



Document Number	Issue Date	Rev. Date
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## CL Series Impeller Shaft Assembly Service Parts List

Index:

Pump Model	Component	See Pages			
		Mechanical Seal	Packing	Heater Jacket Option	Previous Seal Arrangements
CLD	Shaft and Seal	6, 7	-	12, 13	-
	Bearing Housing	8, 9			
	Cross Section View	10, 11			
CLN CLR CLS CLV	Shaft and Seal	2, 3	4, 5	12, 13	12, 13

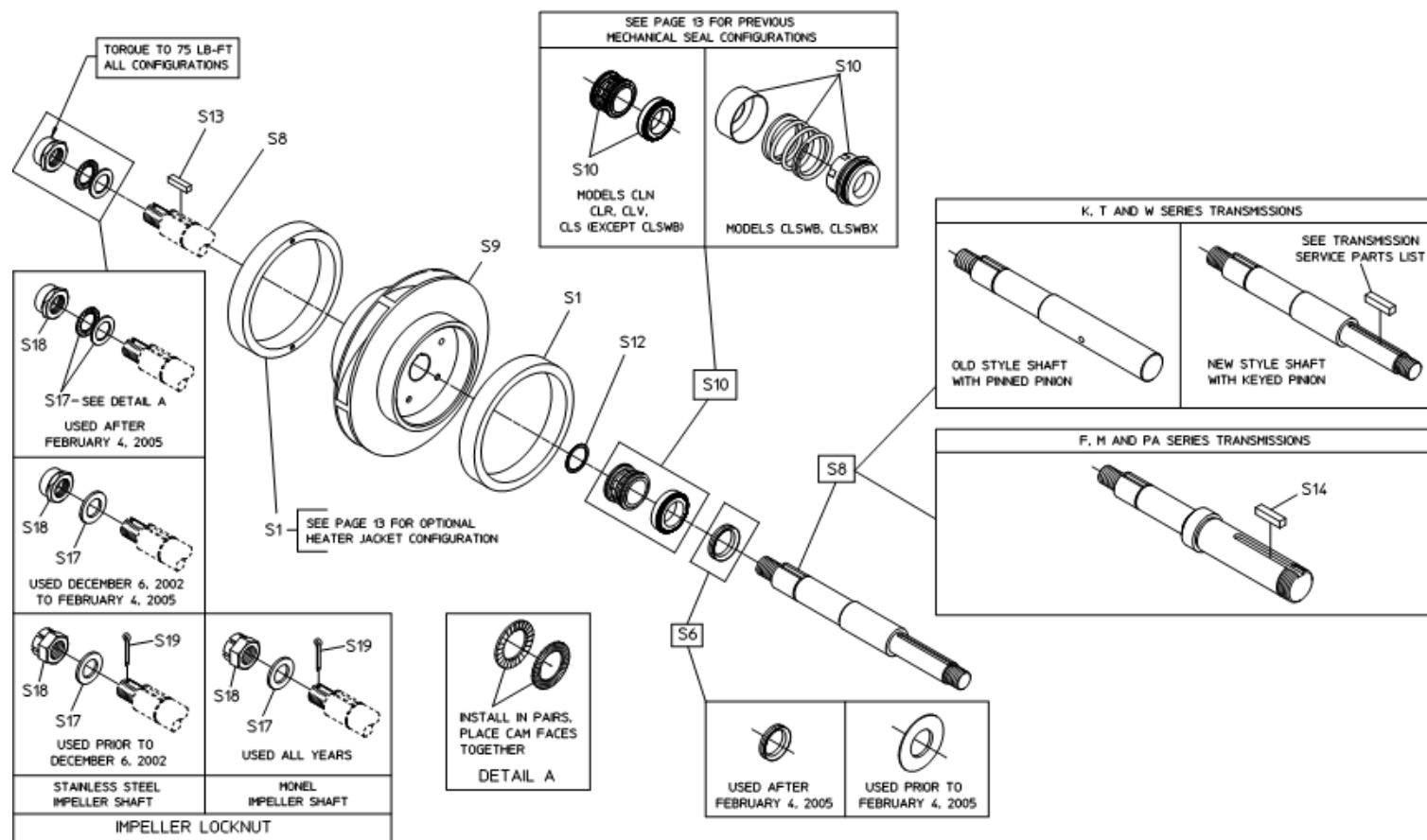
Waterous Company 125 Hardman Avenue South, South St. Paul, Minnesota 55075 USA (651) 450-5000

