.750	41.688	.969	HDS1	R
3850895	38.500	41.500	1.500	HDS1	R	3975557	39.750	41.750	.813	HS7	R
3850978	38.500	41.000	1.625	HDS2	V	3975750	39.750	42.250	.813	HDS1	R
3875557	38.750	40.750	.813	HS7	R	3975760	39.750	42.250	.875	HDS1	R
3875560	38.750	40.750	.875	HDS1	R	3975764	39.750	42.250	.875	HDS1	R
3875562	38.750	40.750	.875	HDS1	R		W/6 EA .125 LUGS				
						3975766	39.750	42.250	.875	HDS1	R
<b>3875563</b>	38.750	40.750	.875	HDS2	R		W/8 EA .063 LUGS				
<b>3875564</b>	38.750	40.750	.875	HDS2	R	3997300	39.979	41.500	1.000	HDS1	R
						4000257	40.000	41.500	.750	HS7	R
						4000290	40.000	41.500	1.000	HDS1	R
3875580	38.750	40.750	1.000	HDS1	R	4000550	40.000	42.000	.813	HDS1	R
<b>3875585</b>	38.750	40.750	1.000	HDS2	R	4000557	40.000	42.000	.813	HS7	R
3875660	38.750	41.000	.875	HDS1	R	4000559	40.000	42.000	.813	HDS1	V
3875760	38.750	41.250	.875	HDS1	R	4000560	40.000	42.000	.875	HDS1	R
3875904	38.750	42.000	1.500	HDS1	R	4000561	40.000	42.000	.875	HDS1	R
3875950	38.750	40.750	1.000	HDSA1	RL		W/4 EA .125 LUGS				
3888790	38.875	41.375	1.250	HDS1	R	<b>4000562</b>	40.000	42.000	.875	HDS2	R
3894600	38.938	41.000	.875	HDS1	R	4000563	40.000	42.000	.875	HDS1	D
3894800	38.938	41.500	.875	HDS1	R	<b>4000564</b>	40.000	42.000	.875	HDS2	R
3894904	38.938	42.000	1.500	HDS1	R		W/6 EA .125 LUGS				
□3897543	990.00	1045.00	25.00	HDS3	D	<b>4000565</b>	40.000	42.000	.875	HDS2	R
							W/6 EA .250 LUGS				
□3898631	990.00	1045.00	25.00	HDS1	R	4000566	40.000	42.000	.875	HDS1	R
3900017	39.000	40.000	.500	HS7	R		W/8 EA .250 LUGS				
<b>3900258</b>	39.000	40.500	.750	HS8	R	4000569	40.000	42.000	.875	HDS1	R
3900535	39.000	41.000	.700	HDS1	R		W/6 EA .375 LUGS				
3900540	39.000	41.000	.750	HDS1	R	<b>4000574</b>	40.000	42.000	.875	HDS2	R
<b>3900542</b>	39.000	41.000	.750	HDS2	R		W/6 EA .500 LUGS				
3900557	39.000	41.000	.813	HS7	R	4000576	40.000	42.000	.875	HDS1	V
3900560	39.000	41.000	.875	HDS1	R	4000580	40.000	42.000	1.000	HDS1	R
<b>3900561</b>	39.000	41.000	.875	HDS2	R	<b>4000582</b>	40.000	42.000	1.000	HDS2	R
<b>3900562</b>	39.000	41.000	.875	HDS2	R	4000583	40.000	42.000	1.000	HDS1	R
<b>3900563</b>	39.000	41.000	.875	HDS2	D		W/6 EA .125 LUGS				
<b>3900564</b>	39.000	41.000	.875	HDS2	R	<b>4000584</b>	40.000	42.000	1.000	HDS2	R
							W/6 EA .125 LUGS				
3900565	39.000	41.000	.875	HDS1	R	<b>4000585</b>	40.000	42.000	1.000	HDS2	R
							W/6 EA .250 LUGS				
<b>3900566</b>	39.000	41.000	.875	HDS2	R	4000586	40.000	42.000	1.000	HDS1	R
							W/6 EA .250 LUGS				
<b>3900572</b>	39.000	41.000	.875	HDS2	D	4000590	40.000	42.000	1.375	HDS1	R
<b>3900574</b>	39.000	41.000	.875	HDS2	V	<b>4000592</b>	40.000	42.000	1.375	HDS2	R
3900660	39.000	41.250	.875	HDS1	R	4000593	40.000	42.000	1.375	HDS1	R
3900760	39.000	41.500	.875	HDS1	R		W/6 EA .250 LUGS				
3900903	39.000	42.000	1.500	HDS1	R	<b>4000594</b>	40.000	42.000	1.375	HDS2	R
3900905	39.000	42.250	.875	HDS1	R		W/6 EA .250 LUGS				
3900907	39.000	42.250	1.500	HDS1	R	4000660	40.000	42.250	.875	HDS1	R
3925257	39.250	40.750	.750	HS7	R	4000920	40.000	41.500	1.000	HDSB1	RL
3925557	39.250	41.250	.813	HS7	R	□4016790	1020.00	1084.00	25.00	HDS1	R
□3937172	1000.00	1035.00	20.00	HDS2	R						

