

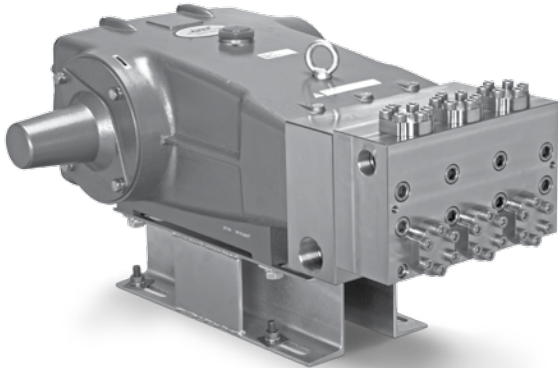
# DATA SHEET

## 68 FRAME BLOCK-STYLE PLUNGER PUMP



**Stainless Steel Models:**      **6801, 6811**

**Flushed Models:**      **6801K, 6811K**



Model 6811 Shown  
(Shaft protector and rails included)

### FEATURES

- Triplex plunger design delivers high efficiency and low pulsation.
- V-Packings and low pressure seals are completely lubricated and cooled by pumped liquid.
- Special high-density, polished, concentric ceramic plungers provide a true wear surface and extended seal life.
- Wet-end is easily serviced without entering crankcase.
- Standard NBR seals with alternative options for temperature and chemical compatibility
  - FPM – .0110
  - EPDM – .0220
  - IPFE – .0770

### COMMON SPECIFICATIONS

	U.S.	Metric
Inlet Pressure Range	Flooded to 50 psi	Flooded to 3.5 bar
Stroke	2.579"	65.5 mm
Crankcase Capacity	10 qts.	9.46 l
Max. Liquid Temperature	140° F	60° C
Above 130° call Cat Pumps for inlet conditions and elastomer recommendations		
Inlet Ports (2)	1-1/2" NPT(F)	1-1/2" NPT(F)
Flushing Ports (2) (6801K, 6811K)**	1/2" NPT(F)	1/2" NPT(F)
Discharge Port (2)	1" NPT(F)	1" NPT(F)
Shaft Diameter	1.772"	45 mm
Weight	355 lbs.	161 kg
Dimensions	29.68 x 23.98 x 11.97"	754 x 609 x 304 mm

### SPECIFICATIONS

	U.S. Measure	Metric Measure
<b>6801, 6801K**</b>		
Flow	15.0 gpm	57 lpm
Pressure Range	100 to 7000 psi	6.9 to 483 bar
Pump RPM*	600 rpm	600 rpm
Bore	0.984"	25 mm
<b>6811, 6811K**</b>		
Flow	15.0 gpm	57 lpm
Pressure Range	100 to 5000 psi	6.9 to 345 bar
Pump RPM*	600 rpm	600 rpm
Bore	0.984"	25 mm

\*Pump minimum is 100 RPM.

\*\*Flushed K Models: Special ported inlet manifold permits an external flush liquid providing cooling for Hi-Temp liquids and lubrication with low lubricity liquids.

### ELECTRIC HORSEPOWER REQUIREMENTS

MODELS	FLOW		PRESSURE					PUMP RPM
			psi 3000	psi 4000	psi 5000	psi 6000	psi 7000	
	gpm	lpm	bar 207	bar 275	bar 345	bar 414	bar 483	
6801 6801K	15	57	30.8	41.1	51.4	61.6	71.9	600
	12	45	24.7	32.9	41.1	49.3	57.5	480
	10	38	20.5	27.4	34.2	41.1	47.9	400
6811 6811K	15	57	30.8	41.1	51.4	N/A	N/A	600
	12	45	24.7	32.9	41.4	N/A	N/A	480
	10	38	20.5	27.4	34.2	N/A	N/A	400

**DETERMINING THE PUMP R.P.M.**

$$\frac{\text{Rated gpm}}{\text{Rated rpm}} = \frac{\text{"Desired" gpm}}{\text{"Desired" rpm}}$$