NOTE: When ordering parts, provide Pump, Transmission or PTO Serial Number.

## Models CLN, CLR, CLS, CLV with Mechanical Seal

REF. NO.	DESCRIPTION
S1	Standard Wear Ring, .025, .050, .075 in. U/S
S6	Flinger Ring
S8	Impeller Shaft
S9	Impeller
S10	Mechanical Seal
S12	Retaining Ring
S13	Square Key, 1/4 x 1 in.

REF. NO.	DESCRIPTION	
S14	Square Key, 5/16 x 1-9/16 in.	
S17	Monel Impeller Shaft - Flat Washer	
	Stainless Steel Impeller Shaft	Flat Washer (Used Prior to February 4, 2005)
		Nord-Lock® Washer (Used After February 4, 2005)
S18	Castle Hex Nut 3/4-16 (Used Prior to December 6, 2002)	
	Nylok Hex Nut, 3/4-16 (Used After December 6, 2002)	
S19	Cotter Pin, 1/8 x 1 in.	

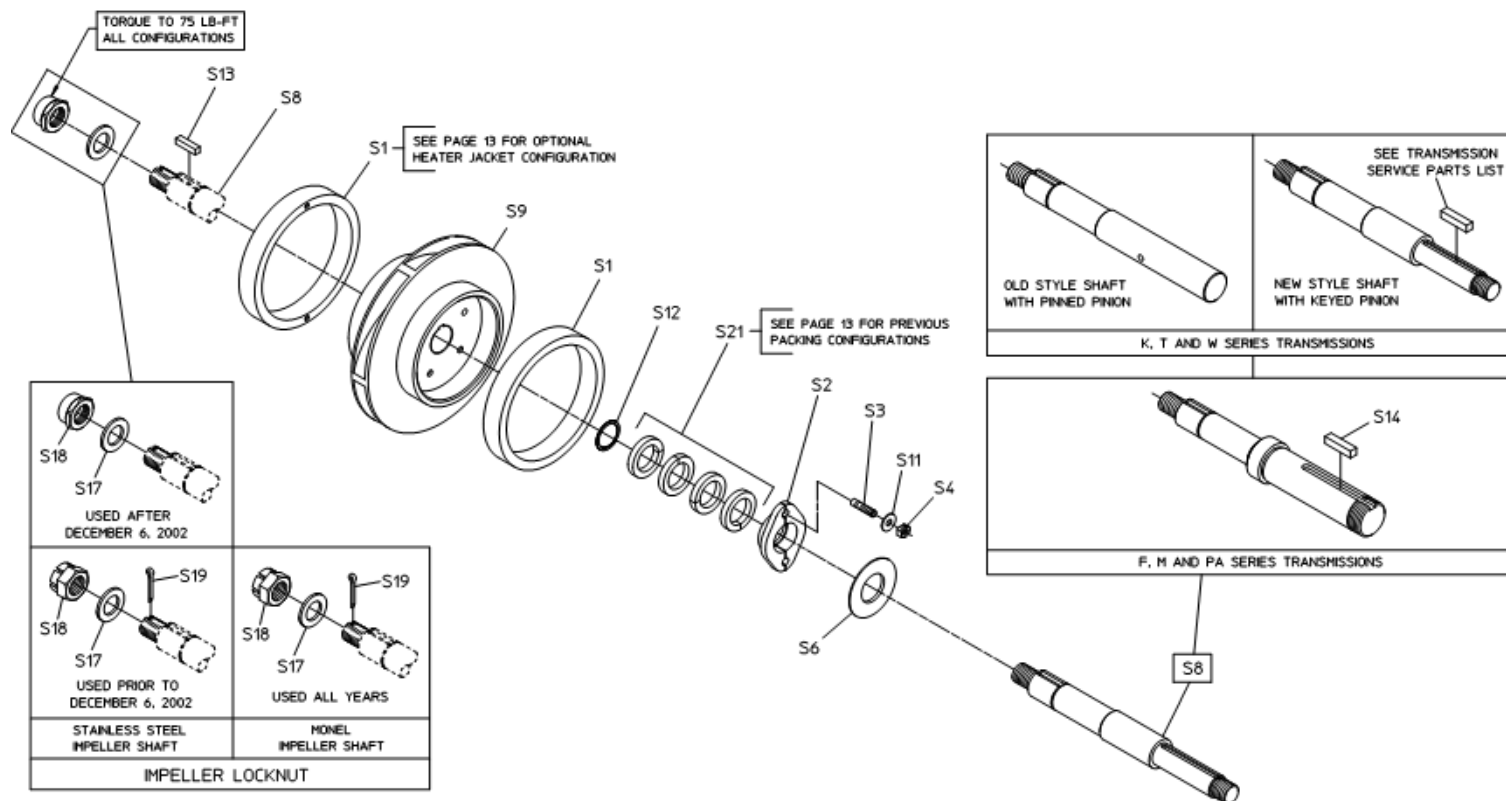


**MODELS CLN, CLR, CLS, CLV WITH MECHANICAL SEAL**

## Models CLN, CLR, CLS, CLV with Packing

REF. NO.	DESCRIPTION
S1	Standard Wear Ring, .025, .050, .075 in. U/S
S2	Half Gland
S3	Stud, 1/4-20 x 1-1/8 in.
S4	Unbalanced Packing Nut, 1/4-20
S6	Flinger Ring
S8	Impeller Shaft
S9	Impeller
S11	Brass Washer, 1/4 in.
S12	Retaining Ring
S13	Square Key, 1/4 x 1 in.

REF. NO.	DESCRIPTION
S14	Square Key, 5/16 x 1-9/16 in.
S17	Monel Impeller Shaft - Flat Washer
	Stainless Steel Impeller Shaft - Flat Washer
S18	Castle Hex Nut 3/4-16 (Used Prior to December 6, 2002)
	Nylok Hex Nut, 3/4-16 (Used After December 6, 2002)
S19	Cotter Pin, 1/8 x 1 in.
S21	BFG Packing Ring