★Contact manufacturer for availability  
**Bold numbers** are preferred designs

□ Metric numbers

† Includes Bore-Tite on O.D.  
 ▲ WasteWatcher numbers



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Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
□ 4016792	1020.00	1084.00	25.00	HDS1	R	4193557	41.929	43.929	.813	HS7	R
	W/6 EA 1.60MM LUGS					4194300	41.938	43.500	.750	HDS1	R
<b>4025258</b>	40.250	41.750	.750	HS8	R	4194305	41.938	43.500	.750	HDS1	R
4049790	40.495	43.007	1.000	HDS1	R		W/6 EA .375 LUGS				
4050017	40.500	41.500	.500	HS7	R	4194440	41.938	43.750	.875	HDS1	R
<b>4050018</b>	40.500	41.500	.500	HS8	R	<b>4200258</b>	42.000	43.500	.750	HS8	R
4050061	40.500	41.750	.750	HDS7	H	<b>4200478</b>	42.000	43.912	.750	HS8	R
4050257	40.500	42.000	.750	HS7	R	4200557	42.000	44.000	.813	HS7	R
4050557	40.500	42.500	.813	HS7	R	4200680	42.000	44.250	1.000	HDS1	R
4050560	40.500	42.500	.875	HDS1	R	4200690	42.000	44.250	1.000	HDS1	D
4050561	40.500	42.500	.875	HDS1	R	4200780	42.000	44.500	1.000	HDS1	R
	W/4 EA .250 LUGS					4206557	42.063	44.063	.813	HS7	R
4050562	40.500	42.500	.875	HDS1	R	□ 4212496	1070.00	1120.00	20.00	HS6	R
	W/4 EA .375 LUGS					<b>4225258</b>	42.250	43.750	.750	HS8	R
<b>4050563</b>	40.500	42.500	.875	HDS2	R	4225557	42.250	44.250	.813	HS7	R
4050564	40.500	42.500	.875	HDS1	R	4225580	42.250	44.250	1.000	HDS1	R
	W/12 EA .125 LUGS					4250017	42.500	43.500	.500	HS7	R
4050565	40.500	42.500	.875	HDS1	D	<b>4250258</b>	42.500	44.000	.750	HS8	R
<b>4050574</b>	40.500	42.500	.875	HDS2	R	<b>4250382</b>	42.500	44.250	.750	HDS2	R
	W/6 EA .375 LUGS					4250557	42.500	44.500	.813	HS7	R
4050660	40.500	42.750	.875	HDS1	R	4250760	42.500	45.000	.875	HDS1	R
4050680	40.500	42.750	1.000	HDS1	R	<b>4250762</b>	42.500	45.000	.875	HDS2	R
4050683	40.500	42.750	1.000	HDS1	D	4250765	42.500	45.000	.875	HDS1	R
4050760	40.500	43.000	.875	HDS1	R		W/12 EA .250 LUGS				
<b>4050762</b>	40.500	43.000	.875	HDS2	R	4250766	42.500	45.000	.875	HDS1	V
4050765	40.500	43.000	.875	HDS1	R		W/6 EA .500 ADJ. LUGS				
	W/12 EA .250 LUGS					4250820	42.500	45.250	.875	HDS1	R
<b>4050774</b>	40.500	43.000	.875	HDS2	V	4250843	42.500	45.250	1.375	HDS1	R
<b>4050776</b>	40.500	43.000	.875	HDS2	V	4250900	42.500	45.250	1.125	HDS1	R
	W/6 EA .250 LUGS					4250901	42.500	45.507	1.250	HDS1	R
<b>4075258</b>	40.750	42.250	.750	HS8	D	4250905	42.500	45.500	1.500	HDS1	R
4075900	40.750	43.750	1.125	HDS1	R	4275017	42.750	43.750	.500	HS7	R
4075902	40.750	43.750	1.438	HDS1	R	<b>4275258</b>	42.750	44.250	.750	HS8	R
4075905	40.750	43.750	1.500	HDS1	R	4291557	42.913	44.913	.813	HS7	R
<b>4100258</b>	41.000	42.500	.750	HS8	R	4300557	43.000	45.000	.813	HS7	R
4100557	41.000	43.000	.813	HS7	R	<b>4300558</b>	43.000	45.000	.813	HS8	R
<b>4100558</b>	41.000	43.000	.813	HS8	R	4300560	43.000	45.000	.875	HDS1	R
<b>4125258</b>	41.250	42.750	.750	HS8	R	4300580	43.000	45.000	1.000	HDS1	R
4125557	41.250	43.250	.750	HS7	R	4300680	43.000	45.250	1.000	HDS1	R
□ 4133510	1000.00	1050.00	20.00	HDS1	R	4300760	43.000	45.500	.875	HDS1	R
<b>4150258</b>	41.500	43.000	.750	HS8	R	<b>4300763</b>	43.000	45.500	.875	HDS2	R
<b>4150558</b>	41.500	43.500	.813	HS8	R	4300780	43.000	45.500	1.000	HDS1	R
4150560	41.500	43.500	.875	HDS1	R	4313250	43.125	44.625	.750	HDS1	R
<b>4150563</b>	41.500	43.500	.875	HDS2	R	4350270	43.500	45.000	.875	HDS1	R
<b>4150564</b>	41.500	43.500	.875	HDS2	R	□ <b>4350508</b>	1105.00	1151.00	17.50	HS8	R
	W/6 EA .250 LUGS					4350540	43.500	45.500	.750	HDS1	R
4150566	41.500	43.500	.875	HDS1	R	<b>4350542</b>	43.500	45.500	.750	HDS2	R
	W/8 EA .375 LUGS					<b>4350558</b>	43.500	45.500	.813	HS8	R
<b>4150575</b>	41.500	43.500	.875	HDS2	R	4350560	43.500	45.500	.875	HDS1	R
	W/8 EA .375 LUGS					<b>4350562</b>	43.500	45.500	.875	HDS2	V
□ <b>4153425</b>	1055.00	1100.00	25.00	HS5	R	4350564	43.500	45.500	.875	HDS1	R
□ <b>4153448</b>	1055.00	1100.00	25.00	HS8	D		W/6 EA .250 LUGS				
□ <b>4154428</b>	1055.00	1100.00	25.00	HDS2	D	<b>4350565</b>	43.500	45.500	.875	HDS2	R
4162530	41.625	43.625	.688	HDS1	R	□ 4350700	1105.00	1160.00	25.00	HDS1	R
4162680	41.625	43.875	1.000	HDS1	R	4354557	43.546	45.546	.813	HS7	R
<b>4162685</b>	41.625	43.875	1.000	HDS2	R	4363932	43.625	45.250	1.000	HDSA1	RL
4162730	41.625	44.000	1.000	HDS1	R	4375560	43.750	45.750	.875	HDS1	R
4162842	41.625	44.500	1.500	HDS1	R	<b>4375569</b>	43.750	45.750	.875	HDS2	D
4163557	41.625	43.625	.813	HS7	R	4400257	44.000	45.500	.750	HS7	R
<b>4175258</b>	41.750	43.250	.750	HS8	R	4400557	44.000	46.000	.813	HS7	R
4181640	41.813	44.000	1.000	HDS1	R	<b>4400562</b>	44.000	46.000	.875	HDS2	R
4181800	41.813	44.500	1.000	HDS1	R	4400563	44.000	46.000	.875	HDS1	R
4181900	41.813	45.000	1.000	HDS1	R		W/8 EA .125 LUGS				
4181904	41.813	45.000	1.500	HDS1	R	4400580	44.000	46.000	1.000	HDS1	R
4189932	41.875	43.500	1.000	HDSB2	DL						

