

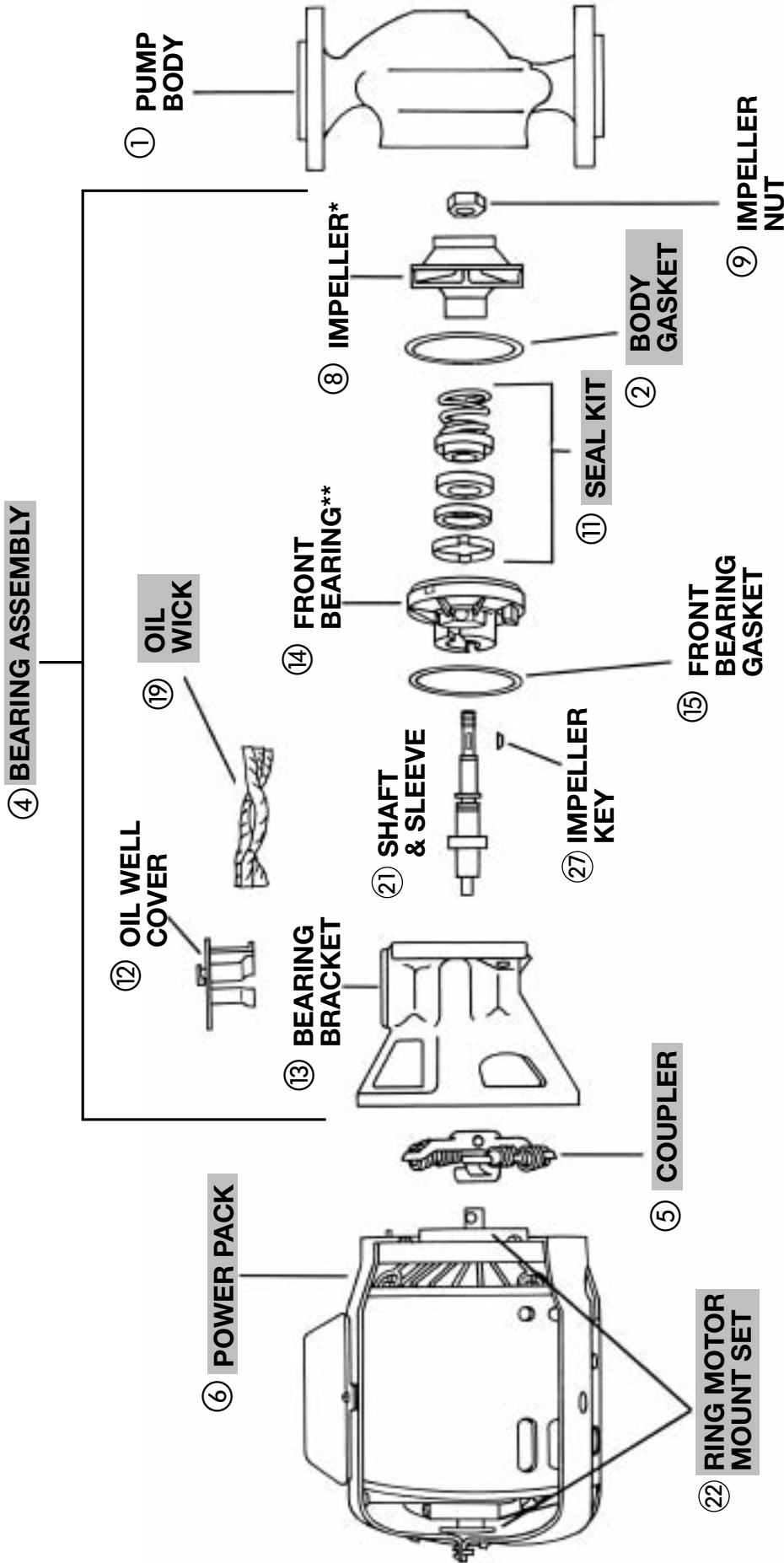


# Service Parts Catalog

- CIRCULATORS & CENTRIFUGAL PUMPS
- HYDRONIC SPECIALTIES
- ENGINEERED SPECIALTIES
- CENTRIFUGAL PUMP ACCESSORIES

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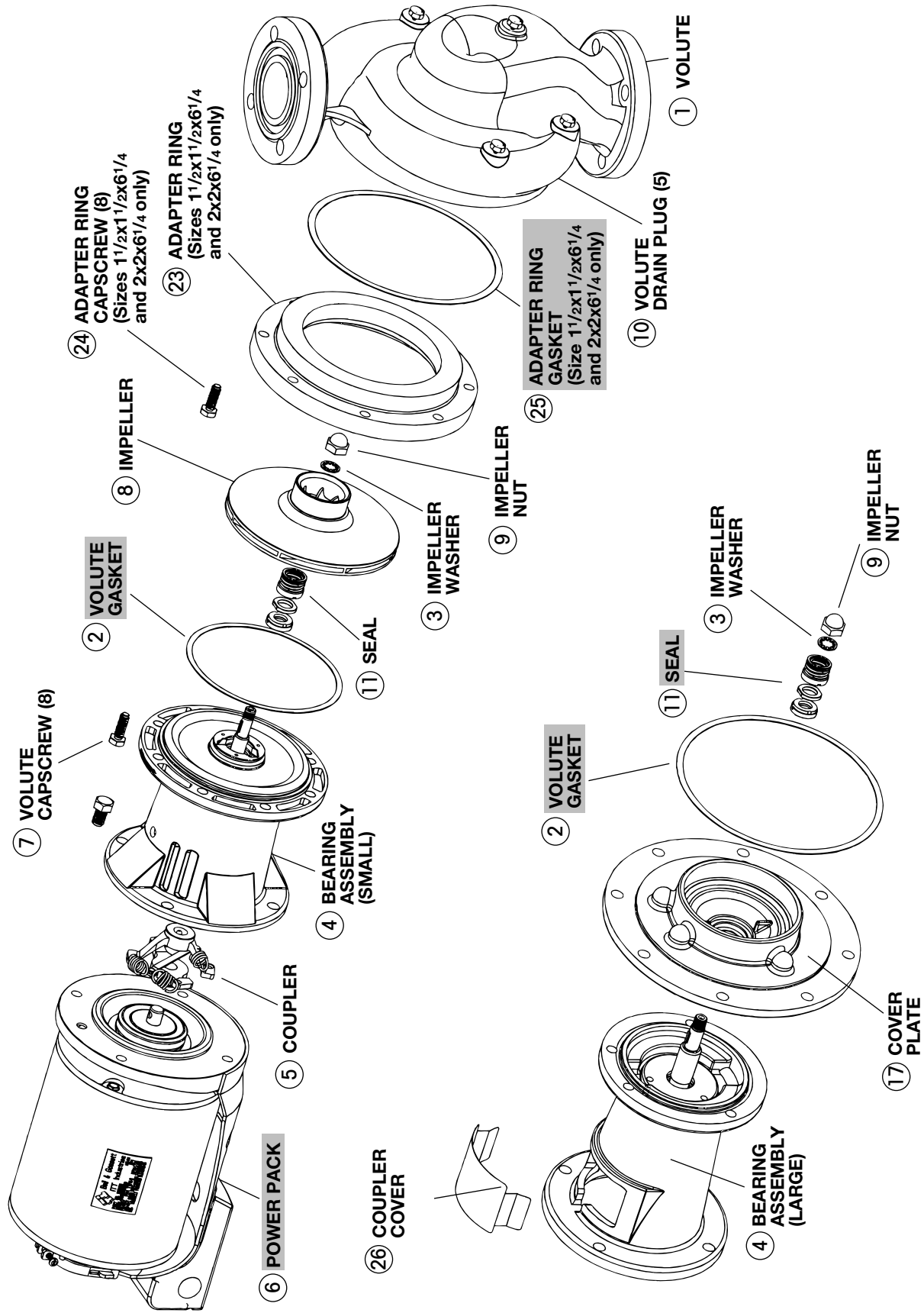
\*Impeller not always included in Bearing Assembly.

\*\*Shown rotated 90°.

■ – Factory recommended spare parts.

# Circulator

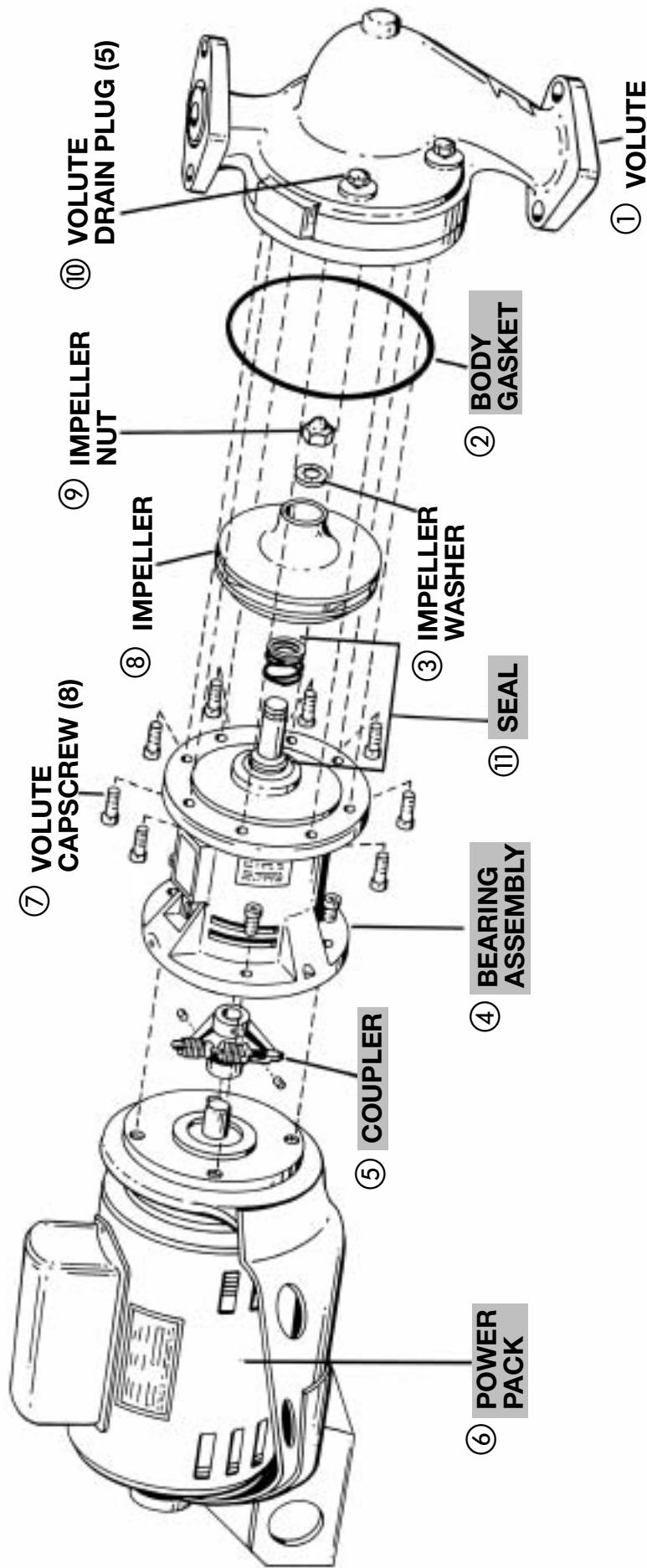
Exploded View  
 For Series 100, Series HV, 2",  
 PR, 2 1/2", LD-3 & HD-3 Models



# Series 60 Maintenance Free Pump

Exploded View

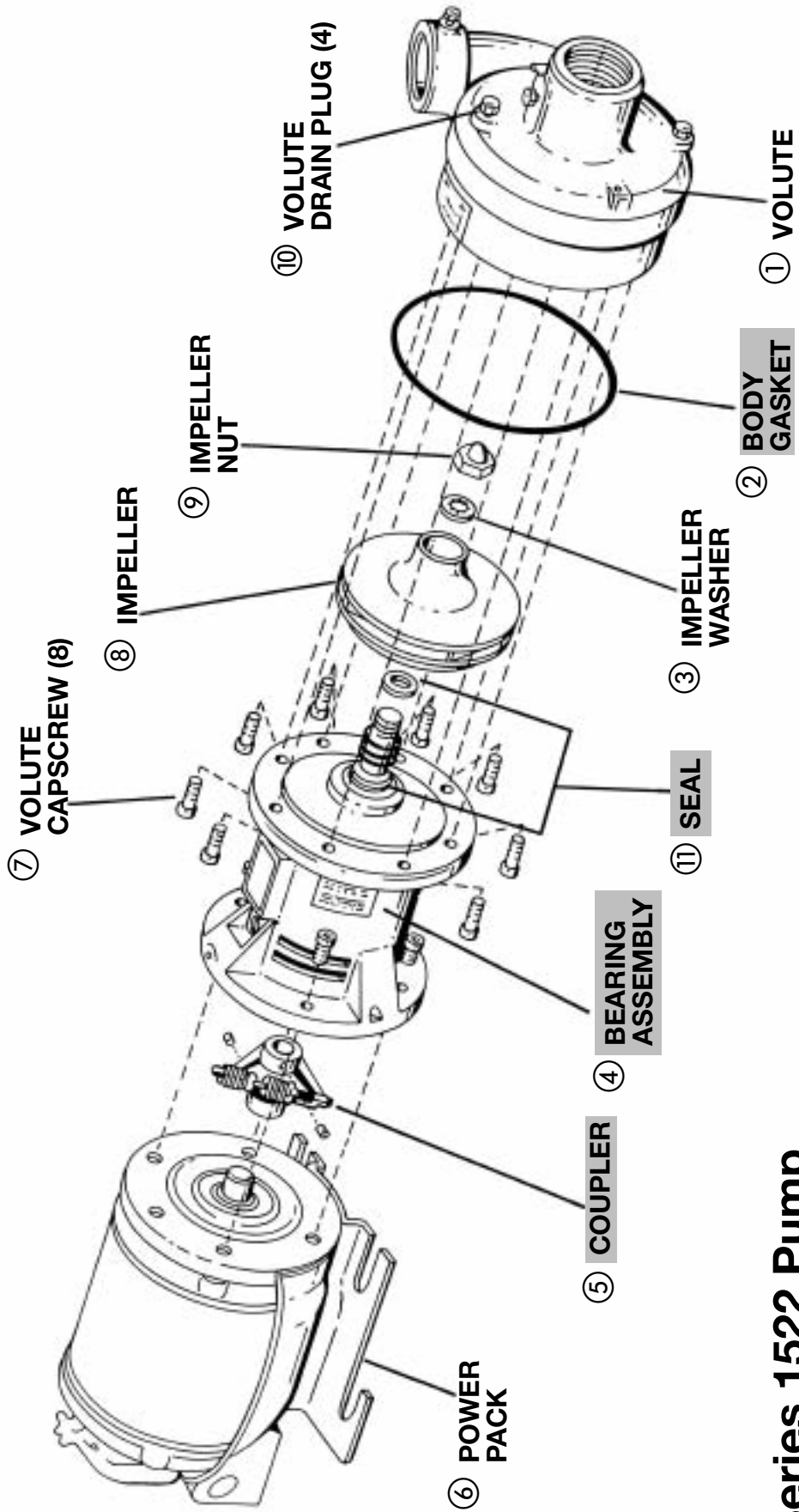
■ - Factory recommended spare parts.



## Series PD & Series 60 – Sleeve Bearing Pumps

Exploded View

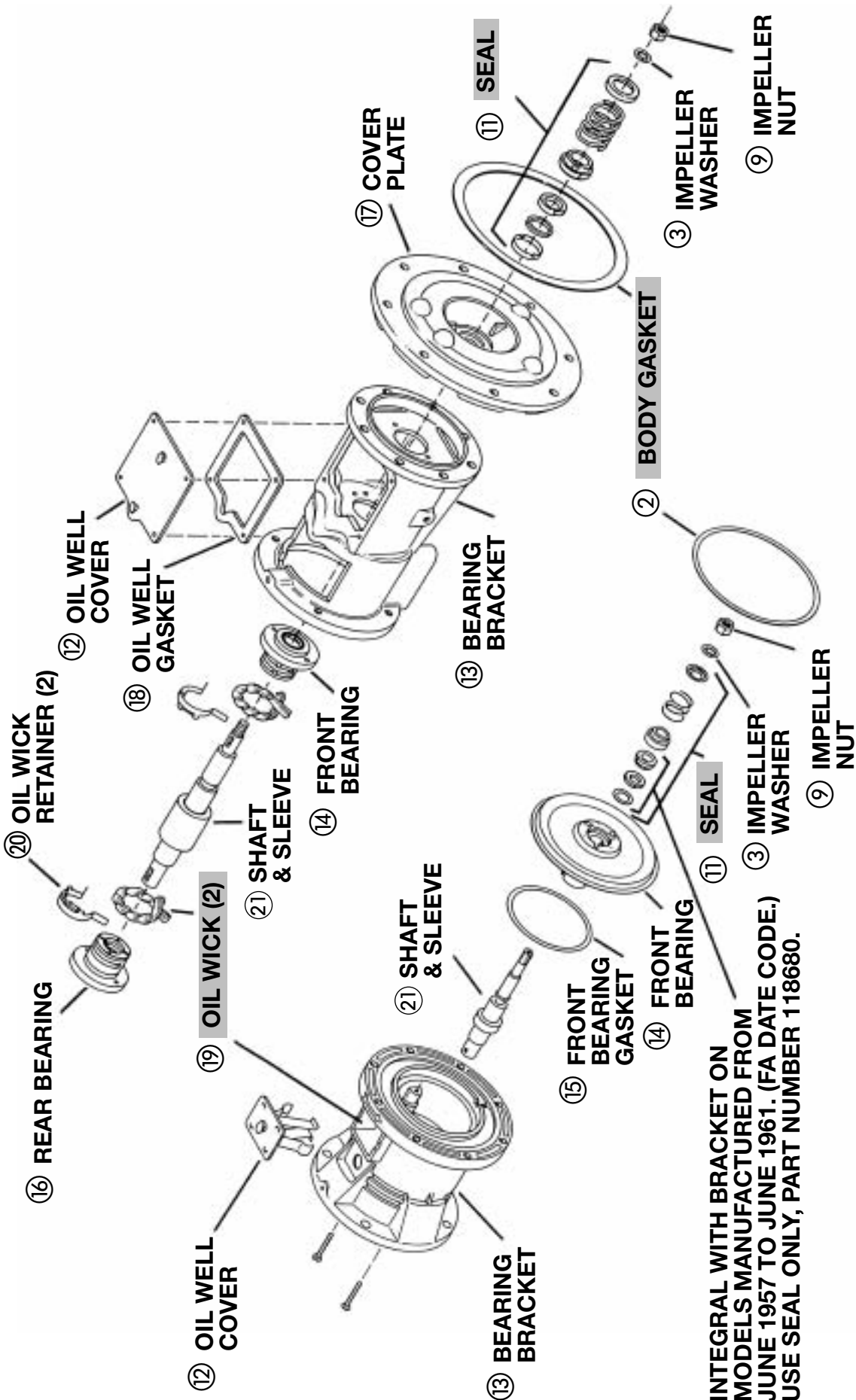
■ – Factory recommended spare parts.



# Series 1522 Pump

Exploded View

■ - Factory recommended spare parts.



INTEGRAL WITH BRACKET ON MODELS MANUFACTURED FROM JUNE 1957 TO JUNE 1961. (FA DATE CODE.) USE SEAL ONLY, PART NUMBER 118680.

PD 35 & 37, SERIES 60 "AA" & SERIES 1522

PD 38, 39 & 40 SERIES 60 "A" & SERIES 60 2 1/2 F

## Series PD, Series 60 – Sleeve Bearing & Series 1522 Bearing Assemblies

Exploded View

■ - Factory recommended spare parts.

NOTE: Use liquid sealant in place of bearing gaskets on PD38, PD39 & PD40 pumps.

# How to Select Parts for Circulators & Pumps on Pages 9-15

The pump nameplate identifies the pump by the series and the six digit part number as shown in the example below.



The nameplate above identifies the pump as a Series HV, part number 102210. The date code shows the date of manufacture as October, 1990 as explained in the chart below. The nameplate identifies the booster pump for future reference. **DO NOT REMOVE THE NAME-PLATE.** It is important when ordering replacement parts to furnish complete nameplate data.

To ensure the correct parts will be selected, follow the procedure below:

1. Determine from the nameplate the pump series, pump construction (if applicable) and the six digit part number.
2. Determine the date the unit was manufactured. See chart below.
3. Refer to the index for the page number of the parts breakdown for the specific booster pump series.
4. Find the proper column in the parts breakdown for the pump involved. Be sure to use the date codes on top of each column where applicable.
5. Select part numbers using the applicable drawings on pages 3, 5 & 7 for identification.
6. When ordering a replacement motor or motor components, always furnish complete motor nameplate data.

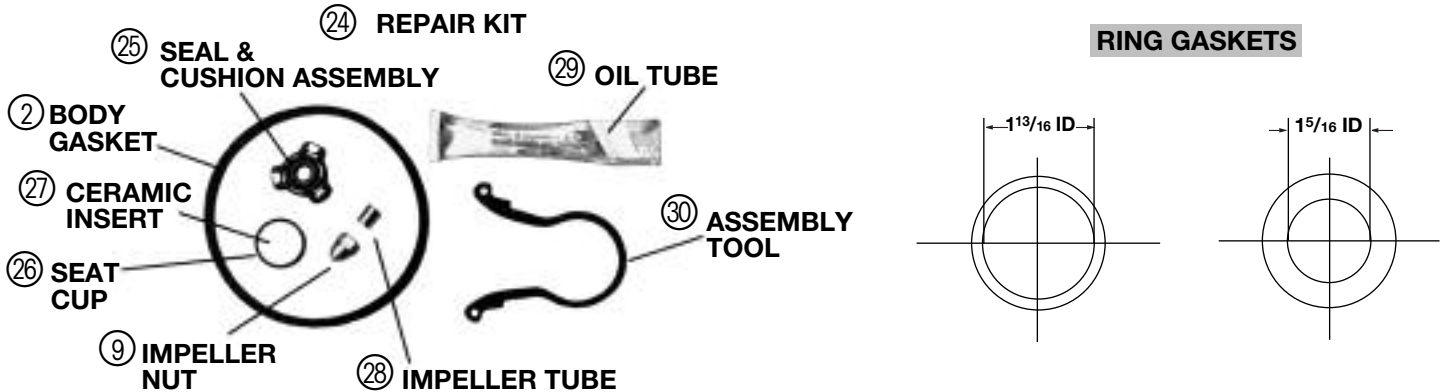
DATE OF MANUFACTURE CODE											
The date code is made up of two or three characters depending upon the year.											
1946-1960 The number denotes the month. The last character is a letter and denotes the year.			1961-82 Two characters. First letter is month. Second letter is year.			1983- Three characters. The letter denotes the month. The numbers denote the year.					
1	January	G	1946	A	January	A	1961	A	January	78	1987
2	February	H	1947	B	February	B	1962	B	February	88	1988
3	March	J	1948	C	March	C	1963	C	March	98	1989
4	April	K	1949	D	April	D	1964	D	April	09	1990
5	May	L	1950	E	May	E	1965	E	May	19	1991
6	June	M	1951	F	June	F	1966	F	June	29	1992
7	July	N	1952	G	July	G	1967	G	July	39	1993
8	August	P	1953	H	August	H	1968	H	August	49	1994
9	September	R	1954	J	September	J	1969	J	September	59	1995
10	October	T	1955	K	October	K	1970	K	October	69	1996
11	November	U	1956	L	November	L	1971	L	November	79	1997
12	December	V	1957	M	December	M	1972	M	December	89	1998
		W	1958			N	1973			99	1999
		X	1959			P	1974			00	2000
		Y	1960			R	1975			10	2001
						T	1976			20	2002
						U	1977			30	2003
						V	1978			40	2004
						W	1979			50	2005
						X	1980			60	2006
						Y	1981			70	2007
						Z	1982			80	2008
										90	2009



# PARTS FOR LITTLE RED & SERIES PL CIRCULATORS

## LITTLE RED

ITEM NO.	DESCRIPTION	MODEL LR-20BF	MODEL LR-20B	MODEL LR-12 & LR-12BF	MODEL LR-12B	MODEL LR-15B
	Body	N/A	N/A	N/A	N/A	N/A
	Impeller	P15627	P15627	P15629	P15629	P15627
	Capacitor 115V	N/A	N/A	M15784	M15784	M15784
	Capacitor 110V	N/A	N/A	N/A	N/A	N/A
	Capacitor 220V	N/A	N/A	M15784	M15784	M15788
	Flange Gasket Set-Ring Type 1 <sup>13</sup> / <sub>16</sub> " ID (2 Req'd)	118368	N/A	118368	N/A	N/A
	Fastener Pack For Above*	P64910	N/A	P64910	N/A	N/A
	Flange Gasket – Ring Type 1 <sup>5</sup> / <sub>16</sub> " ID (2 Req'd)	P15692	P15692	P15692	P15692	P15692
	Fastener Pack for Above*	P15696	P15696	P15696	P15696	P15696
	Flange (3/4")	P00739	P00789	P00739	P00789	P00789
	Flange (1")	P00792	P00836	P00792	P00836	P00836
	Flange (1 <sup>1</sup> / <sub>4</sub> ")	P03250	P00837	P03250	P00837	P00837
	Flange (1 <sup>1</sup> / <sub>2</sub> ")	P03430	P2000085	P03430	P2000085	P2000085
24	Seal Repair Kit Consisting of:	N/A	N/A	N/A	N/A	N/A
25	Seal & Cushion Assembly	N/A	N/A	N/A	N/A	N/A
26	Seat Cup	P15683	P15683	P15683	P15683	P15683
27	Ceramic Insert	P70712	P70712	P70712	P70712	P70712
9	Impeller Nut	P15697	P15697	P15697	P15697	P15697
28	Impeller Tube	P15698	P15698	P15698	P15698	P15698
29	Oil Tube	P15775	P15775	P15775	P15775	P15775
2	Body Gasket	P15691	P15691	P15691	P15691	P15691
30	Assembly Tool	P15210	P15210	P15210	P15210	P15210



## SERIES PL

DESCRIPTION	CAST IRON MODELS (PART NUMBER)								BRONZE MODELS (PART NUMBER)										
	PL-30 (1BL012)	PL-36 (1BL001)	PL-45 (1BL002)	PL-50 (1BL016)	PL-55 (1BL032)	PL-75 (1BL034)	PL-130/2 (1BL063)	PL-130/3 (1BL070)	PL-30B (1BL013)	PL-36B (1BL003)	PL-45B (1BL004)	PL-50B (1BL017)	PL-55B (1BL068)	PL-75B (1BL035)	PL-130B/2 (1BL065)	PL-130B/3 (1BL072)			
Seal Kit	189144LF			189577LF		189144LF		189174LF		189144LF			189577LF		189144LF		189174LF		
Body Gasket	P15691			P83025		P13691		P15691			P83025		P15691						
Impeller	189170LF		189171LF	189169LF		189172LF		189169LF		189173LF		189170LF		189171LF	189169LF		189172LF	189169LF	189173LF
Fastener Package*	P64910		P64940		P83031		P65031		P09540		P64910		P64940		P83031		P65031		P09540
Flange Gasket Set	118368		118373		118368		118378		118129		118368		118373		118368		118378		118129
Flanges	CAST IRON								BRONZE										
Flange (3/4")	P00739		NONE		P00739		NONE		P00789		NONE		P00789		NONE				
Flange (1")	P00792		P00802		P00792		NONE		P00836		P00804		P00836		NONE				
Flange (1 <sup>1</sup> / <sub>4</sub> ")	P03250		P03300		P03250		NONE		P00837		P2000088		P00837		NONE				
Flange (1 <sup>1</sup> / <sub>2</sub> ")	P03430		P03410		P03430		NONE		P2000085		P2000090		P2000085		NONE				
Flange (2")	NONE				F14200		NONE		NONE				P2000078		NONE				
Flange (2 <sup>1</sup> / <sub>2</sub> ")	NONE				NONE		P03560		NONE				NONE		P2000093				
Flange (3")	NONE				NONE		F74000		NONE				NONE		P2000081				

\*Includes flange gaskets. N/A - Not Available ■ - Factory recommended spare part.

# PARTS FOR SERIES 100

## MODELS MANUFACTURED AFTER NOVEMBER, 1956 ("11U" DATE CODE)

ITEM NO.	DESCRIPTION	100 NFI 106189	100 BI 106190	100 AB 106192	100 BNFI 106197
1	Body	118339	118339	118413LF	118413LF
	Body Capscrew (4 required)	P40020	P40020	P40020	P40020
4	Bearing Assembly	118844LF <sup>1</sup>	118844LF <sup>1</sup>	189034LF	189034LF
4 & 8	Bearing Assembly with NFI Impeller	189134LF <sup>2</sup>	NONE	NONE	189161LF
	Bracket Capscrew (4 required)	P04770	P04770	P04770	P04770
8	Impeller	189132LF	118431LF	118431LF	189132LF
5	Coupler Assembly	118705+	118705+	118705+	118705+
	Flange (3/4")	P00739	P00739	P00789	P00789
	Flange (1")	P00792	P00792	P00836	P00836
	Flange (1 1/4")	P03250	P03250	P00837	P00837
	Flange (1 1/2")	P03430	P03430	P2000085	P2000085
	Flange Gasket Set	118368	118368	118368	118368
	Fastener Package w/ Flange Gaskets	P64910	P64910	P64910	P64910
6	Power Pack	111034*	111034*	111034*	111034*
22	Ring Motor Mount Set	118223	118223	118223	118223
5 & 22	Coupler & Ring Mount Set	118706	118706	118706	118706

+Cast Iron type. For Stamped Steel, use 189110.

\*115V only. For 230V, use 111035.

### NOTE:

#75 Circulator is a Series 100 w/ 3/4" flanges.

#100 Circulator is a Series 100 w/ 1" flanges.

#125 Circulator is a Series 100 w/ 1 1/4" flanges.

#150 Circulator is a Series 100 w/ 1 1/2" flanges.

## BEARING ASSEMBLIES

ITEM NO.	DESCRIPTION	118844LF <sup>1</sup>	189134LF <sup>2</sup>	189034LF	189161LF
13	Bearing Bracket	P77119	P77119	P77119	P77119
2	Body Gasket	P04080	P04080	P04080	P04080
14	Front Bearing	189071	189071	189071	189071
15	Front Bearing Gasket	P80815	P80815	P80815	P80815
27	Impeller Key	P04940	P04940	P04940	P04940
	Impeller Gasket	P57000	P57000	P57000	P57000
9	Impeller Nut	P2000236	P2000236	P2000236	P2000236
12	Oil Well Cover	P81238	P81238	P81238	P81238
19	Oil Wick Set	118395	118395	118395	118395
11	Seal Kit**	118681LF	118681LF	118681LF	118681LF
21	Shaft & Sleeve	189035LF	189035LF	189035LF	189035LF
8	Impeller (NFI)	NONE	189132LF	NONE	189132LF

<sup>1</sup>May be used in place of 189034/189034LF manufactured after 2004 (date code "40").

<sup>2</sup>May be used in place of 189161/189161LF manufactured after 2004 (date code "40").

\*\*For Built-To-Order pumps, see the seal selection chart on page 35.

■ – Factory recommended spare parts.

**NOTE:** Refer to page 3 for exploded view of circulator.

# PARTS FOR SERIES HV & 2"

## SERIES HV MANUFACTURED AFTER JANUARY, 1976 ("AT" DATE CODE)

ITEM NO.	DESCRIPTION	HV NFI 102210	HV BI 102230	HV AB 102231	HV BNFI 102213
1	Body	189124	189124	189125LF	189125LF
	Body Capscrew (4 required)	P03470	P03470	P03470	P03470
4	Bearing Assembly	189165LF	189165LF	189165LF	189165LF
4 & 8	Bearing Assembly with Impeller	189166LF	NONE	NONE	189166LF
8	Impeller	189128LF	P07792	P07792	189128LF
5	Coupler Assembly	118705+	118705+	118705+	118705+
	Flange (1")	P00802	P00802	P00804	P00804
	Flange (1 1/4")	P03300	P03300	P2000088	P2000088
	Flange (1 1/2")	P03410	P03410	P2000090	P2000090
	Flange Gasket Set	118373	118373	118373	118373
	Fastener Package w/ Flange Gaskets	P64940	P64940	P64940	P64940
6	Power Pack	111061	111061	111061	111061
22	Ring Motor Mount Set	118223	118223	118223	118223
5 & 22	Coupler & Ring Mount Set	118706	118706	118706	118706

## 2" MODEL MANUFACTURED AFTER JANUARY, 1976 ("AT" DATE CODE)

ITEM NO.	DESCRIPTION	2" NFI 102214	2" BI 102232	2" AB 102233	2" BNFI 102217
1	Body	189126	189126	189127LF	189127LF
	Body Capscrew (4 required)	P03470	P03470	P03470	P03470
4	Bearing Assembly	189165LF	189165LF	189165LF	189165LF
4 & 8	Bearing Assembly with Impeller	189166LF	N/A	N/A	189166LF
8	Impeller	189128LF	P07792	P07792	189128LF
5	Coupler Assembly	118705+	118705+	118705+	118705+
	Flange (2")	F14200	F14200	P2000078	P2000078
	Flange Gasket Set	118378	118378	118378	118378
	Fastener Package w/ Flange Gaskets	P65031	P65031	P65030	P65030
6	Power Pack	111061	111061	111061	111061
15	Ring Motor Mount Set	118223	118223	118223	118223
5 & 22	Coupler & Ring Mount Set	118706	118706	118706	118706

## BEARING ASSEMBLIES

ITEM NO.	DESCRIPTION	189165LF**	189166LF***
13	Bearing Bracket	P77139	P77139
2	Body Gasket	P04890	P04890
14	Front Bearing	P77308LF	P77308LF
15	Front Bearing Gasket	P80816	P80816
27	Impeller Key	P04940	P04940
	Impeller Gasket	NONE	P57000
9	Impeller Nut	P2000236	P2000236
12	Oil Well Cover	P81239	P81239
19	Oil Wick Set	118395	118395
11	Seal Kit*	118681LF	118681LF
21	Shaft & Sleeve	189035LF	189035LF
8	Impeller	NONE	189128LF

\*For Built-To-Order pumps, see the seal selection chart on page 35.

\*\*Use same replacement parts for obsolete bearing assemblies 189120 or 189122.

\*\*\*Use same replacement parts for obsolete bearing assembly 189136.

+Cast Iron type. For Stamped Steel, use 189110.

N/A - Not Available.

■ - Factory recommended spare parts.

**NOTE:** Refer to page 3 for exploded view of typical circulator.

# PARTS FOR SERIES PR, 2 1/2", LD-3 & HD-3

## SERIES PR, 2 1/2", LD-3 & HD-3 MANUFACTURED AFTER 1950

ITEM NO.	DESCRIPTION	PR	2 1/2"	LD-3	HD-3
		102206 (IB) 102207 (BI) 102208 (AB)	102218 (IB) 102219 (BI) 102220 (AB)	102222 (IB) 102223 (BI) 102224 (AB)	102226 (IB) 102227 (BI) 102228 (AB)
1	Body (Cast Iron)	118637	118644	118644	118644
1	Body (Brass)	P2000052	P07610	P07610	P07610
	Body Capscrew (4 required)	P03470	P03470	P03470	P03470
4	Bearing Assembly	189105LF	189105LF	189105LF	189105LF
8	Impeller (Steel)	118830	118676	118676	118675
8	Impeller (Brass)	118612LF	118440LF	118440LF	118439LF
5	Coupler Assembly	118705+	118723	118723	118723
	Flange (Steel)	-	P03560	F74000	F74000
	Flange (Brass)	-	P2000093	P2000081	P2000081
	Flange for PR Only (Steel, 3/4")	P00739	-	-	-
	Flange for PR Only (Brass, 3/4")	P00789	-	-	-
	Flange for PR Only (Steel, 1")	P00792	-	-	-
	Flange for PR Only (Brass, 1")	P00836	-	-	-
	Flange for PR Only (Steel, 1 1/4")	P03250	-	-	-
	Flange for PR Only (Brass, 1 1/4")	P00837	-	-	-
	Flange for PR Only (Steel, 1 1/2")	P03430	-	-	-
	Flange for PR Only (Brass, 1 1/2")	P2000085	-	-	-
	Flange Gasket Set	118368	118129	118129	118129
	Fastener Package	P64910▼	P65130	P65130	P65130
6	Power Pack – Sleeve Bearing	111031**	111040***	111040***	111042
6	Power Pack – Ball Bearing	NONE	1699239▲	1699239▲	1699240▲
22	Ring Motor Mount Set	118223	118228	118228	118228
5 & 22	Coupler & Ring Mount Set	118706	118724	118724	118724

### BEARING ASSEMBLY

ITEM NO.	DESCRIPTION	189105LF
13	Bearing Bracket	P77177
2	Body Gasket	P05800
14	Front Bearing	P77087
15	Front Bearing Gasket	P80816
27	Impeller Key	P04940
	Impeller Gasket	P57000
9	Impeller Nut	P2000236 <sup>1</sup>
12	Oil Well Cover	P81239
19	Oil Wick Set	118395
11	Seal Kit*	118681LF
21	Shaft & Sleeve	189035LF

+ Cast Iron type. For Stamped Steel, use 189110.