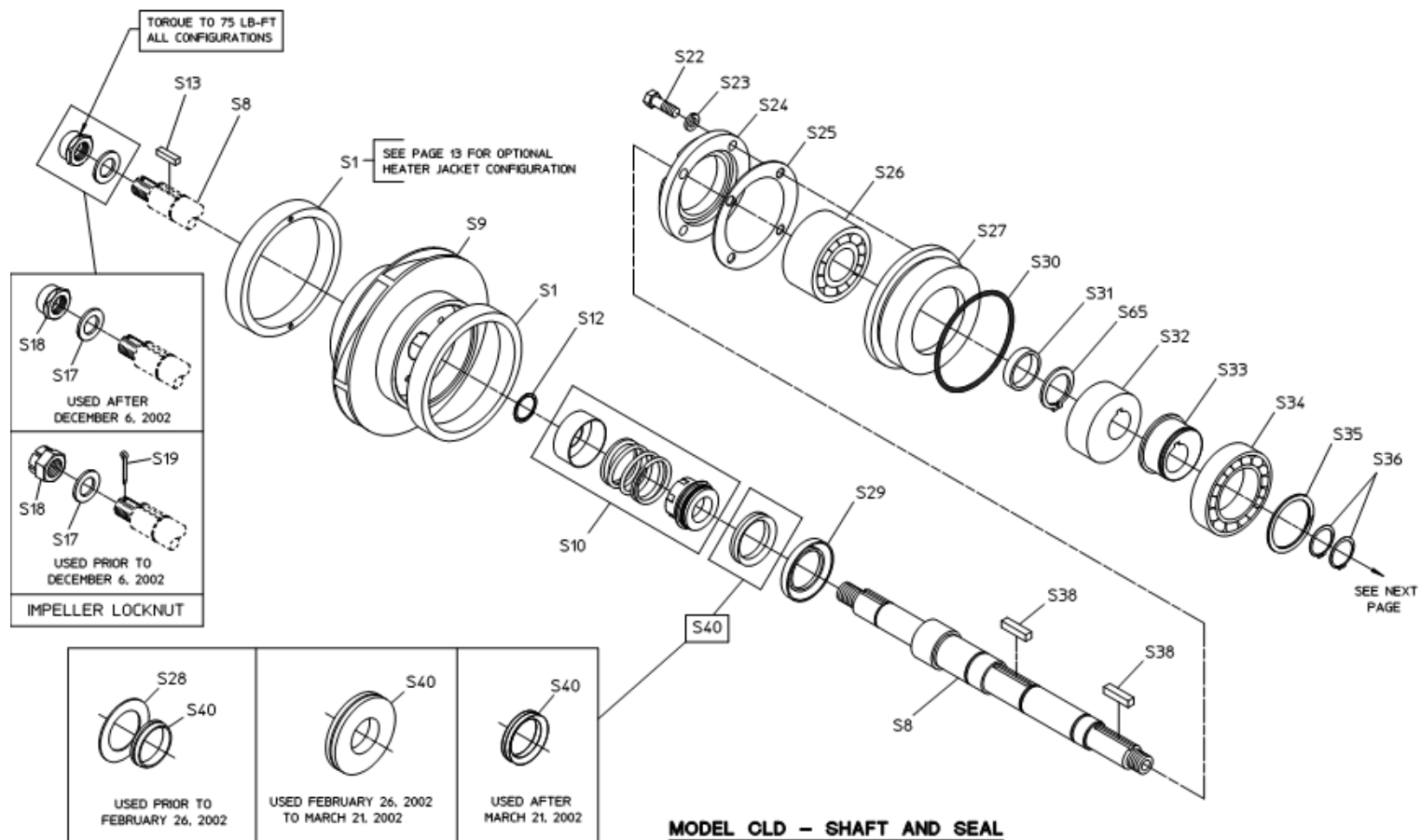


**MODELS CLN, CLR, CLS, CLV WITH PACKING**

## Model CLD - Shaft and Seal

REF. NO.	DESCRIPTION
S1	Standard Wear Ring, .025, .050, .075 in. U/S
S8	Impeller Shaft
S9	Impeller
S10	Mechanical Seal
S12	Retaining Ring
S13	Square Key, 1/4 x 1 in.
S17	Flat Washer
S18	Castle Hex Nut 3/4-16 (Used Prior to December 6, 2002)
	Nylok Hex Nut, 3/4-16 (Used After December 6, 2002)
S19	Cotter Pin, 1/8 x 1 in.
S22	Hex Head Screw, 3/8 x 1 in.
S23	Lock Washer, 3/8 in.