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Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
4400584	44.000	46.000	1.000	HDS1	R	4650563	46.500	48.500	.875	HDS1	V
	W/8 EA .125 LUGS					4650690	46.500	48.750	1.125	HDS1	R
4400760	44.000	46.500	.875	HDS1	R	<b>4675258</b>	46.750	48.250	.750	HS8	R
<b>4400761</b>	44.000	46.500	.875	HDS2	R	<b>4700258</b>	47.000	48.500	.750	HS8	R
4400763	44.000	46.500	.875	HDS1	R	<b>4700259</b>	47.000	48.500	.750	HS8	D
	W/6 EA .250 LUGS					4700420	47.000	48.750	1.000	HDS1	R
<b>4400766</b>	44.000	46.500	.875	HDS2	R	<b>4700422</b>	47.000	48.750	1.000	HDS2	R
	W/6 EA .250 LUGS					4700480	47.000	48.875	.875	HDS1	R
4400780	44.000	46.500	1.000	HDS1	R	<b>4700482</b>	47.000	48.875	.875	HDS2	R
4400785	44.000	46.500	1.000	HDS3	R	4700510	47.000	49.000	.875	HDS7	H
	W/8 EA .500 ADJ. LUGS						W/6 EA .375 LUGS				
<b>4400792</b>	44.000	46.500	1.000	HDS2	V	4700511	47.000	49.000	.875	HDS7	H
<b>4400793</b>	44.000	46.500	1.000	HDS2	V	4700557	47.000	49.000	.813	HS7	R
	W/8 EA .500 ADJ. LUGS					4700560	47.000	49.000	.875	HDS1	R
4400820	44.000	46.750	.875	HDS1	R	4700562	47.000	49.000	.875	HDS1	R
4400900	44.000	47.000	1.125	HDS1	R		W/8 EA .125 LUGS				
4400902	44.000	47.000	1.250	HDS1	R	<b>4700564</b>	47.000	49.000	.875	HDS2	R
4400905	44.000	47.000	1.250	HDS1	R		W/8 EA .125 LUGS				
	W/8 EA .125 LUGS					4700565	47.000	49.000	.875	HDS1	R
4409500	44.094	46.000	1.000	HDS1	R		W/6 EA .250 LUGS				
□ <b>4409592</b>	1120.00	1184.00	25.00	HDS2	R	4700566	47.000	49.000	.875	HDS1	V
	W/6 EA 12.70MM ADJ. LUGS						W/6 EA .250 LUGS				
<b>4425258</b>	44.250	45.750	.750	HS8	R	4700567	47.000	49.000	.875	HDS1	V
<b>4450258</b>	44.500	46.000	.750	HS8	R	<b>4700574</b>	47.000	49.000	.875	HDS2	V
4450270	44.500	46.000	.875	HDS1	R	<b>4700576</b>	47.000	49.000	.875	HDS2	V
<b>4450272</b>	44.500	46.000	.875	HDS2	R		W/8 EA .250 LUGS				
4450550	44.500	46.500	.813	HDS1	R	4700583	47.000	49.000	1.000	HDS1	R
4450557	44.500	46.500	.813	HS7	R		W/6 EA .125 LUGS				
4450760	44.500	47.000	.875	HDS1	R	<b>4700584</b>	47.000	49.000	1.000	HDS2	R
4450767	44.500	47.000	.875	HDS1	V		W/6 EA .125 LUGS				
<b>4475258</b>	44.750	46.250	.750	HS8	R	4700760	47.000	49.500	.875	HDS1	R
□ 4488287	1140.00	1180.00	20.00	HDS1	V	□ <b>4724762</b>	1200.00	1264.00	22.20	†HDS2	D
4500257	45.000	46.500	.750	HS7	R		W/4 EA 3.20MM LUGS				
4500410	45.000	46.750	.875	HDS1	R	<b>4725528</b>	47.250	49.250	.625	HS8	R
<b>4500518</b>	45.000	47.000	.812	HS8	H	4738250	47.375	48.875	.750	HDS1	R
<b>4500538</b>	45.000	47.188	.688	HS8	R	<b>4750258</b>	47.500	49.000	.770	HS8	R
4500557	45.000	47.000	.813	HS7	R	4750560	47.500	49.500	.875	HDS1	R
4500560	45.000	47.000	.875	HDS1	R	<b>4750562</b>	47.500	49.500	.875	HDS2	R
4500567	45.000	47.000	.875	HDS1	V	4750565	47.500	49.500	.875	HDS1	R
4500930	45.000	46.627	1.000	HDSB2	RL		W/8 EA .250 LUGS				
4513557	45.125	47.125	.813	HS7	R	4750590	47.500	49.500	1.500	HDS1	R
<b>4525258</b>	45.250	46.750	.750	HS8	R	<b>4762258</b>	47.625	49.125	.770	HS8	R
<b>4525422</b>	45.250	47.000	1.000	HDS2	R	4775840	47.750	50.500	1.125	HDS1	R
<b>4525424</b>	45.250	47.000	1.000	HDS2	V	4775850	47.750	50.500	1.250	HDS1	R
<b>4550235</b>	45.500	47.000	.625	HDS2	R	4788557	47.875	49.875	.813	HS7	R
4550250	45.500	47.000	.750	HDS1	R	<b>4800252</b>	48.000	49.500	.750	HDS2	D
<b>4550258</b>	45.500	47.000	.750	HS8	R	<b>4800254</b>	48.000	49.500	.750	HDS2	V
<b>4575258</b>	45.750	47.250	.750	HS8	R	4800257	48.000	49.500	.750	HS7	R
4575570	45.750	47.768	.875	HDS1	R	4800420	48.000	49.750	1.000	HDS1	R
<b>4600222</b>	46.000	47.500	.750	HDS2	D	4800557	48.000	50.000	.813	HS7	R
<b>4600252</b>	46.000	47.500	.750	HDS2	H	4800580	48.000	50.000	1.000	HDS1	R
<b>4600254</b>	46.000	47.500	.750	HDS2	V	<b>4800582</b>	48.000	50.000	1.000	HDS2	R
<b>4600258</b>	46.000	47.500	.750	HS8	R	□ <b>4803182</b>	1220.00	1255.00	20.00	HDS2	R
<b>4600259</b>	46.000	47.500	.750	HS8	D	4812487	48.125	50.000	.813	HS7	R
4600420	46.000	47.750	1.000	HDS1	R	4813440	48.125	50.000	.813	HDS1	R
<b>4600422</b>	46.000	47.750	1.000	HDS2	R	4825527	48.250	50.250	.875	HDS1	V
4600557	46.000	48.000	.813	HS7	R	4825550	48.250	50.250	.875	HDS1	R
4600560	46.000	48.000	.875	HDS1	R		W/8 EA .250 LUGS				
4600580	46.000	48.000	1.000	HDS1	R	4825560	48.250	50.250	.875	HDS1	R
<b>4600842</b>	46.000	49.000	1.250	HDS2	D	4825561	48.250	50.250	.875	HDS1	R
<b>4625258</b>	46.250	47.750	.750	HS8	R		W/8 EA .500 LUGS				
4625557	46.250	48.250	.813	HS7	R	<b>4825562</b>	48.250	50.250	.875	HDS2	R
□ 4645556	1180.00	1230.00	20.00	HS6	R		W/ 6 EA .375 LUGS				
<b>4650258</b>	46.500	48.000	.750	HS8	R	<b>4825563</b>	48.250	50.250	.875	HDS2	R
4650560	46.500	48.500	.875	HDS1	R						