\*For Built-To-Order pumps, see the seal selection chart on page 36.

\*\*For 115V only. For 230V, use 111033.

\*\*\*For 115V only. For 230V, use 111041.

<sup>1</sup>On IB pumps, P04650 lockwasher & P04670 nut may be used.

▼Includes flange gaskets.

▲Pumps are furnished with sleeve bearing motors. Ball bearing motors are available as replacement only and are completely interchangeable.

■ – Factory recommended spare parts.

**NOTE:** Refer to page 3 for exploded view of typical circulator.

# PARTS FOR OBSOLETE CIRCULATORS

MANUFACTURED BETWEEN JANUARY, 1951 AND AUGUST, 1976

ITEM NO.	DESCRIPTION	JAN. 1951 – AUG. 1976, 1M-HT				JAN. 1951 – AUG. 1975, 1M-HR		
		1"	1 1/4"	1 1/2"	2"	1" HV	1 1/4" HV	1 1/2" HV
1	Body (Cast Iron or Brass)	All Bodies are Obsolete						
	Body Capscrew (4 required)	P03470	P03470	P03470	P03470	P03470	P03470	P03470
4	Bearing Assemblies:							
4	For C.I. Models w/ Steel Impeller	189162	189162	189162	189163	189163	189163	189163
4	For C.I. Models w/ Brass Impeller	189162	189162	189162	189163	189163	189163	189163
4	For All Bronze Models	N/A	N/A	189163LF	189163LF	189163LF	189163LF	189163LF
8	Impeller (Steel)	118665	118666	118666	118668	118668	118668	118668
8	Impeller (Brass)	118434LF	118435LF*	118435LF*	118436LF	118436LF	118436LF	118436LF
5	Coupler Assembly	118705+	118705+	118705+	118705+	118705+	118705+	118705+
	Flange (Steel)	N/A	P03250	P03410	F14200	P00802	P03300	P03410
	Flange (Brass)	P00804	P2000088	P2000090	P2000078	P00804	P2000088	P2000090
	Flange Gasket Set	118351	118368	118373	118065	118373	118373	118373
	Fastener Package w/ Flange Gaskets	P64230	P64910	P64930	F91600	P64930	P64930	P64930
6	Power Pack	111031**	111031**	111031**	111031**	111031**	111031**	111031**
22	Ring Motor Mount Set	118223	118223	118223	118223	118223	118223	118223

N/A - Not Available

+Cast Iron type. For Stamped Steel, use 189110.

\*Used with iron body only. Use impeller 118436 with brass body pumps.

\*\*115V only. For 230V, use 111033.

## BEARING ASSEMBLIES

ITEM NO.	DESCRIPTION	189162 <sup>1</sup>	189163 <sup>2</sup>
13	Bearing Bracket	P77106	P77106
2	Body Gasket	P04890	P04890
14	Front Bearing	P77308	P77309
15	Front Bearing Gasket	P80816	P80816
27	Impeller Key	P04940	P04940
	Impeller Gasket	P57000	P57000
9	Impeller Nut	P2000236▲	P2000236
12	Oil Well Cover	P81239	P81239
19	Oil Wick Set	118395LF	118395LF
11	Seal Kit▼	118681LF	118681LF
21	Shaft & Sleeve	189035LF	189035LF

<sup>1</sup> Use same replacement parts for obsolete bearing assemblies 189100 or 189104.

<sup>2</sup> Replaces obsolete bearing assemblies 189101, 189102 & 189103.

▲On IB pumps, P04650 lockwasher & P04670 nut may be used.

▼For Built-To-Order pumps, see the seal selection chart on page 35.

■ – Factory recommended spare parts.

**NOTE:** Refer to page 3 for exploded view of typical circulator.

# PARTS FOR OBSOLETE CIRCULATORS

MANUFACTURED BETWEEN:		FEB. - SEPT. 1976 BT-JT		APRIL - SEPT. 1976 DT-JT	SEPT. - DEC. 1976 JT-MT		OCT. 1975 - APRIL 1976 KR-DT
		1 1/2"		HV			
ITEM NO.	DESCRIPTION	IB 102033	BI 102034	AB 102036	IB 102308	BI 102309	AB 102311
1	Body (Cast Iron or Brass)	All Bodies are Obsolete					
	Body Capscrew (4 required)	P03470	P03470	P03470	P03470	P03470	P03470
4	Bearing Assembly	189165	189165LF	N/A	N/A	N/A	N/A
8	Impeller	118666	118435LF	118436LF	118668	118436LF	118436LF
5	Coupler Assembly	118705+	118705+	118705+	118705+	118705+	118705+
	Flange (1")	-	-	-	P00802	P00802	P00804
	Flange (1 1/4")	-	-	-	P03300	P03300	P2000088
	Flange (1 1/2")	P03410	P03410	P2000090	P03410	P03410	P2000090
	Flange Gasket Set	118373	118373	118373	118373	118373	118373
	Fastener Package w/ Flange Gaskets	P64940	P64940	P64930	P64940	P64940	P64930
6	Power Pack	111061	111061	111061	111061	111061	111061
22	Ring Motor Mount Set	118223	118223	118223	118223	118223	118223
5 & 22	Coupler & Ring Mount Set	118706	118706	118706	118706	118706	118706

N/A – Not Available

+Cast Iron type. For Stamped Steel, use 189110.

## BEARING ASSEMBLIES

ITEM NO.	DESCRIPTION	189165LF	HVIB (a)	HVBI (b)	1 1/2" AB & HVAB (c)
13	Bearing Bracket	P77139	P77139	P77139	P77139
2	Body Gasket	P04890	P04890	P04890	P04890
14	Front Bearing	P77308LF	P77309	P77309	P77309
15	Front Bearing Gasket	P80816	P80816	P80816	P80816
27	Impeller Key	P04940	P04940	P04940	P04940
	Impeller Gasket	P57000	NONE	NONE	P57000
9	Impeller Nut	P2000236	J91702	J91702	P2000236
12	Oil Well Cover	P81239	P81239	P81239	P81239
19	Oil Wick Set	118395	118395	118395	118395
11	Seal Kit*	118681LF	118681LF	118681LF	118681LF
21	Shaft & Sleeve	189035LF	189035LF	189035LF	189035LF

\* For Built-To-Order pumps, see the seal selection chart on page 35.

(a) Replacement parts for obsolete model 189121.

(b) Replacement parts for obsolete model 189129.

(c) Replacement parts for obsolete model 189131.

■ – Factory recommended spare parts.

**NOTE:** Refer to page 3 for exploded view of typical circulator.

# PARTS FOR SERIES PD

ITEM NO.	DESCRIPTION	PD-35	PD-37	PD-39+	Manufactured Prior To		Manufactured Date	
					B40 Date Code (3 PH)	E40 Date Code (1 PH)	Code B40 & After (3 PH)	Code E40 & After (1 PH)
					PD-38	PD-40	PD-38	PD-40
1	Body (Cast Iron)	118449	118449	P08460	P08460	P08460	P08460	P08460
1	Body (Bronze)	P2000014	P2000014	P2000012	P2000012	P2000012	P2000012	P2000012
7	Body Capscrew (8 required)	P10620	P10620	P40020	P40020	P40020	P40020	P40020
4	Bearing Assembly:							
	For Cast Iron Models	186863	186863	185260	185260	185260	185333	185333
	For Bronze Models	186863LF	186863LF	185262LF	185262LF	185262LF	185334LF	185334LF
8	Impeller (Steel)	118630	118629	118452	P08709	118452	P08709	118452
8	Impeller (Brass)	118627LF	118626LF	118453LF	P08690	118453LF	P08690	118453LF
	Fastener Package w/ Flange Gaskets	P65130*	P65130*	P09540	P09540	P09540	P09540	P09540
	Flange Gasket Set	118129	118129	118129	118129	118129	118129	118129
	Flange (Steel)	F74000	F74000	A24600	A24600	A24600	A24600	A24600
	Flange (Brass)	P2000081	P2000081	A40000	A40000	A40000	A40000	A40000
6	Power Pack (1 Phase)	111044	111047	N/A	N/A	N/A	169232	169236
6	Power Pack (3 Phase)	111046	111049	N/A	N/A	N/A	169233	169237
	Ring Motor Mount Set	118228	118228	118848	118848	NONE	118848	118848
	Coupler & Ring Mount Set	118474**	118474**	NONE	NONE	NONE	NONE	NONE

\*Does not include flange gaskets.

\*\*Set includes 118473 coupler & 118228 motor mounts.

+ For replacement parts purpose only. The PD-39 pump is no longer available.

N/A – No longer available. See note below.

**NOTE: Sleeve bearing (oil lubricated) power packs and maintenance-free ball bearing power packs are interchangeable.**

Refer to the Power Pack Cross Reference chart on page 30.

## SLEEVE BEARING ASSEMBLIES

ITEM NO.	DESCRIPTION	IB, AB 186863LF	AI 186865	IB 185260	AI 185261	AB 185262
13	Bearing Bracket	P77179	P77179	P57282	P57282	P57282
17	Coverplate	NONE	NONE	P57246	P2000095	P57246
2	Body Gasket	P57410	P57410	P57700	P57700	P57700
	Coupler Key	NONE	NONE	H32400	H32400	H32400
	Impeller Key	P04940	P04940	P49358	P49358	P49358
3	Impeller Washer	P57000▲	P04650	P11150	P11150	P11220
9	Impeller Nut	P2000236▲	P04670	P45910	P45910	P08480
12	Oil Well Cover	P81239	P81239	P57302	P57302	P57302
18	Oil Well Gasket	NONE	NONE	P57300	P57300	P57300
19	Oil Wick Set	118395	118395	P04883 (2 req'd)	P04883 (2 req'd)	P04883 (2 req'd)
20	Oil Wick Retainer (2 required)	NONE	NONE	P12422	P12422	P12422
14	Front Bearing	P77216	P77215	185241	185241	185241
16	Rear Bearing	NONE	NONE	185240	185240	185240
15	Front Bearing Gasket	P80816	P80816	NONE	NONE	NONE
11	Seal Kit▼	118681LF	186681LF	186499LF	186433	186499LF
21	Shaft & Sleeve	189035LF	P81960	118469	P08725	118469

▲On IB pumps, P04650 lockwasher & P04670 nut may be used.

▼For Built-to-Order pumps, see the seal selection chart on page 36.

**NOTE: Sleeve bearing (oil lubricated) and XL-11™ bearing assemblies (maintenance-free) are interchangeable.**

See Bearing Assembly Cross Reference chart on page 31.

■ - Factory recommended spare parts.

## COUPLER SELECTION TABLE

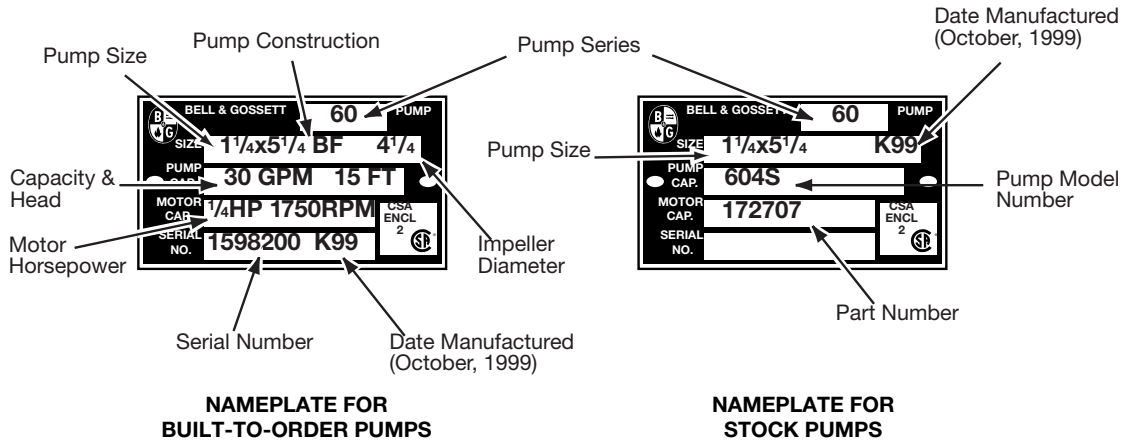
PUMP SHAFT SIZE	PUMP SERIES	HP	FRAME SIZE	MOTOR SHAFT SIZE	COUPLER NO.
1/2"	PD-35 & PD-37	1/2 & 3/4	B&G	1/2"	118473
1/2"	PD-37 w/ Maint. Free Motor	3/4	B&G	1/2"	185329
1/2"	PD-35 & PD-37	1/2 & 3/4	56-57-65	5/8"	118709
1/2"	PD-35 & PD-37	1/2 & 3/4	66-75	3/4"	118708
5/8"	PD-38 & PD-39	1	56	5/8"	186004
5/8"	PD-38 & PD-39 w/ Maint. Free Motor	1	B&G	1/2"	185330
5/8"	PD-40	1 & 1 1/2	56-145TZ	5/8"	186003

■ - Factory recommended spare parts.

**NOTE:** Refer to pages 4 & 7 for exploded views of pump and bearing assembly.

# How to Select Parts for Maintenance Free Series 60, Pages 17-23

The pump nameplate identifies the pump by model number, pump construction and impeller diameter as shown below.



The BTO nameplate above identifies the pump as a Series 60, size 1 1/4 x 5 1/4 in bronze fitted (BF) construction. The impeller diameter is 4 1/4" and is capable of pumping 30 GPM at 15 FT. The motor horsepower is 1/4, the RPM is 1750. The serial number specifically identifies the unit for future reference. **DO NOT REMOVE THE NAMEPLATE.** It is important when ordering replacement parts to furnish complete nameplate data.

Following the procedure below will result in proper parts selection.

1. Determine from the nameplate the model number, pump construction and impeller diameter.
2. Refer to the index for the page number of the parts breakdown for the specific model pump.
3. Find the proper column in the parts breakdown for the pump construction involved.
4. Select part numbers using the numbered drawings on page 4 for identification.



# PARTS FOR MAINTENANCE FREE SERIES 60 STANDARD SIZE DESIGNATIONS

PUMP SIZE	EQUIVALENT SIZE	HP	(6) MOTOR		(5)	(4)	IMPELLER DIAMETER	(8) IMPELLER
			1 PHASE 115/208-230	3 PHASE 208-230/460	COUPLER	BEARING ASSEMBLY		
601S & 601T	1x1x5 <sup>1</sup> / <sub>4</sub>	1/4	169224	169225	118473	185332LF	4 <sup>3</sup> / <sub>8</sub> "	P82878
B601S & B601T	1x1x5 <sup>1</sup> / <sub>4</sub>	1/4	169224	169225	118473	185332LF	4 <sup>3</sup> / <sub>8</sub> "	P82878
602S & 602T	1x1x5 <sup>1</sup> / <sub>4</sub>	1/3	169226	169227	118473	185332LF	4 <sup>27</sup> / <sub>32</sub> "	P82877
B602 & B602T	1x1x5 <sup>1</sup> / <sub>4</sub>	1/3	169226	169227	118473	185332LF	4 <sup>27</sup> / <sub>32</sub> "	P82877
603S & 603T	1x1x5 <sup>1</sup> / <sub>4</sub>	1/2	169228	169229	118473	185332LF	5 <sup>1</sup> / <sub>4</sub> "	P58541
B603S & B603T	1x1x5 <sup>1</sup> / <sub>4</sub>	1/2	169228	169229	118473	185332LF	5 <sup>1</sup> / <sub>4</sub> "	P58541
604S & 604T	1 <sup>1</sup> / <sub>4</sub> x1 <sup>1</sup> / <sub>4</sub> x5 <sup>1</sup> / <sub>4</sub>	1/4	169224	169225	118473	185332LF	4 <sup>3</sup> / <sub>8</sub> "	P82878
B604S & B604T	1 <sup>1</sup> / <sub>4</sub> x1 <sup>1</sup> / <sub>4</sub> x5 <sup>1</sup> / <sub>4</sub>	1/4	169224	169225	118473	185332LF	4 <sup>3</sup> / <sub>8</sub> "	P82878
605S & 605T	1 <sup>1</sup> / <sub>4</sub> x1 <sup>1</sup> / <sub>4</sub> x5 <sup>1</sup> / <sub>4</sub>	1/3	169226	169227	118473	185332LF	4 <sup>27</sup> / <sub>32</sub> "	P82877
B605S & B605T	1 <sup>1</sup> / <sub>4</sub> x1 <sup>1</sup> / <sub>4</sub> x5 <sup>1</sup> / <sub>4</sub>	1/3	169226	169227	118473	185332LF	4 <sup>27</sup> / <sub>32</sub> "	P82877
606S & 606T	1 <sup>1</sup> / <sub>4</sub> x1 <sup>1</sup> / <sub>4</sub> x5 <sup>1</sup> / <sub>4</sub>	1/2	169228	169229	118473	185332LF	5 <sup>1</sup> / <sub>4</sub> "	P58541
B606S & B606T	1 <sup>1</sup> / <sub>4</sub> x1 <sup>1</sup> / <sub>4</sub> x5 <sup>1</sup> / <sub>4</sub>	1/2	169228	169229	118473	185332LF	5 <sup>1</sup> / <sub>4</sub> "	P58541
607S & 607T	1 <sup>1</sup> / <sub>2</sub> x1 <sup>1</sup> / <sub>2</sub> x5 <sup>1</sup> / <sub>4</sub>	1/3	169226	169227	118473	185332LF	4 <sup>3</sup> / <sub>8</sub> "	P82881
B607S & B607T	1 <sup>1</sup> / <sub>2</sub> x1 <sup>1</sup> / <sub>2</sub> x5 <sup>1</sup> / <sub>4</sub>	1/3	169226	169227	118473	185332LF	4 <sup>3</sup> / <sub>8</sub> "	P82881
608S & 608T	1 <sup>1</sup> / <sub>2</sub> x1 <sup>1</sup> / <sub>2</sub> x5 <sup>1</sup> / <sub>4</sub>	1/2	169228	169229	118473	185332LF	4 <sup>15</sup> / <sub>16</sub> "	P82880
B608S & B608T	1 <sup>1</sup> / <sub>2</sub> x1 <sup>1</sup> / <sub>2</sub> x5 <sup>1</sup> / <sub>4</sub>	1/2	169228	169229	118473	185332LF	4 <sup>15</sup> / <sub>16</sub> "	P82880
609S & 609T	1 <sup>1</sup> / <sub>2</sub> x1 <sup>1</sup> / <sub>2</sub> x5 <sup>1</sup> / <sub>4</sub>	3/4	169230	169231	118473	185332LF	5 <sup>1</sup> / <sub>4</sub> "	P58538
B609S & B609T	1 <sup>1</sup> / <sub>2</sub> x1 <sup>1</sup> / <sub>2</sub> x5 <sup>1</sup> / <sub>4</sub>	3/4	169230	169231	118473	185332LF	5 <sup>1</sup> / <sub>4</sub> "	P58538
610S & 610T	2x2x5 <sup>1</sup> / <sub>4</sub>	1/2	169228	169229	185329	185332LF	4 <sup>1</sup> / <sub>8</sub> "	P82883
B610S & B610T	2x2x5 <sup>1</sup> / <sub>4</sub>	1/2	169228	169229	185329	185332LF	4 <sup>1</sup> / <sub>8</sub> "	P82883
611S & 611T	2x2x5 <sup>1</sup> / <sub>4</sub>	3/4	169230	169231	118473	185332LF	4 <sup>3</sup> / <sub>4</sub> "	P82882
B611S & B611T	2x2x5 <sup>1</sup> / <sub>4</sub>	3/4	169230	169231	118473	185332LF	4 <sup>3</sup> / <sub>4</sub> "	P82882
612S & 612T	2x2x5 <sup>1</sup> / <sub>4</sub>	1	169232	169233	185329	185332LF	5 <sup>1</sup> / <sub>4</sub> "	P58536
B612S & B612T	2x2x5 <sup>1</sup> / <sub>4</sub>	1	169232	169233	185329	185332LF	5 <sup>1</sup> / <sub>4</sub> "	P58536
613S & 613T	1 <sup>1</sup> / <sub>2</sub> x1 <sup>1</sup> / <sub>2</sub> x6 <sup>1</sup> / <sub>4</sub>	3/4	169230	169231	185329	185332LF*	5 <sup>3</sup> / <sub>4</sub> "	P82884
614S & 614T	1 <sup>1</sup> / <sub>2</sub> x1 <sup>1</sup> / <sub>2</sub> x6 <sup>1</sup> / <sub>4</sub>	1	169232	169233	185329	185332LF*	6 <sup>1</sup> / <sub>4</sub> "	P58564
B614S & B614T	1 <sup>1</sup> / <sub>2</sub> x1 <sup>1</sup> / <sub>2</sub> x6 <sup>1</sup> / <sub>4</sub>	1	169232	169233	185329	185332LF*	6 <sup>1</sup> / <sub>4</sub> "	P58564
615S & 615T	2x2x6 <sup>1</sup> / <sub>4</sub>	3/4	169230	169231	185329	185332LF*	5 <sup>5</sup> / <sub>8</sub> "	P82885
B615S & B615T	2x2x6 <sup>1</sup> / <sub>4</sub>	3/4	169230	169231	185329	185332LF*	5 <sup>5</sup> / <sub>8</sub> "	P82885
616S & 616T	2x2x6 <sup>1</sup> / <sub>4</sub>	1	169232	169233	185329	185332LF*	6 <sup>7</sup> / <sub>32</sub> "	P58562
617S & 617T	1 <sup>1</sup> / <sub>2</sub> x1 <sup>1</sup> / <sub>2</sub> x7	1 <sup>1</sup> / <sub>2</sub>	169236	169237	186003	185333LF	6 <sup>1</sup> / <sub>2</sub> "	P57460
618T	1 <sup>1</sup> / <sub>2</sub> x1 <sup>1</sup> / <sub>2</sub> x7	2	NONE	169238	186003	185333LF	7"	P57440
619T	2x2x7	2	NONE	169238	186003	185333LF	6 <sup>1</sup> / <sub>2</sub> "	P82137
620T	2x2x7	3	NONE	169234	185331	185333LF	7"	P57580
621S & 621T	1 <sup>1</sup> / <sub>2</sub> x1 <sup>1</sup> / <sub>2</sub> x6 <sup>1</sup> / <sub>4</sub>	1/2	169228	169229	118473	185332LF*	4 <sup>7</sup> / <sub>8</sub> "	P58661
B621S & B621T	1 <sup>1</sup> / <sub>2</sub> x1 <sup>1</sup> / <sub>2</sub> x6 <sup>1</sup> / <sub>4</sub>	1/2	169228	169229	118473	185332LF*	4 <sup>7</sup> / <sub>8</sub> "	P58661
622S & 622T	1 <sup>1</sup> / <sub>2</sub> x1 <sup>1</sup> / <sub>2</sub> x7	3/4	169230	169231	186410	185333LF	5 <sup>1</sup> / <sub>2</sub> "	P58662
623S & 623T	1 <sup>1</sup> / <sub>2</sub> x1 <sup>1</sup> / <sub>2</sub> x7	1	169232	169233	185330	185333LF	6"	P58663
624S & 624T	2x2x7	1	169232	169233	185330	185333LF	5 <sup>11</sup> / <sub>16</sub> "	P58664
625S & 625T	2x2x7	1 <sup>1</sup> / <sub>2</sub>	169236	169237	186003	185333LF	6 <sup>1</sup> / <sub>8</sub> "	P58665
626S & 626T	3x3x5 <sup>1</sup> / <sub>4</sub>	3/4	169230	169231	185329	185333LF	4 <sup>3</sup> / <sub>8</sub> "	P83023
B626S & B626T	3x3x5 <sup>1</sup> / <sub>4</sub>	3/4	169230	169231	185329	185333LF	4 <sup>3</sup> / <sub>8</sub> "	P83023
627S & 627T	3x3x5 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	169236	169237	P75421	185333LF	5 <sup>1</sup> / <sub>4</sub> "	P58636
B627S & B627T	3x3x5 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	169236	169237	P75421	185333LF	5 <sup>1</sup> / <sub>4</sub> "	P58636

\*Adapter ring gasket P58542 must also be ordered when bearing assembly is replaced on all 6<sup>1</sup>/<sub>4</sub>" pumps.

— Factory recommended spare parts.

**Note:** Refer to page 4 for exploded view of pump.

# PARTS FOR MAINTENANCE FREE SERIES 60

## 1x1x5¼

ITEM NO.	DESCRIPTION	BRONZE FITTED	ALL BRONZE
1	Volute	186386	186931LF
10	Volute Drain Plug (5 Req'd)	P39020	P39470
7	Volute Capscrew (8 Req'd)	P10620	P10620
2	Volute Gasket	P57410	P57410
8	Impeller (State Diameter)	P58541	P58541
	Impeller Key	P04940	P04940
9	Impeller Nut	P2000236	P2000236
3	Impeller Washer	P04660	P04660
	Flange (2 Req'd)	P01510	P00794
	Fastener Package	P64910	P64910
	Flange Gasket Set	118368	118368

## 1¼x1¼x5¼

ITEM NO.	DESCRIPTION	BRONZE FITTED	ALL BRONZE
1	Volute	186386	186931LF
10	Volute Drain Plug (5 Req'd)	P39020	P39470
7	Volute Capscrew (8 Req'd)	P10620	P10620
2	Volute Gasket	P57410	P57410
8	Impeller (State Diameter)	P58541	P58541
	Impeller Key	P04940	P04940
9	Impeller Nut	P2000236	P2000236
3	Impeller Washer	P04660	P04660
	Flange (2 Req'd)	P03250	P03251
	Fastener Package	P64910	P64910
	Flange Gasket Set	118368	118368

## XL-11™ BEARING ASSEMBLIES (FOR BF OR AB PUMPS)

ITEM NO.	DESCRIPTION	MODELS WITH COPPER SHAFT SLEEVE			MODELS WITH STAINLESS STEEL SHAFT SLEEVE		
		185332LF	185355LF	185356LF	185357LF	185358LF	185359LF
4	Bearing Assy. – Includes the Following:						
11	Seal Kit No.	118681LF	185230LF	186875	118681LF	185230LF	186875
	Seal Type	Buna-N <sup>1</sup>	EPT <sup>2</sup>	Viton <sup>3</sup>	Buna-N <sup>1</sup>	EPT <sup>2</sup>	Viton <sup>3</sup>
	XL-11™ Small Bearing Frame Repair Kit*	185335LF	185335LF	185335LF	185336	185336	185336
2	Volute Gasket	P57410	P57410	P57410	P57410	P57410	P57410

<sup>1</sup>Buna/Carbon/Ceramic    <sup>2</sup>EPT/Carbon/Tungsten Carbide    <sup>3</sup>Viton/Carbon/Ceramic

\*Includes pre-assembled faceplate, nose cone, shaft and bearings. Wave spring and volute gasket are also supplied.

## ITEM NO. 5 COUPLERS

See chart on page 23

## ITEM NO. 6 POWER PACKS

HP	1 PHASE 115/208-230	3 PHASE 208-230/460	RING MOUNTS
1/4	169224	169225	118228
1/3	169226	169227	118228
1/2	169228	169229	118228
3/4	169230	169231	118228

■ - Factory recommended spare parts.

**NOTE:** Refer to page 4 for exploded view of pump.

# PARTS FOR MAINTENANCE FREE SERIES 60

## 1½x1½x5¼

ITEM NO.	DESCRIPTION	BRONZE FITTED	ALL BRONZE
1	Volute	186389	186932LF
10	Volute Drain Plug (5 Req'd)	P39020	P39470
7	Volute Capscrew (8 Req'd)	P10620	P10620
2	Volute Gasket	P57410	P57410
8	Impeller (State Diameter)	P58538	P58538
	Impeller Key	P04940	P04940
9	Impeller Nut	P2000236	P2000236
3	Impeller Washer	P04660	P04660
	Flange (2 Req'd)	P03410	P2000090
	Fastener Package w/ Flange Gaskets	P64940	P64930
	Flange Gasket Set	118373	118373

## 2x2x5¼

ITEM NO.	DESCRIPTION	BRONZE FITTED	ALL BRONZE
1	Volute	186392	186933LF
10	Volute Drain Plug (5 Req'd)	P39020	P39470
7	Volute Capscrew (8 Req'd)	P10620	P10620
2	Volute Gasket	P57410	P57410
8	Impeller (State Diameter)	P58536	P58536
	Impeller Key	P04940	P04940
9	Impeller Nut	P2000236	P2000236
3	Impeller Washer	P04660	P04660
	Flange (2 Req'd)	F14200	P2000078
	Fastener Package w/ Flange Gaskets (2 Req'd)	P65031	P65030
	Flange Gasket Set	118378	118378
	Motor Ring Adapter	P76944	P76944

## XL-11™ BEARING ASSEMBLIES (FOR BF OR AB PUMPS)

ITEM NO.	DESCRIPTION	MODELS WITH COPPER SHAFT SLEEVE			MODELS WITH STAINLESS STEEL SHAFT SLEEVE		
		185332LF	185355LF	185356LF	185357LF	185358LF	185359LF
4	Bearing Assy. – Includes the Following:						
11	Seal Kit No. <i>Seal Type</i>	118681LF <i>Buna-N<sup>1</sup></i>	185230LF <i>EPT<sup>2</sup></i>	186875 <i>Viton<sup>3</sup></i>	118681LF <i>Buna-N<sup>1</sup></i>	185230LF <i>EPT<sup>2</sup></i>	186875 <i>Viton<sup>3</sup></i>
	XL-11™ Small Bearing Frame Repair Kit*	185335LF	185335LF	185335LF	185336	185336	185336
2	Volute Gasket	P57410	P57410	P57410	P57410	P57410	P57410

<sup>1</sup>Buna/Carbon/Ceramic    <sup>2</sup>EPT/Carbon/Tungsten Carbide    <sup>3</sup>Viton/Carbon/Ceramic

\*Includes pre-assembled faceplate, nose cone, shaft and bearings. Wave spring and volute gasket are also supplied.

## ITEM NO. 5 COUPLERS

See chart on page 23

## ITEM NO. 6 POWER PACKS

HP	1 PHASE 115/208-230	3 PHASE 208-230/460	RING MOUNTS
¼	169224	169225	118228
⅓	169226	169227	118228
½	169228	169229	118228
¾	169230	169231	118228
1	169232	169233	118848
1½	169236	169237	NONE

■ - Factory recommended spare parts.

**NOTE:** Refer to page 4 for exploded view of pump.

# PARTS FOR MAINTENANCE FREE SERIES 60

## 3x3x5¼

ITEM NO.	DESCRIPTION	BRONZE FITTED	ALL BRONZE
1	Volute	118449	P2000014
10	Volute Drain Plug (5 Req'd)	P39020	P39470
7	Volute Capscrew (8 Req'd)	P10620	P01850
2	Volute Gasket	P57410	P57410
8	Impeller (State Diameter)	P58536	P58536
	Impeller Key	P04940	P04940
9	Impeller Nut	P2000236	P2000236
3	Impeller Washer	P04660	P04660
	Flange (2 Req'd)	F74000	P2000081
	Fastener Package**	P65130	P65130
	Flange Gasket Set	118129	118129
	Motor Ring Adapter	P76944	P76944

\*\*Does not include flange gaskets.

## XL-11™ BEARING ASSEMBLIES (FOR BF OR AB PUMPS)

ITEM NO.	DESCRIPTION	MODELS WITH COPPER SHAFT SLEEVE			MODELS WITH STAINLESS STEEL SHAFT SLEEVE		
		185332LF	185355LF	185356LF	185357LF	185358LF	185359LF
4	Bearing Assy. – Includes the Following:	185332LF	185355LF	185356LF	185357LF	185358LF	185359LF
11	Seal Kit No. <i>Seal Type</i>	118681LF <i>Buna-N<sup>1</sup></i>	185230LF <i>EPT<sup>2</sup></i>	186875 <i>Viton<sup>3</sup></i>	118681LF <i>Buna-N<sup>1</sup></i>	185230LF <i>EPT<sup>2</sup></i>	186875 <i>Viton<sup>3</sup></i>
	XL-11™ Small Bearing Frame Repair Kit*	185335LF	185335LF	185335LF	185336	185336	185336
2	Volute Gasket	P57410	P57410	P57410	P57410	P57410	P57410

<sup>1</sup>Buna/Carbon/Ceramic    <sup>2</sup>EPT/Carbon/Tungsten Carbide    <sup>3</sup>Viton/Carbon/Ceramic

\*Includes pre-assembled faceplate, nose cone, shaft and bearings. Wave spring and volute gasket are also supplied.

## ITEM NO. 5 COUPLERS

See chart on page 23

## ITEM NO. 6 POWER PACKS

HP	1 PHASE 115/208-230	3 PHASE 208-230/460	RING MOUNTS
1/3	169226	169227	118228
1/2	169228	169229	118228
3/4	169230	169231	118228
1	169232	169233	118848
1½	169236	169237	NONE

■ - Factory recommended spare parts.

**NOTE:** Refer to page 4 for exploded view of pump.

# PARTS FOR MAINTENANCE FREE SERIES 60

## 1½x1½x6¼

ITEM NO.	DESCRIPTION	BRONZE FITTED	ALL BRONZE
1	Volute	186935	186671LF
10	Volute Drain Plug (5 Req'd)	P39020	P39470
7	Volute Capscrew (8 Req'd)	P10620	P01850
2	Volute Gasket	P57410	P57410
23	Adapter Ring	P58576	P2000097
24	Adapter Ring Capscrew (8 Req'd)	DJ0034	P10620
25	Adapter Ring Gasket	P58542	P58542
8	Impeller (State Diameter)	P58564	P58564
	Impeller Key	P04940	P04940
9	Impeller Nut	P2000236	P2000236
3	Impeller Washer	P04660	P04660
	Flange (2 Req'd)	P03410	P2000090
	Fastener Package w/ Flange Gaskets	P64940	P64930
	Flange Gasket Set	118373	118373
	Motor Ring Adapter	P76944	P76944

## 2x2x6¼

ITEM NO.	DESCRIPTION	BRONZE FITTED	ALL BRONZE
1	Volute	186936	186672LF
10	Volute Drain Plug (5 Req'd)	P39020	P39470
7	Volute Capscrew (8 Req'd)	P10620	P10620
2	Volute Gasket	P57410	P57410
23	Adapter Ring	P58576	P2000097
24	Adapter Ring Capscrew (8 Req'd)	DJ0034	P10620
25	Adapter Ring Gasket	P58542	P58542
8	Impeller (State Diameter)	P58562	P58562
	Impeller Key	P04940	P04940
9	Impeller Nut	P2000236	P2000236
3	Impeller Washer	P04660	P04660
	Flange (2 Req'd)	F14200	P2000078
	Fastener Package w/ Flange Gaskets (2 Req'd)	P65031	P65030
	Flange Gasket Set	118378	118378
	Motor Ring Adapter	P76944	P76944

## XL-11™ BEARING ASSEMBLIES (FOR BF OR AB PUMPS)

ITEM NO.	DESCRIPTION	MODELS WITH COPPER SHAFT SLEEVE			MODELS WITH STAINLESS STEEL SHAFT SLEEVE		
		185332LF**	185355LF**	185356LF**	185357LF**	185358LF**	185359LF**
4	Bearing Assy. – Includes the Following:						
11	Seal Kit No. <i>Seal Type</i>	118681LF <i>Buna-N<sup>1</sup></i>	185230LF <i>EPT<sup>2</sup></i>	186875 <i>Viton<sup>3</sup></i>	118681LF <i>Buna-N<sup>1</sup></i>	185230LF <i>EPT<sup>2</sup></i>	186875 <i>Viton<sup>3</sup></i>
	XL-11™ Small Bearing Frame Repair Kit*	185335LF	185335LF	185335LF	185336	185336	185336
2	Volute Gasket	P57410	P57410	P57410	P57410	P57410	P57410

<sup>1</sup>Buna/Carbon/Ceramic    <sup>2</sup>EPT/Carbon/Tungsten Carbide    <sup>3</sup>Viton/Carbon/Ceramic

\*Includes pre-assembled faceplate, nose cone, shaft and bearings. Wave spring and volute gasket are also supplied.

\*\*Adapter Ring Gasket P58542 must also be ordered when bearing assembly is replaced on all 6" pumps.

## ITEM NO. 5 COUPLERS

See chart on page 23

## ITEM NO. 6 POWER PACKS

HP	1 PHASE 115/208-230	3 PHASE 208-230/460	RING MOUNTS
½	169228	169229	118228
¾	169230	169231	118228
1	169232	169233	118848
1½	169236	169237	NONE

■ - Factory recommended spare parts.