REF. NO.	DESCRIPTION
S24	Oil Seal Housing
S25	Gasket
S26	Double Row Ball Bearing
S27	Bearing Adapter
S28	Flinger Disk
S29	Oil Seal
S30	O-ring, 4-1/4 x 4-1/2 in.
S31	Spacer
S32	Counterweight Primer
S33	Eccentric Primer
S34	Ball Bearing
S35	Spiral Retaining Ring
S36	Retaining Ring
S38	Square Key, 1/4 x 1-1/2 in.
S40	Flinger Grommet, Deflector Grommet or V-ring
S65	Retaining Ring



## Model CLD - Bearing Housing

REF. NO.	DESCRIPTION
S8	Impeller Shaft
S18	Castle Hex Nut 3/4-16 (Used Prior to December 6, 2002)
	Nylok Hex Nut, 3/4-16 (Used After December 6, 2002)
S19	Cotter pin, 1/8 x 1 in.
S38	Square Key, 1/4 x 1-1/2 in.
S41	Lock Washer, 7/16 in.
S42	Dip Stick
S44	Union Adapter, 45 Degrees
S45	Ball Bearing
S46	Oil Seal
S47	Companion Flange
S49 <sup>1</sup>	Right Hand Primer Subassembly
S50 <sup>2</sup>	Left Hand Primer Subassembly
S51	Adapter Housing

### <sup>1</sup>Following are included in S49 (Right hand)

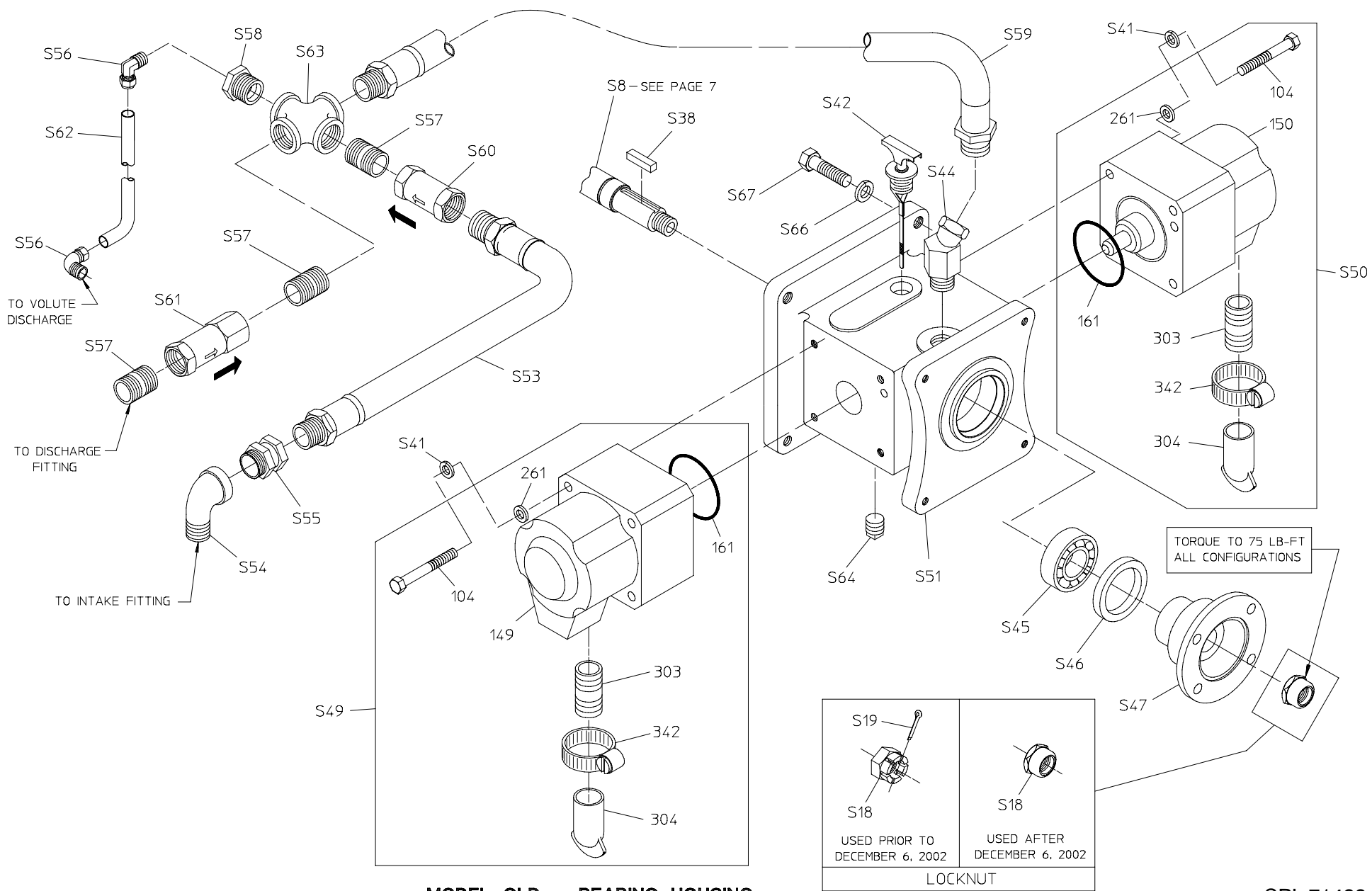
104	Hex Head Screw, 10 mm x 80 mm
149	Right Piston Module
161	O-ring, 2-7/16 x 2-5/8 in.
261	Flat Washer, 7/16 in.
303	Pipe Nipple, 3/4 x 2 in.
304	Primer Muffler
342	Hose Clamp, 3/4 x 1-1/2 in.