★ Contact manufacturer for availability  
**Bold numbers** are preferred designs

□ Metric numbers

† Includes Bore-Tite on O.D.  
 ▲ WasteWatcher numbers

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Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
<b>4825564</b>	48.250	50.252	.875	HDS2	D	<b>5550542</b>	55.500	57.500	.750	HDS2	R
	W/8 EA .500 LUGS					5600550	56.000	58.000	.813	HDS1	R
4825565	48.250	50.250	.875	HDS1	R	5738900	57.375	60.375	1.500	HDS1	R
	W/8 EA .125 LUGS					<b>5750558</b>	57.500	59.500	.813	HS8	R
4825566	48.250	50.250	.875	HDS1	R	<b>5751558</b>	57.515	59.515	.813	HS8	R
	W/8 EA .500 LUGS					5788017	57.875	58.875	.500	HS7	R
4825570	48.250	50.250	.875	HDS1	D	5788620	57.875	60.000	.938	HDS1	R
4825571	48.250	50.250	.875	HDS1	D	<b>5800558</b>	58.000	60.000	.813	HS8	R
	W/8 EA .500 ADJ. LUGS					<b>5850518</b>	58.500	60.500	.813	HS8	R
<b>4837558</b>	48.375	50.375	.812	HS8	R	5900270	59.000	60.500	.875	HDS1	R
4900340	49.000	50.625	.813	HDS1	R	5900474	59.000	60.875	.813	HDS1	R
4900420	49.000	50.750	1.000	HDS1	R	5900475	59.000	60.875	.813	HDS1	R
<b>4900422</b>	49.000	50.750	1.000	HDS2	R		W/6 EA .125 LUGS				
4900425	49.000	50.750	1.000	HDS1	R	5900560	59.000	61.000	.875	HDS1	R
	W/8 EA .125 LUGS					5975017	59.750	60.750	.500	HS7	R
4900580	49.000	51.000	1.000	HDS1	R	6000890	60.000	63.000	1.000	HDS1	R
□ <b>4913508</b>	1248.00	1298.00	20.70	HS8	R	□ 6023510	1530.00	1580.00	20.00	HDS1	R
□ 4921790	1250.00	1314.00	21.54	HDS7	R	<b>6025658</b>	60.250	62.500	.715	HS8	R
	W/12 EA 6.35MM LUGS					6100580	61.000	63.000	1.000	HDS1	R
□ <b>4921793</b>	1250.00	1314.00	25.00	HDS2	R	6100992	61.000	64.000	1.500	HDS2	RL
<b>4950803</b>	49.500	52.240	1.000	HDS2	R	□ <b>6102702</b>	1550.00	1610.00	25.00	HDS2	V
<b>4950805</b>	49.500	52.240	1.000	HDS2	D	6125017	61.250	62.250	.500	HS7	R
4950830	49.500	52.250	1.000	HDS1	R	6125582	61.250	63.250	1.000	HDS1	R
<b>4950833</b>	49.500	52.250	1.000	HDS2	R	<b>6250222</b>	62.500	64.000	.625	HDS2	R
<b>4950835</b>	49.500	52.250	1.000	HDS2	D	6250270	62.500	64.000	.875	HDS1	R
4975830	49.750	52.500	1.000	HDS1	R	6250271	62.500	64.000	.719	HS7	R
<b>4975833</b>	49.750	52.500	1.000	HDS2	R	6250281	62.500	64.000	.875	HDS1	V
<b>4975834</b>	49.750	52.500	1.000	HDS2	V	6250560	62.500	64.500	.875	HDS1	R
<b>4975835</b>	49.750	52.500	1.000	HDS2	D	<b>6250752</b>	62.500	64.000	.720	HDS2	R
5000420	50.000	51.750	1.000	HDS1	R	6259557	62.598	64.598	.813	HS7	R
<b>5000558</b>	50.000	52.000	.813	HS8	R	<b>6300558</b>	63.000	65.000	.813	HS8	R
5000560	50.000	52.000	.875	HDS1	R	<b>6337558</b>	63.375	65.375	.813	HS8	R
<b>5000562</b>	50.000	52.000	.875	HDS2	R	<b>6400558</b>	64.000	66.000	.813	HS8	R
<b>5000564</b>	50.000	52.000	.875	HDS2	R	6560557	65.605	67.605	.813	HS7	R
	W/6 EA .250 LUGS					□ <b>6594478</b>	1675.00	1725.00	20.00	HS8	R
<b>5012578</b>	50.125	52.125	.845	HS8	R	□ <b>6594558</b>	1675.00	1725.00	20.62	HS8	D
<b>5100558</b>	51.000	53.000	.812	HS8	R	<b>6700557</b>	67.000	69.000	.813	HS8	R
<b>5125562</b>	51.250	53.250	.875	HDS2	V	6800557	68.000	70.000	.812	HS7	R
5150570	51.500	53.500	1.250	HDS1	R	<b>6900558</b>	69.000	71.000	.813	HS8	R
5150590	51.500	53.500	1.500	HDS1	R	<b>7000558</b>	70.000	72.000	.813	HS8	R
5200017	52.000	53.000	.500	HS7	R	□ <b>7125478</b>	1810.00	1860.00	20.00	HS8	R
<b>5200558</b>	52.000	54.000	.813	HS8	R	□ <b>7153558</b>	1810.00	1860.00	20.62	HS8	D
5250760	52.500	55.000	.875	HDS1	R	<b>7250558</b>	72.500	74.500	.813	HS8	R
5250777	52.500	55.000	.875	HDS1	V	<b>7275135</b>	72.750	74.000	.719	HS5	R
5300440	53.000	54.875	.813	HDS1	R	<b>8000558</b>	80.000	82.000	.813	HS8	R
5300441	53.000	54.875	.813	HDS1	R	<b>8050558</b>	80.500	82.500	.813	HS8	R
	W/6 EA .063 LUGS					<b>8100558</b>	81.000	83.000	.813	HS8	R
5300486	53.000	54.875	.813	HS6	R	<b>8775558</b>	87.750	89.750	.813	HS8	R
<b>5300488</b>	53.000	54.875	.813	HS8	R	<b>9475658</b>	94.750	97.000	.688	HS8	R
5325017	53.250	54.250	.500	HS7	R	<b>9700558</b>	97.000	99.000	.813	HS8	R
5363017	53.625	54.625	.500	HS7	R	<b>9862568</b>	98.625	100.625	.813	HS8	R
□ <b>5393458</b>	1370.00	1420.00	19.83	HS8	H	□ MVR1-10	10.00	24.00		MVR1	R
□ 5393510	1370.00	1420.00	20.00	HDS1	R	□ MVR1-12	12.00	26.00		MVR1	R
□ <b>5393512</b>	1370.00	1420.00	19.05	HDS2	H	□ MVR1-15	15.00	30.00		MVR1	R
5400557	54.000	56.000	.813	HS7	R	□ MVR2-15	15.00	32.00		MVR2	R
<b>5400582</b>	54.000	56.000	1.000	HDS2	R	□ MVR1-16	16.00	32.00		MVR1	R
5425580	54.250	56.250	1.000	HDS1	R	□ MVR2-17	17.00	34.00		MVR2	R
<b>5425583</b>	54.250	56.250	1.000	HDS2	R	□ MVR1-20	20.00	35.00		MVR1	R
□ <b>5433258</b>	1380.00	1420.00	18.00	HS8	R	□ MVR2-20	20.00	37.00		MVR2	R
5475340	54.750	56.375	.875	HDS1	R	□ MVR1-25	25.00	40.00		MVR1	R
<b>5475345</b>	54.750	56.375	.875	HDS2	D	□ MVR2-25	25.00	42.00		MVR2	R
	W/6 EA .125 LUGS					□ MVR1-30	30.00	47.00		MVR1	R
5500017	55.000	56.000	.500	HS7	R	□ MVR2-30	30.00	48.00		MVR2	R
<b>5515028</b>	55.150	56.250	.500	HS8	R	□ MVR1-35	35.00	52.00		MVR1	R
5550540	55.500	57.500	.750	HDS1	R	□ MVR2-35	35.00	53.00		MVR2	R