**NOTE:** Refer to page 4 for exploded view of pump.

# PARTS FOR MAINTENANCE FREE SERIES 60

## 1½x1½x7

ITEM NO.	DESCRIPTION	BRONZE FITTED	ALL BRONZE
1	Volute	186390	186934LF
10	Volute Drain Plug (5 Req'd)	P39020	P39470
7	Volute Capscrew (8 Req'd)	P40020	P52310
2	Volute Gasket	P57700	P57700
8	Impeller (State Diameter)	P57440	P57440
	Impeller Key	P49358	P49358
9	Impeller Nut	P2000220	P2000220
3	Impeller Washer	P11220	P11220
	Flange (2 Req'd)	P03410	P2000090
	Fastener Package w/ Flange Gaskets	P64940	P64930
	Flange Gasket Set	118373	118373

## 2x2x7

ITEM NO.	DESCRIPTION	BRONZE FITTED	ALL BRONZE
1	Volute	186937	186938LF
10	Volute Drain Plug (5 Req'd)	P39020	P39470
7	Volute Capscrew (8 Req'd)	P40020	P52310
2	Volute Gasket	P57700	P57700
8	Impeller (State Diameter)	P57580	P57580
	Impeller Key	P49358	P49358
9	Impeller Nut	P2000220	P2000220
3	Impeller Washer	P11220	P11220
	Flange (2 Req'd)	F14200	P2000078
	Fastener Package w/ Flange Gaskets (2 Req'd)	P65031	P64930
	Flange Gasket Set	118378	118378

## XL-11™ BEARING ASSEMBLIES (FOR BF OR AB PUMPS)

ITEM NO.	DESCRIPTION	MODELS WITH COPPER SHAFT SLEEVE			MODELS WITH STAINLESS STEEL SHAFT SLEEVE		
		FOR BRONZE FITTED (BF) PUMPS					
4	Bearing Assy. – Includes the Following:	185333LF	185360LF	185361LF	185362LF	185363LF	185364LF
11	Seal Kit No. <i>Seal Type</i>	186499LF <i>Buna-N<sup>1</sup></i>	185223LF <i>EPT<sup>2</sup></i>	CF <i>Viton<sup>3</sup></i>	186499LF <i>Buna-N<sup>1</sup></i>	185223LF <i>EPT<sup>2</sup></i>	CF <i>Viton<sup>3</sup></i>
	XL-11™ Lrg. Bearing Frame Repair Kit*	185337LF	185337LF	185337LF	185338	185338	185338
2	Volute Gasket	P57700	P57700	P57700	P57700	P57700	P57700
12	Cover Plate	P2000095	P2000095	P2000095	P2000095	P2000095	P2000095
16	Coupler Cover	P03982	P03982	P03982	P03982	P03982	P03982
<b>FOR ALL BRONZE (AB) PUMPS</b>							
4	Bearing Assy. – Includes the Following:	185334LF	185365LF	185366LF	185367LF	185368LF	185369LF
11	Seal Kit No. <i>Seal Type</i>	186499LF <i>Buna-N<sup>1</sup></i>	185223LF <i>EPT<sup>2</sup></i>	CF <i>Viton<sup>3</sup></i>	186499LF <i>Buna-N<sup>1</sup></i>	185223LF <i>EPT<sup>2</sup></i>	CF <i>Viton<sup>3</sup></i>
	XL-11™ Lrg. Bearing Frame Repair Kit*	185337LF	185337LF	185337LF	185338	185338	185338
2	Volute Gasket	P57700	P57700	P57700	P57700	P57700	P57700
12	Cover Plate	P2000095	P2000095	P2000095	P2000095	P2000095	P2000095
16	Coupler Cover	P03982	P03982	P03982	P03982	P03982	P03982

<sup>1</sup>Buna/Carbon/Ceramic    <sup>2</sup>EPT/Carbon/Tungsten Carbide    <sup>3</sup>Viton/Carbon/Ceramic    CF – Contact Factory

\*Includes pre-assembled shaft, sleeve and bearings. Wave spring and volute gasket are also supplied.

## ITEM NO. 5 COUPLERS

See chart on page 23

## ITEM NO. 6 POWER PACKS

HP	1 PHASE 115/208-230	3 PHASE 208-230/460	RING MOUNTS
<sup>3</sup> / <sub>4</sub>	169230	169231	118228
1	169232	169233	118848
1½	169236	169237	NONE
2	NONE	169238	NONE
3	NONE	169234	NONE

– Factory recommended spare parts. **NOTE:** Refer to page 4 for exploded view of pump.

# PARTS FOR MAINTENANCE FREE SERIES 60

## ITEM NO. 5 COUPLERS

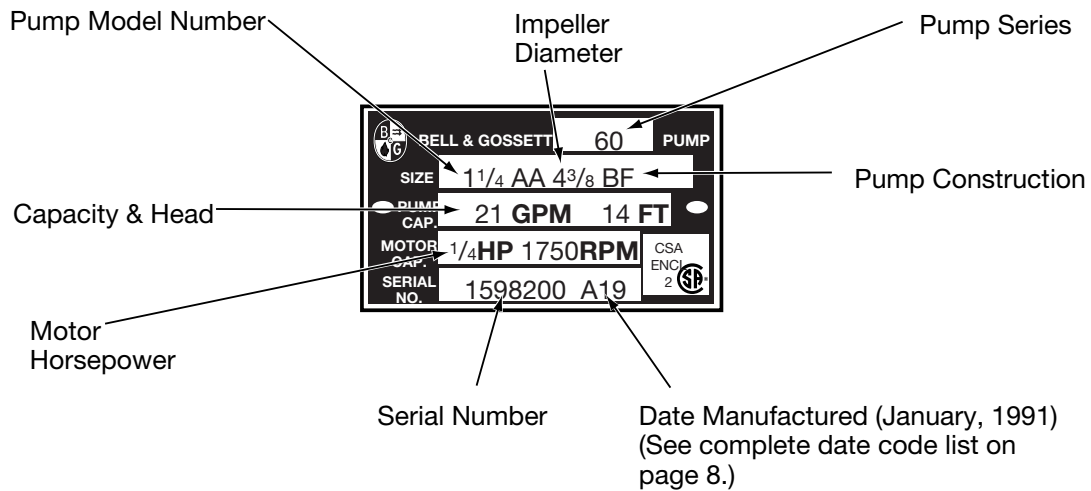
PUMP MODEL	PUMP SHAFT SIZE	MOTOR HP (60 hz)	MOTOR FRAME SIZE	MOTOR SHAFT SIZE	STANDARD COUPLER	ELASTOMERIC COUPLER OPTION
1x1x5¼	½"	¼ – ½	B&G POWER	½"	118473	185329
1¼x1¼x5¼		¾ – 1	PACK		185329	185329
1½x1½x5¼		¼ – ½	56	5/8"	185330	185330
1½x1½x6¼		1½	56C	5/8"	P75421	P75421
2x2x5¼		1½	143TC	7/8"	P75422	P75422
2x2x6¼		1 – 1½	143 / 145	7/8"	P58598	P58598
3x3x5¼						
1½x1½x7 2x2x7	5/8"	¾	B&G POWER	½"	186410	185330
		1	PACK		185330	185330
		¾ – 1	56	5/8"	186004	186004
		1½ – 3	56	5/8"	186003	186003
		1½ – 3	143 / 145	7/8"	185331	185331
		3	182 / 184	1 1/8"	P77281	P77281

– Factory recommended spare parts.

**NOTE:** Refer to page 4 for exploded view of pump.

# How to Select Parts for Series 60 & 1522 Pumps on Pages 25-34

The pump nameplate identifies the pump by model number, pump construction and impeller diameter as shown below.



The nameplate above identifies the pump as a Series 60, size 1<sup>1</sup>/<sub>4</sub>AA in bronze-fitted (BF) construction. The impeller diameter is 4<sup>3</sup>/<sub>8</sub>" and is capable of pumping 21 GPM at 14 FT. The motor horsepower is 1/4, the RPM is 1750. The serial number specifically identifies the unit for future reference. **DO NOT REMOVE THE NAMEPLATE.** It is important when ordering replacement parts to furnish complete nameplate data.

Following the procedure below will result in proper parts selection.

1. Determine from the nameplate the model number, pump construction and impeller diameter.
2. Refer to the index for the page number of the parts breakdown for the specific model pump.
3. Find the proper column in the parts breakdown for the pump construction involved.
4. Select part numbers using the numbered drawings on pages 5, 6 & 7 for identification.



# PARTS FOR SERIES 60 STANDARD SIZE DESIGNATIONS

			(6) SLEEVE BEARING POWER PACK		(5)		(8)
STANDARD PUMP SIZE	EQUIVALENT SIZE	HP	1 PHASE 115/230	3 PHASE 208-230/460	COUPLER	IMPELLER DIAMETER	IMPELLER
60-1S & 60-1T	1"AA	1/4	169035+	169037	118473	5 1/4"	186359LF
60-2S & 60-2T	1 1/4"AA	1/3	169038	169039	118473	5 1/4"	186359LF
60-3S & 60-3T	1 1/2"AA	1/2	111044	111046	118473	5 1/4"	186368LF
60-4S & 60-4T	2"AA	3/4	111047	111049	118473	5 1/4"	118626LF
60-5S & 60-5T	1 1/2"A	1/2	111044	111046	116410	5 3/4"	P57447
60-6S & 60-6T	1 1/2"A	3/4	111047	111049	116410	6 1/2"	P57445*
60-7S & 60-7T	1 1/2"A	1	N/A	N/A	186004	7"	P57445
60-8S & 60-8T	2"A	3/4	111047	111049	186410	5 5/8"	P57452*
60-9S & 60-9T	2"A	1	N/A	N/A	186004	6 1/8"	P57451*
60-10T	2"A	1 1/2	-	N/A	186003	6 3/4"	P57450*
60-10S	1"AA	1/4	169035+	-	118473	5 1/4"	186359LF
60-11S & 60-11T	1 1/4"AA	1/4	169035+	169037	118473	5 3/16"	186360LF
60-B11S	1 1/4"AA	1/4	169035+	-	118473	5 3/16"	186360LF
60-13S & 60-13T	1 1/2"AA	1/2	111044	111046	118473	5 1/4"	186368LF
60-B13S & 60-B13T	1 1/2"AA	1/2	111044	111046	118473	5 1/4"	186368LF
60-14S & 60-14T	2"AA	3/4	111047	111049	118473	5 1/4"	118626LF
60-B14S & 60-B14T	2"AA	3/4	111047	111049	118473	5 1/4"	118626LF
60-15S & 60-15T	1 1/2"A	1/2	111044	111046	186410	5 3/4"	P57447
60-16S & 60-16T	1 1/2"A	3/4	111047	111049	186410	6 3/8"	P57446
60-17S & 60-17T	1 1/2"A	1	N/A	N/A	186004	7"	P57445
60-19S & 60-19T	2"A	1	N/A	N/A	186004	6"	P57452
60-20S & 60-20T	2"A	1 1/2	N/A	N/A	186003	6 1/2"	P57451
60-21T	2"A	2	-	N/A	186003	7"	P57450
60-22T	2 1/2"F	3	-	169221	P77279	7 3/4"	P57584

+115V only. For 230V, use 169036.

\*Trim impeller to diameter shown.

N/A – No longer available. See note below

– Factory recommended spare parts.

**Note:** Sleeve bearing power packs and maintenance-free ball bearing power packs are interchangeable. Refer to the Power Pack Cross Reference chart on page 30.

Refer to pages 5 & 7 for exploded view of pump and bearing assembly.

# PARTS FOR SERIES 60

## 1AA

ITEM NO.	DESCRIPTION	BRONZE FITTED	ALL BRONZE	ALL IRON
1	Volute	186384	186385LF	186384
10	Volute Drain Plug (5 Required)	P39020	P39470	P39020
7	Volute Capscrew (8 Required)	P10620	P01850	P10620
8	Impeller (State Dia.)	P56550	P56550	P60350*
	Flange (2)	P01510	P00836	P01510
	Fastener Package w/ Flange Gaskets	P64910	P64900	P64910
	Flange Gasket Set	118368	118368	118368
4	Bearing Assembly Consisting of:	186863LF	186863LF	186865
13	Bearing Bracket	P77179	P77179	P77179
14	Front Bearing	P77216	P77216	P77215
15	Front Bearing Gasket	P80816	P80816	P80816
21	Shaft Assembly	189035LF	189035LF	P81960
11	Seal Kit	118681LF	118681LF	186681LF
2	Body Gasket	P57410	P57410	P57410
	Impeller Key	P04940	P04940	P04940
9	Impeller Nut	P2000236	P2000236	P04670
3	Impeller Washer	P57000	P57000	P04650
12	Oil Well Cover	P81239	P81239	P81239
19	Oil Wick Set	118395	118395	118395

## 11/4AA

ITEM NO.	DESCRIPTION	BRONZE FITTED	ALL BRONZE	ALL IRON
1	Volute	186386	186931LF	186386
10	Volute Drain Plug (5 Required)	P39020	P39470	P39020
7	Volute Capscrew (8 Required)	P10620	P01850	P10620
8	Impeller (State Dia.)	P56550	P56550	P60350*
	Flange (2 Required)	P03250	P00837	P03250
	Fastener Package w/ Flange Gaskets	P64910	P64900	P64910
	Flange Gasket Set	118368	118368	118368
4	Bearing Assembly Consisting of:	186863LF	186863LF	186865
13	Bearing Bracket	P77179	P77179	P77179
14	Front Bearing	P77216	P77216	P77215
15	Front Bearing Gasket	P80816	P80816	P80816
21	Shaft Assembly	189035LF	189035LF	P81960
11	Seal Kit	118681LF	118681LF	186681LF
2	Body Gasket	P57410	P57410	P57410
	Impeller Key	P04940	P04940	P04940
9	Impeller Nut	P2000236	P2000236	P04670
3	Impeller Washer	P57000	P57000	P04650
12	Oil Well Cover	P81239	P81239	P81239
19	Oil Wick Set	118395	118395	118395

## COUPLER SELECTION

ITEM NO.	PUMP SHAFT SIZE	HP	FRAME SIZE	MOTOR SHAFT SIZE	STANDARD COUPLER	EXPF. COUPLER
5	1/2"	—	B&G	1/2"	118473	P77234
5	1/2"	—	56	5/8"	118709	118635

## SLEEVE BEARING POWER PACK SELECTION

See chart on page 30

■ – Factory recommended spare parts.

\*Steel Impeller.

**NOTE:** Refer to pages 5 & 7 for exploded view of pumps and bearing assembly.

# PARTS FOR SERIES 60

## 1<sup>1</sup>/<sub>2</sub>AA

ITEM NO.	DESCRIPTION	BRONZE FITTED	ALL BRONZE	ALL IRON
1	Volute	186389	186932LF	186389
10	Volute Drain Plug (5 Required)	P39020	P39470	P39020
7	Volute Capscrew (8 Required)	P10620	P01850	P10620
8	Impeller (State Diameter)	P56740	P56740	P61010*
	Flange (2 Required)	P03410	P2000090	P03410
	Fastener Package w/ Flange Gaskets	P64940	P64930	P64940
	Flange Gasket Set	118373	118373	118373
4	Sleeve Bearing Assembly Consisting of:	186863LF	186863LF	186865
13	Bearing Bracket	P77179	P77179	P77179
14	Front Bearing	P77216	P77216	P77215
15	Front Bearing Gasket	P80816	P80816	P80816
21	Shaft Assembly	189035LF	189035LF	P81960
11	Seal Kit	118681LF	118681LF	186681LF
2	Body Gasket	P57410	P57410	P57410
	Impeller Key	P04940	P04940	P04940
9	Impeller Nut	P2000236	P2000236	P04670
3	Impeller Washer	P57000	P57000	P04650
12	Oil Well Cover	P81239	P81239	P81239
19	Oil Wick Set	118395	118395	118395

\*Steel Impeller

## 2AA

ITEM NO.	DESCRIPTION	BRONZE FITTED	ALL BRONZE	ALL IRON
1	Volute	186392	186933LF	186392
10	Volute Drain Plug (5 Required)	P39020	P39470	P39020
7	Volute Capscrew (8 Required)	P10620	P01850	P10620
8	Impeller (State Diameter)	P56810	P56810	P61550*
	Flange (2 Required)	F14200	P2000078	F14200
	Fastener Package w/ Flange Gaskets (2)	P65030	P65031	P65030
	Flange Gasket Set	118378	118378	118378
4	Sleeve Bearing Assembly Consisting of:	186863LF	186863LF	186865
13	Bearing Bracket	P77179	P77179	P77179
14	Front Bearing	P77216	P77216	P77215
15	Front Bearing Gasket	P80816	P80816	P80816
21	Shaft Assembly	189035LF	189035LF	P81960
11	Seal Kit	118681LF	118681LF	186681LF
2	Body Gasket	P57410	P57410	P57410
	Impeller Key	P04940	P04940	P04940
9	Impeller Nut	P2000236	P2000236	P04670
3	Impeller Washer	P57000	P57000	P04650
12	Oil Well Cover	P81239	P81239	P81239
9	Oil Wick Set	118395	118395	118395

\*Steel Impeller

## COUPLER SELECTION

ITEM NO.	PUMP SHAFT SIZE	HP	FRAME SIZE	MOTOR SHAFT SIZE	STANDARD COUPLER	EXPF. COUPLER
5	1/2"	—	B&G	1/2"	118473**	P77234
5	1/2"	—	56C	5/8"	118709	118635

\*\*Use 185329 sleeve-type coupler with 3/4 HP maintenance-free ball bearing motor.

## SLEEVE BEARING POWER PACK SELECTION

See chart on page 30

■ - Factory recommended spare parts.

**NOTE:** Refer to pages 5 & 7 for exploded view of pump and bearing assembly.

# PARTS FOR SERIES 60

## 1 1/2A

ITEM NO.	DESCRIPTION	BRONZE FITTED	ALL BRONZE	ALL IRON
1	Volute	186390	186934LF	186390
10	Volute Drain Plug (5 Required)	P39020	P39470	P39020
7	Volute Capscrew (8 Required)	P40020	P52310	P40020
8	Impeller (State Dia.)	P57445	P57445	P57500
	Flange (2 Required)	P03410	P2000090	P03410
	Fastener Package w/ Flange Gaskets	P64940	P64930	P64940
	Flange Gasket Set	118373	118373	118373
4	Sleeve Bearing Assembly Consisting of:	185260LF	185262LF	185261LF
13	Bearing Bracket	P57282	P57282	P57282
17	Coverplate	P57246	P2000095	P57246
14	Front Bearing*	185241	185241	185241
16	Rear Bearing	185240	185240	185240
21	Shaft Assembly	118469LF	118469LF	P08725
	Coupler Key	H32400	H32400	H32400
11	Seal Kit	186499LF	186499LF	186433
2	Body Gasket	P57700	P57700	P57700
	Impeller Key	P49358	P49358	P49358
9	Impeller Nut	P45910	P2000220	P45910
3	Impeller Washer	P11150	P11220	P11150
12	Oil Well Cover	P57302	P57302	P57302
18	Oil Well Gasket	P57300	P57300	P57300
19	Oil Wick (2 Required)	P04883	P04883	P04883
20	Oil Wick Retainer (2 Required)	P12422	P12422	P12422

## 2A

ITEM NO.	DESCRIPTION	BRONZE FITTED	ALL BRONZE	ALL IRON
1	Volute	186937	186938LF	186937
10	Volute Drain Plug (5 Required)	P39020	P39470	P39020
7	Volute Capscrew (8 Required)	P40020	P52310	P40020
8	Impeller (State Dia.)	P57450	P57450	N/A
	Flange (2 Required)	F14200	P2000078	F14200
	Fastener Package w/ Flange Gaskets (2)	P65030	P65031	P65030
	Flange Gasket Set	118378	118378	118378
4	Sleeve Bearing Assembly Consisting of:	185260LF	185262LF	185261LF
13	Bearing Bracket	P57282	P57282	P57282
17	Coverplate	P57246	P2000095	P57246
14	Front Bearing*	185241	185241	185241
16	Rear Bearing	185240	185240	185240
21	Shaft Assembly	118469LF	118469LF	P08725
	Coupler Key	H32400	H32400	H32400
11	Seal Kit	186499LF	186499LF	186433
2	Body Gasket	P57700	P57700	P57700
	Impeller Key	P49358	P49358	P49358
9	Impeller Nut	P45910	P2000220	P45910
3	Impeller Washer	P11150	P11220	P11150
12	Oil Well Cover	P57302	P57302	P57302
18	Oil Well Gasket	P57300	P57300	P57300
19	Oil Wick (2 Required)	P04883	P04883	P04883
20	Oil Wick Retainer (2 Required)	P12422	P12422	P12422

## COUPLER SELECTION

ITEM NO.	PUMP SHAFT SIZE	HP	FRAME SIZE	MOTOR SHAFT SIZE	STANDARD COUPLER	EXPF. COUPLER
5	5/8"	1/2, 3/4	B&G	1/2"	186410	P77237
5	5/8"	1	56	5/8"	186004	186004
5	5/8"	1	143TZ	5/8"	186004	186004
5	5/8"	1 1/2, 2	56	5/8"	186003	186003
5	5/8"	1 1/2, 2	145TZ	5/8"	186003	186003

## SLEEVE BEARING POWER PACK SELECTION

See chart on page 30

\*Includes P57303 Lip Seal.

■ – Factory recommended spare parts.

**NOTE:** Refer to pages 5 & 7 for exploded view of pump and bearing assembly.

# PARTS FOR SERIES 60

## 2<sup>1</sup>/<sub>2</sub>F

ITEM NO.	DESCRIPTION	BRONZE FITTED	ALL BRONZE
1	Volute	P57232	P2000060
10	Volute Drain Plug (5 Required)	P39040	P39480
7	Volute Capscrew (12 Required)	P03470	S04180
8	Impeller (State Diameter)	P57583	P57583
4	Bearing Assembly Consisting of:	185264LF	185265
13	Bearing Bracket	P57282	P57282
17	Coverplate	P57242	P2000062
14	Front Bearing*	185241	185241
16	Rear Bearing	185240	185240
21	Shaft Assembly	118469	118469
	Coupler Key	H32400	H32400
11	Seal Kit	186499LF	186499LF
2	Body Gasket	P57701	P57701
	Impeller Key	P49358	P49358
9	Impeller Nut	P45910	P2000220
3	Impeller Washer	P11150	P11220
12	Oil Well Cover	P57302	P57302
18	Oil Well Gasket	P57300	P57300
19	Oil Wick (2 Required)	P04883	P04883
20	Oil Wick Retainer (2 Required)	P12422	P12422

## COUPLER SECTION

ITEM NO.	PUMP SHAFT SIZE	HP	FRAME SIZE	MOTOR SHAFT SIZE	STANDARD COUPLER	EXPF. COUPLER
5	5/8"	1 <sup>1</sup> / <sub>2</sub> , 2	145TZ	5/8"	186003	186003
5	5/8"	3	145TC	7/8"	P77279	P77279
5	5/8"	3	182TC	1 <sup>1</sup> / <sub>8</sub> "	P77281	P77281

## SLEEVE BEARING POWER PACK SELECTION

See chart on page 30

\*Includes P57303 Lip Seal.

■ - Factory recommended spare parts.

**NOTE:** Refer to pages 5 & 7 for exploded view of pump and bearing assembly.

# POWER PACK SELECTION FOR SERIES 60 & PD PUMPS

## SLEEVE BEARING POWER PACK SELECTION

ITEM NO.	HP	1 PHASE 115/230V	3 PHASE 208-230/460V	RING MOUNTS
6	1/4	169035*	169037	118228
6	1/3	169038	169039	118228
6	1/2	111044	111046	118228
6	3/4	111047+	111049+	118228
6	1	N/A†	N/A†	118848**
6	1-1/2	N/A	N/A	118848**
6	2	-	N/A	118848
6	3	-	169221 (145TC)	NONE
6	3	-	169223+ (182TC)	NONE

\* 115V only. For 230V, use part number 169036.

+For 200V only, use part number 169222.

\*\* For 3 phase only. Motor mounts for single phase power packs not available.

+ When replacing this sleeve bearing motor with the new maintenance free ball bearing motor, the 118473 spring-type coupler must be changed to the 185329 sleeve-type coupler.

† When replacing this old sleeve bearing motor with the new maintenance free ball bearing motor, the 5/8" x 5/8" coupler part number 186004 must be changed to the 5/8" x 1/2" coupler part number 185330.

**NOTE: Sleeve bearing power packs and maintenance-free ball bearing power packs are interchangeable.**

When replacing a sleeve bearing power pack with a ball bearing power pack, the old motor bracket must be removed from the pump and discarded. The ball bearing power pack is bolted directly to the bearing assembly.

## POWER PACK CROSS REFERENCE

HP	PH	SLEEVE BEARING			MAINTENANCE-FREE BALL BEARING		
		VOLTAGE	MOTOR MOUNTS	POWER PACK PART NO.	VOLTAGE	MOTOR MOUNTS	POWER PACK PART NO.
1/4	1	115/230	118228	169035/169036	115/208-230	118228	169224
1/4	3	208-230/460	118228	169037	208-230/460	118228	169225
1/3	1	115/230	118228	169038	115/208-230	118228	169226
1/3	3	208-230/460	118228	169039	208-230/460	118228	169227
1/2	1	115/230	118228	111044	115/208-230	118228	169228
1/2	3	208-230/460	118228	111046	208-230/460	118228	169229
3/4	1	115/230	118228	111047	115/208-230	118228	169230
3/4	3	208-230/460	118228	111049	208-230/460	118228	169231
1	1	115/230	N/A	N/A	115/208-230	118848	169232
1	3	208-230/460	118848	N/A	208-230/460	118848	169233
1-1/2	1	115/230	N/A	N/A	115/208-230	NONE	169236
1-1/2	3	208-230/460	118848	N/A	208-230/460	NONE	169237
2	3	208-230/460	118848	N/A	208-230/460	NONE	169238
3	3	208-230/460	NONE	169221	208-230/460	NONE	169234

N/A – No Longer Available

— Factory recommended spare parts.

Note: Refer to page 5 for exploded view of pump.

# POWER PACK SELECTION FOR SERIES 60 & PD PUMPS

## BEARING ASSEMBLY CROSS REFERENCE

SLEEVE BEARING			XL-11™ BEARING	
PUMP SIZE	PUMP TYPE	BEARING ASSEMBLY PART NO.	BEARING ASSEMBLY PART NO.	SIZE
PD-35, PD-37, 60 "AA"	IB, BF or AB	186863LF	185332LF*	SMALL
PD-38, PD-39, PD-40, 60 "A"	IB or BF	185260LF	185333LF**	LARGE
PD-38, PD-39, PD-40, 60 "A"	AB	185262LF	185334LF**	LARGE
60 "F"	BF	185264LF	N/A	N/A
60 "F"	AB	185265	N/A	N/A

**NOTE: Sleeve bearing assemblies and XL-11 bearing assemblies are interchangeable.**

\* The 185332 Bearing Assembly is 5/8" longer than the AA sleeve bearing frame

\*\* When replacing a sleeve bearing assembly (oil-lubricated) with a new XL-11 bearing assembly on the larger PD's and 60 "A" size pumps that have the original factory-installed 7" power pack, an adapter kit is required.

## ADAPTER KIT FOR XL-11™ MAINTENANCE-FREE BEARING RETROFIT

MOTOR HP	MOTOR PHASE	ADAPTER KIT PART NUMBER
1	1	185350
1	3	185351
1-1/2	1	185352
1-1/2	3	185353
2	3	185354

## XL-11™ BEARING ASSEMBLIES

ITEM NO.	DESCRIPTION	SMALL	LARGE	
		185332	185333	185334
11	Seal Kit	118681LF	186499LF	186499LF
	XL-11™ Bearing Frame Repair Kit*	185335LF	185337LF	185337LF
2	Volute Gasket	P57410	P57700	P57700
12	Coverplate	NONE	P57246	P2000095
	Coupler Cover	NONE	P03982	P03982

\* Includes pre-assembled shaft, sleeve and bearings, wave spring and volute gasket.

— Factory recommended spare parts.

# PARTS FOR SERIES 1522

## STANDARD SIZE DESIGNATIONS

ITEM NO. PUMP SIZE	PART NO.	BUILT-TO-ORDER EQUIVALENT SIZE	HP	6		RPM	8	IMPELLER DIAMETER	5
				1 PHASE 115/230	3 PHASE TRI-VOLT				
1S-1	173014LF	3/4"AAB	1/4	169040+	–	1750	186359LF	5 1/4"	118473
1T-1	173057	3/4"AAB	1/4	–	169042	1750	186359LF	5 1/4"	118473
2S-1	173078LF	1"AAB	1/3	169043	–	1750	186359LF	5 1/4"	118473
2T-1	173079	1"AAB	1/3	–	169045	1750	186359LF	5 1/4"	118473
3S-1	173080LF	1 1/4"AAB	1/2	169047	–	1750	186368	5 1/4"	118473
3T-1	173081LF	1 1/4"AAB	1/2	–	169049	1750	186368	5 1/4"	118473
4S	173082LF	1 1/2"AAB	3/4	169051	–	1750	118626LF	5 1/4"	118473
4T	173083LF	1 1/2"AAB	3/4	–	169053	1750	118626LF	5 1/4"	118473
5S-1	Obsolete	3/4"AAB	1/2	169048	–	3450	186363	4"	118709
5T-1	Obsolete	3/4"AAB	1/2	–	169050	3450	186363	4"	118709
6S-1	Obsolete	1"AAB	3/4	169052	–	3450	186366LF	3 7/8"	118709
6T-1	Obsolete	1"AAB	3/4	–	169054	3450	186366LF	3 7/8"	118709
7S-1	Obsolete	3/4"AAB	3/4	169052	–	3450	186362LF	4 3/8"	118709
7T-1	Obsolete	3/4"AAB	3/4	–	169054	3450	186362LF	4 3/8"	118709
8S-1	Obsolete	1 1/4"AAB	1	169055	–	3450	186371LF	3 5/8"	118709
8T-1	Obsolete	1 1/4"AAB	1	–	169056	3450	186371LF	3 5/8"	118709
9S-1	Obsolete	3/4"AAB	1 1/2	169057	–	3450	186360LF	5 3/16"	118709
9T-1	Obsolete	3/4"AAB	1 1/2	–	169058	3450	186360LF	5 3/16"	118709
11T	Obsolete	1 1/2"AAB	2	–	169060	3450	186373LF	3 5/16"	118709
12S-1	Obsolete	3/4"AAB	1	169055	–	3450	186361LF	4 11/16"	118709
12T-1	Obsolete	3/4"AAB	1	–	169056	3450	186361LF	4 11/16"	118709
14S	Obsolete	3/4"AAB	1/3	169044	–	3450	186364LF	3 7/16"	118709
14T	Obsolete	3/4"AAB	1/3	–	169046	3450	186364LF	3 7/16"	118709
15T-1	Obsolete	1"AAB	2	–	169060	3450	186359LF	5 1/4"	118709
16S-1	Obsolete	1 1/4"AAB	1 1/2	169057	–	3450	186370LF	4 1/8"	118709
16T-1	Obsolete	1 1/4"AAB	1 1/2	–	169058	3450	186370LF	4 1/8"	118709
17S	Obsolete	1 1/2"AAB	1 1/2	169057	–	3450	186375LF	3 11/16"	118709
17T	Obsolete	1 1/2"AAB	1 1/2	–	169058	3450	186375LF	3 11/16"	118709

+115V Only. For 230V, use 196041.

■ – Factory recommended spare parts.

**NOTE:** Refer to pages 6 & 7 for exploded view of pump and bearing assembly.



# PARTS FOR SERIES 1522

## 3/4AAB

ITEM NO.	DESCRIPTION	BRONZE FITTED	ALL BRONZE	ALL IRON	SS	BFE
1	Volute	186074	186333LF	186074	N/A	186074
10	Volute Drain Plug (4 Req'd)	P39020	P39470	P39020	P39030	P39020
7	Volute Capscrew (8 Req'd)	P10620	P01850	P10620	P00660	P10620
8	Impeller (State Diameter)	P56550	P56550	P60350*	N/A	P56550
4	Bearing Assembly Consisting of:	186863LF	186863LF	186865	N/A	P10316**
13	Bearing Bracket	P77179	P77179	P77179	P77198	P77179
14	Front Bearing	P77216	P77216	P77215	P77217	P77216
15	Front Bearing Gasket	P80816	P80816	P80816	P80816	P80816
21	Shaft	189035LF	189035LF	P81960	P59991	189035LF
11	Seal	118681LF	118681LF	186681LF	186875	185230LF
2	Body Gasket	P57410	P57410	P57410	P57410	P57410
	Impeller Key	P04940	P04940	P04940	P04945	P04940
9	Impeller Nut	P2000236	P2000236	P04670	P00651	P44200
3	Impeller Washer	P57000	P57000	P04650	P04660	P57000
12	Oil Well Cover	P81239	P81239	P81239	P81239	P81239
19	Oil Wick Set	118395	118395	118395	118395	118395
	Flat Head Capscrew (4 Req'd)	NONE	NONE	NONE	P51190	NONE
17	Coverplate	NONE	NONE	NONE	P09421	NONE

## 1AAB

ITEM NO.	DESCRIPTION	BRONZE FITTED	ALL BRONZE	ALL IRON	SS	BFE
1	Volute	186075	P2000016	186075	N/A	186075
10	Volute Drain Plug (4 Req'd)	P39020	P39470	P39020	P39030	P39020
7	Volute Capscrew (8 Req'd)	P10620	P01850	P10620	P00660	P10620
8	Impeller (State Diameter)	P56550	P56550	P60350*	N/A	P56550
4	Bearing Assembly Consisting of:	186863LF	186863LF	186865	N/A	P10316**
13	Bearing Bracket	P77179	P77179	P77179	P77198	P77179
14	Front Bearing	P77216	P77216	P77215	P77217	P77216
15	Front Bearing Gasket	P80816	P80816	P80816	P80816	P80816
21	Shaft	189035LF	189035LF	P81960	P59991	189035
11	Seal	118681LF	118681LF	186681LF	186875	185230
2	Body Gasket	P57410	P57410	P57410	P57410	P57410
	Impeller Key	P04940	P04940	P04940	P04945	P04940
9	Impeller Nut	P2000236	P2000236	P04670	P00651	P44200
3	Impeller Washer	P57000	P57000	P04650	P04660	P57000
12	Oil Well Cover	P81239	P81239	P81239	P81239	P81239
19	Oil Wick Set	118395	118395	118395	118395	118395
	Flat Head Capscrew (4 Req'd)	NONE	NONE	NONE	P51190	NONE
17	Coverplate	NONE	NONE	NONE	P09421	NONE

## COUPLER SELECTION

ITEM NO.	PUMP SHAFT SIZE	HP	FRAME SIZE	MOTOR SHAFT SIZE	STANDARD	EXPLOSION PROOF
5	1/2"	—	B&G	1/2"	118473	P77234
5	1/2"	—	B&G	5/8"	118709	118635
5	1/2"	—	56C	5/8"	118709	118635

## POWER PACK SELECTION

ITEM NO.	HP	1PH, 115/230V 1725 RPM	1PH, 230/460V 3450 RPM▼	3PH, 208-230/460V 1725 RPM	3PH, 208-230/460V 3450 RPM▼	MOUNTING RINGS
6	1/4	169040+	NONE	169042	NONE	118228
6	1/3	169043	169044	169045	169046	118228
6	1/2	169047	169048	169049	169050	118228
6	3/4	169051	169052	169053	169054	118228
6	1	NONE	169055	NONE	169056	NONE
6	1 1/2	NONE	169057	NONE	169058	NONE
6	2	NONE	N/A	NONE	169060	NONE

\*Steel Impeller.

\*\*Doesn't include body gasket, impeller nut or impeller gasket.

N/A – Not Available

+115V Only. For 230V, use 196041

▼For replacement purposes only. 1522 pumps are no longer available with this option.

■ – Factory recommended spare parts.