REF. NO.	DESCRIPTION
S53	Hose Assembly, 3/4 NPT x 21 in.
S54	Pipe Elbow, 90 Degrees
S55	Coupling, 3/4 NPT
S56	Male Elbow, 1/4 in. Tube
S57	Pipe Nipple, 3/4 x 1-3/8 in.
S58	Red Bushing, 3/4 x 1/4 in.
S59	Hose Assembly, 3/4 in. NPT x 16 in.
S60	Check Valve, 3/4 in., 3-1/4 in. Long
S61	Check Valve, 3/4 in., 3-7/16 in. Long
S62	Discharge Gage Line, 10 in.
S63	STD Cross, 3/4 x 3/4 in.
S64	Pipe Plug, 1/2 in. NPT
S66	Washer, 1/2 in.
S67	Hex Head Screw, 1/2-13 x 1-3/4 in.

### <sup>2</sup>Following are included in S50 (Left hand)

104	Hex Head Screw, 10 mm x 80 mm
150	Left Piston Module
161	O-ring, 2-7/16 x 2-5/8 in.
261	Flat Washer, 7/16 in.
303	Pipe Nipple, 3/4 x 2 in.
304	Primer Muffler
342	Hose Clamp, 3/4 x 1-1/2 in.



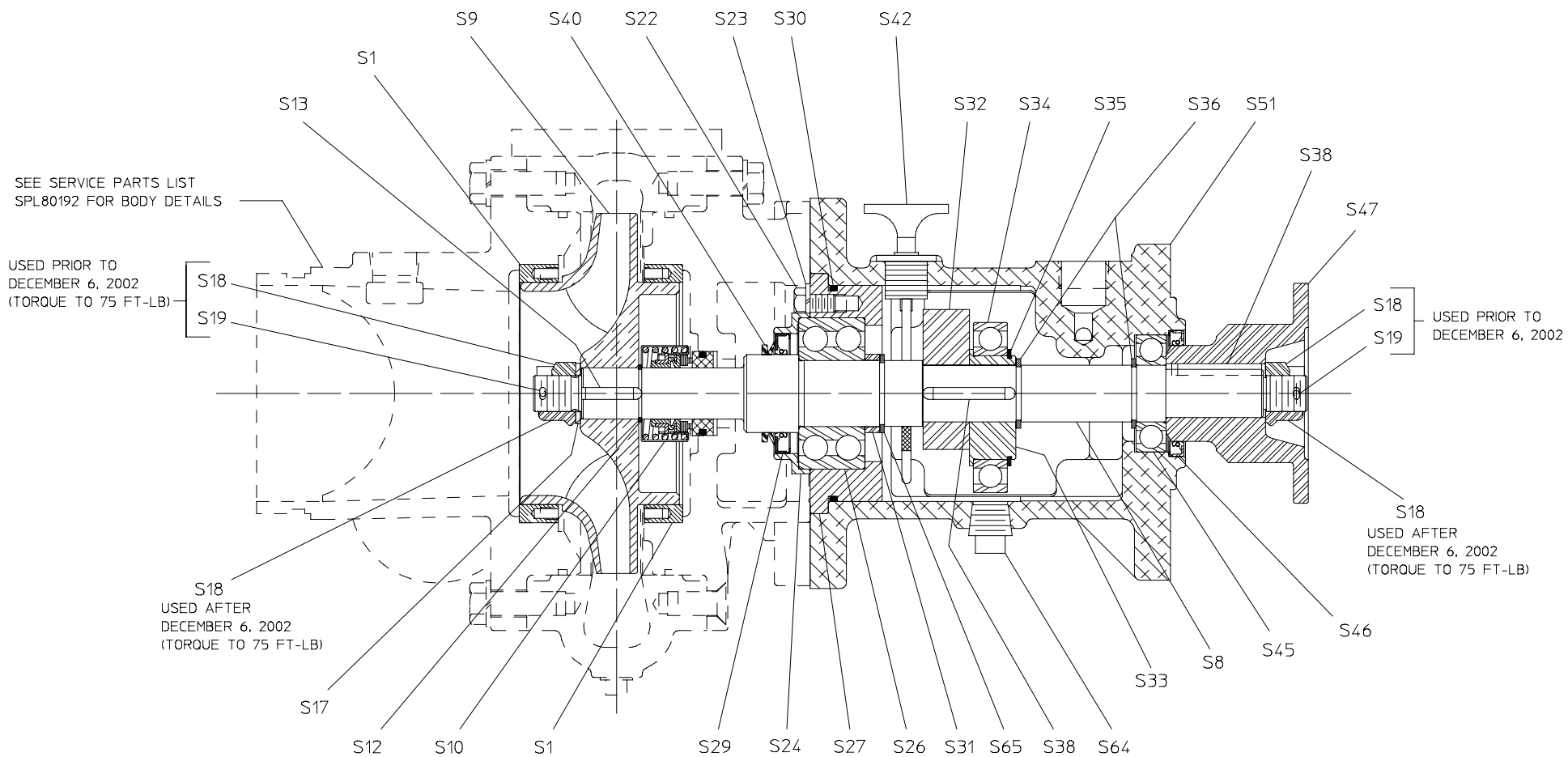


**MODEL CLD - BEARING HOUSING**

## Model CLD - Cross Section View

REF. NO.	DESCRIPTION
S1	Standard Wear Ring, .025, .050, .075 in. U/S
S8	Impeller Shaft
S9	Impeller
S10	Mechanical Seal
S12	Retaining Ring
S13	Square Key, 1/4 x 1 in.
S17	Flat Washer
S18	Castle Hex Nut 3/4-16 (Used Prior to December 6, 2002)
	Nylok Hex Nut, 3/4-16 (Used After December 6, 2002)
S19	Cotter Pin, 1/8 x 1 in.
S22	Hex Head Screw, 3/8 x 1 in.
S23	Lock Washer, 3/8 in.
S24	Oil Seal Housing
S26	Double Row Ball Bearing
S27	Bearing Adapter
S29	Oil Seal