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Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
□ MVR1-40	40.00	57.00		MVR1	R	<b>HDL-3056-R</b>	34.000	36.500	.750	HDL	R
□ MVR2-40	40.00	58.00		MVR2	R	<b>HDL-3057-R</b>	16.250	18.000	1.000	HDL	R
□ MVR1-45	45.00	62.00		MVR1	R	□ <b>HDL-3059-R</b>	630.00	690.00	20.00	HDL	R
□ MVR2-45	45.00	63.00		MVR2	R	<b>HDL-3060-R</b>	11.000	13.500	.687	HDL	R
□ MVR1-50	50.00	70.00		MVR1	R	<b>HDL-3061-R</b>	22.441	24.803	.787	HDL	R
□ MVR2-50	50.00	72.00		MVR2	R	□ <b>HDL-3062-R</b>	470.00	530.00	20.00	HDL	R
□ MVR1-55	55.00	75.00		MVR1	R	<b>HDL-3065-R</b>	35.630	37.598	.866	HDL	R
□ MVR2-55	55.00	77.00		MVR2	R	HDLA-3066-R	8.500	9.750	.750	HDLA	R
□ MVR1-60	60.00	80.00		MVR1	R	<b>HDL-3067-R</b>	15.000	16.500	.750	HDL	R
□ MVR2-60	60.00	82.00		MVR2	R	HDLA-3068-R	18.500	20.500	.812	HDLA	R
□ MVR1-65	65.00	85.00		MVR1	R	□ <b>HDL-3069-R</b>	220.00	250.00	15.00	HDL	R
□ MVR2-65	65.00	87.00		MVR2	R	□ <b>HDL-3070-R</b>	1030.00	1070.00	25.00	HDL	R
□ MVR1-70	70.00	90.00		MVR1	R	<b>HDL-3669-R</b>	10.000	12.250	.812	HDL	R
□ MVR2-70	70.00	92.00		MVR2	R	<b>HDL-3750-R</b>	17.000	19.500	.812	HDL	R
□ MVR1-75	75.00	95.00		MVR1	R	<b>HDL-3751-R</b>	17.250	18.750	.687	HDL	R
□ MVR2-75	75.00	97.00		MVR2	R	<b>HDL-3764-R</b>	22.250	24.250	.875	HDL	R
□ MVR1-80	80.00	100.00		MVR1	R	<b>HDL-3791-R</b>	29.500	31.500	1.000	HDL	R
□ MVR2-80	80.00	102.00		MVR2	R	<b>HDL-3835-R</b>	35.000	37.000	.875	HDL	R
□ MVR1-85	85.00	105.00		MVR1	R	<b>HDL-3836-R</b>	35.000	37.500	.875	HDL	R
□ MVR2-85	85.00	107.00		MVR2	R	<b>HDL-3837-R</b>	35.000	38.000	.875	HDL	R
□ MVR1-90	90.00	110.00		MVR1	R	<b>HDL-3858-R</b>	14.875	16.500	.687	HDL	R
□ MVR2-90	90.00	112.00		MVR2	R	<b>HDL-3878-R</b>	28.000	30.500	.875	HDL	R
□ MVR1-95	95.00	115.00		MVR1	R	<b>HDL-3921-R</b>	8.000	9.500	.687	HDL	R
□ MVR2-95	95.00	117.00		MVR2	R	<b>HDL-3933-R</b>	8.375	9.875	.687	HDL	R
□ MVR1-100	100.00	120.00		MVR1	R	<b>HDL-3939-R</b>	8.625	10.125	.687	HDL	R
□ MVR2-100	100.00	122.00		MVR2	R	<b>HDL-3946-R</b>	8.750	10.250	.687	HDL	R
□ MVR1-105	105.00	125.00		MVR1	R	<b>HDL-3954-R</b>	9.000	10.500	.687	HDL	R
<b>HDL-1299-R</b>	6.125	7.625	.687	HDL	R	<b>HDL-3957-R</b>	9.125	10.625	.687	HDL	R
<b>HDL-1705-R</b>	8.500	9.750	.562	HDL	R	<b>HDL-3963-R</b>	9.250	10.750	.687	HDL	R
<b>HDL-3001-R</b>	35.496	37.996	.984	HDL	R	<b>HDL-3981-R</b>	9.500	11.250	.750	HDL	R
<b>HDL-3002-R</b>	32.125	34.125	.750	HDL	R	HDLA-3981-R	9.500	11.250	.750	HDLA	R
<b>HDL-3003-R</b>	35.827	38.077	.687	HDL	R	<b>HDL-3984-R</b>	9.500	11.500	.812	HDL	R
<b>HDL-3004-R</b>	38.000	39.500	.750	HDL	R	<b>HDL-3985-R</b>	9.750	11.250	.687	HDL	R
<b>HDL-3005-R</b>	17.500	19.250	1.000	HDL	R	<b>HDL-3992-R</b>	10.000	11.500	.687	HDL	R
<b>HDL-3006-R</b>	46.004	47.500	.750	HDL	R	<b>HDL-3997-R</b>	10.000	12.000	.812	HDL	R
□ <b>HDL-3007-R</b>	330.00	370.00	18.00	HDL	R	<b>HDL-3999-R</b>	10.125	11.625	.687	HDL	R
□ <b>HDL-3009-R</b>	837.00	889.00	22.22	HDL	R	<b>HDL-4004-R</b>	10.250	11.750	.687	HDL	R
□ <b>HDL-3010-R</b>	420.00	460.00	20.00	HDL	R	<b>HDL-4011-R</b>	10.500	12.000	.687	HDL	R
<b>HDL-3011-R</b>	7.125	8.250	.750	HDL	R	<b>HDL-4017-R</b>	10.500	12.500	.812	HDL	R
□ <b>HDL-3012-R</b>	1055.00	1100.00	25.00	HDL	R	<b>HDL-4023-R</b>	10.750	12.250	.687	HDL	R
□ <b>HDL-3013-R</b>	200.00	240.00	20.00	HDL	R	<b>HDL-4028-R</b>	10.875	12.500	.687	HDL	R
<b>HDL-3014-R</b>	10.750	12.750	.625	HDL	R	<b>HDL-4033-R</b>	10.750	12.500	.875	HDL	R
□ <b>HDL-3015-R</b>	240.00	280.00	20.00	HDL	R	<b>HDL-4036-R</b>	11.000	13.000	.812	HDL	R
□ <b>HDL-3016-R</b>	650.00	714.00	25.00	HDL	R	□ <b>HDL-4039-R</b>	280.00	340.00	20.62	HDL	R
<b>HDL-3017-R</b>	34.250	36.000	.750	HDL	R	<b>HDL-4052-R</b>	11.375	13.375	.812	HDL	R
□ <b>HDL-3019-R</b>	640.00	680.00	20.00	HDL	R	<b>HDL-4056-R</b>	12.375	14.000	.687	HDL	R
□ <b>HDL-3020-R</b>	630.00	670.00	20.00	HDL	R	<b>HDL-4057-R</b>	11.500	13.000	.687	HDL	R
<b>HDL-3021-R</b>	34.500	36.500	1.000	HDL	R	<b>HDL-4063-R</b>	11.500	13.500	.812	HDL	R
<b>HDL-3022-R</b>	25.500	26.750	.750	HDL	R	<b>HDL-4064-R</b>	11.750	13.250	.687	HDL	R
<b>HDL-3023-R</b>	32.000	33.500	.750	HDL	R	<b>HDL-4071-R</b>	12.000	14.000	.750	HDL	R
<b>HDL-3024-R</b>	44.000	46.500	1.000	HDL	R	<b>HDL-4072-R</b>	12.000	14.000	.812	HDL	R
□ <b>HDL-3025-R</b>	520.00	560.00	18.00	HDL	R	<b>HDL-4075-R</b>	12.250	14.250	.812	HDL	R
□ <b>HDL-3026-R</b>	930.00	980.00	22.22	HDL	R	<b>HDL-4076-R</b>	12.375	13.875	.687	HDL	R
□ <b>HDL-3027-R</b>	520.00	570.00	22.00	HDL	R	<b>HDL-4079-R</b>	12.500	14.000	.687	HDL	R
□ <b>HDL-3028-R</b>	1350.00	1415.00	25.00	HDL	R	<b>HDL-4083-R</b>	12.500	14.500	.812	HDL	R
□ <b>HDL-3029-R</b>	470.00	520.00	22.00	HDL	R	<b>HDL-4089-R</b>	12.750	14.250	.687	HDL	R
<b>HDL-3030-R</b>	15.250	17.250	.875	HDL	R	<b>HDL-4093-R</b>	13.000	14.500	.687	HDL	R
HDLA-3031-R	9.000	10.000	.750	HDLA	R	<b>HDL-4099-R</b>	13.000	15.000	.812	HDL	R
□ <b>HDL-3032-R</b>	780.00	844.00	25.00	HDL	R	<b>HDL-4101-R</b>	13.250	14.750	.687	HDL	R
<b>HDL-3033-R</b>	23.500	24.681	.591	HDL	R	<b>HDL-4118-R</b>	14.250	15.750	.687	HDL	R
□ <b>HDL-3034-R</b>	840.00	904.00	25.00	HDL	R	<b>HDL-4121-R</b>	13.500	15.000	.687	HDL	R
□ HDLA-3035-R	270.00	310.00	20.00	HDLA	R	<b>HDL-4128-R</b>	13.500	15.500	.812	HDL	R
□ HDLA-3036-R	340.00	380.00	18.00	HDLA	R	<b>HDL-4128-V</b>	13.500	15.500	.812	HDL	V
□ <b>HDL-3038-R</b>	400.00	440.00	20.00	HDL	R	<b>HDL-4129-R</b>	13.750	15.750	.812	HDL	R
□ <b>HDL-3039-R</b>	220.00	250.00	18.00	HDL	R	<b>HDL-4131-R</b>	14.000	15.500	.687	HDL	R

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**Bold numbers** are preferred designs