**NOTE:** Refer to pages 6 & 7 for exploded view of pump and bearing assembly.

# PARTS FOR SERIES 1522

## 1<sup>1</sup>/<sub>4</sub>AAB

ITEM NO.	DESCRIPTION	BRONZE FITTED	ALL BRONZE	ALL IRON	SS	BFE
1	Volute	186081	P2000018	186081	N/A	186081
10	Volute Drain Plug (4 Req'd)	P39020	P39470	P39020	P39030	P39020
7	Volute Capscrew (8 Req'd)	P10620	P01850	P10620	P00660	P10620
8	Impeller (State Diameter)	P56740	P56740	P61010*	N/A	P56740
4	Bearing Assembly Consisting of:	186863LF	186863LF	186865	N/A	P10316**
13	Bearing Bracket	P77179	P77179	P77179	P77198	P77179
14	Front Bearing	P77216	P77216	P77215	P77217	P77216
15	Front Bearing Gasket	P80816	P80816	P80816	P80816	P80816
21	Shaft	189035	189035	P81960	P59991	189035
11	Seal	118681LF	118681LF	186681LF	186875	185230
2	Body Gasket	P57410	P57410	P57410	P57410	P57410
	Impeller Key	P04940	P04940	P04940	P04945	P04940
9	Impeller Nut	P2000236	P2000236	P04670	P00651	P44200
3	Impeller Washer	P57000	P57000	P04650	P04660	P57000
12	Oil Well Cover	P81239	P81239	P81239	P81239	P81239
19	Oil Wick Set	118395	118395	118395	118395	118395
	Flat Head Capscrew (4 Req'd)	NONE	NONE	NONE	P51190	NONE
17	Coverplate	NONE	NONE	NONE	P09421	NONE

## 1<sup>1</sup>/<sub>2</sub>AAB

ITEM NO.	DESCRIPTION	BRONZE FITTED	ALL BRONZE	ALL IRON	SS	BFE
1	Volute	186087	186334	186087	N/A	186087
10	Volute Drain Plug (4 Req'd)	P39020	P39470	P39020	P39030	P39020
7	Volute Capscrew (8 Req'd)	P10620	P01850	P10620	P00660	P10620
8	Impeller (State Diameter)	P56810	P56810	P61550*	N/A	P56810
4	Bearing Assembly Consisting of:	186863LF	186863LF	186865	N/A	P10316**
13	Bearing Bracket	P77179	P77179	P77179	P77198	P77179
14	Front Bearing	P77216	P77216	P77215	P77217	P77216
15	Front Bearing Gasket	P80816	P80816	P80816	P80816	P80816
21	Shaft	189035	189035	P81960	P59991	189035
11	Seal	118681LF	118681LF	186681LF	186875	185230
2	Body Gasket	P57410	P57410	P57410	P57410	P57410
	Impeller Key	P04940	P04940	P04940	P04945	P04940
9	Impeller Nut	P2000236	P2000236	P04670	P00651	P44200
3	Impeller Washer	P57000	P57000	P04650	P04660	P57000
12	Oil Well Cover	P81239	P81239	P81239	P81239	P81239
19	Oil Wick Set	118395	118395	118395	118395	118395
	Flat Head Capscrew (4 Req'd)	NONE	NONE	NONE	P51190	NONE
17	Coverplate	NONE	NONE	NONE	P09421	NONE

## COUPLER SELECTION

ITEM NO.	PUMP SHAFT SIZE	HP	FRAME SIZE	MOTOR SHAFT SIZE	STANDARD	EXPLOSION PROOF
5	1/2"	—	B&G	1/2"	118473	P77234
5	1/2"	—	B&G	5/8"	118709	118635
5	1/2"	—	56C	5/8"	118709	118635

## POWER PACK SELECTION

ITEM NO.	HP	1PH, 115/230V 1725 RPM	1PH, 230/460V 3450 RPM▼	3PH, 208-230/460V 1725 RPM	3PH, 208-230/460V 3450 RPM▼	MOUNTING RINGS
6	1/4	169040+	NONE	169042	NONE	118228
6	1/3	169043	169044	169045	169046	118228
6	1/2	169047	169048	169049	169050	118228
6	3/4	169051	169052	169053	169054	118228
6	1	NONE	169055	NONE	169056	NONE
6	1 1/2	NONE	169057	NONE	169058	NONE
6	2	NONE	N/A	NONE	169060	NONE

\*Steel Impeller.

\*\*Doesn't include body gasket, impeller nut or impeller gasket.

N/A – Not Available

+115V Only. For 230V, use 196041

▼For replacement purposes only. 1522 pumps are no longer available with this option.

■ – Factory recommended spare parts.

**NOTE:** Refer to pages 6 & 7 for exploded view of pump and bearing assembly.

## SEAL SELECTION CHART

SEAL KIT* NO.	SEAL ONLY NO. (LESS SEAT INSERT)	FOR PUMP MODEL(S)	ELASTOMER MATERIAL	SEAL BODY CONSTRUCTION	SEAT INSERT MATERIAL
118681LF (KIT #7)	118680LF	Series 100, HV, 2", PR, LD-3, HD-3, PD-35, PD-37, Series 60 "AA", 1522, Obs. 1", Obs. 1 1/4", Obs. 1 1/2", Obs. HV, Obs. 2", MF 60 with 5 1/4" and 6 1/4" impellers	Buna-N	Brass	Ceramic
185222 (KIT #13)	–	Series 100, HV, 2", PR, LD-3, HD-3, PD-35, PD-37, Series 60 "AA", 1522, Obs. 1", Obs. 1 1/4", Obs. 1 1/2", Obs. HV, Obs. 2"	EPT	Steel	Tungsten Carbide
185223LF (KIT #14)	–	PD-38, PD-40, Series 60 "A", Series 60 2 1/2F, Obs. PD-39, MF 60 with 7" impellers	EPT	Steel	Tungsten Carbide
185224 (KIT #15)	–	PD-38, PD-40, Series 60 "A", Series 60 2 1/2F, Obs. PD-39	EPT	Steel	Tungsten Carbide
185227 (KIT #18)	–	PD-38, PD-40, Series 60 "A", Series 60 2 1/2F, Obs. PD-39	Teflon	Stainless Steel	Ceramic
185230LF (KIT #12)	118682	Series 100, HV, 2", PR, LD-3, HD-3, PD-35, PD-37, Series 60 "AA", 1522, Obs. 1", Obs. 1 1/4", Obs. 1 1/2", Obs. HV, Obs. 2", MF 60 with 5 1/4" and 6 1/4" impellers	EPT	Brass	Tungsten Carbide
186433 (KIT #5)	–	PD-38, PD-40, Series 60 "A", Series 60 2 1/2F, Obs. PD-39	Buna-N	Steel	Ceramic
186499LF (KIT #2)	–	PD-38, PD-40, Series 60 "A", Series 60 2 1/2F, Obs. PD-39, MF 60 with 7" impellers	Buna-N	Brass	Ceramic
186681 (KIT #6)	–	Series 100, HV, 2", PR, LD-3, HD-3, PD-35, PD-37, Series 60 "AA", 1522, Obs. 1", Obs. 1 1/4", Obs. 1 1/2", Obs. HV, Obs. 2"	Buna-N	Steel	Ceramic
186875	P59861	Series 100, HV, 2", PR, LD-3, HD-3, PD-35, PD-37, Series 60 "AA", 1522, Obs. 1", Obs. 1 1/4", Obs. 1 1/2", Obs. HV, Obs. 2", MF 60 with 5 1/4" and 6 1/4" impellers	Viton	Stainless Steel	Ceramic
189144LF	–	PL-30, PL-30B, PL-36, PL-36B, PL-45, PL-45B, PL-50, PL-50B, PL-75, PL-75B	EPT	Brass	SiC
189174LF	–	PL-130/2, PL130B/2, PL-130/3, PL-130B/3	EPT	Brass	SiC
189577LF	–	PL-55, PL-55B	EPT	Brass	SiC

Obs. – Obsolete pump models.

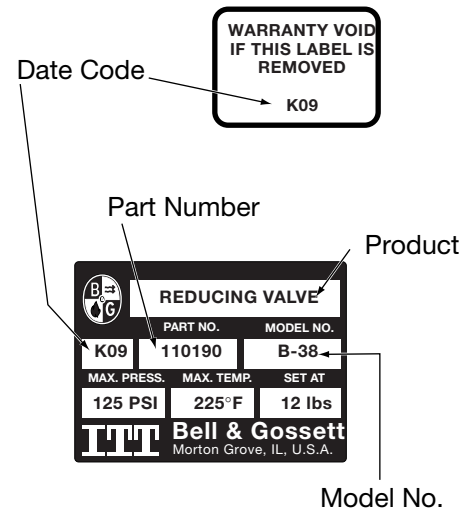
EPT – Ethyl Propylene Terpolymer (not oil resistant).

■ – Factory recommended spare parts.

# How to Select Parts for Hydronic Specialties or Engineered Specialties

The nameplate on any unit in the Hydronic Specialties or Engineered Hydronic Product line identifies the specific unit by product type, model number and six digit part number as shown in the example right.

The nameplate below right identifies the product as a reducing valve, model number B-38 with a part-number of 110190. The valve was manufactured in October, 1990. If the date code is not imprinted in the nameplate, a label displaying the date of manufacture identical to the example, above right, can be found on the product. Although all nameplates in the Hydronic Specialties and Engineered Hydronic Product lines are not alike, all will display the product type, part number and model number. **DO NOT REMOVE THE NAMEPLATE OR THE LABEL.** They identify the unit for future reference. It is important when ordering replacement parts to furnish complete nameplate data.

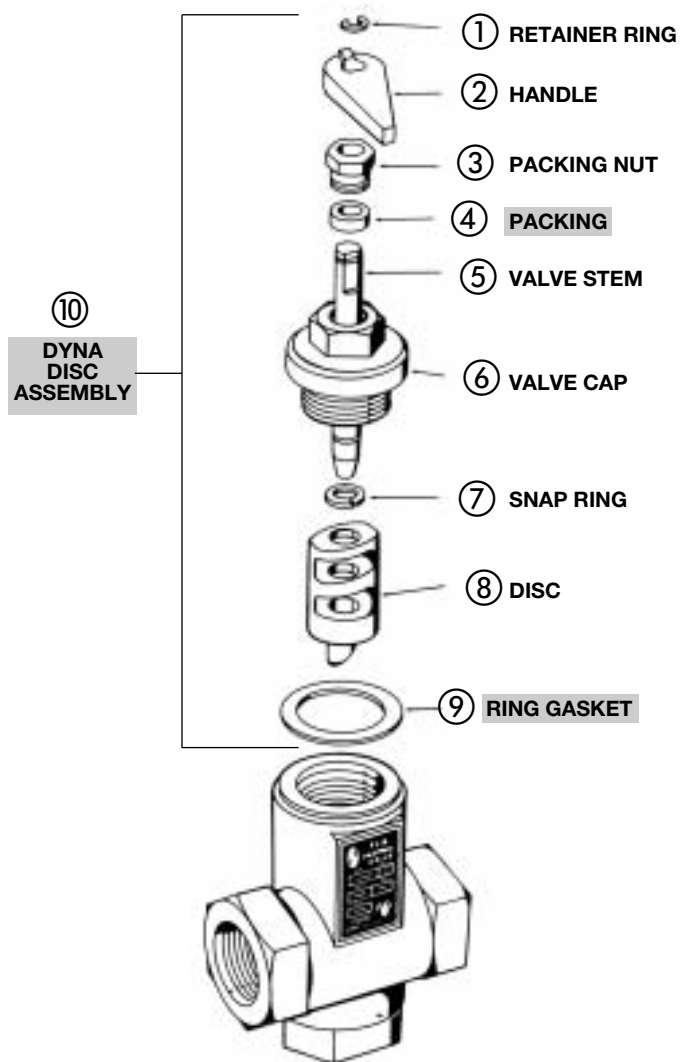
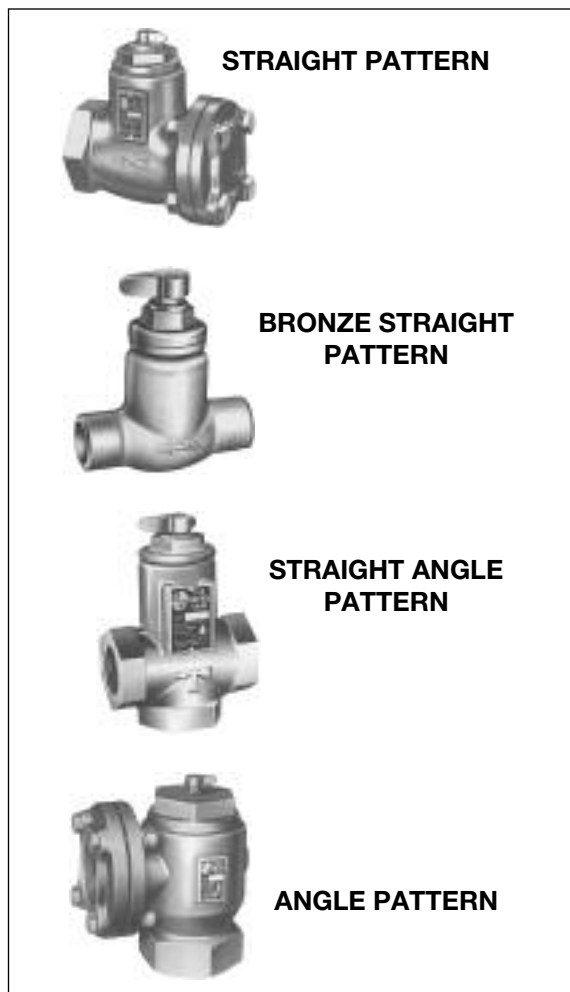


To insure the correct parts will be selected, follow the procedure below:

1. Determine from the nameplate the product type, model number and six digit part number.
2. Determine the date the unit was manufactured. See chart below.
3. Refer to the index for the page number of the parts breakdown for the specific product type.
4. Find the proper column in the parts breakdown for the model number involved.
5. Select part numbers using the exploded views for parts identification.

DATE OF MANUFACTURE CODE											
The date code is made up of two or three characters depending upon the year.											
1946-1960 The number denotes the month. The last character is a letter and denotes the year.			1961-82 Two characters. First letter is month. Second letter is year.			1983- Three characters. The letter denotes the month. The numbers denote the year.					
1	January	G	1946	A	January	A	1961	A	January	78	1987
2	February	H	1947	B	February	B	1962	B	February	88	1988
3	March	J	1948	C	March	C	1963	C	March	98	1989
4	April	K	1949	D	April	D	1964	D	April	09	1990
5	May	L	1950	E	May	E	1965	E	May	19	1991
6	June	M	1951	F	June	F	1966	F	June	29	1992
7	July	N	1952	G	July	G	1967	G	July	39	1993
8	August	P	1953	H	August	H	1968	H	August	49	1994
9	September	R	1954	J	September	J	1969	J	September	59	1995
10	October	T	1955	K	October	K	1970	K	October	69	1996
11	November	U	1956	L	November	L	1971	L	November	79	1997
12	December	V	1957	M	December	M	1972	M	December	89	1998
		W	1958			N	1973			99	1999
		X	1959			P	1974			00	2000
		Y	1960			R	1975			10	2001
						T	1976			20	2002
						U	1977			30	2003
						V	1978			40	2004
						W	1979			50	2005
						X	1980			60	2006
						Y	1981			70	2007
						Z	1982			80	2008
										90	2009

# PARTS FOR FLO-CONTROL VALVES

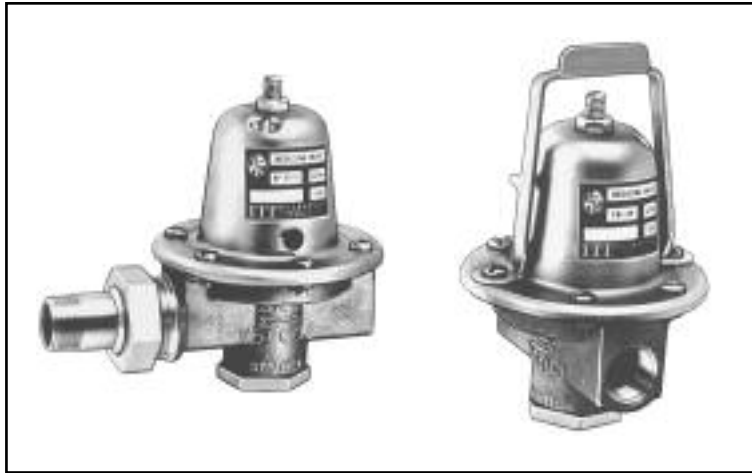


ITEM NO.	DESCRIPTION	SA-3/4 107034	SA-1 107018	SA-1 1/4 107019	SA-1 1/2 107020	SB-3/4 107024	SA-2 107021	A-2 1/2 107006 S-2 1/2 107014	A-3 107007 S-3 107015	S-4 107004
10	Dyna Disc Assembly	189168	118117	118094	118095	118864	118095	118096	118096	118118
1	Retainer Ring	J92350	F02800	F20800	F20800	J92350	F20800	F22200	F22200	F06800
3	Packing Nut	118056	118056	118056	118056	118056	118056	118056	118056	F16600
4	Packing	118057	118057	118057	118057	118057	118057	118057	118057	F17000
7	Snap Ring	F42800	F42800	F42800	F42800	F42800	F42800	F42800	F42800	NONE
9	Ring Gasket	F43000	F44400	F47200	F49000	V56936	F49000	F27800	F27800	F19000
	Flange Gasket	NONE	NONE	NONE	NONE	NONE	F26200	G82750	G86500	F17400

■ - Factory recommended spare parts.

**NOTE:** Consult factory if parts other than those listed above are required.

# PARTS FOR PRESSURE REDUCING VALVES & DUAL UNIT VALVES (a)



**ASSEMBLED REDUCING VALVES**

ITEM NO.	DESCRIPTION	PART NUMBER
	Repair Kit*	118861
5	Diaphragm	118029
14	Rubber Check Valve (Round**)	V51658
11	Strainer (B-38, B-38TU, FB-38, FB-38TU, #6***)	118036
11	Strainer (#7***, B7-12)	189160
10	Strainer Nut & O-ring	V14609
	Tail Piece Assembly (B-38TU, FB-38TU, 8TU, F-8TU)	V51747
	Tail Piece Gasket	V51657

■ - Factory recommended spare parts.

(a) Parts are not available for the relief valve of each Dual Unit Valve model.

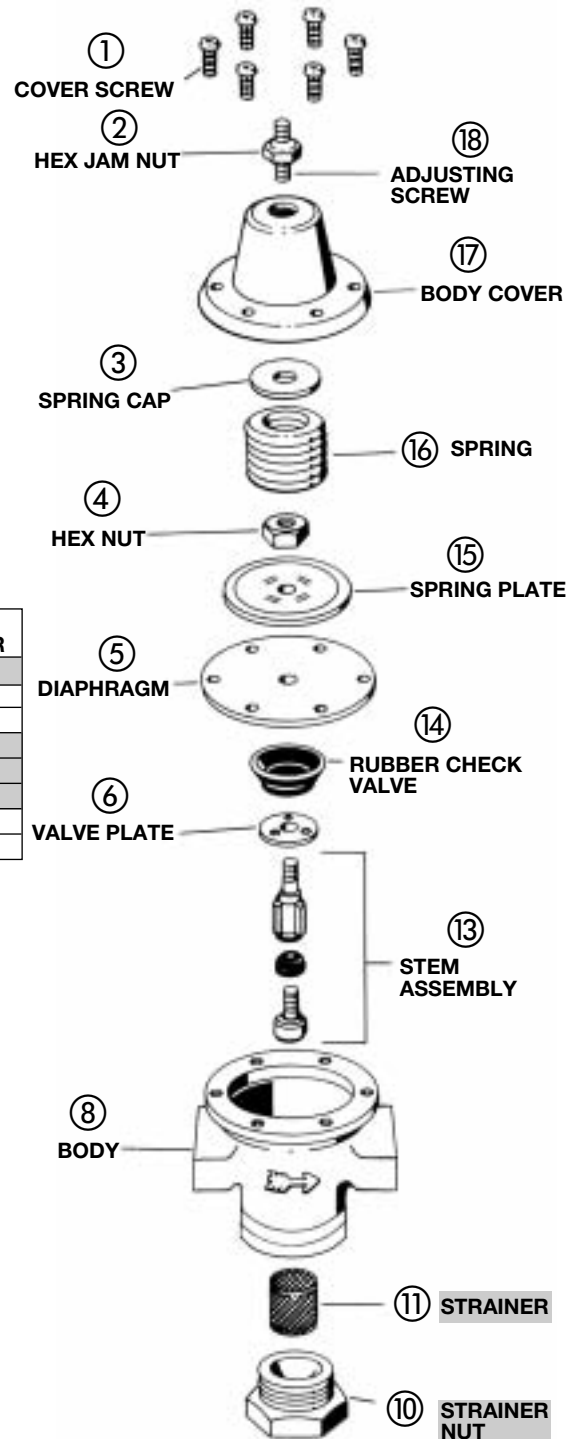
\*Repair Kit includes diaphragm, rubber check valve, valve plate, stem assembly, strainers, hex nuts and loctite.

\*\*Old style check valve is hexagon-shaped.

\*\*\*Manufactured May, 1988 (E88 date code) and after.

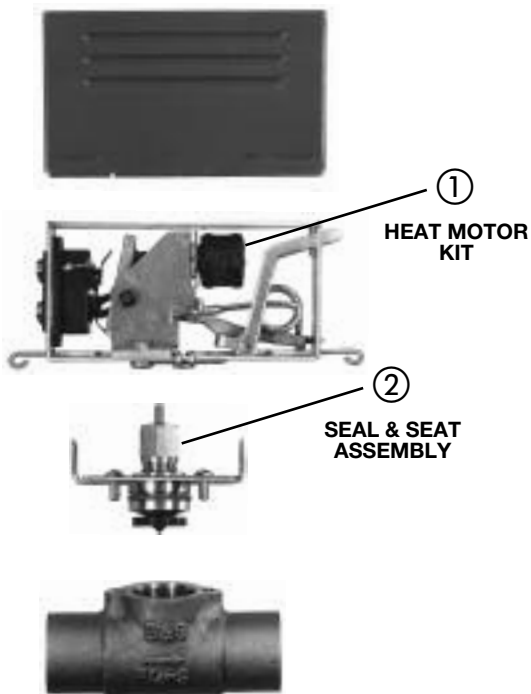
**NOTE:** Consult factory if replacement parts other than those listed above are required.

Consult factory if replacement parts are required for old style reducing valves and dual unit valves with the following model no's: #6 and #7 (date code D88 and before), #12, D525, B3, B8, FB3, FB8, F3, F8, #3, #8 and B7.

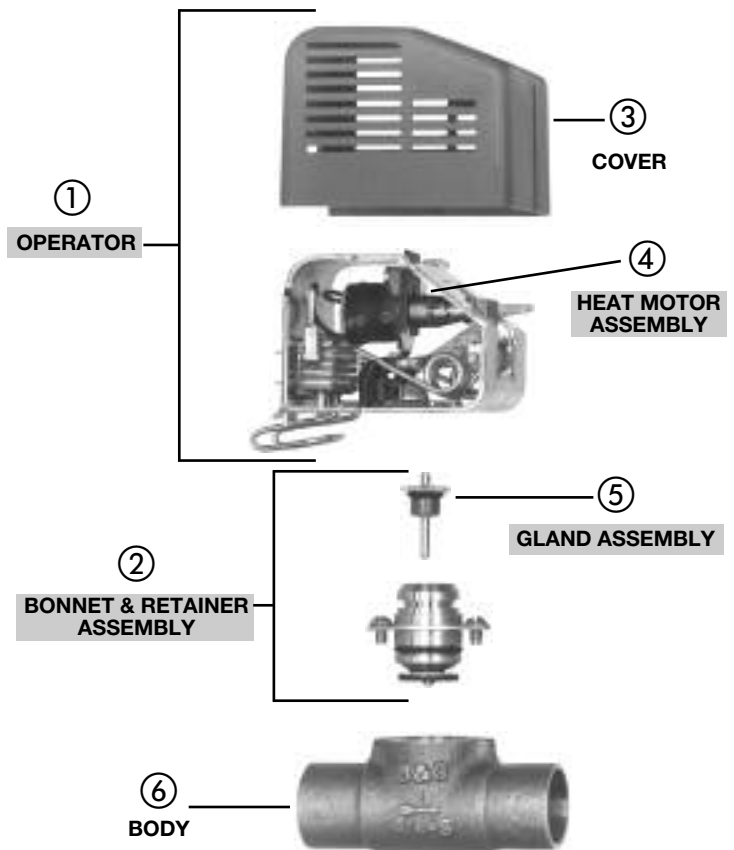


# PARTS FOR COMFORT-TROL/ OBSOLETE MODUMATE ZONE VALVES

## ASSEMBLED MODUMATE VALVE (M-1) OBSOLETE



## ASSEMBLED COMFORT-TROL VALVE

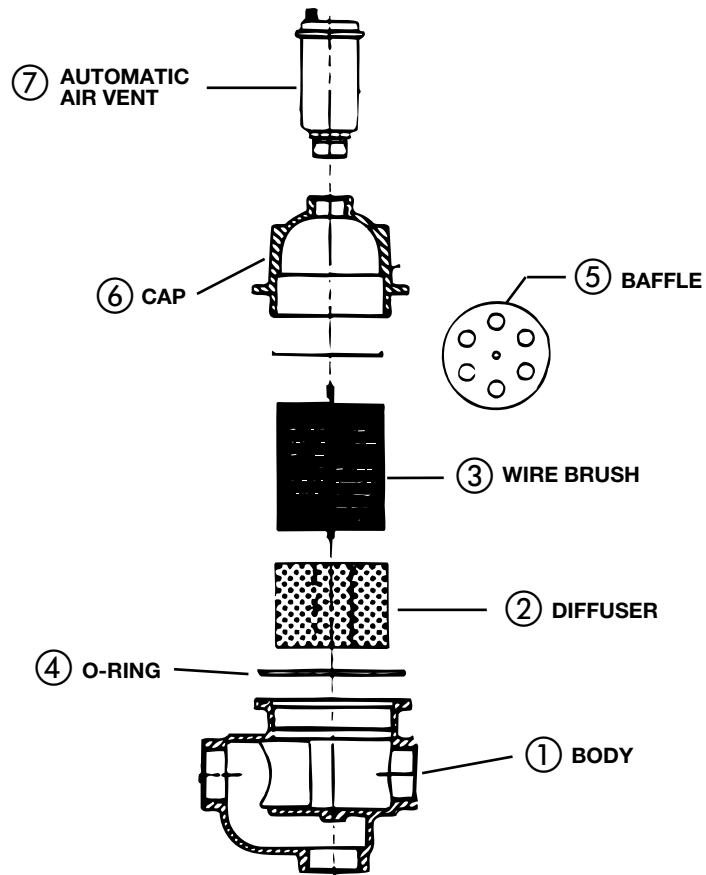


ITEM NO.	DESCRIPTION	PART NO.
1	Heat Motor Kit	189143
2	Seal & Seat Assembly	189060

ITEM NO.	DESCRIPTION	PART NO.
1	Operator	109024
2	Bonnet & Retainer Assembly (6 Pack)	189139
3	Cover	V01340
4	Heat Motor Assembly (6 Pack)	189137
5	Gland Assembly (6 Pack)	189138
6	Body (CTS-7524)	V01103

■ - Factory recommended spare parts.

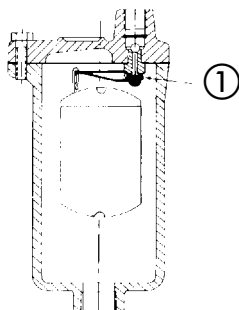
# ENHANCED AIR SEPARATORS



ITEM NO.	DESCRIPTION	MODEL			
		EAS-1	EAS-1 <sup>1</sup> / <sub>4</sub>	EAS-1 <sup>1</sup> / <sub>2</sub>	EAS-2
1	Body	A03831	A03832	A03715	A03716
2	Diffuser	A03837	A03837	A03717	A03717
3	Wire Brush	A03836	A03836	A03718	A03718
4	O-Ring	A03841	A03841	A03719	A03719
5	Baffle	A03835	A03835	A03720	A03720
6	Cap	A03834	A03834	A03722	A03722
7	Air Vent	A03842	A03842	A03842	A03723



# PARTS FOR MODEL 107A HIGH CAPACITY AIR VENT



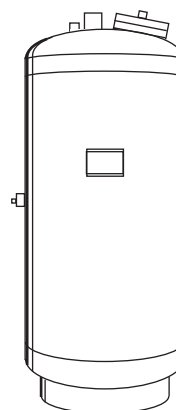
ITEM NO.	DESCRIPTION	PART NO.
1	Lever, Button & Gasket	118855

**MODEL 107A VENT**

## REPLACEMENT BLADDER PARTS FOR THE B & B-LA SERIES TANKS

### SERIES "B" REPLACEMENT BLADDERS

TANK PART NUMBER	TANK MODEL NUMBER	BLADDER PART NUMBER
116550	B-200	189579
116551	B-300	189580
116552	B-400	189581
116553	B-500	189582
116554	B-600	189583
116555	B-800	189584
116556	B-1000	189585
116557	B-1200	189586
116558	B-1400	189587
116559	B-1600	189588
116560	B-2000	189589
116793	B-2500	189590
116794	B-3000	189591
116795	B-3500	189592
116796	B-4000	189593
116819	B-5000	189597



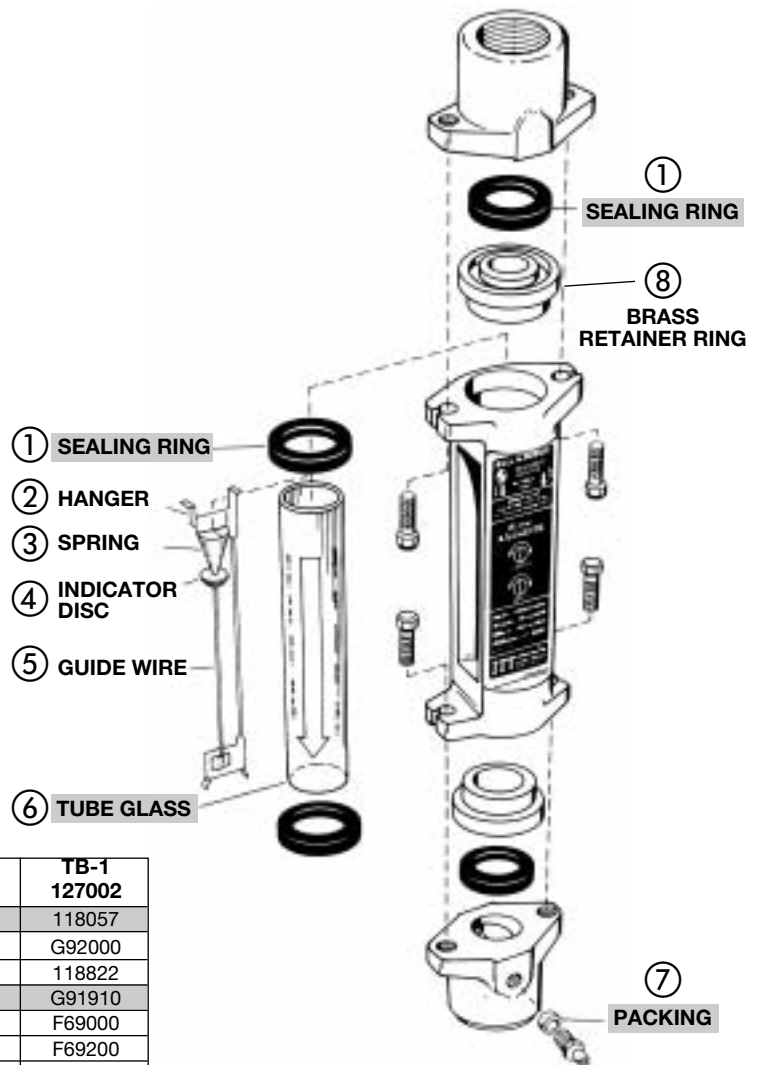
### SERIES "B-LA" REPLACEMENT BLADDERS

TANK PART NUMBER	TANK MODEL NUMBER	BLADDER PART NUMBER
116782	B-35 LA	189594
116783	B-50 LA	
116784	B-85 LA	
116785	B-100 LA	189595
116786	B-130 LA	
116787	B-165 LA	
116788	B-200 LA	
116789	B-300 LA	189596
116790	B-400 LA	
116791	B-500 LA	
116792	B-600 LA	

# PARTS FOR THERMOFLO BALANCERS



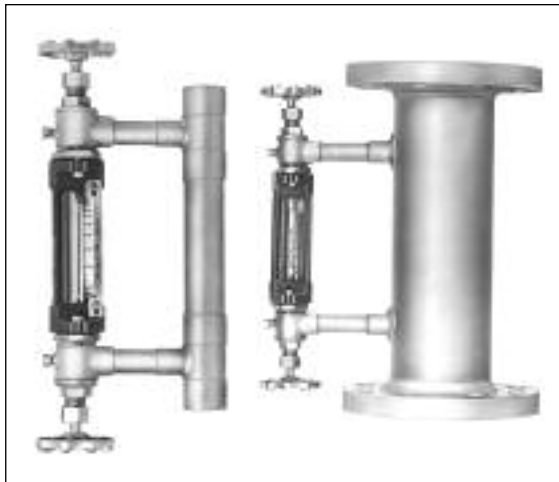
**ASSEMBLED THERMOFLO BALANCER**



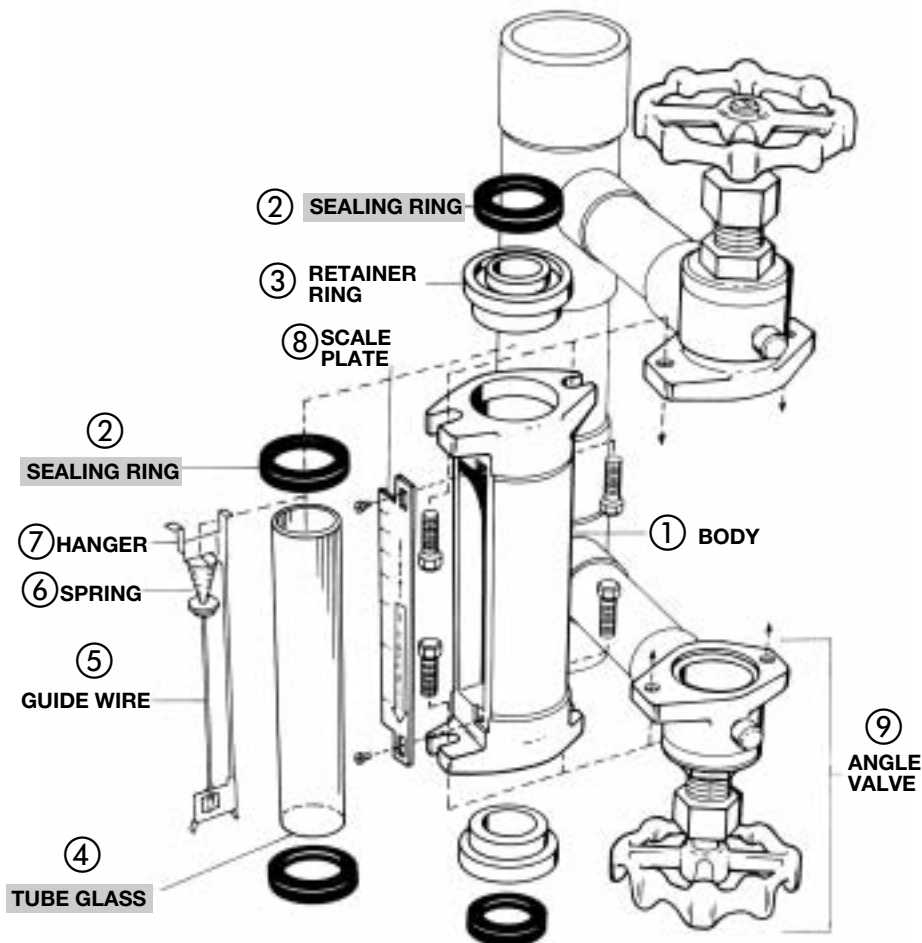
ITEM NO.	DESCRIPTION	TB-3/4 127001	TB-1 127002
7	Packing	118057	118057
8	Retainer Ring - Brass (2 required)	G92000	G92000
	Glass Tube Kit Consisting of:	118098	118822
6	Tube Glass	G91908	G91910
2	Hanger	F69000	F69000
5	Guide Wire	F69200	F69200
4	Indicator Disc	F62800	NONE
3	Spring	F66800	F66200
1	Sealing Ring (4 required)	F67200	F67200

■ - Factory recommended spare parts.

# PARTS FOR THERMOFLO INDICATORS



**ASSEMBLED THERMOFLO INDICATOR**



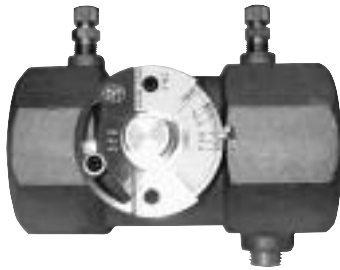
ITEM NO.	DESCRIPTION	TFI-1 <sup>1</sup> / <sub>4</sub> 140001	TFI-1 <sup>1</sup> / <sub>2</sub> 140002	TFI-2 140003	TFI-2 <sup>1</sup> / <sub>2</sub> 140004	TFI-3 140005	TFI-4 140006	TFI-5 140007	TFI-6 140008	TFI-8 140009
1	Body	G92500	→	→	→	→	→	→	→	→
3	Retainer Ring (2 req'd)	G92000	→	→	→	→	→	→	→	→
9	Angle Valve (2 req'd)	G95000	→	→	→	→	→	→	→	→
	Glass Tube Kit New Style (Clear)	189111	→	→	→	→	NONE	NONE	NONE	NONE
	Glass Tube Kit Old Style (Etched)	118820	→	→	→	→	→	→	→	→
8	Scale Plate	G95594	G95595	G95596	G95597	G95598	G95915	G95916	G95917	G95918

## GLASS TUBE KITS

ITEM NO.	DESCRIPTION	CLEAR 189111	ETCHED 118820
4	Tube Glass	G91900	G91904
7	Hanger	F69000	→
5	Guide Wire	F69200	→
6	Spring	F66800	→
2	Sealing Ring (4 required)	F67200	→

■ - Factory recommended spare parts.