REF. NO.	DESCRIPTION
S30	O-ring, 4-1/4 x 4-1/2 in.
S31	Spacer
S32	Counterweight Primer
S33	Eccentric Primer
S34	Ball Bearing
S35	Spiral Retaining Ring
S36	Retaining Ring
S38	Square Key, 1/4 x 1-1/2 in.
S40	Flinger V-ring
S42	Dip Stick
S45	Ball Bearing
S46	Oil Seal
S47	Companion Flange
S51	Adapter Housing
S64	Pipe Plug, 1/2 in. NPT
S65	Retaining Ring

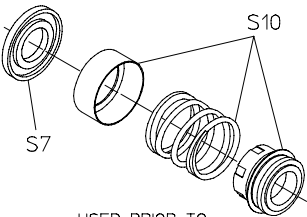
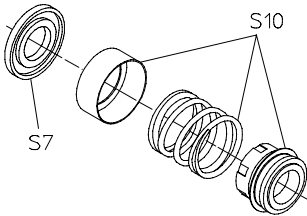
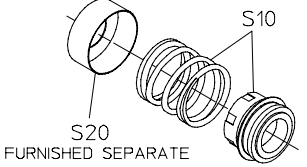
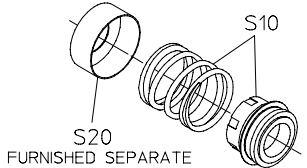
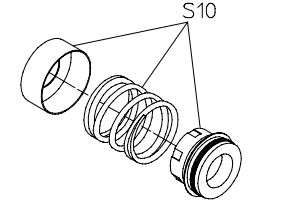
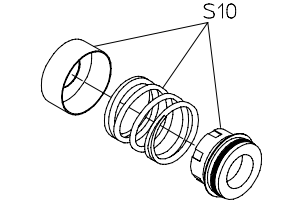
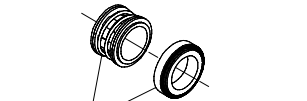


**MODEL CLD - CROSS SECTION VIEW**

## Heater Jacket Option - Previous Seal Arrangements

REF. NO.	DESCRIPTION
S1	Standard Wear Ring, .025, .050, .075 in. U/S
S2	Half Gland
S3	Stud, 1/4-20 x 1-1/8 in.
S4	Unbalanced Packing Nut, 1/4-20
S5	Lead Foil Packing, Grafoil or Teflon Graphite
S7	Spring Holder (Used with Mechanical Seal Furnished Prior to July 23, 1979)
S9	Impeller

REF. NO.	DESCRIPTION
S10	Mechanical Seal
S11	Brass Washer, 1/4 in.
S15	Wear Ring (Std, .025, .050, .075 in. U/S; for Heater Jacket)
S16	O-ring, 5-7/8 x 6-1/8 in.
S20	Spring Sleeve (Furnished Separate Prior to March 2, 1988, Included with S10 Seal After That Date)
S21	Soft or BFG Packing Ring

 <p>USED PRIOR TO JULY 23, 1979</p>	 <p>USED PRIOR TO JULY 23, 1979</p>
 <p>FURNISHED SEPARATE PRIOR TO MARCH 22, 1988, INCLUDED WITH SEAL S10 AFTER THAT DATE</p> <p>USED JULY 23, 1979 TO JANUARY 1, 1998</p>	 <p>FURNISHED SEPARATE PRIOR TO MARCH 22, 1988, INCLUDED WITH SEAL S10 AFTER THAT DATE</p> <p>USED JULY 23, 1979 TO FEBRUARY 5, 2005</p>
 <p>USED JANUARY 1, 1998 TO FEBRUARY 4, 2005</p>	 <p>CURRENT (AFTER FEBRUARY 5, 2005)</p>
 <p>CURRENT (AFTER FEBRUARY 5, 2005)</p>	<p>CLN, CLR, CLV MODELS</p>
<p>CLN, CLR, CLV MODELS</p>	<p>CLS MODEL</p>
<p><b>PREVIOUS MECHANICAL SEAL CONFIGURATIONS</b></p>	