□ Metric numbers

† Includes Bore-Tite on O.D.  
▲ WasteWatcher numbers

## Numerical — complete index

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
HDL-4134-R	14.000	15.750	.750	HDL	R	HDL-4295-R	24.000	26.000	.812	HDL	R
HDL-4135-R	14.000	16.000	.812	HDL	R	HDL-4299-R	25.250	27.250	.750	HDL	R
□ HDLA-4135-R	355.60	406.40	20.62	HDLA	R	HDL-4300-R	25.500	27.000	.875	HDL	R
HDL-4140-R	14.250	16.250	.812	HDL	R	HDL-4301-R	24.250	26.250	.875	HDL	R
HDL-4142-R	14.500	16.000	.687	HDL	R	HDL-4302-R	24.437	26.000	.750	HDL	R
HDL-4145-R	14.500	16.500	.812	HDL	R	HDL-4305-R	24.500	26.500	.875	HDL	R
HDL-4147-R	14.750	16.250	.687	HDL	R	HDL-4308-R	25.000	26.500	.750	HDL	R
HDL-4151-R	15.000	16.500	.687	HDL	R	HDL-4311-R	25.187	26.875	.750	HDL	R
HDL-4156-R	15.000	17.000	.812	HDL	R	HDL-4313-R	26.500	28.500	.875	HDL	R
HDL-4163-R	15.500	17.496	.812	HDL	R	HDL-4315-R	27.500	29.000	.750	HDL	R
HDL-4163-V	15.500	17.496	.812	HDL	V	HDL-4318-R	25.500	27.500	.875	HDL	R
HDL-4170-R	15.750	17.250	.687	HDL	R	HDL-4325-R	26.000	28.000	.875	HDL	R
HDL-4177-R	16.000	17.500	.687	HDL	R	HDL-4326-R	33.000	35.250	.875	HDL	R
HDLA-4177-R	16.000	17.500	.687	HDLA	R	HDL-4329-R	26.125	27.625	.750	HDL	R
HDL-4179-R	16.375	17.875	.687	HDL	R	HDL-4330-R	26.125	28.125	.875	HDL	R
HDL-4180-R	16.000	18.000	.812	HDL	R	HDL-4333-R	27.000	29.000	.875	HDL	R
HDL-4181-R	16.250	17.750	.687	HDL	R	HDL-4336-R	27.626	29.500	.750	HDL	R
HDL-4186-R	16.500	18.500	.812	HDL	R	HDL-4339-R	27.500	29.500	.875	HDL	R
HDL-4187-R	16.500	18.500	.687	HDL	R	HDL-4343-R	28.000	29.500	.750	HDL	R
HDL-4188-R	17.000	18.500	.687	HDL	R	HDL-4344-R	28.000	30.000	.875	HDL	R
HDL-4190-R	17.000	19.000	.812	HDL	R	HDL-4346-R	28.500	30.500	.875	HDL	R
□ HDL-4192-R	440.00	480.00	20.00	HDL	R	HDL-4347-R	29.000	30.500	.750	HDL	R
HDL-4194-R	17.500	19.000	.687	HDL	R	HDL-4348-R	29.000	31.000	.875	HDL	R
HDL-4198-R	17.500	19.500	.687	HDL	R	HDL-4352-R	29.500	31.500	.875	HDL	R
HDL-4199-R	17.625	19.250	.687	HDL	R	HDL-4357-R	30.000	32.000	.875	HDL	R
HDL-4204-R	17.875	19.875	.812	HDL	R	HDL-4358-R	30.000	32.500	.875	HDL	R
HDL-4206-R	18.000	19.500	.687	HDL	R	HDL-4365-R	30.500	32.500	.875	HDL	R
HDL-4210-R	18.000	20.000	.875	HDL	R	HDL-4367-R	31.000	33.000	.875	HDL	R
HDL-4213-R	18.375	19.875	.687	HDL	R	HDL-4373-R	32.312	34.500	.875	HDL	R
HDL-4215-R	18.375	20.000	.750	HDL	R	HDL-4377-R	32.500	34.500	.875	HDL	R
HDL-4216-R	18.500	20.500	.875	HDL	R	HDL-4380-R	32.996	34.685	.787	HDL	R
HDL-4218-R	19.000	20.500	.750	HDL	R	HDL-4381-R	33.000	34.500	.750	HDL	R
HDL-4219-R	19.000	21.000	.875	HDL	R	HDL-4382-R	33.000	35.000	.875	HDL	R
□ HDL-4220-R	485.00	535.00	19.00	HDL	R	HDL-4389-R	33.500	35.500	.875	HDL	R
HDL-4221-R	19.500	21.500	.875	HDL	R	HDL-4399-R	34.000	36.000	.875	HDL	R
HDL-4228-R	19.750	21.750	.875	HDL	R	HDL-4405-R	34.500	36.500	.875	HDL	R
□ HDL-4232-R	500.00	550.00	19.00	HDL	R	HDL-4416-R	35.250	37.250	.875	HDL	R
HDL-4233-R	19.937	21.687	.625	HDL	R	HDL-4417-R	35.375	37.375	.875	HDL	R
HDL-4235-R	20.000	21.500	.750	HDL	R	HDL-4421-R	36.000	38.000	.875	HDL	R
HDL-4236-R	20.000	21.750	.750	HDL	R	HDL-4430-R	36.500	38.500	.875	HDL	R
HDL-4237-R	20.000	22.000	.875	HDL	R	HDL-4434-R	37.000	39.000	.875	HDL	R
HDL-4239-R	20.250	21.750	.750	HDL	R	HDL-4436-R	37.250	39.250	.875	HDL	R
□ HDL-4244-R	530.00	580.00	20.62	HDL	R	HDL-4438-R	37.500	39.500	.875	HDL	R
HDL-4246-R	20.500	22.500	.875	HDL	R	HDL-4448-R	38.000	40.000	.875	HDL	R
HDL-4248-R	20.750	22.750	.875	HDL	R	HDL-4454-R	38.250	40.250	.875	HDL	R
HDL-4253-R	21.000	23.000	.875	HDL	R	HDL-4465-R	39.000	41.000	.875	HDL	R
HDL-4254-R	21.250	23.250	.875	HDL	R	HDL-4470-R	42.248	44.248	1.000	HDL	R
HDL-4255-R	21.250	23.000	.750	HDL	R	HDL-4473-R	42.500	45.000	.875	HDL	R
HDL-4259-R	21.500	23.500	.875	HDL	R	HDL-4475-R	44.000	46.500	.875	HDL	R
HDL-4263-R	21.625	23.625	.875	HDL	R	HDL-4476-R	15.250	17.250	.812	HDL	R
HDL-4265-R	21.750	23.750	.875	HDL	R	HDL-4499-R	8.250	10.250	.812	HDL	R
HDL-4269-R	22.000	23.500	.750	HDL	R	HDL-4533-R	26.500	28.000	.750	HDL	R
HDL-4270-R	22.000	24.000	.875	HDL	R	HDL-4544-R	33.000	35.500	.875	HDL	R
HDL-4271-R	22.500	24.000	.750	HDL	R	HDL-4550-R	33.500	36.000	.875	HDL	R
HDL-4275-R	22.437	24.000	.750	HDL	R	HDL-4553-R	35.500	37.500	.875	HDL	R
HDL-4279-R	22.500	24.500	.875	HDL	R	HDL-4563-R	44.500	46.000	.750	HDL	R
HDL-4281-R	22.750	24.750	.875	HDL	R	HDL-4570-R	38.750	41.000	.875	HDL	R
HDL-4283-R	23.000	24.500	.750	HDL	R	HDL-4610-R	9.375	11.375	.812	HDL	R
HDL-4284-R	23.000	25.000	.875	HDL	R	HDL-4611-R	11.000	12.500	.687	HDL	R
HDL-4285-R	23.000	25.500	.875	HDL	R	HDL-4612-R	12.000	13.500	.687	HDL	R
HDL-4288-R	23.500	25.500	.875	HDL	R	HDL-4613-R	12.250	13.750	.687	HDL	R
HDL-4291-R	23.562	25.375	.750	HDL	R	HDL-4614-R	12.250	13.750	.875	HDL	R
HDL-4292-R	23.625	26.000	.875	HDL	R	HDL-4615-R	15.250	16.750	.687	HDL	R
HDL-4293-R	23.875	26.000	.875	HDL	R	□ HDL-4616-R	390.00	430.00	16.00	HDL	R
HDL-4294-R	24.000	26.000	.875	HDL	R	HDL-4617-R	19.250	20.750	.750	HDL	R