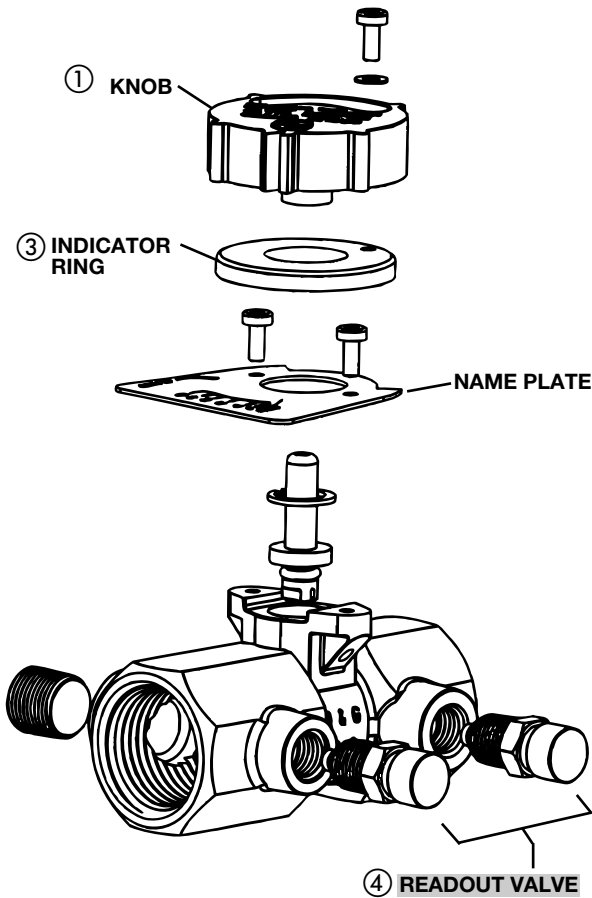
# CIRCUIT SETTER BALANCE VALVES



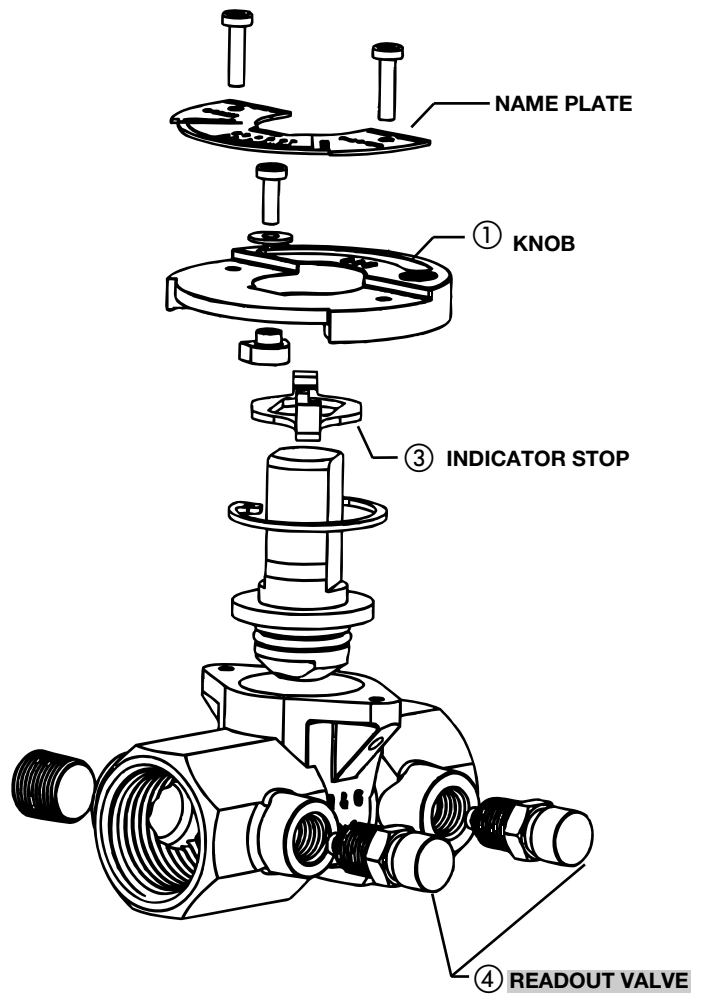
**BALL STYLE VALVES**



**VANE STYLE VALVE\***



**SMALL DESIGN BALL STYLE VALVE**  
1/2" - 1"



**LARGE DESIGN BALL STYLE VALVE**  
1 1/4" - 3"

\*Exploded view for obsolete Vane Style Valve is not shown. Replacement parts are not available.

■ - Factory recommended spare parts.

# PARTS FOR CIRCUIT SETTERS (CONTINUED)

## CIRCUIT SETTER "RF" & CIRCUIT SETTER PLUS

### BALL STYLE VALVES (see page 44 for exploded view of current style valves)

		Valves Manuf. before July 2000 (G00 Date Code)	Valves Manuf. July 2000 & After (G00 Date Code)	Valves Manuf. July 2000 & After (G00 Date Code)	Valves Manuf. before Jan. 2004 (A40 Date Code)	Valves Manuf. Jan. 2004 & After (A40 Date Code)	All Valves
MODEL NO.	PART NO.	KNOB		INDICATOR STOP	READOUT VALVE		READOUT PROBE
RF-1/2S	117410	G10105	G10105	-	G97030 (1 Pair)* (1/8" NPT)	V58050 (Each) (1/4" NPT)	G97032 (1 Pair)**
RF-3/4S	117411	G10105	G10105	-			
CB-1/2	117414	G95951	G95951	-			
CB-1/2S	117412	G95951	G95951	-			
CB-3/4	117415	G95951	G95951	-			
CB-3/4S	117413	G95951	G95951	-			
CB-1	117416	G95951	G95951	-			
CB-1S	117401	G95951	G95951	-			
CB-11/4	117103	-	G96831	G96839			
CB-11/4S	117402	-	G96831	G96839			
CB-11/2	117104	-	G96831	G96839			
CB-11/2S	117403	-	G96831	G96839			
CB-2	117105	-	G96831	G96839			
CB-2S	117404	-	G96831	G96839			
CB-21/2	117106	-	G96831	G96839			
CB-21/2F	117116	-	G96831	G96839			
CB-3	117107	-	G96831	G96839			
CB-3F	117117	-	G96831	G96839			
CB-4†	117035	-	G96831	G96839			

\*Also use Readout Valve model RV-125A, P/N 113100 (50 pairs per package).

\*\*Also use Readout Probe model RP-250B, P/N 113102 (6 pairs per package).

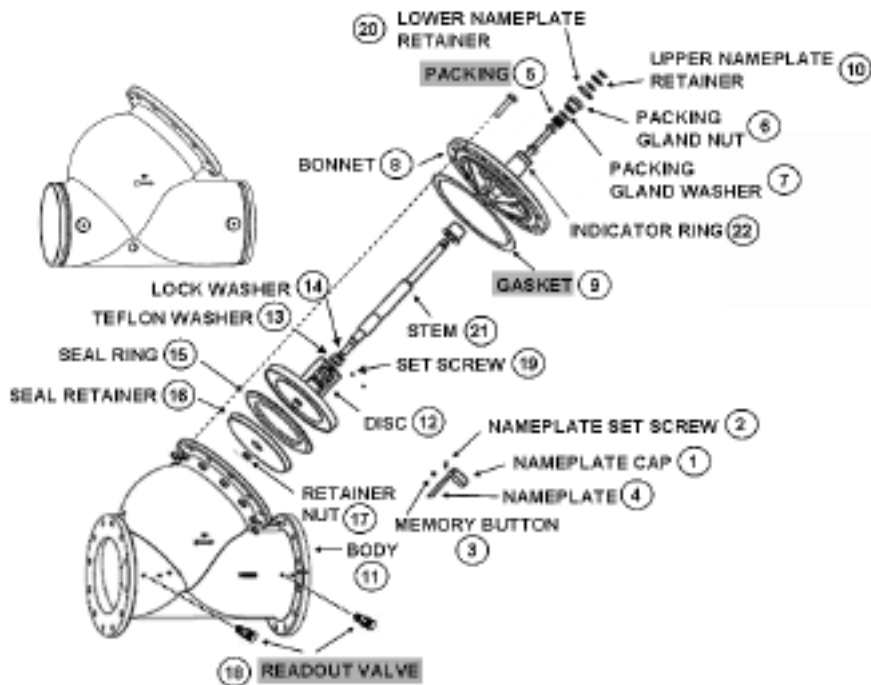
† - CB-4 manufactured after March 2001.

■ - Factory recommended spare parts.

# PARTS FOR CIRCUIT SETTERS (CONTINUED)



**GLOBE STYLE VALVE**



## GLOBE STYLE VALVES

ITEM NO.	DESCRIPTION	CB-4F 117470	CB-4G 117476	CB-5F 117471	CB-5G 117477	CB-6F 117472	CB-6G 117478	CB-8F 117473	CB-8G 117479	CB-10F 117474	CB-10G 117480	CB-12F 117475	CB-12G 117481
11	Body Assembly*	V50833	V18802	V50834	V50821	V50835	V50822	V50836	V50823	V50837	V50824	V50838	V50825
9	Gasket	V29400		V32801		V33001		V35000		V36400		V36401	
8	Bonnet	V51128		V51130		V51132		V51134		V51136		V51138	
21	Stem	V59171		V59172		V59173		V59174		V59175		V59176	
6	Packing Gland Nut	V51281						V51183					
7	Packing Gland Washer	V51282						V51184					
5	Packing	V51096 (3 Req'd)										V51097 (4 Req'd)	
18	Readout Valve (1 set)	G97010											
3	Memory Button	V56880											
4	Nameplate	290501	228622	290502	228623	290503	228624	290504	228625	290505	228626	290506	228627
1	Nameplate Cap	V51114										V51119	
2	Nameplate Screw (2 req'd)	J92135											
10	Upper Nameplate Retainer	V51091						V51183					
20	Lower Nameplate Retainer	V51094						V51184					
22	Indicator Ring	V51181										J94171	
	Disc Assembly**	V51765		V51766		V51767		V51768		V50991		-	
12	Disc**	G10009		G10010		G10011		G10012		V50992		V50993	
15	Seal Ring**	V50935		V50936		V50937		V50938		V50939		V50940	
16	Seal Retainer	G10013		G10014		G10015		G10016		V50994		V50995	
17	Retainer Nut**	J91635						J91636					
14	Lockwasher**	G10027						G10035					
13	Teflon Washer**	G10031						G10039					
19	Set Screw**	J92020											

\*Body assembly includes seat ring.

\*\*When replacing the disc, all six disc parts are necessary.

■ - Factory recommended spare parts.

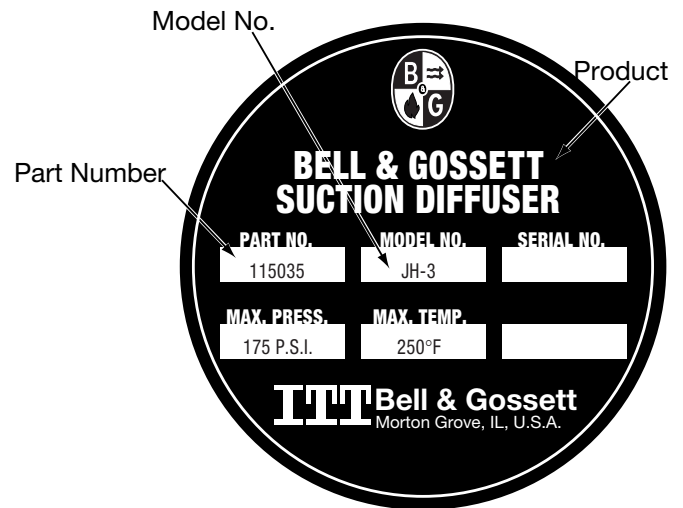
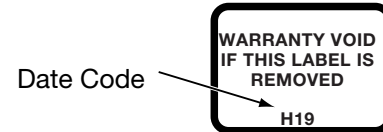
# How to Select Parts for Centrifugal Pump Accessories

The nameplate on any unit in the Centrifugal Pump Accessories line identifies the specific unit by product type, model number and six digit part number as shown in the example below right.

The nameplate identifies the product as a suction diffuser, model number JH-3 with a part number of 115035. The suction diffuser was manufactured in August, 1991. If the date code is not imprinted on the nameplate, a label displaying the date of manufacture identical to the example above the right can be found on the product. Although all nameplates in the Centrifugal Pump Accessories line do not look alike, all will display the product type, part number and model number. **DO NOT REMOVE THE NAMEPLATE OR THE LABEL.** They identify the unit for future reference. It is important when ordering replacement parts to furnish complete nameplate data.

To insure the correct parts will be selected, follow the procedure below:

1. Determine from the nameplate the product type, model number and six digit part number.
2. Determine the date the unit was manufactured. See chart below.
3. Refer to the index for the page number of the parts breakdown for the specific product type.
4. Find the proper column in the parts breakdown for the model number involved.
5. Select part numbers using the exploded views for parts identification.

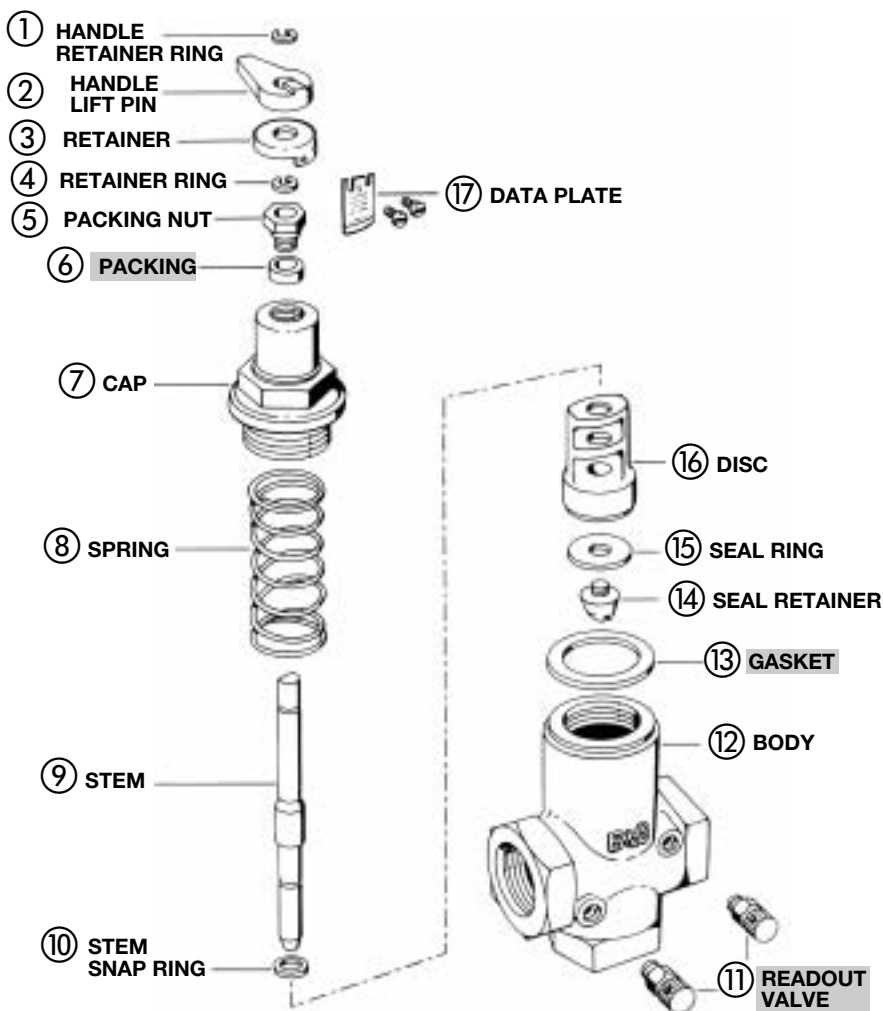


DATE OF MANUFACTURE CODE											
The date code is made up of two or three characters depending upon the year.											
1946-1960 The number denotes the month. The last character is a letter and denotes the year.			1961-82 Two characters. First letter is month. Second letter is year.			1983- Three characters. The letter denotes the month. The numbers denote the year.					
1	January	G	1946	A	January	A	1961	A	January	78	1987
2	February	H	1947	B	February	B	1962	B	February	88	1988
3	March	J	1948	C	March	C	1963	C	March	98	1989
4	April	K	1949	D	April	D	1964	D	April	09	1990
5	May	L	1950	E	May	E	1965	E	May	19	1991
6	June	M	1951	F	June	F	1966	F	June	29	1992
7	July	N	1952	G	July	G	1967	G	July	39	1993
8	August	P	1953	H	August	H	1968	H	August	49	1994
9	September	R	1954	J	September	J	1969	J	September	59	1995
10	October	T	1955	K	October	K	1970	K	October	69	1996
11	November	U	1956	L	November	L	1971	L	November	79	1997
12	December	V	1957	M	December	M	1972	M	December	89	1998
		W	1958			N	1973			99	1999
		X	1959			P	1974			00	2000
		Y	1960			R	1975			10	2001
						T	1976			20	2002
						U	1977			30	2003
						V	1978			40	2004
						W	1979			50	2005
						X	1980			60	2006
						Y	1981			70	2007
						Z	1982			80	2008
										90	2009

# PARTS FOR TRIPLE DUTY VALVES



**ASSEMBLED MODEL 3DX  
TRIPLE DUTY VALVE**



## MODEL 3DX

ITEM NO.	DESCRIPTION	3DX-1 132072	3DX-1 <sup>1</sup> / <sub>4</sub> 132159	3DX-1 <sup>1</sup> / <sub>2</sub> 132074
12	Body	V50807	V50808	V50809
11	Readout Valve Set*	G97030	G97030	G97030
	Readout Probe Set**	G97032	G97032	G97032
	Disc Kit Consisting of:	118860	118858***	118859
9	Stem	V50767	V50768	V50769
16	Disc	V50697	V50698	V50699
15	Seal Ring	V50781	V50782	V50783
14	Seal Retainer	V50686	V56889	V50688
8	Spring	V51077	V51078	V51079
7	Cap	V50690	V50693	V50696
13	Ring Gasket	F44400	F47200	F49000
6	Packing	118057	118057	118057
5	Packing Nut	118056	118056	118056
17	Data Plate	V50855	V50856	V50857
2	Handle Lift Pin	F13400	F13400	F13400
1	Handle Retainer Ring	F42800	F42800	F42800
10	Stem Snap Ring	F02800	F20800	F20800
4	Retainer Ring	J92344	J92344	J92344
3	Retainer	V50740	V50740	V50740

\*Also use Readout Valve model RV-125A, P/N 113100 (50 pairs per package).

\*\*Also use Readout Probe model RP-250B, P/N 113102 (6 pairs per package).

\*\*\*Also includes V50687, seal retainer for old style 3DX-1<sup>1</sup>/<sub>4</sub>.

■ - Factory recommended spare parts.

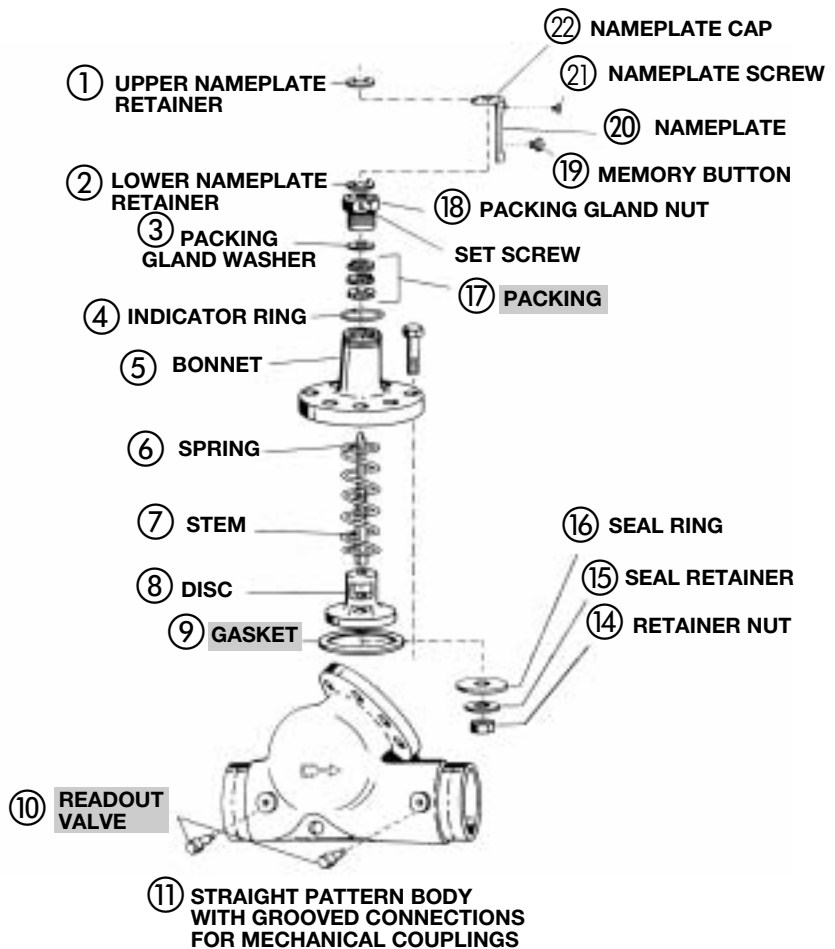


# PARTS FOR TRIPLE DUTY VALVES (CONTINUED)



**ASSEMBLED TRIPLE DUTY VALVE**

**NOTE: DISC IS NOT AVAILABLE SEPARATELY ON 2" THROUGH 10" VALVES. YOU MUST ORDER THE DISC ASSEMBLY.**



## MODELS WITH GROOVED CONNECTIONS

ITEM NO.	DESCRIPTION	3DS-2G 132150	3DS-2 <sup>1</sup> / <sub>2</sub> G 132151	3DS-3G 132152	3DS-4G 132153	3DS-5G 132154	3DS-6G 132155	3DS-8G 132156	3DS-10G 132157	3DS-12G 132158	
10	Readout Valve Set	G97030 (or Readout Valve model RV-125A, P/N 113100 [50 pairs per package])									
	Readout Probe Set	G97032 (or Readout Probe model RP-250B, P/N 113102 [6 pairs per package])									
7	Stem	V50922		V50924	V50925	V50926	V50927	V50928	V50929	V50930	
8	Disc Assembly*	V51756	V51757	V51758	V51759	V51760	V51761	V51762	V51764	V56884**	
16	Seal Ring*	V50932	V50933	V50934	V50935	V50936	V50937	V50938	V50939	V50940	
15	Seal Retainer*	V50942	V58164		V50945	V50946	V50947	V50948	V50949	V50950	
14	Retainer Nut*	J91634			J91635			J91636			
6	Spring	V50952		V50953	V50954		V50955	V50956	V50957	V50958	
5	Bonnet	V51811		V51813	V51142	V51815	V51817	V51819	V51821	V51841	
9	Gasket	F27800		F19000	V29400	V32801	V33001	V35000	V36400	V36401	
17	Packing	F17000 (1 Piece)			V51096 (3 Pieces)			V51097 (4)			
18	Packing Gland Nut	F16600			V51281			V51183			
3	Packing Gland Washer	NONE			V51282			V51184			
11	Body	V50818	V50819	V50820	V18802	V50821	V50822	V50823	V50824	V50825	
20	Nameplate	V51823	V51824	V51825	V51826	V51827	V51828	V51829	V51830	V51831	
1	Upper Nameplate Retainer	V51090			V51091			V51092			
2	Lower Nameplate Retainer	V51093			V51094			V51095			
22	Nameplate Cap	V51111			V51114			V51119			
21	Nameplate Screw (2 req'd)	J92135									
4	Indicator Ring	V51180			V51181			J94171			
19	Memory Button	V56879			V56880						

\*Disc Assembly for valves 2" through 10" includes disc, seal ring, seal retainer, and retainer nut. Disc Assembly not available for 3DS-12G.

\*\*Disc only.

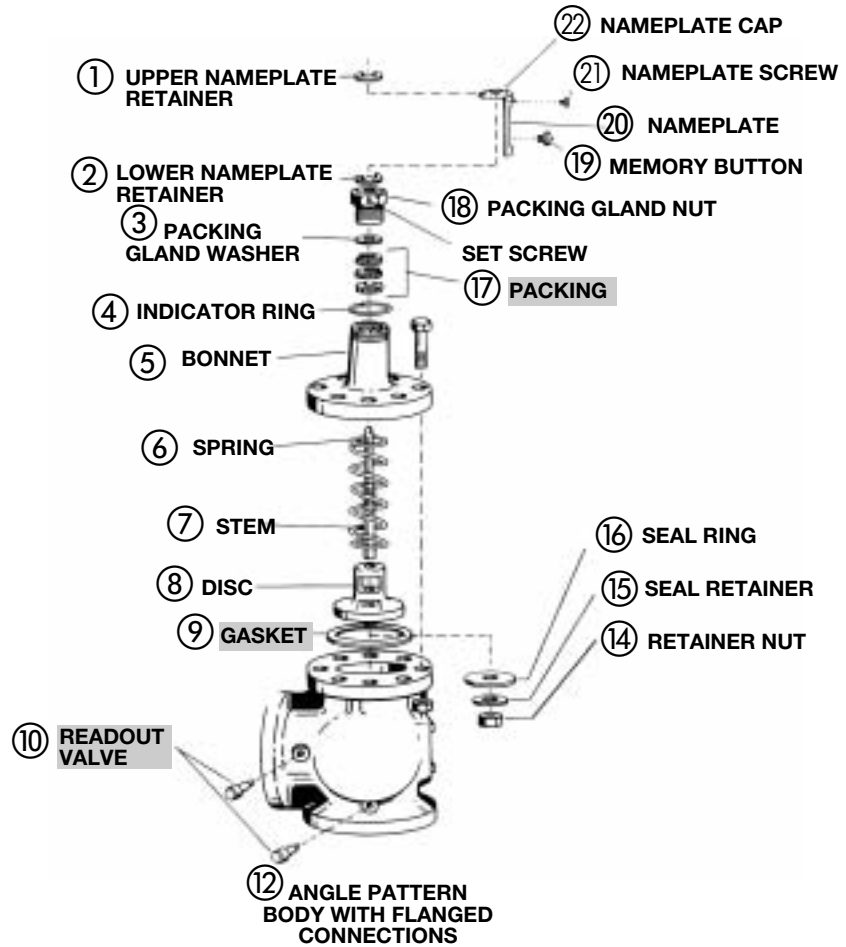
■ – Factory recommended spare parts.

# PARTS FOR TRIPLE DUTY VALVES (CONTINUED)



**ASSEMBLED TRIPLE DUTY VALVE**

**NOTE: DISC IS NOT AVAILABLE SEPARATELY. YOU MUST ORDER THE DISC ASSEMBLY.**



## ANGLE PATTERN MODELS

ITEM NO.	DESCRIPTION	3D-2S 132131	3D-2 <sup>1</sup> / <sub>2</sub> S 132132	3D-3S 132133	3D-4S 132134	3D-5S 132135	3D-6S 132136	3D-8S 132137	3D-10S 132138
10	Readout Valve Set	G97030 (or Readout Valve model RV-125A, P/N 113100 [50 pairs per package])							
	Readout Probe Set	G97032 (or Readout Probe model RP-250B, P/N 113102 [6 pairs per package])							
7	Stem	V50922		V50924	V50925	V50926	V50927	V50928	V50929
8	Disc Assembly*	V51756		V51758	V51759	V51760	V51761	V51762	V51763
16	Seal Ring*	V50932		V50934	V50935	V50936	V50937	V50938	V50939
15	Seal Retainer*	V50942		V58164	V50945	V50946	V50947	V50948	V50949
14	Retainer Nut*	J91634			J91635			J91636	
6	Spring	V50952		V50953	V50954		V50955	V50956	V50957
5	Bonnet	V51122		V51126	V51128	V51130	V51132	V51134	V51136
9	Gasket	F27800		F19000	V29400	V32801	V33001	V35000	V36400
17	Packing	F17000 (1 Piece)			V51096 (3 Pieces)				
18	Packing Gland Nut	F16600			V51281				
3	Packing Gland Washer	NONE			V51282				
12	Body	V50810	V50811	V50812	V50813	V50814	V50815	V50816	V50817
20	Nameplate	V50971	V50972	V50973	V50974	V50975	V50976	V50977	V50978
1	Upper Nameplate Retainer	V51090			V51091				
2	Lower Nameplate Retainer	V51093			V51094				
22	Nameplate Cap	V51111			V51114				
21	Nameplate Screw (2 req'd)	J92135							
4	Indicator Ring	V51180			V51181				
19	Memory Button	V56879			V56880				

\*Disc Assembly includes disc, seal ring, seal retainer, and retainer nut.

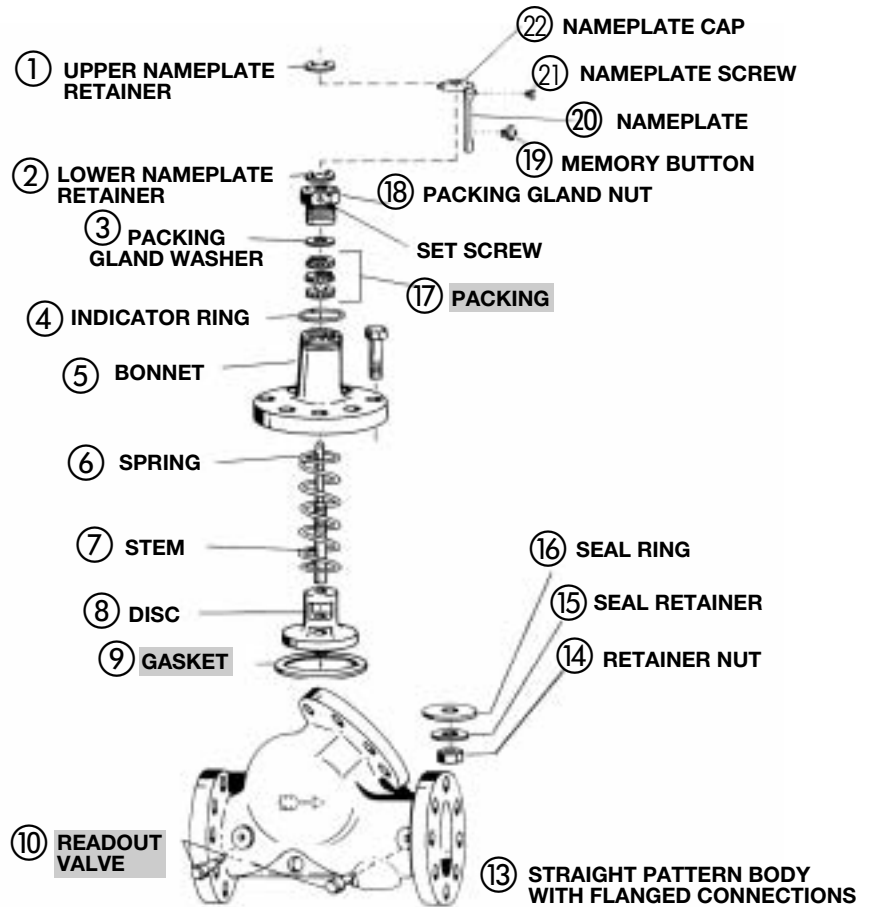
■ - Factory recommended spare parts.

# PARTS FOR TRIPLE DUTY VALVES (CONTINUED)



**ASSEMBLED TRIPLE DUTY VALVE**

**NOTE: DISC IS NOT AVAILABLE SEPARATELY ON 2" THROUGH 10" VALVES. YOU MUST ORDER THE DISC ASSEMBLY.**



## STRAIGHT PATTERN MODELS

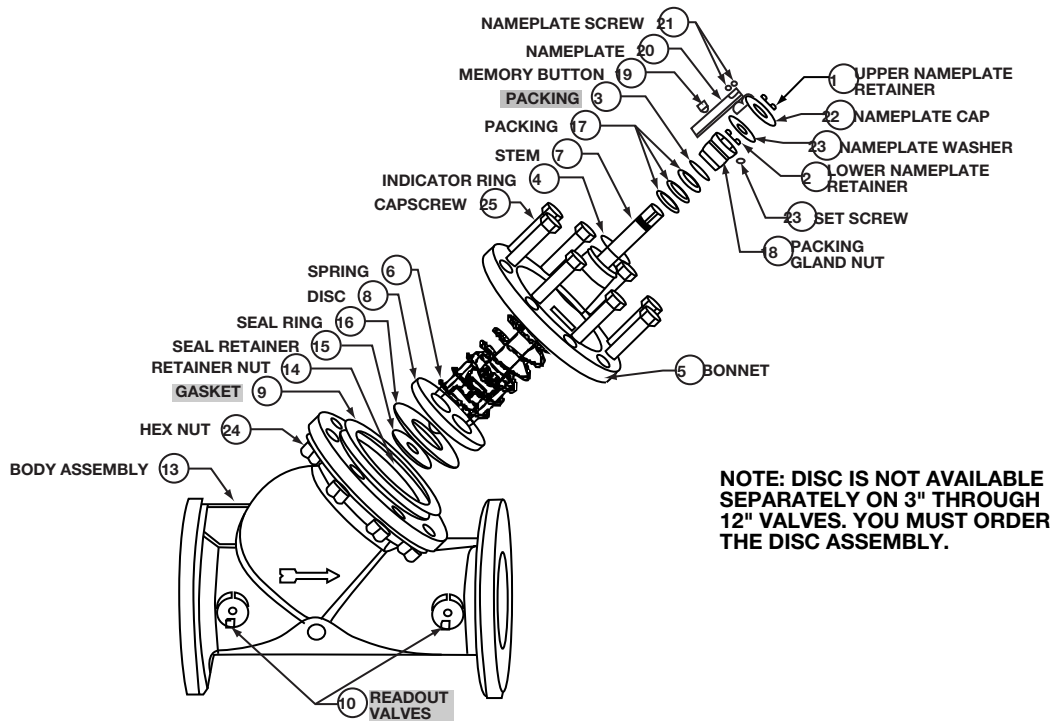
ITEM NO.	DESCRIPTION	3DS-2S 132121	3DS-2 1/2 S 132122	3DS-3S 132123	3DS-4S 132124	3DS-5S 132125	3DS-6S 132126	3DS-8S 132127	3DS-10S 132128	3DS-12S 132129	3DS-14S 132120	
10	Readout Valve Set	G97030 (or Readout Valve model RV-125A, P/N 113100 [50 pairs per package])										
	Readout Probe Set	G97032 (or Readout Probe model RP-250B, P/N 113102 [6 pairs per package])										
7	Stem	V50922		V50924	V50925	V50926	V50927	V50928	V50929	V50930	V50778	
8	Disc Assembly*	V51756	V51757	V51758	V51759	V51760	V51761	V51762	V51763	V50920**	V50754**	
16	Seal Ring*	V50932	V50933	V50934	V50935	V50936	V50937	V50938	V50939	V50940	V50793	
15	Seal Retainer*	V50942	V58164		V50945	V50946	V50947	V50948	V50949	V50950	V50750	
14	Retainer Nut*	J91634			J91635			J91636			J91637	
6	Spring	V50952		V50953	V50954		V50955	V50956	V50957	V50958	V51083	
5	Bonnet	V51122		V51126	V51128	V51130	V51132	V51134	V51136	V51138	V51140	
9	Gasket	F27800		F19000	V29400	V32801	V33001	V35000	V36400	V36401	V36402	
17	Packing	F17000 (1 Piece)			V51096 (3 Pieces)			V51097 (4 Pieces)				
18	Packing Gland Nut	F16600			V51281			V51183				
3	Packing Gland Washer	NONE			V51282			V51184				
13	Body	V50830	V50831	V50832	V50833	V50834	V50835	V50836	V50837	V50838	V50839	
20	Nameplate	V50961	V50962	V50963	V50964	V50965	V50966	V50967	V50968	V50969	V50896	
1	Upper Nameplate Retainer	V51090			V51091			V51092				
2	Lower Nameplate Retainer	V51093			V51094			V51095				
22	Nameplate Cap	V51111			V51114			V51119				
21	Nameplate Screw (2 req'd)	J92135										
4	Indicator Ring	V51180			V51181			J94171				
19	Memory Button	V56879			V56880							

\*Disc Assembly for valves 2" through 10" includes disc, seal ring, seal retainer, and retainer nut. Disc Assembly not available for 3DS-12S and 3DS-14S.

\*\*Disc only.

■ - Factory recommended spare parts.

# PARTS FOR TRIPLE DUTY VALVES – REDUCED PORT



ITEM NO.	DESCRIPTION	3DS-3B 132160	3DS-4B 132161	3DS-5B 132162	3DS-6B 132163	3DS-8B 132164	3DS-10B 132165	3DS-12B 132166	3DS-14B 132167	3DS-16B 132168	
10	Readout Valve Set	G97030 (or Readout Valve model RV-125A, P/N 113100 [50 pairs per package])									
	Readout Probe Set	G97032 (or Readout Probe model RP-250B, P/N 113102 [6 pairs per package])									
13	Body	V51958	V51961	V51964	V51967	V51970	V51973	V51976	V51979	V51982	
9	Gasket	F27800	F19000	V29400	V32801	V33001	V35000	V36400	V36401	V36402	
5	Bonnet	V51122	V51126	V51128	V51130	V51132	V51134	V51136	V51138	V51140	
7	Stem	V50922	V50924	V50925	V50926	V50927	V50928	V50929	V50930	V50778	
18	Packing Gland Nut	F16600					V51281		V51183		
3	Packing Gland Washer	NONE					V51282		V51184		
6	Spring	V50952	V50953	V50954		V50955	V50956	V50957	V50958	V51083	
17	Packing	F17000		V51096 (3 pieces)			V51097 (4 pieces)				
19	Memory Button	V56879		V56880							
20	Nameplate	V57089	V57090	V57091	V57092	V57093	V57094	V57095	V57096	V57097	
22	Nameplate Cap	V51111					V51114		V51119		
21	Nameplate Screw (2 req'd)							J92135			
1	Upper Nameplate Retainer	V51090					V51091		V51092		
2	Lower Nameplate Retainer	V51093					V51094		V51095		
4	Indicator Ring	V51180					V51181		J94171		
8	Disc Assembly*	V51757	V51758	V51759	V51760	V51761	V51762	V51763	V50920**	V50754**	
16	Seal Ring*	V50933	V50934	V50935	V50936	V50937	V50938	V50939	V50940	V50793	
15	Seal Retainer*	V58164		V50945	V50946	V50947	V50948	V50949	V50950	V50750	
14	Retainer Nut*	J91634		J91635							
24	Cap screw	NONE		J92017 (8 req'd)	M06690 (8 req'd)		DJ0157 (8 req'd)	M06720 (10 req'd)	DJ0157 (12 req'd)		
25	Hex Nut	NONE		T33740 (8 req'd)	T35840 (8 req'd)			T39830 (10 req'd)	T35840 (12 req'd)		

■ – Factory recommended spare part.

\* Disc Assembly for 3" through 12" valves includes disc, seal ring, seal retainer and retainer nut. Disc Assembly not available for 3DS-14B and 3DS-16B.

\*\*Disc only.

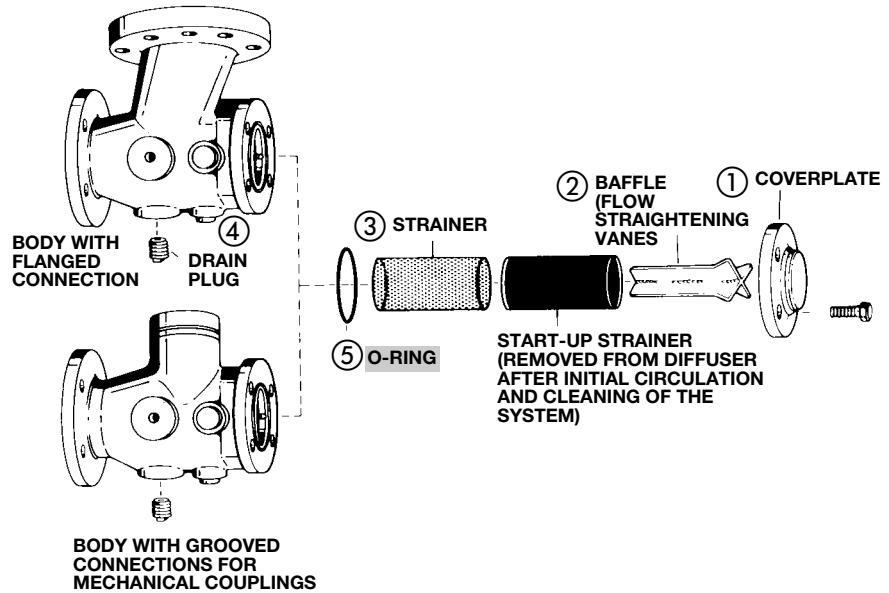
# PARTS FOR SUCTION DIFFUSERS



**SUCTION DIFFUSER  
W/ GROOVED CONNECTIONS**



**ASSEMBLED SUCTION  
DIFFUSER**



## MODELS WITH NPT OR FLANGED CONNECTIONS

ITEM NO.	MODEL	"X" MODELS WITH STEEL COMPONENTS			"Z" MODELS WITH STAINLESS STEEL COMPONENTS			5 O-RING	1 COVER-PLATE	4 DRAIN PLUG	START-UP STRAINER PART NO.
		2 PART NO.	3 BAFFLE	3 STRAINER	2 PART NO.	3 BAFFLE	3 STRAINER				
2x1 <sup>1</sup> / <sub>2</sub>	BA-3	115019	A91554	A91270	115060	A91563	A91280	J94140	A91242	M06420	A91260
2x2	BB-3	115036	A91555	A91271	115050	A91564	A91281	J94141	A91244	M06420	A91261
2 <sup>1</sup> / <sub>2</sub> x2	CB-3	115037	A91555	A91271	115051	A91564	A91281	J94141	A91244	M06420	A91261
2 <sup>1</sup> / <sub>2</sub> x2 <sup>1</sup> / <sub>2</sub>	CC-3	115038	A91556	A91278	115052	A07029	A91288	J94141	A91244	M06420	A91268
3x1 <sup>1</sup> / <sub>2</sub>	DA-3	115021	A91555	A91271	115061	A91564	A91281	J94141	A91244	M06420	A91261
3x2	DB-3	115022	A91555	A91271	115062	A91564	A91281	J94141	A91244	M06420	A91261
3x2 <sup>1</sup> / <sub>2</sub>	DC-3	115039	A91556	A91278	115053	A07029	A91288	J94141	A91244	M06420	A91268
3x3	DD-3	115024	A91557	A91272	115063	A07030	A91282	J94130	A91246	M06420	A91262
4x2 <sup>1</sup> / <sub>2</sub>	EC-3	115075	A91556	A91278	115076	A07029	A91288	J94141	A91244	M06420	A91268
4x3	ED-3	115025	A91557	A91272	115064	A07030	A91282	J94130	A91246	M06420	A91262
4x4	EE-3	115026	A91558	A91273	115065	A07031	A91283	J94131	A91248	M06420	A91263
5x4	FE-3	115027	A91558	A91273	115066	A07031	A91283	J94131	A91248	M06420	A91263
5x5	FF-3	115029	A91559	A91274	115068	A07032	A91284	J94142	A91250	M06420	A91264
6x4	GE-3	115028	A91558	A91273	115067	A07031	A91283	J94131	A91248	M06420	A91263
6x5	GF-3	115030	A91559	A91274	115069	A07032	A91284	J94142	A91250	M06420	A91264
6x6	GG-3	115031	A91560	A91275	115070	A07033	A91285	J94143	A91252	M06420	A91265
8x6	HG-3	115032	A91560	A91275	115071	A07033	A91285	J94143	A91252	M06420	A91265
8x8	HH-3	115033	A91561	A91276	115072	A07034	A91286	J94144	A91254	M06420	A91266
10x8	JH-3	115035	A91561	A91276	115074	A07034	A91286	J94144	A91254	M06420	A91266
10x10	JJ-3	115034	A91562	A91277	115073	A07035	A91287	J94145	A91256	M06420	A91267

## MODELS WITH GROOVED CONNECTIONS

ITEM NO.	MODEL NO.	2 PART NO.	3 BAFFLE	3 STRAINER	5 O-RING	1 COVERPLATE	4 DRAIN PLUG	START-UP STRAINER PART NO.
SDG-2 <sup>1</sup> / <sub>2</sub>		115040	A07029	A91288	J94141	A07016	M06420	A91268
SDG-3		115041	A07030	A91282	J94130	A07018	M06420	A91262
SDG-4		115042	A07031	A91283	J94131	A07020	M06420	A91263
SDG-5		115043	A07032	A91284	J94142	A07022	M06420	A91264
SDG-6		115044	A07033	A91285	J94143	A07024	M06420	A91265
SDG-8		115045	A07034	A91286	J94144	A07026	M06420	A91266
SDG-10		115046	A07035	A91287	J94145	A07028	M06420	A91267

■ - Factory recommended spare parts.

# “WHERE USED” LIST

CATEGORY	PART NO.	WHERE USED	NOTES/SPECIFICATION
<b>POWER PACK &amp; MOTORS</b>	111031	PR, Obs. 1", Obs. 1 <sup>1</sup> / <sub>4</sub> ", Obs. 1 <sup>1</sup> / <sub>2</sub> ", Obs. 2", Obs. HV	1/6HP, 1PH, 115V
	111033	PR, Obs. 1", Obs. 1 <sup>1</sup> / <sub>4</sub> ", Obs. 1 <sup>1</sup> / <sub>2</sub> ", Obs. 2", Obs. HV	1/6HP, 1PH, 230V
	111034	Series 100	1/2HP, 1PH, 115V
	111035	Series 100	1/2HP, 1PH, 230V
	111039	Obs. 1", Obs. 1 <sup>1</sup> / <sub>4</sub> ", Obs. 1 <sup>1</sup> / <sub>2</sub> ", Obs. 2", Obs. HV	1/6HP, 3PH, 208-230/460V
	111040	2 <sup>1</sup> / <sub>2</sub> ", LD-3	1/4HP, 1PH, 115V
	111041	2 <sup>1</sup> / <sub>2</sub> ", LD-3	1/4HP, 1PH, 230V
	111042	HD-3	1/3HP, 1PH, 115/230V
	111044	PD-35S, 60-13S, 60-B13S, 60-15S, 60 1AA, 60 1 <sup>1</sup> / <sub>4</sub> "AA, 60 1 <sup>1</sup> / <sub>2</sub> "AA, 60 2AA, 60 1 <sup>1</sup> / <sub>2</sub> "A, 60 2A Obs. 60-3S, Obs. 60-5S	1/2HP, 1PH, 115/230V
	111046	PD-35T, 60-13T, 60-B13T, 60-15T, 60 1AA, 60 1 <sup>1</sup> / <sub>4</sub> "AA, 60 1 <sup>1</sup> / <sub>2</sub> "AA, 60 2AA, 60 1 <sup>1</sup> / <sub>2</sub> "A, 60 2A, Obs. 60-3T, Obs. 60-5T	1/2HP, 3PH, 208-230/460V
	111047	PD-37S, 60-14S, 60-B14S, 60-16S, 60 1 <sup>1</sup> / <sub>2</sub> "AA, 60 2AA, 60 1 <sup>1</sup> / <sub>2</sub> "A, 60 2A, Obs. 60-4S, Obs. 60-6S, Obs. 60-8S	3/4HP, 1PH, 115/230V
	111049	PD-37T, 60-14T, 60-B14T, 60-16T, 60 1 <sup>1</sup> / <sub>2</sub> "AA, 60 2AA, 60 1 <sup>1</sup> / <sub>2</sub> "A, 60 2A, Obs. 60-4T, Obs. 60-6T	3/4HP, 3PH, 208-230/460V
	111061	HV, 2", Obs. 1 <sup>1</sup> / <sub>2</sub> ", Obs. HV	1/6HP, 1PH, 115V
	169035	60-10S, 60-11S, 60B-11S, 60 1AA, 60 1 <sup>1</sup> / <sub>4</sub> "AA, 60 1 <sup>1</sup> / <sub>2</sub> "AA, 60 2AA, Obs. 60-1S	1/4HP, 1PH, 115V
	169036	60-10S, 60-11S, 60B-11S, 60 1AA, 60 1 <sup>1</sup> / <sub>4</sub> "AA, 60 1 <sup>1</sup> / <sub>2</sub> "AA, 60 2AA	1/4HP, 1PH, 230V
	169037	60-11T, 60 1AA, 60 1 <sup>1</sup> / <sub>4</sub> "AA, 60 1 <sup>1</sup> / <sub>2</sub> "AA, 60 2AA, Obs. 60-1T	1/4HP, 3PH, 208-230/460V
	169038	60 1AA, 60 1 <sup>1</sup> / <sub>4</sub> "AA, 60 1 <sup>1</sup> / <sub>2</sub> "AA, 60 2AA, Obs. 60-2S	1/3HP, 1PH, 115/230V
	169039	60 1AA, 60 1 <sup>1</sup> / <sub>4</sub> "AA, 60 1 <sup>1</sup> / <sub>2</sub> "AA, 60 2AA, Obs. 60-2T	1/3HP, 3PH, 208-230/460V
	169040	1522 1S, 3/4AAB, 1522 1AAB, 1522 1 <sup>1</sup> / <sub>4</sub> "AAB, 1522 1 <sup>1</sup> / <sub>2</sub> "AAB	1/4HP, 1PH, 115V
	169041	1522 3/4AAB, 1522 1AAB, 1522 1 <sup>1</sup> / <sub>4</sub> "AAB, 1522 1 <sup>1</sup> / <sub>2</sub> "AAB	1/4HP, 1PH, 230V
	169042	1522 1T, 1522 3/4AAB, 1522 1AAB, 1522 1 <sup>1</sup> / <sub>4</sub> "AAB, 1522 1 <sup>1</sup> / <sub>2</sub> "AAB	1/4HP, 3PH, 208-230/460V
	169043	1522 2S, 1522 3/4AAB, 1522 1AAB, 1522 1 <sup>1</sup> / <sub>4</sub> "AAB, 1522 1 <sup>1</sup> / <sub>2</sub> "AAB	1/3HP, 1PH, 115/230V
	169044	Obs. 1522 14S, Obs. 1522 3/4AAB	1/3HP, 1PH, 115/230V, 3450 RPM
	169045	1522 2T, 1522 3/4AAB, 1522 1AAB, 1522 1 <sup>1</sup> / <sub>4</sub> "AAB, 1522 1 <sup>1</sup> / <sub>2</sub> "AAB	1/3HP, 3PH, 208-230/460V
	169046	Obs. 1522 14T, Obs. 1522 3/4AAB	1/3HP, 3PH, 208-230/460V, 3450 RPM
	169047	1522 3S, 1522 3/4AAB, 1522 1AAB, 1522 1 <sup>1</sup> / <sub>4</sub> "AAB, 1522 1 <sup>1</sup> / <sub>2</sub> "AAB	1/2HP, 1PH, 115/230V
	169048	Obs. 1522 5S, Obs. 1522 3/4AAB, Obs. 1522 1AAB	1/2HP, 1PH, 115/230V, 3450 RPM
	169049	1522 3T, 1522 3/4AAB, 1522 1AAB, 1522 1 <sup>1</sup> / <sub>4</sub> "AAB, 1522 1 <sup>1</sup> / <sub>2</sub> "AAB	1/2HP, 3PH, 208-230/460V
	169050	Obs. 1522 5T, Obs. 1522 3/4AAB, Obs. 1522 1AAB	1/2HP, 3PH, 208-230/460V, 3450 RPM
	169051	1522 4S, 1522 1 <sup>1</sup> / <sub>4</sub> "AAB, 1522 1 <sup>1</sup> / <sub>2</sub> "AAB	3/4HP, 1PH, 115/230V
	169052	Obs. 1522 6S, Obs. 1522 7S, Obs. 1522 3/4AAB, Obs. 1522 1AAB, Obs. 1522 1 <sup>1</sup> / <sub>4</sub> "AAB	3/4HP, 1PH, 115/230, 3450 RPM
	169053	1522 4T, 1522 1 <sup>1</sup> / <sub>4</sub> "AAB, 1522 1 <sup>1</sup> / <sub>2</sub> "AAB	3/4HP, 3PH, 208-230/460V
	169054	Obs. 1522 6T, Obs. 1522 7T, Obs. 3/4AAB, Obs. 1522 1AAB, Obs. 1522 1 <sup>1</sup> / <sub>4</sub> "AAB	3/4HP, 3PH, 208-230/460V, 3450 RPM
	169055	Obs. 1522 8S, Obs. 1522 12S, Obs. 1522 3/4AAB, Obs. 1522 1AAB, Obs. 1522 1 <sup>1</sup> / <sub>4</sub> "AAB, Obs. 1522 1 <sup>1</sup> / <sub>2</sub> "AAB	1HP, 1PH, 115/230V, 3450 RPM
	169056	Obs. 1522 8T, Obs. 1522 12T, Obs. 1522 3/4AAB, Obs. 1522 1AAB, Obs. 1522 1 <sup>1</sup> / <sub>4</sub> "AAB, Obs. 1522 1 <sup>1</sup> / <sub>2</sub> "AAB	1HP, 3PH, 208-230/460V, 3450 RPM
	169057	Obs. 1522 9S, Obs. 1522 16S, Obs. 1522 17S, Obs. 1522 3/4AAB, Obs. 1522 1AAB, Obs. 1522 1 <sup>1</sup> / <sub>4</sub> "AAB, Obs. 1522 1 <sup>1</sup> / <sub>2</sub> "AAB	1 <sup>1</sup> / <sub>2</sub> HP, 1PH, 230V, 3450 RPM
	169058	Obs. 1522 9T, Obs. 1522 16T, Obs. 1522 17T, Obs. 1522 3/4AAB, Obs. 1522 1AAB, Obs. 1522 1 <sup>1</sup> / <sub>4</sub> "AAB, Obs. 1522 1 <sup>1</sup> / <sub>2</sub> "AAB	1 <sup>1</sup> / <sub>2</sub> HP, 3PH, 208-230/460V, 3450 RPM
	169060	Obs. 1522 11T, Obs. 1522 15T, Obs. 1522 3/4AAB, Obs. 1522 1AAB, Obs. 60 1 <sup>1</sup> / <sub>4</sub> "AAB, Obs. 1522 1 <sup>1</sup> / <sub>2</sub> "AAB	2HP, 3PH, 208-230/460V, 3450 RPM
	169221	60 2 <sup>1</sup> / <sub>2</sub> "F	3HP, 3PH, 208-230/460V, 145TC Frame
	169222	60 2 <sup>1</sup> / <sub>2</sub> "F	3HP, 3PH, 200V, 182TC Frame
	169223	60 2 <sup>1</sup> / <sub>2</sub> "F	3HP, 3PH, 208-230/460V, 182TC Frame
	169224	MF 60 1 x 5 <sup>1</sup> / <sub>4</sub> ", MF 60 1 <sup>1</sup> / <sub>4</sub> x 5 <sup>1</sup> / <sub>4</sub> ", MF 60 1 <sup>1</sup> / <sub>2</sub> x 5 <sup>1</sup> / <sub>4</sub> "	1/4HP, 1PH, 115/208-230V, 1725 RPM
	169225	MF 60 1 x 5 <sup>1</sup> / <sub>4</sub> ", MF 60 1 <sup>1</sup> / <sub>4</sub> x 5 <sup>1</sup> / <sub>4</sub> "	1/4HP, 3PH, 208-230/460V, 1725 RPM
	169226	MF 60 with 5 <sup>1</sup> / <sub>4</sub> " impellers	1/3HP, 1PH, 115/208-230V, 1725 RPM
	169227	MF 60 with 5 <sup>1</sup> / <sub>4</sub> " impellers	1/3HP, 3PH, 208-230/460V, 1725 RPM
	169228	MF 60 with 5 <sup>1</sup> / <sub>4</sub> " & 6 <sup>1</sup> / <sub>4</sub> " impellers	1/2HP, 1PH, 115/208-230V, 1725 RPM
	169229	MF 60 with 5 <sup>1</sup> / <sub>4</sub> " & 6 <sup>1</sup> / <sub>4</sub> " impellers	1/2HP, 3PH, 208-230/460V, 1725 RPM

\*All motors are 1725 RPM unless otherwise specified.

CF – contact factory for where used.

**NOTE:** Obs. = Obsolete Pump Model, MF = Maintenance Free

## “WHERE USED” LIST (CONTINUED)

CATEGORY	PART NO.	WHERE USED	NOTES/SPECIFICATION
POWER PACK & MOTORS (CONTINUED)	169230	All MF 60	3/4HP, 1PH, 115/208-230V, 1725 RPM
	169231	All MF 60	3/4HP, 3PH, 208-230/460V, 1725 RPM
	169232	All MF 60 except 1 x 5 1/4, 1 1/4 x 5 1/4, PD-38, PD-39	1HP, 1PH, 115/208-230V, 1725 RPM
	169233	All MF 60 except 1 x 5 1/4, 1 1/4 x 5 1/4, PD-38, PD-39	1HP, 3PH, 208-230/460V, 1725 RPM
	169234	MF 60 1 1/2 x 7, MF 60 2 x 7	3HP, 3PH, 208-230/460V, 1725 RPM
	169236	All MF 60 except 1 x 5 1/4, 1 1/4 x 5 1/4, PD-40	1 1/2HP, 1PH, 115/208-230V, 1725 RPM
	169237	All MF 60 except 1 x 5 1/4, 1 1/4 x 5 1/4, PD-40	1 1/2HP, 3PH, 115/208-230V, 1725 RPM
	169238	MF 60 1 1/2 x 7, MF 60 2 x 7	2HP, 3PH, 208-230/460V, 1725 RPM
MOTOR MOUNTS SETS	118223	Series 100, HV, 2", PR, Obs. 1", Obs. 1 1/4", Obs. 1 1/2", Obs. 2", Obs. HV	
	118228	2 1/2", LD-3, HD-3, PD-35, PD-37, 60 "AA", 60 "A", 1522	
	118848	PD-38, Obs. PD-39, Series 60, MF 60	
COUPLERS	118473	PD-35, PD-37, 60 "AA", 1522, MF 60 with 5 1/4" and 6 1/4" impellers	1/2" x 1/2", spring type
	118635	PD-35, PD-37, 60 "AA", 1522	5/8" x 1/2", 3 piece type
	118705	Series 100, HV, 2", PR, Obs. 1", Obs. 1 1/4", Obs. 1 1/2", Obs. HV, Obs. 2"	Cast Iron, 1/2" x 1/2", spring type
	118708	PD-35, PD-37, 60 "AA"	3/4" x 5/8", spring type
	118709	PD-35, PD-37, 60 "AA", 1522	5/8" x 1/2", spring type
	118723	2 1/2", LD-3, HD-3, Obs. HLD-3, Obs. HHD-3	1/2" x 1/2", spring type
	118732	Obs. HV, Obs. 2", Obs. PR, Obs. 1", Obs. 1 1/4", Obs. 1 1/2"	Reversing duty
	185329	MF 60 with 5 1/4" & 6 1/4" impellers	
	185330	MF 60	
	185331	MF 60 with 7" impellers	
	186003	PD-40, 60 "A", 60 2 1/2F, MF 60 with 7" impellers	5/8" Shaft Dia
	186004	PD-38, Obs. PD-39, 60 "A", MF 60 with 7" impellers	5/8" Shaft Dia
	186410	PD-38, PD-40, Obs. PD-39, 60 "A"	5/8" x 1/2", spring type
	189110	Series 100, HV, 2", PR, Obs. 1", Obs. 1 1/4", Obs. 1 1/2", Obs. HV, Obs. 2"	Stamped Steel, 1/2" x 1/2", spring type
	P58598	MF 60 with 5 1/4" & 6 1/4" impellers	1/2" x 7/8", 3 piece
	P62190	HV, 2", PR, Obs. 1", Obs. 1 1/4", Obs. 1 1/2"	Explosion Proof, 1/2" x 1/2", 3 piece
	P62320	60 "AA"	Explosion Proof, 7/8" x 1/2", 3 piece
	P75421	MF 60 with 5 1/4" & 6 1/4" impellers	1/2" x 5/8", 3 piece
	P75422	MF 60 with 5 1/4" & 6 1/4" impellers	1/2" x 7/8", 3 piece
	P77234	PD-35, PD-37, 60 "AA" 1522	Explosion Proof, 1/2" x 1/2", 3 piece type
P77237	60 "A"	Explosion Proof, 1/2" x 5/8", 3 piece type	
P77279	60-22T, 60 2 1/2F	Explosion Proof, 7/8" x 5/8", 3 piece type	
P77281	60 2 1/2F, MF 60 with 7" impellers	Explosion Proof, 1 1/8" x 5/8", 3 piece type	
COUPLER & RING MOUNT SETS	118474	PD-35, PD-37, 60 "AA", 60 "A", 1522	1/3-3/4HP power packs only
	118706	Series 100, HV, 2", PR	Includes Cast Iron coupler
	118707	HV, PR, 2", Obs. 1 1/4", Obs. 1 1/2"	
	118724	2 1/2", LD-3, HD-3	
BEARING ASSEMBLIES	118844	Series 100	Cast Iron models only
	185260	PD-38, PD-40, Obs. PD-39, 60 "A"	Bronze Fitted models only
	185261	PD-38, PD-40, Obs. PD-39, 60 "A"	All Iron models only
	185262	PD-38, PD-40, Obs. PD-39, 60 "A"	Bronze models only
	185264	60 2 1/2F	Bronze Fitted models only
	185265	60 2 1/2F	Bronze models only
	185332	MF 60 with 5 1/4" & 6 1/4" impellers	Copper Shaft Sleeve, Buna-N seal
	185333	MF 60 with 7" impellers, PD-38, PD-40	Copper Shaft Sleeve, Buna-N seal
	185334	MF 60 with 7" impellers, PD-38, PD-40	Copper Shaft Sleeve, Buna-N seal
	185355	MF 60 with 5 1/4" & 6 1/4" impellers	Copper Shaft Sleeve, EPT seal
	185356	MF 60 with 5 1/4" & 6 1/4" impellers	Copper Shaft Sleeve, Viton seal
	185357	MF 60 with 5 1/4" & 6 1/4" impellers	Stn. Stl. Shaft Sleeve, Buna-N seal
	185358	MF 60 with 5 1/4" & 6 1/4" impellers	Stn. Stl. Shaft Sleeve, EPT seal
	185359	MF 60 with 5 1/4" & 6 1/4" impellers	Stn. Stl. Shaft Sleeve, Viton seal
	185360	MF 60 with 7" impellers	BF Const., Copper Shaft Sleeve, EPT seal
	185361	MF 60 with 7" impellers	BF Const., Copper Shaft Sleeve, Viton seal
	185362	MF 60 with 7" impellers	BF Const., Stn. Stl. Shaft Sleeve, Buna-N seal

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## “WHERE USED” LIST (CONTINUED)

CATEGORY	PART NO.	WHERE USED	NOTES/SPECIFICATION
BEARING ASSEMBLIES (CONTINUED)	185363	MF 60 with 7" impellers	BF Const., Stn. Stl. Shaft Sleeve, EPT seal
	185364	MF 60 with 7" impellers	BF Const., Stn. Stl. Shaft Sleeve, Viton seal
	185365	MF 60 with 7" impellers	AB Const., Copper Shaft Sleeve, EPT seal
	185366	MF 60 with 7" impellers	AB Const., Copper Shaft Sleeve, Viton seal
	185367	MF 60 with 7" impellers	AB Const., Stn. Stl. Shaft Sleeve, Buna-N seal
	185368	MF 60 with 7" impellers	AB Const., Stn. Stl. Shaft Sleeve, EPT seal
	185369	MF 60 with 7" impellers	AB Const., Stn. Stl. Shaft Sleeve, Viton seal
	186863	PD-35, PD-37, 60 "AA", 1522	Bronze Fitted or All Bronze models
	186865	PD-35, PD-37, 60 "AA", 1522	All Iron models only
	189034	Series 100	Bronze models only
	189105	PR, 2 1/2", LD-3, HD-3	Cast Iron or Bronze models
	189134	Series 100	Cast Iron models only, includes NFI impeller
	189161	Series 100	Bronze models only, includes NFI Impeller
	189162	Obs. 1", Obs. 1 1/4", Obs. 1 1/2"	Cast Iron or Bronze models
	189163	Obs. 1 1/2", Obs. 2", Obs. HV	Cast Iron models with Bronze impellers
	189165	HV, 2", Obs 1 1/2"	Cast Iron or Bronze models
	189166	HV, 2"	Cast Iron or Bronze models, includes NFI Impeller
P10316	1522	BFE models only, includes EPT seal	
BODY GASKETS	P04080	Series 100	
	P04890	HV, 2", Obs. 1", Obs. 1 1/4", Obs. 1 1/2", Obs. 2", Obs. HV	
	P05800	PR, 2 1/2", LD-3, HD-3	
	P15691	Obs. LR-20BF, Obs. LR-15B, Obs. LR-20B, Obs. LR-12BF, Obs. LR-12B, All Series PL Models except PL-55 and PL-55B	
	P57410	PD-35, PD-37, 60 "AA", 1522, MF 60 with 5 1/4" & 6 1/4" impellers	
	P57700	PD-38, PD-40, Obs. PD-39, 60 "A", MF 60 with 7" impellers	
	P57701	60 2 1/2F	
	P83025	PL-55 and PL-55B	
BEARING BRACKETS	P57282	PD-38, PD-40, Obs. PD-39, 60 "A", 60 2 1/2F	
	P77106	Obs. 1", Obs. 1 1/4", Obs. 1 1/2", Obs. 2", Obs. HV	
	P77119	Series 100	
	P77139	HV, 2", Obs. 1 1/2", Obs. HV	
	P77177	PR, 2 1/2", LD-3, HD-3	
	P77179	PD-35, PD-37, 60 "AA", 1522	
	P77198	Obs. 1522	Stainless Steel models only
COVER-PLATES	P09421	Obs. 1522 models only	Stainless Steel
	P57242	60 2 1/2F	BF Construction
	P2000062	60 2 1/2F	AB Construction
	P57246	PD-38, PD-40, Obs. PD-39, 60 "A"	
	P2000095	PD-38, PD-40, Obs. PD-39, 60 "A"	AB Construction
WICK SETS	118395	Series 100, HV, 2", PR, 2 1/2", LD-3, HD-3, PD-35, PD-37, 60 "AA", 1522, Obs. 1", Obs. 1 1/4", Obs. 1 1/2", Obs. 2", Obs. HV	
	P04883	PD-38, PD-40, Obs. PD-39, 60 "A", 60 2 1/2F	2 required
FRONT BEARINGS	185241	PD-38, PD-40, Obs. PD-39, 60 "A", 60 2 1/2F	
	189071	Series 100	
	P77087	PR, 2 1/2", LD-3, HD-3	
	P77215	PD-35, PD-37, 60 "AA", 1522	All Iron models only
	P77216	PD-35, PD-37, 60 "AA", 1522	
	P77217	Obs. 1522	Stainless Steel models only
	P77308LF	HV, 2", Obs. 1", Obs. 1 1/4", Obs. 1 1/2"	
	P77309	Obs. 2", Obs. HV	Cast Iron models
P77309	Obs. 1 1/2", Obs. 2", Obs. HV	Bronze models only	

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## “WHERE USED” LIST (CONTINUED)

CATEGORY	PART NO.	WHERE USED	NOTES/SPECIFICATION
REAR BEARINGS	118697	PD-35, PD-37, Obs. 60 “AA”, Obs. 1522	For Obs. Replacement Bearing Assembly Models: 118478, 118479, 118480
	185240	PD-38, PD-40, Obs. PD-39, 60 “A”, 60 2 <sup>1</sup> / <sub>2</sub> F	
SEAL KITS	118680	Series 100, HV, 2", PR, 2 <sup>1</sup> / <sub>2</sub> ", LD-3, HD-3, PD-35, PD-37, 60 “AA”, 1522, Obs. 1", Obs. 1 <sup>1</sup> / <sub>4</sub> ", Obs. 1 <sup>1</sup> / <sub>2</sub> ", Obs. 2", Obs. HV, MF 60 with 5 <sup>1</sup> / <sub>4</sub> " x 6 <sup>1</sup> / <sub>4</sub> " impellers	Seal less seat insert
	118681	Series 100, HV, 2", PR, 2 <sup>1</sup> / <sub>2</sub> ", LD-3, HD-3, PD-35, PD-37, 60 “AA”, 1522, Obs. 1", Obs. 1 <sup>1</sup> / <sub>4</sub> ", Obs. 1 <sup>1</sup> / <sub>2</sub> ", Obs. 2", Obs. HV, MF 60 with 5 <sup>1</sup> / <sub>4</sub> " x 6 <sup>1</sup> / <sub>4</sub> " impellers	
	118682	Series 100, HV, 2", PR, 2 <sup>1</sup> / <sub>2</sub> ", LD-3, HD-3, PD-35, PD-37, 60 “AA”, 1522, Obs. 1", Obs. 1 <sup>1</sup> / <sub>4</sub> ", Obs. 1 <sup>1</sup> / <sub>2</sub> ", Obs. 2", Obs. HV	Seal less seat insert
	185222	100, HV, 2", PR, 2 <sup>1</sup> / <sub>2</sub> ", LD-3, HD-3, PD-35, PD-37, 60 “AA”, 1522, Obs. 1", Obs. 1 <sup>1</sup> / <sub>4</sub> ", Obs. 1 <sup>1</sup> / <sub>2</sub> ", Obs. 2", Obs. HV	EPT Elastomer
	185223	PD-38, PD-40, Obs. PD-39, 60 “A”, 60 2 <sup>1</sup> / <sub>2</sub> F, MF 60 with 7" impellers	EPT Elastomer
	185224	PD-38, PD-40, Obs. PD-39, 60 “A”, 60 2 <sup>1</sup> / <sub>2</sub> F	EPT Elastomer
	185227	All PD-38, PD-40, Obs. PD-39, 60 “A”, 60 2 <sup>1</sup> / <sub>2</sub> F	Teflon Elastomer
	185230	Series 100, HV, 2", PR, 2 <sup>1</sup> / <sub>2</sub> ", LD-3, HD-3, PD-35, PD-37, 60 “AA”, 1522, Obs. 1", Obs. 1 <sup>1</sup> / <sub>4</sub> ", Obs. 1 <sup>1</sup> / <sub>2</sub> ", Obs. 2", Obs. HV, MF 60 with 5 <sup>1</sup> / <sub>4</sub> " x 6 <sup>1</sup> / <sub>4</sub> " impellers	EPT Elastomer
	186433	PD-38, PD-40, Obs. PD-39, 60 “A”, 60 2 <sup>1</sup> / <sub>2</sub> F	
	186499	PD-38, PD-40, Obs. PD-39, 60 “A”, 60 2 <sup>1</sup> / <sub>2</sub> F, MF 60 with 7" impellers	
	186681	Series 100, HV, 2", PR, 2 <sup>1</sup> / <sub>2</sub> ", LD-3, HD-3, PD-35, PD-37, 60 “AA”, 1522, Obs. 1", Obs. 1 <sup>1</sup> / <sub>4</sub> ", Obs. 1 <sup>1</sup> / <sub>2</sub> ", Obs. 2", Obs. HV	
	186875	Series 100, HV, 2", PR, 2 <sup>1</sup> / <sub>2</sub> ", LD-3, HD-3, PD-35, PD-37, 60 “AA”, 1522, Obs. 1", Obs. 1 <sup>1</sup> / <sub>4</sub> ", Obs. 1 <sup>1</sup> / <sub>2</sub> ", Obs. 2", Obs. HV, MF 60 with 5 <sup>1</sup> / <sub>4</sub> " x 6 <sup>1</sup> / <sub>4</sub> " impellers	Viton Elastomer
	189144	PL-30, PL-36, PL-45, PL-50, PL-75	
	189174	PL-130	
	189577	PL-55	
P59861	Series 100, HV, 2", PR, 2 <sup>1</sup> / <sub>2</sub> ", LD-3, HD-3, PD-35, PD-37, 60 “AA”, 1522, Obs. 1", Obs. 1 <sup>1</sup> / <sub>4</sub> ", Obs. 1 <sup>1</sup> / <sub>2</sub> ", Obs. 2", Obs. HV	Seal less seat insert	
SHAFTS & SLEEVES	118469	PD-38, PD-40, Obs. PD-39, 60 “A”, 60 2 <sup>1</sup> / <sub>2</sub> F	
	189035	Series 100, HV, 2", PR, 2 <sup>1</sup> / <sub>2</sub> ", LD-3, HD-3, PD-35, PD-37, 60 “AA”, 1522, Obs. 1", Obs. 1 <sup>1</sup> / <sub>4</sub> ", Obs. 1 <sup>1</sup> / <sub>2</sub> ", Obs. 2", Obs. HV	
	P08725	PD-38, PD-40, Obs. PD-39, 60 “A”	All Iron models only
	P81960	PD-35, PD-37, 60 “AA”, 1522	All Iron models only
PUMP BODIES & VOLUTES	118339	Series 100	Cast Iron
	118413	Series 100	Bronze
	118449	PD-35, PD-37, MF 60 3 x 5 <sup>1</sup> / <sub>4</sub>	Cast Iron
	118637	PR	Cast Iron
	118644	2 <sup>1</sup> / <sub>2</sub> ", LD-3, HD-3	Cast Iron
	186074	1522 3/4AAB	Cast Iron
	186075	1522 1AAB	Cast Iron
	186081	1522 1 <sup>1</sup> / <sub>4</sub> AAB	Cast Iron
	186087	1522 1 <sup>1</sup> / <sub>2</sub> AAB	Cast Iron
	186333	1522 3/4AAB	Bronze
	186334	1522 1 <sup>1</sup> / <sub>2</sub> AAB	Bronze
	186384	60 1AA	Cast Iron
	186385	60 1AA	Bronze
	186386	60 1 <sup>1</sup> / <sub>4</sub> AA, MF 60 1 x 5 <sup>1</sup> / <sub>4</sub> , MF 60 1 <sup>1</sup> / <sub>4</sub> x 5 <sup>1</sup> / <sub>4</sub>	Cast Iron
	186389	60 1 <sup>1</sup> / <sub>2</sub> A, MF 60 1 <sup>1</sup> / <sub>2</sub> x 5 <sup>1</sup> / <sub>4</sub> , MF 60 2 x 5 <sup>1</sup> / <sub>4</sub>	Cast Iron
	186390	60 1 <sup>1</sup> / <sub>2</sub> A, MF 60 1 <sup>1</sup> / <sub>2</sub> x 7	Bronze
	186392	60 2AA, MF 60 2 x 5 <sup>1</sup> / <sub>4</sub>	Cast Iron
	186671	MF 60 1 <sup>1</sup> / <sub>2</sub> x 6 <sup>1</sup> / <sub>4</sub>	AB Construction
	186672	MF 60 2 x 6 <sup>1</sup> / <sub>4</sub>	AB Construction
	186931	60 1 <sup>1</sup> / <sub>4</sub> AA, MF 60 1 x 5 <sup>1</sup> / <sub>4</sub> , MF 60 1 <sup>1</sup> / <sub>4</sub> x 5 <sup>1</sup> / <sub>4</sub>	AB Construction
	186932	60 1 <sup>1</sup> / <sub>2</sub> AA, MF 60 1 <sup>1</sup> / <sub>2</sub> x 5 <sup>1</sup> / <sub>4</sub>	AB Construction
	186933	60 2AA, MF 60 2 x 5 <sup>1</sup> / <sub>4</sub>	AB Construction
	186934	60 1 <sup>1</sup> / <sub>2</sub> A, MF 60 1 <sup>1</sup> / <sub>2</sub> x 7	AB Construction
	186935	MF 60 1 <sup>1</sup> / <sub>2</sub> x 6 <sup>1</sup> / <sub>4</sub>	BF Construction
	186936	MF 60 2 x 6 <sup>1</sup> / <sub>4</sub>	BF Construction
	186937	60 2A, MF 60 2 x 7	BF Construction
	186938	60 2A, MF 60 2 x 7	AB Construction