*Numerical — complete index*

Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code	Stock no.	Shaft	Bore	Width of seal	Type and style	Lip code
HDL-4619-R	20.500	22.000	.750	HDL	R						
HDL-4621-R	21.750	23.250	.750	HDL	R						
HDL-4623-R	24.000	25.500	.750	HDL	R						
HDL-4626-R	27.250	29.250	.875	HDL	R						
HDL-4628-R	28.750	30.750	.875	HDL	R						
□ HDL-4629-R	750.00	814.00	25.00	HDL	R						
HDL-4632-R	32.000	34.000	.875	HDL	R						
HDL-4634-R	33.000	34.650	.787	HDL	R						
HDL-4635-R	41.500	43.500	.875	HDL	R						
HDL-4637-R	43.500	45.500	.875	HDL	R						
HDL-4638-R	43.750	45.750	.875	HDL	R						
HDL-4639-R	48.250	50.250	.875	HDL	R						
□ HDL-4640-R	1105.00	1160.00	22.00	HDL	R						
□ HDL-4979-R	1636.00	1700.00	22.00	HDL	R						
HDL-5033-R	31.250	33.250	.750	HDL	R						
HDL-5054-R	17.500	19.250	.687	HDL	R						
HDL-5259-R	21.000	22.500	.750	HDL	R						
HDL-5312-R	21.000	22.750	.750	HDL	R						
HDL-5482-R	59.000	61.000	.875	HDL	R						
HDL-5921-R	26.000	27.625	.750	HDL	R						
HDL-5989-R	10.125	11.750	.687	HDL	R						
HDL-5990-R	14.750	16.500	.687	HDL	R						
HDL-5991-R	14.000	15.750	.687	HDL	R						
HDL-5992-R	15.312	17.312	.687	HDL	R						
HDL-5995-R	16.000	18.500	.812	HDL	R						
HDL-5998-R	28.000	31.000	.875	HDL	R						
HDL-6239-R	23.750	25.250	1.000	HDL	R						
HDL-6480-R	22.437	24.437	.750	HDL	R						
□ HDL-6666-R	790.00	854.00	25.00	HDL	R						
HDL-6747-R	51.248	53.289	.875	HDL	R						
HDL-6787-R	33.000	34.625	.750	HDL	R						
HDL-6874-R	15.750	17.750	.687	HDL	R						
□ HDL-7393-R	540.00	590.00	24.98	HDL	R						
HDL-7428-R	36.750	39.250	.875	HDL	R						
HDL-7538-R	39.750	42.250	.875	HDL	R						
HDL-7734-R	13.250	14.875	.687	HDL	R						
HDL-7828-R	28.000	29.625	.750	HDL	R						
HDL-8453-R	8.500	10.000	.687	HDL	R						
HDL-8557-R	63.327	65.748	.787	HDL	R						
HDL-8577-R	30.500	33.000	.875	HDL	R						
□ HDL-8594-R	1380.00	1440.00	25.00	HDL	R						
□ HDL-8622-R	1550.00	1610.00	25.00	HDL	R						
□ HDL-8624-R	600.00	640.00	20.00	HDL	R						
HDL-8903-R	45.000	46.625	1.000	HDL	R						
HDL-9176-R	7.875	9.375	.687	HDL	R						
HDL-9984-R	27.000	30.000	.875	HDL	R						
HDL-9986-R	15.750	17.165	.687	HDL	R						
HDL-9988-R	24.000	26.000	.750	HDL	R						
HDL-9990-R	24.437	26.935	1.000	HDL	R						
□ HDL-9992-R	668.00	706.00	25.40	HDL	R						
HDL-9993-R	36.000	38.500	1.000	HDL	R						
HDL-9994-R	43.000	45.500	1.000	HDL	R						
□ HDL-9995-R	565.00	601.00	20.00	HDL	R						
□ HDL-9996-R	360.00	404.00	17.45	HDL	R						
□ HDL-9997-R	513.00	543.00	16.00	HDL	R						
□ HDL-9998-R	990.00	1040.00	25.00	HDL	R						

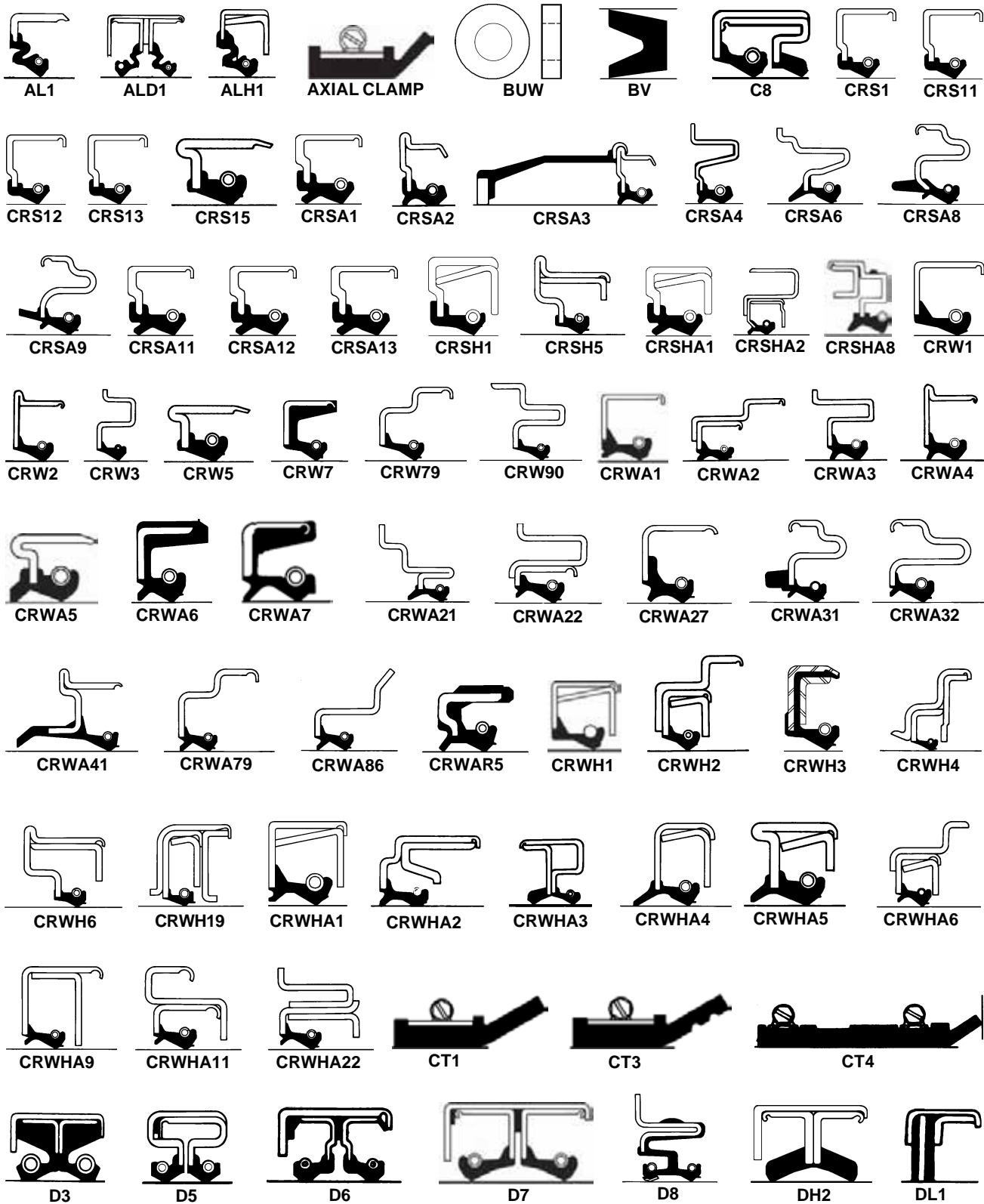
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**Bold numbers** are preferred designs