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## “WHERE USED” LIST (CONTINUED)

CATEGORY	PART NO.	WHERE USED	NOTES/SPECIFICATION
PUMP BODIES & VOLUTES (CONTINUED)	189124	HV	Cast Iron
	189125	HV	Bronze
	189126	2"	Cast Iron
	189127	2"	Bronze
	P2999952	PR	Bronze
	P07610	2 1/2", LD-3, HD-3	Bronze
	P2000012	PD-38, PD-40, Obs. PD-39	Bronze
	P08460	PD-38, PD-40, Obs. PD-39	Cast Iron
	P2000014	PD-35, PD-37, MF 60 3 x 5 1/4	Bronze
	P2000016	Obs. 1522 1AAB	Bronze
	P2000018	Obs. 1522 1 1/4 AAB	Bronze
	P57232	Series 60 2 1/2 F	BF Construction
	P2000060	Series 60 2 1/2 F	AB Construction
BODY OR VOLUTE CAPSCREWS	P00660	Obs. 1522	Stainless Steel models only, 8 required
	P01850	60 "AA", 1522, MF 60 with 5 1/4" impeller	All Bronze models only, 8 required
	P03470	HV, 2", PR, 2 1/2", LD-3, HD-3, 60 2 1/2 F, Obs. 1", Obs. 1 1/4", Obs. 1 1/2", Obs. HV, Obs. 2"	60 2 1/2 F Bronze Fitted only, 12 required all other circulators, 4 required
	P10620	PD-35, PD-37, 60 "AA", 1522, MF 60 with 5 1/4" and 6 1/4" impellers	For all Cast Iron and All Iron models
	P40020	Series 100, PD-38, PD-40, Obs. PD-39, MF 60 with 7" impeller, 60 "A"	For all Series 100 models, 4 required. For all Bronze Fitted or All Iron PD, 60 "A" or 1522 models, 8 required
	P52310	60 "A", MF 60 with 7" impeller	All Bronze models only
S04180	60 2 1/2 F	All Bronze models only	
VOLUTE DRAIN PLUGS	P39020	60 "AA", 60 "A", 1522, All MF 60	All Cast Iron or All Iron models, 5 required for Series 60, 4 required for 1522
	P39030	Obs. 1522	Stainless Steel models only, 4 required
	P39040	60 2 1/2 F	Bronze Fitted models only, 5 required
	P39470	60 "AA", 60 "A", 1522, All MF 60	All Bronze models only, 5 required for Series 60, 4 required for 1522
	P39480	60 2 1/2 F	All Bronze models only, 5 required
IMPELLERS	118431	Series 100	Brass – 2 3/4" Diameter
	118434	Obs. 1"	Brass – 3 1/16" Diameter
	118435	Obs. 1 1/4", Obs. 1 1/2"	Brass – 3 5/16" Diameter
	118436	Obs. HV, Obs. 2", Obs. 1 1/4", Obs. 1 1/2"	Brass – 3 3/8" Diameter
	118439	HD-3	Brass – 4 1/4" Diameter
	118440	2 1/2", LD-3	Brass – 3 7/8" Diameter
	118452	PD-40, Obs. PD-39	Cast Iron – 6" Diameter
	118453	PD-40, Obs. PD-39	Brass – 6" Diameter
	118612	PR	Brass – 4 1/4" Diameter
	118626	PD-37, Obs. 60-14S, Obs. 60-14T, Obs. 60-B14S, Obs. 60-B14T, Obs. 60-4S, Obs. 60-4T, 1522 4S, 1522 4T	Brass – 5 1/4" Diameter
	118627	PD-35	Brass – 4 3/4" Diameter
	118629	PD-37	Steel – 5 1/4" Diameter
	118630	PD-35	Steel – 4 3/4" Diameter
	118665	Obs. 1"	Steel – 3 1/2" Diameter
	118666	Obs. 1 1/4", Obs. 1 1/2"	Steel – 3 5/16" Diameter
	118668	Obs. HV, Obs. 2"	Steel – 3 3/8" Diameter
	118675	HD-3	Steel – 4 1/4" Diameter
	118676	2 1/2", LD-3	Steel – 3 7/8" Diameter
	118830	PR	Steel – 4 1/4" Diameter
	186359	Obs. 60-10S, Obs. 60-1S, Obs. 60-1T, Obs. 60-2S, Obs. 60-2T, 1522 1S, 1522 1T, 1522 2S, 1522 2T, Obs. 1522 15T	Bronze – 5 1/4" Diameter
	186360	Obs. 60-11S, Obs. 60-11T, Obs. 60-B11S, Obs. 1522 9S, Obs. 1522 9T	Bronze – 5 3/16" Diameter
186361	Obs. 1522 12S, Obs. 1522 12T	Bronze – 4 1 1/16" Diameter	
186362	Obs. 1522 7S, Obs. 1522 7T	Bronze – 4 3/8" Diameter	
186363	Obs. 1522 5S, Obs. 1522 5T	Bronze – 4" Diameter	

**NOTE:** Obs. = Obsolete Pump Model, MF = Maintenance Free

## “WHERE USED” LIST (CONTINUED)

CATEGORY	PART NO.	WHERE USED	NOTES/SPECIFICATION
IMPELLERS (CONTINUED)	186364	Obs. 1522 14S, Obs. 1522 14T	Bronze – 37/16" Diameter
	186366	Obs. 1522 6S, Obs. 1522 6T	Bronze – 37/8" Diameter
	186368	Obs. 60-13S, Obs. 60-13T, Obs. 60-B13S, Obs. 60-B13T, Obs. 60-3S, Obs. 60-3T, 1522 3S, 1522 3T	Bronze – 51/4" Diameter
	186370	Obs. 1522 16S, Obs. 1522 16T	Bronze – 41/8" Diameter
	186371	Obs. 1522 8S, Obs. 1522 8T	Bronze – 35/8" Diameter
	186373	Obs. 1522 11T	Bronze – 315/16" Diameter
	186375	Obs. 1522 17S, Obs. 1522 17T	Bronze – 311/16" Diameter
	189128	HV, 2"	NFI – 33/8" Diameter
	189132	Series 100	NFI – 23/4" Diameter
	189169	PL-50, PL-50B, PL-75, PL-75B	NFI – 2" Diameter
	189170	PL-30, PL-30B, PL-36, PL-36B	NFI – 31/16" Diameter
	189171	PL-45, PL-45B	NFI – 23/4" Diameter
	189172	PL-55, PL-55B	
	189173	PL-130, PL-130B	
	P07792	HV, 2"	Bronze – 33/8" Diameter
	P08690	PD-38	Bronze – 53/4" Diameter
	P08709	PD-38	Cast Iron – 53/4" Diameter
	P15627	Obs. LR-20BF, Obs. LR-15B, Obs. LR-20B	NFI – 21/4" Diameter
	P15629	Obs. LR-12BF, Obs. LR-12B	NFI – 21/2" Diameter
	P56550	60 1AA, 60 11/4AA, 1522 3/4AAB, 1522 1AAB	Bronze – 51/4" Diameter
	P56740	60 11/2AA, 1522 11/4AAB	Bronze – 51/4" Diameter
	P56810	1522 11/2AAB, 60 2AA	Bronze – 51/4" Diameter
	P57440	MF 60 11/2 x 7, 60-618T	Bronze – 7" Diameter
	P57445	Obs. 60-17S, Obs. 60-17T, 60 11/2A, Obs. 60-6S, Obs. 60-6T, Obs. 60-7S, Obs. 60-7T	Bronze – 7" Diameter
	P57446	Obs. 60-16S, Obs. 60-16T	Bronze – 63/8" Diameter
	P57447	Obs. 60-15S, Obs. 15T, Obs. 60-5S, Obs. 60-5T	Bronze – 53/4" Diameter
	P57450	Obs. 60-21T, 60 2A, Obs. 60-10T	Bronze – 63/4" Diameter
	P57451	Obs. 60-20S, Obs. 60-20T, Obs. 60-9S, Obs. 60-9T	Bronze – 61/8" Diameter
	P57452	Obs. 60-19S, Obs. 60-19T, Obs. 60-8S, Obs. 60-8T	Bronze – 55/8" Diameter
	P57460	60-617S, 60-617T	Bronze – 61/2" Diameter
	P57500	60 11/2A	Cast Iron – 7" Diameter
	P57580	MF 60 2 x 7, 60-620T	Bronze – 7" Diameter
	P57583	60 21/2F	Bronze – 8" Diameter
	P57584	Obs. 60-22T	Bronze – 73/4" Diameter
	P58536	MF 60 2 x 51/4 and 3 x 51/4, 60-627S, 60-627T, 60-B627S, 60-B627T	
	P58538	MF 60 11/2 x 51/4, 60-609S, 60-609T, 60-B609S, 60-B609T	
	P58541	MF 60 1 x 51/4 and 11/4 x 51/4, 60-603S, 60-603T, 60-B603S, 60-B603T, 60-606S, 60-606T, 60-B606S, 60-B606T	
	P58562	MF 60 2 x 61/4, 60-616S, 60-616T	
	P58564	MF 60 11/2 x 61/4, 60-614S, 60-614T, 60-B614S, 60-B614T	
	P58661	60-621S, 60-621T, 60-B621S, 60-B621T	
	P58662	60-622S, 60-622T	Bronze – 51/2" Diameter
	P58663	60-623S, 60-623T	Bronze – 6" Diameter
	P58664	60-624S, 60-624T	
	P58665	60-625S, 60-625T	Bronze – 61/8" Diameter
	P60350	60 1AA, 60 11/4AA, 1522 3/4AAB, 1522 1AAB	Steel – 51/4" Diameter
	P61010	60 11/2AA, 1522 11/4AAB	Steel – 51/4" Diameter
	P61550	60 2AA, 1522 11/2AAB	Steel – 51/4" Diameter
	P82137	60-619T	Bronze – 61/2" Diameter
	P82877	60-602S, 60-602T, 60-B602S, 60-B602T, 60-605S, 60-605T, 60-B605S, 60-B605T	Bronze – 53/4" Diameter
	P82878	60-601S, 60-601T, 60-B601S, 60-B601T, 60-604S, 60-604T, 60-B604S, 60-B604T	Bronze – 43/8" Diameter
	P82880	60-608S, 60-608T, 60-B608S, 60-B608T	Bronze – 415/16" Diameter
	P82881	60-607S, 60-607T, 60-B607S, 60-B607T	Bronze – 43/8" Diameter
	P82882	60-611S, 60-611T, 60-B611S, 60-B611T	Bronze – 43/4" Diameter
	P82883	60-610S, 60-610T, 60-B610S, 60-B610T	Bronze – 41/8" Diameter
	P82884	60-613S, 60-613T	
	P82885	60-615S, 60-615T, 60-B615S, 60-B615T	
	P83023	60-626S, 60-626T, 60-B626S, 60-B626T	

CF – contact factory for where used.

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## “WHERE USED” LIST (CONTINUED)

CATEGORY	PART NO.	WHERE USED	NOTES/SPECIFICATION
FLANGES	A24600	PD-38, PD-40, Obs. PD-39	Steel – 3"
	A40000	PD-38, PD-40, Obs. PD-39	Brass – 3"
	F14200	2", Obs. 2", 60 2AA, 60 2A, PL-75, PL-130, MF 60 2"	Steel – 2"
	P2000078	2", Obs. 2", 60-B14S, 60-B14T, 60 2AA, 60 2A, PL-75B, PL-130B, MF 60 2"	Bronze – 2"
	F74000	LD-3, HD-3, PD-35, PD-37, PL-130, MF 60 3 x 5 1/4	Steel – 3"
	P2000081	LD-3, HD-3, PD-35, PD-37, PL-130B, MF 60 3 x 5 1/4	Brass – 3"
	P00739	PL-30, PL-36, PL-55, Obs. LR-250BF, Obs. LR-12, Obs. LR-12BF, Series 100, PR	Steel – 3/4"
	P2000085	PL-30B, PL-36B, Series 100, LR, PR, PL-55B	Brass – 1 1/2"
	P00789	PL-30B, PL-36B, PL-55B, LR, Series 100, PR	Brass – 3/4"
	P00792	PL-30, PL-36, Series 100, Obs. LR, PR, 60 1AA, PL-55	Steel – 1"
	P00802	PL-45, PL-50, HV, Obs. HV	Steel – 1"
	P00804	PL-45B, PL-50B, HV, Obs. 1", Obs. HV	Brass – 1"
	P00836	LR-20B, LR-12B, LR-15B, PL-30B, PL-36B, Series 100, PR, PL-55B	Brass – 1"
	P00837	LR-20B, LR-12B, LR-15B, PL-30B, PL-36B, Series 100, PR, PL-55B	Brass – 1 1/4"
	P01510	MF 60 1 x 5 1/4, 60 1"AA	
	P03250	PL-30, PL-36, PL-55, Series 100, Obs. LR, PR, Obs. 1 1/4", 60 1 1/4AA, MF60 1 1/4 x 5 1/4	Steel – 1 1/4"
	P03300	PL-45, PL-50, HV, Obs. HV	Steel – 1 1/4"
	P03410	PL-45, PL-50, HV, Obs. 1 1/2", Obs. HV, 60 1 1/2AA, 60 1 1/2A, MF 60 1 1/2"	Steel – 1 1/2"
	P03430	PL-30, PL-36, Series 100, Obs. LR, PR, PL-55	Steel – 1 1/2"
	P03560	2 1/2", PL-130	Steel – 2 1/2"
P2000088	PL-45B, PL-50B, HV, Obs. 1 1/4", Obs. HV	Brass – 1 1/4"	
P2000090	PL-45B, PL-50B, HV, Obs. 1 1/2", Obs. HV, 60 1 1/2AA, 60 1 1/2A, MF 60 1 1/2"	Brass – 1 1/2"	
P2000093	2 1/2", PL-130B	Brass – 2 1/2"	
FLANGE GASKET SETS	118060	Obs. HV, Obs. 1 1/4"	
	118062	Obs. 1 1/2"	
	118065	Obs. 2"	
	118129	2 1/2", LD-3, HD-3, PD-35, PD-37, PD-38, PD-40, Obs. PD-39, MF 60 3 x 5 1/4, PL-130	
	118351	Obs. Series 100, Obs. 1"	
	118368	Obs. LR, PL-30, PL-36, Series 100, PR, 60 1AA, 60 1 1/4AA, PL-55, Obs. 1 1/4", MF 60 1 x 5 1/4, MF 60 1 1/4 x 5 1/4	
	118373	PL-45, PL-50, HV, Obs. 1 1/2", Obs. HV, 60 1 1/2AA, 60 1 1/2A, MF 60 1 1/2"	
	118378	2", 60 2AA, 60 2A, MF 60 2", PL-75, PL-130	
P15692	Obs. LR	Not a set, 2 required	
FASTENER PACKS	F91600	Obs. 2"	
	P09540	PD-38, PD-40, Obs. PD-39, PL-130	
	P15696	Obs. LR	
	P64230	Obs. 1"	
	P64900	60 1AA, 60 1 1/4AA	
	P64910	Obs. LR, PL-30, PL-36, Series 100, 60 1AA, 60 1 1/4AA, Obs. 1 1/4", MF 60 1 x 5 1/4 and 1 1/4 x 5 1/4	
	P64930	60 1 1/2AA, 60 1 1/2A Obs. 1 1/2", Obs. HV, MF 60 1 1/2"	Series 60 All Bronze models only
	P64940	PL-45, PL-50, HV, 60 1 1/2AA, 60 1 1/2A, Obs. HV, Obs. 1 1/2", MF 60 1 1/2"	Series 60 Bronze Fitted and All Iron models only
	P65030	2", 60 2AA, 60 2A, MF 60 2"	Series 60 Bronze Fitted and All Iron models only
	P65031	PL-75, PL-130, 2", MF 60 2", 60 2AA, 60 2A	
	P65128	PR	
P65130	2 1/2", LD-3, HD-3, PD-35, PD-37, MF 60 3 x 5 1/4	Does not include flange gaskets	
P83031	PL-55, PL-55B		

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**NOTE:** Obs. = Obsolete Pump Model, MF = Maintenance Free

## “WHERE USED” LIST (CONTINUED)

CATEGORY	PART NO.	PART DESCRIPTION	WHERE USED	NOTES/SPECIFICATION
<b>MISCELLANEOUS PUMP PARTS</b>	H32400	Coupler Key	PD-38, PD-40, Obs. PD-39, 60 "A", 60 2 <sup>1</sup> / <sub>2</sub> F	
	J91702	Impeller Nut	Obs. HV	Cast Iron models only
	M15784	Capacitor	Obs. LR	220V
	M15788	Capacitor	Obs. LR-15B	220V
	P00651	Impeller Nut	Obs. 1522	Stainless Steel models
	P04650	Impeller Lockwasher	60 AA, 1522	
	P04660	Impeller Washer	Obs. 1522, MF 60 5 <sup>1</sup> / <sub>4</sub> " and 6 <sup>1</sup> / <sub>4</sub> "	
	P04670	Impeller Nut	PD-35, PD-37, 60 AA, 1522	AI Construction
	P04940	Impeller Key	Series 100, HV, 2", PR, 2 <sup>1</sup> / <sub>2</sub> ", LD-3, HD-3, PD-35, PD-37, 60 "AA", 1522, Obs. 1", Obs. 1 <sup>1</sup> / <sub>4</sub> ", Obs. 1 <sup>1</sup> / <sub>2</sub> ", Obs. 2", Obs. HV, MF 60 5 <sup>1</sup> / <sub>4</sub> " and 6 <sup>1</sup> / <sub>4</sub> "	
	P04945	Impeller Key	Obs. 1522	Stainless Steel models only
	P08480	Impeller Nut	PD-38, PD-40, Obs. PD-39, 60 "A", 60 2 <sup>1</sup> / <sub>2</sub> F, MF 60 7"	All Bronze model only
	P11150	Impeller Washer	60 2 <sup>1</sup> / <sub>2</sub> F, PD-38, PD-40, Obs. PD-39, 60 A	
	P11220	Impeller Washer	PD-38, PD-40, Obs. PD-39, MF 60 7", 60 A, 60 2 <sup>1</sup> / <sub>2</sub> F	AB Construction
	P12422	Oil Wick Retainer	PD-38, PD-40, Obs. PD-39, 60 "A", 60 2 <sup>1</sup> / <sub>2</sub> F	
	P15210	Assembly Tool	Obs. LR	
	P15683	Seat Cup	Obs. LR	
	P15697	Impeller Nut	Obs. LR	
	P15698	Impeller Tube	Obs. LR	
	P15775	Oil Tube	Obs. LR	
	P44200	Impeller Nut	Series 100, HV, 2", PR, 2 <sup>1</sup> / <sub>2</sub> ", LD-3, HD-3, PD-35, PD-37, 60 "AA", 1522, Obs. 1", Obs. 1 <sup>1</sup> / <sub>4</sub> ", Obs. 1 <sup>1</sup> / <sub>2</sub> ", Obs. 2", Obs. HV, MF 60 5 <sup>1</sup> / <sub>4</sub> " and 6 <sup>1</sup> / <sub>4</sub> "	
	P45910	Impeller Nut	PD-38, PD-40, Obs. PD-39, 60 "A", 60 2 <sup>1</sup> / <sub>2</sub> F	Cast Iron Models Only
	P49358	Impeller Key	60 "A", 2 <sup>1</sup> / <sub>2</sub> F, PD-38, PD-40, Obs. PD-39, MF 60 7"	
	P51190	Flat head Capscrew	Obs. 1522	
	P57000	Impeller Gasket	Series 100, HV, 2", PR, 2 <sup>1</sup> / <sub>2</sub> ", LD-3, HD-3, PD-35, PD-37, 60 "AA", 1522, Obs. 1 <sup>1</sup> / <sub>2</sub> ", Obs. 2", Obs. HV, Obs. 1", Obs. 1 <sup>1</sup> / <sub>4</sub> "	
	P57300	Oil Well Gasket	PD-38, PD-40, Obs. PD-39, 60 "A", 60 2 <sup>1</sup> / <sub>2</sub> F	
	P57302	Oil Well Cover	PD-38, PD-40, Obs. PD-39, 60 "A", 60 2 <sup>1</sup> / <sub>2</sub> F	
	P70712	Ceramic Insert	Obs. LR	
	P80815	Front Bearing Gasket	Series 100	
P80816	Front Bearing Gasket	HV, 2", Obs. 1", Obs. 1 <sup>1</sup> / <sub>4</sub> ", Obs. 1 <sup>1</sup> / <sub>2</sub> ", Obs. 2", Obs. HV, PR, 2 <sup>1</sup> / <sub>2</sub> ", LD-3, HD-3, PD-35, PD-37, 60 "AA", 1522		
P81238	Oil Well Cover	Series 100		
P81239	Oil Well Cover	HV, 2", PR, 2 <sup>1</sup> / <sub>2</sub> ", LD-3, HD-3, PD-35, PD-37, 60 "AA", 1522, Obs. 1", Obs. 1 <sup>1</sup> / <sub>4</sub> ", Obs. 1 <sup>1</sup> / <sub>2</sub> ", Obs. 2", Obs. HV		

**NOTE:** Obs. = Obsolete Pump Model

# “WHERE USED” LIST

CATEGORY	PART NO.	WHERE USED	NOTES/SPECIFICATION
<b>BAFFLES</b>	A03720	EAS-1 <sup>1</sup> / <sub>2</sub> , EAS-2	
	A03835	EAS-1, EAS-1 <sup>1</sup> / <sub>4</sub>	
	A07029	SDG-2 <sup>1</sup> / <sub>2</sub> , CC-3Z, DC-3Z, EC-3Z	Stainless Steel
	A07030	SDG-3, DD-3Z, ED-3Z	Stainless Steel
	A07031	SDG-4, EE-3Z, FE-3Z, GE-3Z	Stainless Steel
	A07032	SDG-5, FF-3Z, GF-3Z	Stainless Steel
	A07033	SDG-6, GG-3Z, HG-3Z	Stainless Steel
	A07034	SDG-8, HH-3Z, JH-3Z	Stainless Steel
	A07035	SDG-10, JJ-3Z	Stainless Steel
	A91554	Obs. DB, BA-3X	Steel
	A91555	BB-3X, CB-3X, DA-3X, DB-3X	Steel
	A91556	CC-3X, DC-3X, EC-3X	Steel
	A91557	DD-3X, ED-3X	Steel
	A91558	EE-3X, FE-3X, GE-3X	Steel
	A91559	FF-3X, GF-3X	Steel
	A91560	GG-3X, HG-3X	Steel
	A91561	HH-3X, JH-3X	Steel
	A91562	JJ-3X	Steel
A91563	Obs. DB, BA-3Z	Stainless Steel	
A91564	BB-3Z, CB-3Z, DA-3Z, DB-3Z	Stainless Steel	
<b>BLADDERS</b>	189579	B-200	
	189580	B-300	
	189581	B-400	
	189582	B-500	
	189583	B-600	
	189584	B-800	
	189585	B-1000	
	189586	B-1200	
	189587	B-1400	
	189588	B-1600	
	189589	B-2000	
	189590	B-2500	
	189591	B-3000	
	189592	B-3500	
	189593	B-4000	
	189594	B-35 LA, B-50 LA, B-85 LA, B-100 LA	
	189595	B-130 LA, B-165 LA, B-200 LA, B-300 LA	
	189596	B-400 LA, B-500 LA, B-600 LA	
189597	B-5000		
<b>BODIES</b>	A03715	EAS-1	
	A03716	EAS-1 <sup>1</sup> / <sub>4</sub>	
	A03831	EAS-1 <sup>1</sup> / <sub>2</sub>	
	A03832	EAS-2	
	G92500	TFI-1 <sup>1</sup> / <sub>4</sub> , TFI-1 <sup>1</sup> / <sub>2</sub> , TFI-2, TFI-2 <sup>1</sup> / <sub>2</sub> , TFI-3, TFI-4, TFI-5, TFI-6, TFI-8	
	V01103	CTS-7524	
	V18802	CB-4G, 3DS-4G	
	V50807	3DX-1	
	V50808	3DX-1 <sup>1</sup> / <sub>4</sub>	
	V50809	3DX-1 <sup>1</sup> / <sub>2</sub>	
	V50810	3D-2S	
	V50811	3D-2 <sup>1</sup> / <sub>2</sub> S	
	V50812	3D-3S	
	V50813	3D-4S	
	V50814	3D-5S	
	V50815	3D-6S	
	V50816	3D-8S	
	V50817	3D-10S	
	V50818	3DS-2G	
	V50819	3DS-2 <sup>1</sup> / <sub>2</sub> G	
	V50820	3DS-3G	
	V50821	CB-5G, 3DS-5G	
	V50822	CB-6G, 3DS-6G	
	V50823	CB-8G, 3DS-8G	
	V50824	CB-10G, 3DS-10G	
	V50825	CB-12G, 3DS-10G	
	V50830	3DS-2S	
	V50831	3DS-2 <sup>1</sup> / <sub>2</sub> S	
	V50832	3DS-3S	
	V50833	CB-4F, 3DS-4S	
	V50834	CB-5F, 3DS-5S	

**NOTE:** Obs. = Obsolete Model

## “WHERE USED” LIST (CONTINUED)

CATEGORY	PART NO.	WHERE USED	NOTES/SPECIFICATION
BODIES	V50835	CB-6F, 3DS-6S	
	V50836	CB-8F, 3DS-8S	
	V50837	CB-10F, 3DS-10S	
	V50838	CB-12F, 3DS-12S	
	V50839	3DS-14S	
	V51958	3DS-3B	
	V51961	3DS-4B	
	V51964	3DS-5B	
	V51967	3DS-6B	
	V51970	3DS-8B	
	V51973	3DS-10B	
	V51976	3DS-12B	
	V51979	3DS-14B	
	V51982	3DS-16B	
BONNETS	G10001	CB-4F	
	G10002	CB-5F	
	G10003	CB-6F	
	G10004	CB-8F	
	G10060	CB-4G	
	G10061	CB-5G	
	G10062	CB-6G	
	G10063	CB-8G	
	V50986	CB-10G	
	V50987	CB-12F	
	V50988	CB-12G	
	V51021	CB-10F	
	V51122	3D-2S, 2DS-2S, 3D-2 <sup>1</sup> / <sub>2</sub> , 3DS-2 <sup>1</sup> / <sub>2</sub> S, 3DS-2S, 3DS-3B	
	V51126	3D-3S, 3DS-3S, 3DS-4B	
	V51128	3D-4S, 3DS-4S, 3DS-5B	
	V51130	3D-5S, 3DS-5S, 3DS-6B	
	V51132	3D-6S, 3DS-6S, 3DS-8B	
	V51134	3D-8S, 3DS-8S, 3DS-10B	
	V51136	3D-10S, 3DS-10S, 3DS-12B	
	V51138	3DS-12S, 3DS-14B	
	V51140	3DS-14S, 3DS-16B	
	V51142	3DS-4G	
	V51811	3DS-2G, 2DS-2 <sup>1</sup> / <sub>2</sub> G	
	V51813	3DS-3G	
V51815	3DS-5G		
V51817	3DS-6G		
V51819	3DS-8G		
V51821	3DS-10G		
V51841	3DS-12G		
BUSH-INGS	G10030	CB-4F, CB-4G, CB-5F, CB-5G, CB-6F, CB-6G	
	G10038	CB-8F, CB-8G	
	V51010	CB-10F, CB-10G	
	V51011	CB-12F, CB-12G	
CAPS	A03722	EAS-1 <sup>1</sup> / <sub>2</sub> , EAS-2	
	A03834	EAS-1, EAS-1 <sup>1</sup> / <sub>4</sub>	
	V50690	3DX-1	
	V50693	3DX-1 <sup>1</sup> / <sub>4</sub>	
	V50696	3DX-1 <sup>1</sup> / <sub>2</sub>	
COVERPLATES	A07016	SDG-2 <sup>1</sup> / <sub>2</sub>	
	A07018	SDG-3	
	A07020	SDG-4	
	A07022	SDG-5	
	A07024	SDG-6	
	A07026	SDG-8	
	A07028	SDG-10	
	A91242	BA-3X, BA-3Z	
	A91244	BB-3X, BB-3Z, CB-3X, CB-3Z, CC-3X, CC-3Z, DA-3X, DA-3Z, DB-3X, DB-3Z, DC-3X, DC-3Z	
	A91246	DD-3X, DD-3Z, ED-3X, ED-3Z	
	A91248	EE-3X, EE-3Z, FE-3X, FE-3Z, GE-3X, GE-3Z	
	A91250	FF-3X, FF-3Z, GF-3X, GF-3Z	
	A91252	GG-3X, GG-3Z, HG-3X, HG-3Z	
	A91254	HH-3X, HH-3Z, JH-3X, JH-3Z	
A91256	JJ-3X, JJ-3Z		

## “WHERE USED” LIST (CONTINUED)

CATEGORY	PART NO.	WHERE USED	NOTES/SPECIFICATION
DATA PLATES	V50855	3DX-1	
	V50856	3DX-1 <sup>1</sup> / <sub>4</sub>	
	V50857	3DX-1 <sup>1</sup> / <sub>2</sub>	
DISCS	G10009	CB-4F, CB-4G	
	G10010	CB-5F, CB-5G	
	G10011	CB-6F, CB-6G	
	G10012	CB-8F, CB-8G	
	V50697	3DX-1	
	V50698	3DX-1 <sup>1</sup> / <sub>4</sub>	
	V50699	3DX-1 <sup>1</sup> / <sub>2</sub>	
	V50754	3DS-14S, 3DS-16B	
	V50920	3DS-12S, 3DS-14B	
	V50992	CB-10F, CB-10G	
	V50993	CB-12F, CB-12G	
V56884	3DS-12G		
DISC ASSEMBLIES	V51756	3DS-2G, 3D-2S, 3D-2 <sup>1</sup> / <sub>2</sub> S, 3DS-2S	
	V51757	3DS-2 <sup>1</sup> / <sub>2</sub> G, 3DS-2 <sup>1</sup> / <sub>2</sub> S, 3DS-3B	
	V51758	3DS-3G, 3D-3S, 3DS-3S, 3DS-4B	
	V51759	3DS-4G, 3D-4S, 3DS-4S, 3DS-5B	
	V51760	3DS-5G, 3D-5S, 3DS-5S, 3DS-6B	
	V51761	3DS-6G, 3D-6S, 3DS-6S, 3DS-8B	
	V51762	3DS-8G, 3D-8S, 3DS-8S, 3DS-10B	
	V51763	3D-10S, 3DS-10S, 3DS-12B	
	V51764	3DS-10G	
DISC KITS	118858	3DX-1 <sup>1</sup> / <sub>4</sub>	
	118859	3DX-1 <sup>1</sup> / <sub>2</sub>	
	118860	3DX-1	
DYNA DISC ASSEMBLIES	118094	SA-1 <sup>1</sup> / <sub>4</sub>	
	118095	SA-1 <sup>1</sup> / <sub>2</sub> , SA-2	
	118096	A-2 <sup>1</sup> / <sub>2</sub> , S-2 <sup>1</sup> / <sub>2</sub> , A-3, S-3	
	118117	SA-1	
	118118	S-4	
	118864	SB- <sup>3</sup> / <sub>4</sub>	
	189168	SA- <sup>3</sup> / <sub>4</sub>	
FLANGE GASKETS	F17400	S-4	
	F26200	SA-2	
	G82750	A-2 <sup>1</sup> / <sub>2</sub> , S-2 <sup>1</sup> / <sub>2</sub>	
	G86500	A-3, S-3	
GASKETS	F19000	S-4, 3D-3S, 3DS-3G, 3DS-3S, 3DS-4B	
	F27800	A-2 <sup>1</sup> / <sub>2</sub> , S-2 <sup>1</sup> / <sub>2</sub> , A-3, S-3, 3D-2S, 3DS-2G, 3DS-2S, 3D-2 <sup>1</sup> / <sub>2</sub> S, 3DS-2 <sup>1</sup> / <sub>2</sub> G, 3DS-2 <sup>1</sup> / <sub>2</sub> S, 3DS-3B	
	F43000	SA- <sup>3</sup> / <sub>4</sub> , Obs. SA- <sup>3</sup> / <sub>4</sub> , Obs. SB- <sup>3</sup> / <sub>4</sub>	
	F44400	SA-1, 3DX-1	
	F47200	SA-1 <sup>1</sup> / <sub>4</sub> , 3DX-1 <sup>1</sup> / <sub>4</sub> , SA-1 <sup>1</sup> / <sub>2</sub> , SA-2	
	F49000	SA-1 <sup>1</sup> / <sub>2</sub> , SA-2, 3DX-1 <sup>1</sup> / <sub>2</sub>	
	V29400	CB-4F, CB-4G, 3D-4, 3DS-4G, 3DS-4S, 3DS-5B	
	V32801	3D-5S, 3DS-5G, 3DS-5S, CB-5F, CB-5G, 3DS-6B	
	V33001	CB-6F, CB-6G, 3D-6S, 3DS-6G, 3DS-6S, 3DS-8B	
	V35000	CB-8F, CB-8G, 3D-8S, 3DS-8G, 3DS-8S, 3DS-10B	
	V36400	CB-10F, CB-10G, 3D-10S, 3DS-10G, 3DS-10S, 3DS-12B	
	V36401	CB-12F, CB-12G, 3DS-12G, 3DS-12S, 3DS-14B	
	V36402	3DS-14S, 3DS-16B	
	V56936	SB- <sup>3</sup> / <sub>4</sub>	

**NOTE:** Obs. = Obsolete Model



## “WHERE USED” LIST (CONTINUED)

CATEGORY	PART NO.	WHERE USED	NOTES/SPECIFICATION
GLAND WASHERS	G10032	CB-4F, CB-4G, CB-5F, CB-5G, CB-6F, CB-6G	
	G10040	CB-8F, CB-8G, CB-10F, CB-10G	
	V51003	CB-12F, CB-12G	
GLASS-TUBE KITS	118098	TB-3/4	
	118820	TFI-4, TFI-5, TFI-6, TFI-8	
	118822	TB-1	
	189111	TFI-1 <sup>1</sup> / <sub>4</sub> , TFI-1 <sup>1</sup> / <sub>2</sub> , TFI-2, TFI-2 <sup>1</sup> / <sub>2</sub> , TFI-3	
HANDLES	F13400	SA-3/4, SA-1, SA-1 <sup>1</sup> / <sub>4</sub> , SA-1 <sup>1</sup> / <sub>2</sub> , SB-3/4, SA-2, A-2 <sup>1</sup> / <sub>2</sub> , S-2 <sup>1</sup> / <sub>2</sub> , A-3, S-3, Obs. SA-3/4, Obs. SB-3/4, 3DX-1, 3DX-1 <sup>1</sup> / <sub>4</sub> , 3DX-1 <sup>1</sup> / <sub>2</sub>	
	F17800	S-4	
INDICATOR LOCKS OR INDICATOR STOPS	G10028	CB-4F, CB-4G, CB-5F, CB-5G, CB-6F, CB-6G	Indicator Lock
	G10036	CB-8F, CB-8G, CB-10F, CB-10G	Indicator Lock
	G96839	CB-1 <sup>1</sup> / <sub>4</sub> , CB-1 <sup>1</sup> / <sub>4</sub> S, CB-1 <sup>1</sup> / <sub>2</sub> , CB-1 <sup>1</sup> / <sub>2</sub> S, CB-2, CB-2S, CB-2 <sup>1</sup> / <sub>2</sub> , CB-2 <sup>1</sup> / <sub>2</sub> F, CB-3, CB-3F, CB-4	Indicator Stop
	V51012	CB-12F, CB-12G	Indicator Lock
INDICATOR RINGS	J94171	3DS-12G, 3DS-12S, 3DS-14S, 3DS-14B, 3DS-16B	
	V51180	3D-2S, 3DS-2G, 3DS-2S, 3D-2 <sup>1</sup> / <sub>2</sub> S, 3DS-2 <sup>1</sup> / <sub>2</sub> G, 3DS-2 <sup>1</sup> / <sub>2</sub> S, 3D-3S, 3DS-3G, 3DS-3S, 3DS-3B, 3DS-4B	
	V51181	3D-4S, 3DS-4G, 3DS-4S, 3D-5S, 3DS-5G, 3DS-5S, 3D-6S, 3DS-6G, 3DS-6S, 3D-8S, 3DS-8G, 3DS-8S, 3D-10S, 3DS-10G, 3DS-10S, 3DS-5B, 3DS-6B, 3DS-8B, 3DS-10B, 3DS-12B	
KNOBS	G10105	RF-1 <sup>2</sup> / <sub>S</sub> , RF-3 <sup>4</sup> / <sub>S</sub>	
	G95951	CB-1 <sup>2</sup> / <sub>S</sub> , CB-1 <sup>2</sup> / <sub>S</sub> , CB-3 <sup>4</sup> / <sub>S</sub> , CB-3 <sup>4</sup> / <sub>S</sub> , CB-1, CB-1S	
	G96831	CB-1 <sup>1</sup> / <sub>4</sub> , CB-1 <sup>1</sup> / <sub>4</sub> S, CB-1 <sup>1</sup> / <sub>2</sub> , CB-1 <sup>1</sup> / <sub>2</sub> S, CB-2, CB-2S, CB-2 <sup>1</sup> / <sub>2</sub> , CB-2 <sup>1</sup> / <sub>2</sub> F, CB-3, CB-3F, CB-4	
LOCK-WASHERS	G10027	CB-4F, CB-4G, CB-5F, CB-5G, CB-6F, CB-6G	
	G10035	CB-8F, CB-8G, CB-10F, CB-10G, CB-12F, CB-12G	
LOWER NAMEPLATE RETAINERS	V51093	3D-2S, 3DS-2G, 3DS-2S, 3D-2 <sup>1</sup> / <sub>2</sub> S, 3DS-2 <sup>1</sup> / <sub>2</sub> G, 3DS-2 <sup>1</sup> / <sub>2</sub> S, 3D-3S, 3DS-3G, 3DS-3S, 3DS-3B, 3DS-4B	
	V51094	3D-4S, 3DS-4G, 3DS-4S, 3D-5S, 3DS-5G, 3DS-5S, 3D-6S, 3DS-6G, 3DS-6S, 3D-8S, 3DS-8G, 3DS-8S, 3D-10S, 3DS-10G, 3DS-10S, 3DS-5B, 3DS-6B, 3DS-8B, 3DS-10B, 3DS-12B	
	V51095	3DS-12G, 3DS-12S, 3DS-14S, 3DS-14B, 3DS-16B	
NAMEPLATES	G10017	CB-4F	
	G10018	CB-5F	
	G10019	CB-6F	
	G10020	CB-8F	
	G10064	CB-4G	
	G10065	CB-5G	
	G10066	CB-6G	
	G10067	CB-8G	
	V50896	3DS-14S	
	V50961	3DS-2S	
	V50962	3DS-2 <sup>1</sup> / <sub>2</sub> S	
	V50963	3DS-3S	
	V50964	3DS-4S	
	V50965	3DS-5S	
	V50966	3DS-6S	
	V50967	3DS-8S	
	V50968	3DS-10S	
	V50969	3DS-12S	
	V50971	3D-2S	
	V50972	3D-2 <sup>1</sup> / <sub>2</sub> S	
V50973	3D-3S		

**NOTE:** Obs. = Obsolete Model

## “WHERE USED” LIST (CONTINUED)

CATEGORY	PART NO.	WHERE USED	NOTES/SPECIFICATION
NAMEPLATES (CONTINUED)	V50974	3D-4S	
	V50975	3D-5S	
	V50976	3D-6S	
	V50977	3D-8S	
	V50978	3D-10S	
	V50996	CB-10F	
	V50997	CB-12F	
	V50998	CB-10G	
	V50999	CB-12G	
	V51823	3DS-2G	
	V51824	3DS-2 <sup>1</sup> / <sub>2</sub> G	
	V51825	3DS-3G	
	V51826	3DS-4G	
	V51827	3DS-5G	
	V51828	3DS-6G	
	V51829	3DS-8G	
	V51830	3DS-10G	
	V51831	3DS-12G	
	V57089	3DS-3B	
	V57090	3DS-4B	
V57091	3DS-5B		
V57092	3DS-6B		
V57093	3DS-8B		
V57094	3DS-10B		
V57095	3DS-12B		
V57096	3DS-14B		
V57097	3DS-16B		
NAMEPLATE CAPS	G10025	CB-4F, CB-4G, CB-5F, CB-5G, CB-6F, CB-6G, CB-8F, CB-8G, CB-10F, CB-10G	
	V51005	CB-12F, CB-12G	
	V51111	3D-2S, 3DS-2G, 3DS-2S, 3D-2 <sup>1</sup> / <sub>2</sub> S, 3DS-2 <sup>1</sup> / <sub>2</sub> G, 3DS-2 <sup>1</sup> / <sub>2</sub> S, 3D-3S, 3DS-3G, 3DS-3S, 3DS-3B, 3DS-4B	
	V51114	3D-4S, 3DS-4G, 3DS-4S, 3D-5S, 3DS-5G, 3DS-5S, 3D-6S, 3DS-6G, 3DS-6S, 3D-8S, 3DS-8G, 3DS-8S, 3D-10S, 3DS-10G, 3DS-10S, 3DS-5B, 3DS-6B, 3DS-8B, 3DS-10B, 3DS-12B	
V51119	3DS-12G, 3DS-12S, 3DS-14S, 3DS-14B, 3DS-16B		
O-RINGS	A03719	EAS-1 <sup>1</sup> / <sub>2</sub> , EAS-2	
	A03841	EAS-1, EAS-1 <sup>1</sup> / <sub>4</sub>	
	J94130	SDG-3, DD-3X, DD-3Z, ED-3X, ED-3Z	
	J94131	SDG-4, EE-3X, EE-3Z, FE-3X, FE-3Z, GE-3X, GE-3Z	
	J94140	BA-3X, BA-3Z	
	J94141	SDG-2 <sup>1</sup> / <sub>2</sub> , BB-3X, BB-3Z, CB-3X, CB-3Z, CC-3X, CC-3Z, DA-3X, DA-3Z, DB-3X, DB-3Z, DC-3X, DC-3Z, EC-3X, EC-3Z	
	J94142	SDG-5, FF-3X, FF-3Z, GF-3X, GF-3Z	
	J94143	SDG-6, GG-3X, GG-3Z, HG-3X, HG-3Z	
	J94144	SDG-8, HH-3X, HH-3Z, JH-3X, JH-3Z	
J94145	SDG-10, JJ-3X, JJ-3Z		
PACKING	F17000	S-4, 3D-2S, 3DS-2G, 3DS-2S, 3D-2 <sup>1</sup> / <sub>2</sub> S, 3DS-2 <sup>1</sup> / <sub>2</sub> G, 3DS-2 <sup>1</sup> / <sub>2</sub> S, 3D-3S, 3DS-3G, 3DS-3S, 3DS-3B, 3DS-4B	
	G10033	CB-4F, CB-4G, CB-5F, CB-5G, CB-6F, CB-6G	
	G10041	CB-8F, CB-8G, CB-10F, CB-10G	
	V51004	CB-12F, CB-12G	
	V51096	3D-4S, 3DS-4G, 3DS-4S, 3D-5S, 3DS-5G, 3DS-5S, 3D-6S, 3DS-6G, 3DS-6S, 3D-8S, 3DS-8G, 3DS-8S, 3D-10S, 3DS-10G, 3DS-10S, 3DS-5B, 3DS-6B, 3DS-8B, 3DS-10B, 3DS-12B	
	V51097	3DS-12G, 3DS-12S, 3DS-14S, 3DS-14B, 3DS-16B	
118057	SA- <sup>3</sup> / <sub>4</sub> , SA-1, SA-1 <sup>1</sup> / <sub>4</sub> , SA-1 <sup>1</sup> / <sub>2</sub> , SB- <sup>3</sup> / <sub>4</sub> , SA-2, A-2 <sup>1</sup> / <sub>2</sub> , S-2 <sup>1</sup> / <sub>2</sub> , A-3, S-3, Obs. SA- <sup>3</sup> / <sub>4</sub> , Obs. SB- <sup>3</sup> / <sub>4</sub> , TB- <sup>3</sup> / <sub>4</sub> , TB-1, 3DX-1, 3DX-1 <sup>1</sup> / <sub>4</sub> , 3DX-1 <sup>1</sup> / <sub>2</sub>		
PACKING GLAND NUTS	F16600	S-4, 3D-2S, 3DS-2G, 3DS-2S, 3D-2 <sup>1</sup> / <sub>2</sub> S, 3DS-2 <sup>1</sup> / <sub>2</sub> G, 3DS-2 <sup>1</sup> / <sub>2</sub> S, 3D-3S, 3DS-3G, 3DS-3S, 3DS-3B, 3DS-4B	
	G10026	CB-4F, CB-4G, CB-5F, CB-5G, CB-6F, CB-6G	
	G10034	CB-8F, CB-8G, CB-10F, CB-10G	
	V51002	CB-12F, CB-12G	
	V51183	3DS-12G, 3DS-12S, 3DS-14S, 3DS-14B, 3DS-16B	
	V51281	3D-4S, 3DS-4G, 3DS-4S, 3D-5S, 3DS-5G, 3DS-5S, 3D-6S, 3DS-6G, 3DS-6S, 3D-8S, 3DS-8G, 3DS-8S, 3D-10S, 3DS-10G, 3DS-10S, 3DS-5B, 3DS-6B, 3DS-8B, 3DS-10B, 3DS-12B	
	118056	SA- <sup>3</sup> / <sub>4</sub> , SA-1, SA-1 <sup>1</sup> / <sub>4</sub> , SA-1 <sup>1</sup> / <sub>2</sub> , SB- <sup>3</sup> / <sub>4</sub> , SA-2, A-2 <sup>1</sup> / <sub>2</sub> , S-2 <sup>1</sup> / <sub>2</sub> , A-3, S-3, Obs. SA- <sup>3</sup> / <sub>4</sub> , Obs. SB- <sup>3</sup> / <sub>4</sub> , 3DX-1, 3DX-1 <sup>1</sup> / <sub>4</sub> , 3DX-1 <sup>1</sup> / <sub>2</sub>	

NOTE: Obs. = Obsolete Model

## “WHERE USED” LIST (CONTINUED)

CATEGORY	PART NO.	WHERE USED	NOTES/SPECIFICATION
PACKING GLAND WASHERS	G10032	CB-4F, CB-4G, CB-5F, CB-5G, CB-6F, CB-6G	
	G10040	CB-8F, CB-8G, CB-10F, CB-10G	
	V51003	CB-12F, CB-12G	
	V51184	3DS-12G, 3DS-12S, 3DS-14S, 3DS-14B, 3DS-16B	
	V51282	3D-4S, 3DS-4G, 3DS-4S, 3D-5S, 3DS-5G, 3DS-5S, 3D-6S, 3DS-6G, 3DS-6S, 3D-8S, 3DS-8G, 3DS-8S, 3D-10S, 3DS-10G, 3DS-10S, 3DS-5B, 3DS-6B, 3DS-8B, 3DS-10B, 3DS-12B	
RETAINER OR JAM NUTS	J91634	3D-2S, 3DS-2G, 3DS-2S, 3D-2 <sup>1</sup> / <sub>2</sub> S, 3DS-2 <sup>1</sup> / <sub>2</sub> G, 3DS-2 <sup>1</sup> / <sub>2</sub> S, 3D-3S, 3DS-3G, 3DS-3S, 3DS-3B, 3DS-4B	
	J91635	CB-4F, CB-4G, CB-5F, CB-5G, CB-6F, CB-6G, 3DS-4G, 3DS-5G, 3DS-6G, 3DS-6S, 3DS-5S, 3DS-4S, 3D-4S, 3D-5S, 3D-6S, 3DS-5B, 3DS-6B, 3DS-8B	
	J91636	CB-8F, CB-8G, CB-10F, CB-10G, CB-12F, CB-12G, 3D-8S, 3DS-8G, 3DS-8S, 3D-10S, 3DS-10G, 3DS-10S, 3DS-12G, 3DS-12S, 3DS-10B, 3DS-12B, 3DS-14B	
	J91637	3DS-14S, 3DS-16B	
RETAINER RINGS	F02800	SA-1, Obs. SA- <sup>3</sup> / <sub>4</sub> , Obs. SB- <sup>3</sup> / <sub>4</sub> , 3DX-1	
	F06800	S-4	
	F20800	SA-1 <sup>1</sup> / <sub>4</sub> , SA-1 <sup>1</sup> / <sub>2</sub> , SA-2, 3DX-1 <sup>1</sup> / <sub>4</sub> , 3DX-1 <sup>1</sup> / <sub>2</sub>	
	F22200	A-2 <sup>1</sup> / <sub>2</sub> , S-2 <sup>1</sup> / <sub>2</sub> , A-3, S-3	
	G92000	TFI-1 <sup>1</sup> / <sub>4</sub> , TFI-1 <sup>1</sup> / <sub>2</sub> , TFI-2, TFI-2 <sup>1</sup> / <sub>2</sub> , TFI-3, TFI-4, TFI-5, TFI-6, TFI-8, TB- <sup>3</sup> / <sub>4</sub> , TB-1	
	G10029	CB-4F, CB-4G, CB-5F, CB-5G, CB-6F, CB-6G	
	G10037	CB-8F, CB-8G, CB-10F, CB-10G	
	J92344	3DX-1, 3DX-1 <sup>1</sup> / <sub>4</sub> , 3DX-1 <sup>1</sup> / <sub>2</sub>	
	J92345	CB-4F, CB-4G, CB-5F, CB-5G, CB-6F, CB-6G	
	J92346	CB-4F, CB-4G, CB-5F, CB-5G, CB-6F, CB-6G	
	J92347	CB-8F, CB-8G, CB-10F, CB-10G	
	J92348	CB-8F, CB-8G, CB-10F, CB-10G	
	J92349	CB-4F, CB-4G, CB-5F, CB-5G, CB-6F, CB-6G, CB-8F, CB-8G, CB-10F, CB-10G	
	J92350	SA- <sup>3</sup> / <sub>4</sub> , SB- <sup>3</sup> / <sub>4</sub>	
V51008	CB-12F, CB-12G		
SCALE PLATES	G95594	TFI-1 <sup>1</sup> / <sub>4</sub>	
	G95595	TFI-1 <sup>1</sup> / <sub>2</sub>	
	G95596	TFI-2	
	G95597	TFI-2 <sup>1</sup> / <sub>2</sub>	
	G95598	TFI-3	
	G95915	TFI-4	
	G95916	TFI-5	
	G95917	TFI-6	
G95918	TFI-8		
SEAL RETAINERS	G10013	CB-4F, CB-4G	
	G10014	CB-5F, CB-5G	
	G10015	CB-6F, CB-6G	
	G10016	CB-8F, CB-8G	
	V50686	3DX-1	
	V50687	Obs. 3DX-1 <sup>1</sup> / <sub>4</sub>	
	V50688	3DX-1 <sup>1</sup> / <sub>2</sub>	
	V50750	3DS-14S, 3DS-16B	
	V50942	3D-2S, 3DS-2G, 3DS-2S, 3D-2 <sup>1</sup> / <sub>2</sub> S, 3DS-2 <sup>1</sup> / <sub>2</sub> G, 3DS-2 <sup>1</sup> / <sub>2</sub> S, 3D-3S, 3DS-3G, 3DS-3S, 3DS-3B	
	V50945	3D-4S, 3DS-4G, 3DS-4S, 3DS-5B	
	V50946	3D-5S, 3DS-5G, 3DS-5S, 3DS-6B	
	V50947	3D-6S, 3DS-6G, 3DS-6S, 3DS-8B	
	V50948	3D-8S, 3DS-8G, 3DS-8S, 3DS-10B	
	V50949	3D-10S, 3DS-10G, 3DS-10S, 3DS-12B	
	V50950	3DS-12G, 3DS-12S, 3DS-14B	
	V50994	CB-10F, CB-10G	
	V50995	CB-12F, CB-12G	
	V56889	3DX-1 <sup>1</sup> / <sub>4</sub>	
V58164	3DS-3G, 3D-3S, 3DS-3S, 3DS-4B		

**NOTE:** Obs. = Obsolete Model

## “WHERE USED” LIST (CONTINUED)

CATEGORY	PART NO.	WHERE USED	NOTES/SPECIFICATION
<b>SEAL RINGS</b>	V50781	3DX-1	
	V50782	3DX-1 <sup>1</sup> / <sub>4</sub>	
	V50783	3DX-1 <sup>1</sup> / <sub>2</sub>	
	V50793	3DS-14S, 3DS-16B	
	V50932	3D-2, 3DS-2G, 3DS-2S, 3D-2 <sup>1</sup> / <sub>2</sub> S	
	V50933	3DS-2 <sup>1</sup> / <sub>2</sub> G, 3DS-2 <sup>1</sup> / <sub>2</sub> S, 3DS-3B	
	V50934	3D-3, 3DS-3G, 3DS-3S, 3DS-4B	
	V50935	CB-4F, CB-4G, 3D-4, 3DS-4G, 3DS-4S, 3DS-15B	
	V50936	CB-5F, CB-5G, 3D-5S, 3DS-5G, 3DS-5S, 3DS-6B	
	V50937	CB-6F, CB-6G, 3D-6S, 3DS-6G, 3DS-6S, 3DS-8B	
	V50938	CB-8F, CB-8G, 3D-8S, 3DS-8G, 3DS-8S, 3DS-10B	
	V50939	CB-10F, CB-10G, 3D-10S, 3DS-10G, 3DS-10S, 3DS-12B	
V50940	CB-12F, CB-12G, 3DS-12G, 3DS-12S, 3DS-14B		
<b>SET SCREWS</b>	J91999	CB-12G	
	J92020	CB-4F, CB-4G, CB-5F, CB-5G, CB-6F, CB-6G, CB-8F, CB-8G, CB-10F, CB-10G, CB-12F	
<b>SPRINGS</b>	F66200	TB-1	
	F66800	TFI-1 <sup>1</sup> / <sub>4</sub> , TFI-1 <sup>1</sup> / <sub>2</sub> , TFI-2, TFI-2 <sup>1</sup> / <sub>2</sub> , TFI-3, TFI-4, TFI-5, TFI-6, TFI-8, TB- <sup>3</sup> / <sub>4</sub>	
	V50952	3D-2S, 3DS-2G, 3DS-2S, 3D-2 <sup>1</sup> / <sub>2</sub> , 3DS-2 <sup>1</sup> / <sub>2</sub> G, 3DS-2 <sup>1</sup> / <sub>2</sub> S, 3DS-3B	
	V50953	3D-3S, 3DS-3G, 3DS-3S, 3DS-4B	
	V50954	3D-4S, 3DS-4G, 3DS-4S, 3D-5S, 3DS-5G, 3DS-5S, 3DS-5B, 3DS-6B	
	V50955	3D-6S, 3DS-6G, 3DS-6S, 3DS-8B	
	V50956	3D-8S, 3DS-8G, 3DS-8S, 3DS-10B	
	V50957	3D-10S, 3DS-10G, 3DS-10S, 3DS-12B	
	V50958	3DS-12G, 3DS-12S, 3DS-14B	
	V51077	3DX-1	
	V51078	3DX-1 <sup>1</sup> / <sub>4</sub>	
	V51079	3DX-1 <sup>1</sup> / <sub>2</sub>	
V51083	3DS-14S, 3DS-16B		
<b>START-UP STRAINERS</b>	A91260	BA-3X, BA-3Z	
	A91261	BB-3X, BB-3Z, CB-3X, CB-3Z, DA-3X, DA-3Z, DB-3X, DB-3Z	
	A91262	DD-3X, DD-3Z, ED-3X, ED-3Z, SDG-3	
	A91263	EE-3X, EE-3Z, FE-3X, FE-3Z, GE-3X, GE-3Z, SDG-4	
	A91264	FF-3X, FF-3Z, GF-3X, GF-3Z, SDG-5	
	A91265	GG-3X, GG-3Z, HG-3X, HG-3Z, SDG-6	
	A91266	HH-3X, HH-3Z, JH-3X, JH-3Z, SDG-8	
	A91267	JJ-3X, JJ-3Z, SDG-10	
	A91268	CC-3X, CC-3Z, DC-3X, DC-3Z, EC-3X, EC-3Z, SDG-2 <sup>1</sup> / <sub>2</sub>	
<b>STEMS</b>	G10005	CB-4F, CB-4G	
	G10006	CB-5F, CB-5G	
	G10007	CB-6F, CB-6G	
	G10008	CB-8F, CB-8G	
	V50767	3DX-1	
	V50768	3DX-1 <sup>1</sup> / <sub>4</sub>	
	V50769	3DX-1 <sup>1</sup> / <sub>2</sub>	
	V50778	3DS-14S, 3DS-16B	
	V50922	3D-2S, 3DS-2G, 3DS-2S, 3D-2 <sup>1</sup> / <sub>2</sub> , 3DS-2 <sup>1</sup> / <sub>2</sub> S, 3DS-2 <sup>1</sup> / <sub>2</sub> G, 3DS-3B	
	V50924	3D-3S, 3DS-3G, 3DS-3S, 3DS-4B	
	V50925	3D-4S, 3DS-4G, 3DS-4S, 3DS-5B	
	V50926	3D-5S, 3DS-5G, 3DS-5S, 3DS-6B	
	V50927	3D-6S, 3DS-6G, 3DS-6S, 3DS-8B	
	V50928	3D-8S, 3DS-8G, 3DS-8S, 3DS-10B	
	V50929	3D-10S, 3DS-10G, 3DS-10S, 3DS-12B	
	V50930	3DS-12G, 3DS-12S, 3DS-14B	
	V50989	CB-10F, CB-10G	
	V50990	CB-12F, CB-12G	

**NOTE:** Obs. = Obsolete Model

## “WHERE USED” LIST (CONTINUED)

CATEGORY	PART NO.	WHERE USED	NOTES/SPECIFICATION	
<b>STRAINERS</b>	A91270	Obs. BZ-3, Obs. BA-3, BA-3X	Steel	
	A91271	BB-3X, CB-3X, DA-3X, DB-3X	Steel	
	A91272	DD-3X, ED-3X	Steel	
	A91273	EE-3X, FE-3X, GE-3X	Steel	
	A91274	FF-3X, GF-3X	Steel	
	A91275	GG-3X, HG-3X	Steel	
	A91276	HH-3X, JH-3X	Steel	
	A91277	JJ-3X	Steel	
	A91278	CC-3X, DC-3X, EC-3X	Steel	
	A91280	Obs. BZ-3, Obs. BA-3Z, BA-3Z	Stainless Steel	
	A91281	BB-3Z, CB-3Z, DA-3Z, DB-3Z	Stainless Steel	
	A91282	Obs. DC-3, DD-3Z, ED-3Z, SDG-3	Stainless Steel	
	A91283	EE-3Z, FE-3Z, GE-3Z, SDG-4	Stainless Steel	
	A91284	SDG-5, FF-3Z, GF-3Z	Stainless Steel	
	A91285	GG-3Z, HG-3Z, SDG-6	Stainless Steel	
	A91286	HH-3Z, JH-3Z, SDG-8	Stainless Steel	
A91287	JJ-3Z, SDG-10	Stainless Steel		
A91288	CC-3Z, DC-3Z, SDG-2 <sup>1</sup> / <sub>2</sub> , EC-3Z	Stainless Steel		
<b>STRAINER &amp; GASKET KITS</b>	118036	B-38, B-38TU, F-3, F-8, F-3TU, F-8TU, FB-38, FB-38TU, 6, 8, 8TU		
	189160	B7-12, 7		
<b>TEFLON WASHERS</b>	G10031	CB-4F, CB-4G, CB-5F, CB-5G, CB-6F, CB-6G		
	G10039	CB-8F, CB-8G, CB-10F, CB-10G, CB-12F, CB-12G		
<b>TUBE GLASS</b>	G91900	TFI-1 <sup>1</sup> / <sub>4</sub> , TFI-1 <sup>1</sup> / <sub>2</sub> , TFI-2, TFI-2 <sup>1</sup> / <sub>2</sub> , TFI-3	Clear glass	
	G91904	TFI-1 <sup>1</sup> / <sub>4</sub> , TFI-1 <sup>1</sup> / <sub>2</sub> , TFI-2, TFI-2 <sup>1</sup> / <sub>2</sub> , TFI-3, TFI-4, TFI-5, TFI-6, TFI-8	Etched glass	
	G91908	TB- <sup>3</sup> / <sub>4</sub>		
	G91910	TB-1		
<b>UPPER NAMEPLATE RETAINERS</b>	V51090	3D-2S, 3DS-2G, 3DS-2S, 3D-2 <sup>1</sup> / <sub>2</sub> S, 3DS-2 <sup>1</sup> / <sub>2</sub> G, 3DS-2 <sup>1</sup> / <sub>2</sub> S, 3D-3S, 3DS-3G, 3DS-3S, 3DS-3B, 3DS-4B		
	V51091	3D-4S, 3DS-4G, 3DS-4S, 3D-5S, 3DS-5G, 3DS-5S, 3D-6S, 3DS-6G, 3DS-6S, 3D-8S, 3DS-8G, 3DS-8S, 3D-10S, 3DS-10G, 3DS-10S, 3DS-5B, 3DS-6B, 3DS-8B, 3DS-10B, 3DS-12B		
	V51092	3DS-12G, 3DS-12S, 3DS-14S, 3DS-14B, 3DS-16B		
CATEGORY	PART NO.	PART DESCRIPTION	WHERE USED	NOTES/SPECIFICATION
<b>MISCELLANEOUS VALVE PARTS</b>	109024	Operator	CT-24, CTS-7524, CTF-10024	
	113100	Readout Valve Sets	All Circuit Setter Models & All Triple Duty Valve Models	50 pairs per package
	113102	Readout Probe Sets	All Circuit Setter Models & All Triple Duty Valve Models	6 pairs per package
	118029	Diaphragm	All Pressure Reducing Valve & Dual Unit Valve Models	
	118855	Lever, Button & Gasket	107A	
	118861	PRV Repair Kit	All Pressure Reducing Valve & Dual Unit Valve Models	
	189137	Heat Motor Assembly	CT-24, CTS-7524, CTF-10024	6 per package
	189138	Gland Assembly	CT-24, CTS-7524, CTF-10024	6 per package
	189139	Bonnet & Retainer Assembly	CT-24, CTS-7524, CTF-10024	6 per package
	189143	Heat Motor Kit	Obs. M-1	
	A03717	Diffuser	EAS-1 <sup>1</sup> / <sub>2</sub> , EAS-2	
	A03718	Wire Brush	EAS-1 <sup>1</sup> / <sub>2</sub> , EAS-2	
	A03723	Air Vent	EAS-2	
	A03836	Diffuser	EAS-1, EAS-1 <sup>1</sup> / <sub>4</sub>	
	A03837	Wire Brush	EAS-1, EAS-1 <sup>1</sup> / <sub>4</sub>	
	A03842	Air Vent	EAS-1, EAS-1 <sup>1</sup> / <sub>4</sub> , EAS-1 <sup>1</sup> / <sub>2</sub>	
	F42800	Snap Ring	SA- <sup>3</sup> / <sub>4</sub> , SA-1, SA-1 <sup>1</sup> / <sub>4</sub> , SA-1 <sup>1</sup> / <sub>2</sub> , SB- <sup>3</sup> / <sub>4</sub> , SA-2, A-2 <sup>1</sup> / <sub>2</sub> , S-2 <sup>1</sup> / <sub>2</sub> , A-3, S-3, Obs. SA- <sup>3</sup> / <sub>4</sub> , Obs. SB- <sup>3</sup> / <sub>4</sub> , 3DX-1, 3DX-1 <sup>1</sup> / <sub>4</sub> , 3DX-1 <sup>1</sup> / <sub>2</sub>	
	F62800	Indicator Disc	TB- <sup>3</sup> / <sub>4</sub>	
	F67200	Sealing Ring	TFI-1 <sup>1</sup> / <sub>4</sub> , TFI-1 <sup>1</sup> / <sub>2</sub> , TFI-2, TFI-2 <sup>1</sup> / <sub>2</sub> , TFI-3, TFI-4, TFI-5, TFI-6, TFI-8, TB- <sup>3</sup> / <sub>4</sub> , TB-1	4 required
	F69000	Hanger	TFI-1 <sup>1</sup> / <sub>4</sub> , TFI-1 <sup>1</sup> / <sub>2</sub> , TFI-2, TFI-2 <sup>1</sup> / <sub>2</sub> , TFI-3, TFI-4, TFI-5, TFI-6, TFI-8, TB- <sup>3</sup> / <sub>4</sub> , TB-1	
	F69200	Guide Wire	TFI-1 <sup>1</sup> / <sub>4</sub> , TFI-1 <sup>1</sup> / <sub>2</sub> , TFI-2, TFI-2 <sup>1</sup> / <sub>2</sub> , TFI-3, TFI-4, TFI-5, TFI-6, TFI-8, TB- <sup>3</sup> / <sub>4</sub> , TB-1	
	G95000	Angle Valve	TFI-1 <sup>1</sup> / <sub>4</sub> , TFI-1 <sup>1</sup> / <sub>2</sub> , TFI-2, TFI-2 <sup>1</sup> / <sub>2</sub> , TFI-3, TFI-4, TFI-5, TFI-6, TFI-8	2 required
	G97030	Readout Valve Set	All Circuit Setter Models & All Triple Duty Valve Models	
	G97032	Readout Probe Set	All Circuit Setter Models & All Triple Duty Valve Models	
	J92135	Nameplate Screw	CB-4F, CB-4G, CB-5F, CB-5G, CB-6F, CB-6G, CB-8F, CB-8G, CB-10F, CB-10G, CB-12F, CB-12G, All Triple Duty Valve Models except 3DX-1, 3DX-1 <sup>1</sup> / <sub>4</sub> & 3DX-1 <sup>1</sup> / <sub>2</sub>	2 required
	V01340	Cover	CT-24, CTS-7524, CTF-10024	
	V14609	Strainer Nut	All Pressure Reducing Valve & Dual Unit Valve Models	
	V50740	Retainer	3DX-1, 3DX-1 <sup>1</sup> / <sub>4</sub> , 3DX-1 <sup>1</sup> / <sub>2</sub>	
V51657	Tail Piece Gasket	B-38TU, F-3TU, F-8TU, FB-38TU, 8TU		
V51658	Rubber Check Valve	All Pressure Reducing Valve & Dual Unit Valve Models	Round	

**NOTE:** Obs. = Obsolete Model

# TROUBLESHOOTING HYDRONIC SYSTEM PROBLEMS

Below and on the following page are four guides for troubleshooting various problems found in typical hydronic heating systems. Each guide was developed by Bob DeWyze, Director of Training and Education for Xylem Fluid Handling Division (retired). Familiarization with this information may provide insight in preventing future repairs required for pumps, valves and other hydronic accessories found in this service parts catalog.

PUMPING SYSTEM TROUBLE ANALYSIS GUIDE		
COMPLAINT	POSSIBLE CAUSE	RECOMMENDED ACTION
No circulation	Set screw not tight, coupler loose on shaft Impeller slipping on shaft  Air-bound system Air-bound pump Broken pump coupler Clogged impeller or piping System valve closed Pump electrical circuit broken	Tighten set screw in shaft recess. Check to see if impeller is placed on the key way of the shaft. Tighten impeller nut. Vent system Vent pump casing Replace; check alignment Locate and remove obstruction Open Check all related low and line voltage circuits.
Inadequate circulation	Air-bound system Air-bound pump Clogged impeller or piping Clogged strainer Pump impeller damaged Insufficient NPSH (net positive suction head) Pump too small Partially air-bound pump Pump running backwards (three phase) Improper motor speed	Vent system Vent pump casing Locate and remove obstruction Remove and clean screen Replace Lower pump or raise pressure or relocate Replace pump or impeller Vent pump casing Reverse any two motor leads Check wiring and voltage
Pump or system noise	Entrained air Pump cavitation Pump misalignment Worn pump coupler Excessive water velocity Poor foundation (base-mounted pumps only) Pipe vibration	Vent system Lower pump or raise pressure or relocate (see note below) Re-align pump Replace; check alignment of shafts - replace sagging motor mounts Install balancing cocks or parallel piping. Provide rigid foundation with adequate grouting. Provide adequate pipe support.
Premature failure of pump components	Improper pump (size/type) Improper pump location Pump misalignment Excessive water treatment Over-oiling of pump Under-oiling of pump Pump operating close to or beyond end point of curve Excessive piping load	Replace Relocate Re-align Check manufacturer's instructions Check manufacturer's instructions Check manufacturer's instructions Balance system Provide proper pipe support
Seal failures within 1 year period or less in a closed system	Excessive dirt, sand and oxides Excessive or improper water treatment  Pump Cavitation: 1. Improper selection 2. Compression tank location Air-seal without lubricant (water) Excessive temperatures Pumps run without fluid	Clean system Check for proper water treatment recommendations from pump manufacturer.  Check pump operation on its curve - overloading High head pump must have compression tank on suction side of pump. Vent air from pump volute Check type of seal and max. operating temperature from manufacturer. Pumps must be primed before operation.
Seal pitting • Oxygen corrosion • Magnetic iron oxide	Caused by wear and excessive amounts of free oxygen. Fresh water feeding carries oxygen into the system.	Check if system has a constant leak.

Note: Cavitation can be identified by low rumbling or sharp rattling noises. This situation is created by the lack of available net positive suction head (NPSH). The pressure at some point in the pump falls below the vapor pressure of the water causing flashing and the formation of bubbles, which are carried into the volute where the higher pressure causes them to implode. This can eventually destroy the pump.

AIR CONTROL SYSTEM PROBLEMS		
COMPLAINT	POSSIBLE CAUSE	RECOMMENDED ACTION
Waterlogged compression tank	Gravity circulation between boiler and tank Leak in tank Leak in gauge glass. Top gasket dries out allowing air to escape.	Install air control system Check with soap solution - replace Check tapping - would most likely be in upper tapping
Insufficient air control in air control devices Boiler top outlet fittings	Dip tube not 2½" below water line in boiler	This is almost impossible to find without taking the supply piping on the boiler apart.
In-Line fitting not working properly	Velocity too high through fitting for air separation. Initial system start-up not performed properly Improper pitch in piping to the tank  Leaks in system piping	Check size of fitting - it should be the same as the pipe size Check manufacturer's instructions Check to make sure horizontal pipe is pitched towards the compression tank. Check for leaks
No heat radiation	Air-bound	Vent

## TROUBLESHOOTING HYDRONIC SYSTEM PROBLEMS (CONT.)

<b>VALVE SYSTEM TROUBLE ANALYSIS GUIDE</b>		
<b>COMPLAINT</b>	<b>POSSIBLE CAUSE</b>	<b>RECOMMENDED ACTION</b>
No circulation Relief valve opens	Set screw not tight, coupler loose on shaft Defective relief valve Compression tank undersized Waterlogged compression tank Run-away burner Fuel valve stuck in open position Pump not operating High limit control fails Defective reducing valve System operating pressure too high	Tighten set screw in shaft recess Replace Check for proper size - replace Install air control system or drain tank Check controls Check valve Check pump Check control Clean or replace Check static pressure and temperature operation
Valve drips Reducing valve failures	Dirt on seat Valve does not feed Strainer plugged Valve seat scaled shut	Lift handle rapidly to discharge dirt - still drips - replace Check if valve is scaled Clean or replace Turn adjustment screw all the way down to free - if it doesn't - replace
Reducing valve does not reduce pressure Relief valve pops - hot or cold	City pressure too high for valve	Check valve limitation and replace with higher pressure-rated valve.
Flo-control valve problems- Gravity circulation	Reducing valve sticking in open position Dirt on seat Stem not turned down all the way Valve body not installed in a horizontal position Air in upper part of valve body Thermostat not working properly	Check valve, replace if necessary Take cover off and wipe seat Turn handle on stem all the way and seat If in a vertical position, change to horizontal, use straight or angle valve Open cover and vent Check thermostat
Pulsating action Zone valves will not operate (see note below)	Power pill burned out Sticking seal assembly valve will not seal	Check & replace - check electrical connections Check and clean stem and seat for build-up of mineral scale

Note: If valve does not operate, install in a manual full open or partial position to prevent freeze-up.

<b>MISCELLANEOUS SYSTEM PROBLEMS</b>		
<b>COMPLAINT</b>	<b>POSSIBLE CAUSE</b>	<b>RECOMMENDED ACTION</b>
Insufficient heat in one or more zones	Air binding Clogged zone piping Defective zone valve Unbalanced circuits Undersized radiation Broken coupler on pump Motor burn-out Power off	Install air control Locate and remove obstruction Repair or replace Balance Add radiation or more insulation - increase water temperature Check alignment of shafts - replace sagging motor mounts Check pump motor Check electrical connections - power source
Overheating - cold or mild weather	Gravity circulation Defective flo-control valve Zone valve stuck in open position Thermostat not operating Flo-control valve stem in open position Fuel valve stuck in open position Controls not operating properly	Install flo-control valve Clean or repair or replace Check - repair or replace Check - replace Close valve Check - replace if needed Check
Pounding or waterhammer	Lack of system pressure Over-sized compression tank Excessive boiler temperature Pumping into the boiler using high head pumps Use of solenoid valves	Check if static pressure is correct for system See note below Check to see if water is circulating through boiler - stuck fuel valve (1) Increase static pressure above pump head if possible. (2) Move pump to pump away from boiler and discharge into system. Do not use on hydronic systems.
Crackling sound	Boiler full of lime (mineral compounds)	Clean and flush

Note: If a compression tank is so large that system pressure does not build-up in the proper range with temperature increase, boiling may occur in piping or radiation at the high point of the system, particularly when pumping into the boiler.

For additional hydronic system troubleshooting information, contact your local Bell & Gossett Representative.

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