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† Includes Bore-Tite on O.D.  
 ▲ WasteWatcher numbers



## Type and style illustrations



Type and style illustrations



## Type and style illustrations



*Type and style illustrations*



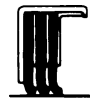
SLA2



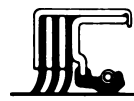
SPEEDI-SLEEVE



TL1



TL2



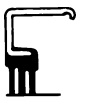
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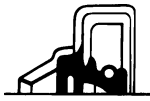
TL5



TL6



TL7



TL8



VR1



VR2



VR3



VR4



VR5



W1



WS



X3



X4



X9



X12



X13



X14



X15



XH15



23WP

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## Glossary of seal terms

<b>Bonded Seal:</b>	Design feature of a type of radial lip seal. The heel of the sealing element is attached (Bonded) to the seal case by an adhesive during the molding operation.
<b>Bore, Housing: (Bore, Seal)</b>	A cylindrical surface which mates with the outside surface of the seal outer case.
<b>Case, Inner: (Shell, Inner)</b>	A rigid, cup-shaped component of a seal assembly, which is placed inside the outer seal case. It can function as: reinforcing member, shield, spring retainer, lip-clamping device.
<b>Case, Outer: (Shell, Outer)</b>	The outer, cup-shaped, rigid structure of the lip seal assembly. Acts as a protective cover for the head of the sealing element.
<b>Dynamic Run-out:</b>	Amount by which a shaft does not rotate around a true center. Also known as shaft eccentricity. Measured in Total Indicated Reading (T.I.R.).
<b>Dynamic, Seal:</b>	A seal which has rotating, oscillating, or reciprocating motion acting upon it.
<b>Durometer:</b>	An instrument which measures with an indentor point the hardness of rubber by penetration, without puncturing the surface of the rubber.
<b>Elastomer:</b>	An elastic rubberlike substance, such as natural or synthetic rubber.
<b>F.P.M.:</b>	Feet Per Minute; used as a measure of shaft speed instead of R.P.M. To convert R.P.M. into F.P.M., use formula $.262 \times \text{R.P.M.} \times \text{diameter (inches)} = \text{F.P.M.}$
<b>Fluid Side:</b>	Side of the seal which in normal use faces toward the fluid being sealed.
<b>Garter Spring:</b>	Coiled wire spring with its ends connected. It is used for maintaining a sealing force between the sealing element and a sealing surface.
<b>Machine Lead:</b>	Spiral grooves similar to a screw thread on a shaft surface that can result from improper finishing process; may result in early leakage.
<b>Primary Lip:</b>	The flexible elastomeric component of a lip seal, which contacts the rotating surface.
<b>R<sub>A</sub>:</b>	The average of all peaks and valleys from the mean line within cut-off (.010" or .254mm). Ra does not describe the surface profile (texture) and two shafts with the same Ra value can have very different surface characteristic.
<b>R<sub>PM</sub>:</b>	Average peak to mean height.
<b>Run-In:</b>	The period of initial operation during which the seal-lip wear rate is greatest and the contact surface is developed.
<b>Run-Out:</b>	That run-out to which the seal lip is subjected due to the outside diameter of the shaft not rotating in a true circle. Usually expressed as T.I.R. (Total Indicator Reading).
<b>R<sub>Z (din)</sub>:</b>	Average peak to valley height.
<b>Scoring:</b>	A type of wear in which the working surface of the shaft is grooved.
<b>Seal, Head Section:</b>	The portion of a lip seal which is generally defined by the inside and outside lip surfaces and the spring groove.
<b>Seal, Heel Section:</b>	The portion of the lip seal which is attached to the seal case.
<b>Seal, Outside Diameter:</b>	The external diameter of a lip seal assembly. Usually the outside diameter of the outer seal case.
<b>Seal Width:</b>	The over-all axial dimension of the lip-seal assembly. Normally the total width measurement of the outer seal case.
<b>Sealing Element:</b>	The normally flexible elastomeric component of a lip-seal assembly which rides against the shaft.
<b>Secondary Lip:</b>	A short, non-spring loaded lip which is located at the outside seal face of a radial lip seal. Used to exclude contaminants.
<b>Shaft Diameter:</b>	The outside diameter of the shaft at the location where the seal is mounted.
<b>Shaft Finish:</b>	The relative roughness, usually expressed in micro inches, of the outside diameter of the shaft. The smaller the number, the smoother the finish.
<b>Shaft Seal:</b>	Generally considered to be a lip seal or an oil seal, but a broad definition could include any sealing device mounted on a shaft or sealing a shaft.
<b>Sleeve, Wear:</b>	A replaceable metal ring. Generally used in assemblies to eliminate expensive shaft replacement caused by grooving that may occur at the seal-shaft interface.
<b>S.T.B.M.:</b>	Shaft-to-Bore-Misalignment, the amount by which the shaft is off center, with respect to the bore's center.

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# Typical Application Profile Form

• Critical information		Date _____			
• SKF Distributor Name/Account #		• Dimension: <input type="checkbox"/> Inch <input type="checkbox"/> MM			
• Location/Corp #				d1 Shaft dia. B Bore dia. BD Bore depth SC Shaft chamfer BC Bore chamfer I Shaft chamfer length L Bore chamfer length R Corner chamfer (if W > BD) W Seal width X Unknown	
Contact					
End user company					
End user Address/Contact/Phone					
Application & type of equipment					
		Lip material type _____		Seal type _____	
Prototype date	Production date	Installation direction into bore		Shaft installation direction	
Qty: _____	Qty: _____	<input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>	
Shaft	Material _____	Hardness _____	Roughness _____	Finish method _____	
Bore	Material _____	Hardness _____	Roughness _____	Finish method _____	
• Motion	Bore rotating	• RPM Normal _____ Max _____		Direction (View from dust lip side) C.W.    C.C.W.    Bi-rotational <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
	Shaft rotating	Dynamic Runout (DRO)	STBM	End play	Frequency of rotation
	Reciprocating	Stroke length	CYC/Min		Continuous    Intermittent    CYC/HR
	Oscillating	Degrees of arc	CYC/Min		Additional requirements
Medium to be sealed	In	Type _____	Level _____		
	Out	Type _____	<input type="checkbox"/> Flooded <input type="checkbox"/> Mist    Dry <input type="checkbox"/>		
• Temp	<input type="checkbox"/> F° <input type="checkbox"/> C°	Normal _____	Minimum _____	Max _____	
• Press	<input type="checkbox"/> PSI <input type="checkbox"/> kPa <input type="checkbox"/> Other	Normal _____	Max _____	<input type="checkbox"/> Contin <input type="checkbox"/> Pulsat <input type="checkbox"/> Spike	Validation / In process test Spec# _____ <input type="checkbox"/> Yes <input type="checkbox"/> No Quality requirements Customer spec number _____

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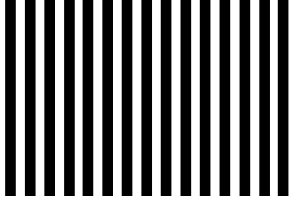
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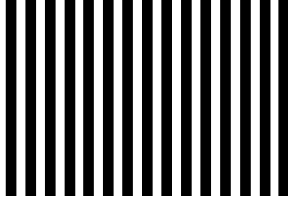
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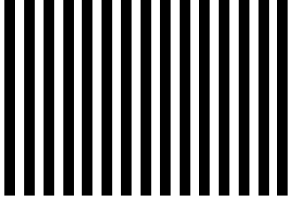
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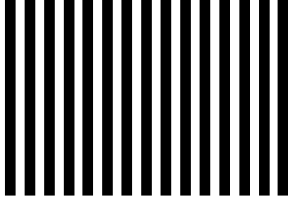
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