**DETERMINING THE REQUIRED H.P.**

$$\text{Hp (Electric Brake)} = \frac{\text{gpm} \times \text{psi}}{1460}$$

**DETERMINING MOTOR PULLEY SIZE**

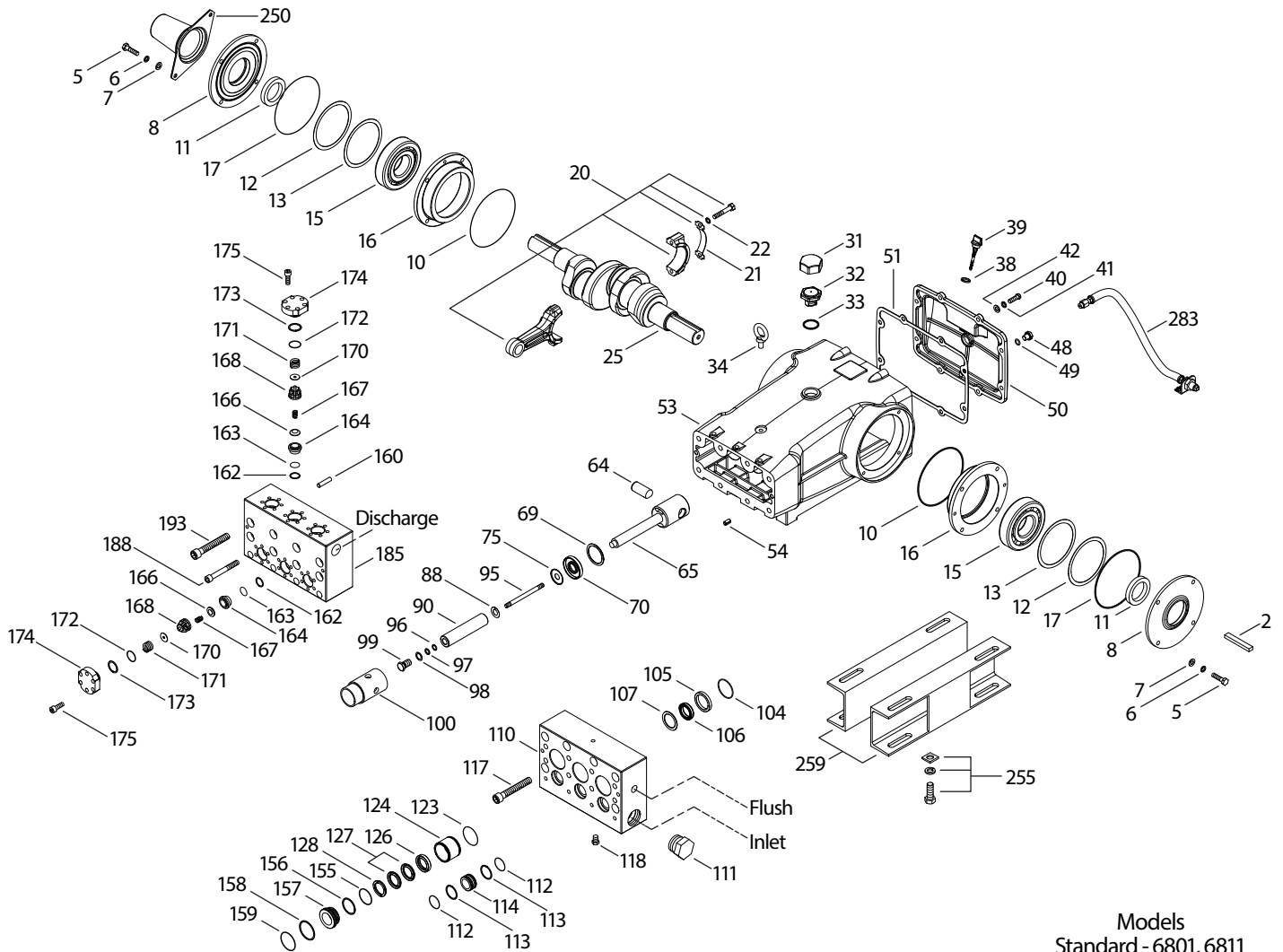
$$\frac{\text{Motor Pulley O.D.}}{\text{Pump rpm}} = \frac{\text{Pump Pulley O.D.}}{\text{Motor rpm}}$$

See complete Drive Packages [Includes: pulleys, belts, hubs, key] Tech Bulletin 003. Refer to pump **Service Manual** for repair procedure and additional technical information.

# PARTS LIST

ITEM	PART NUMBER							DESCRIPTION	QTY	
	6801	MATL	6801K	MATL	6811	MATL	6811K	MATL		
2	43048	STL	43048	STL	43048	STL	43048	STL	Key (M14x9x90)	1
5	89728	S	89728	S	89728	S	89728	S	Screw, HH (M10x40)	8
6	15847	S	15847	S	15847	S	15847	S	Lockwasher (M10)	8
7	19934	S	19934	S	19934	S	19934	S	Washer, Flat (M10)	8
8	29443	AL	29443	AL	29443	AL	29443	AL	Cover, Bearing - Outer (See Tech Bulletin 118)	2
10	29444	NBR	29444	NBR	29444	NBR	29444	NBR	O-Ring, Bearing Cover -70D	2
11	11443	NBR	11443	NBR	11443	NBR	11443	NBR	Seal, Oil, Crankshaft - 70D	2
12	126594	STCP R	126594	STCP R	126594	STCP R	126594	STCP R	Washer, Shim (M120x0.3)	0-2
13	126595	STCP R	126595	STCP R	126595	STCP R	126595	STCP R	Washer, Shim (M120x0.5)	0-2
15	29441	STL	29441	STL	29441	STL	29441	STL	Bearing, Roller	2
16	29442	STL	29442	STL	29442	STL	29442	STL	Cover, Bearing - Inner	2
17	29444	NBR	29444	NBR	29444	NBR	29444	NBR	O-Ring, Bearing Cover - 70D	2
20	126612	BBHS	126612	BBHS	126612	BBHS	126612	BBHS	Assembly, Connecting Rod (Incls: 21, 22)	3
21	126560	STCP R	126560	STCP R	126560	STCP R	126560	STCP R	Washer, Locking	3
22	126593	STCP R	126593	STCP R	126593	STCP R	126593	STCP R	Washer, Shim (M10.5x1.5)	6
25	29440	FCM	29440	FCM	29440	FCM	29440	FCM	Crankshaft, Dual Shaft	1
31	828710	PE	828710	PE	828710	PE	828710	PE	Protector, Oil Cap w/Foam Gasket	1
32	43211	ABS	43211	ABS	43211	ABS	43211	ABS	Cap, Oil Filler	1
33	14177	NBR	14177	NBR	14177	NBR	14177	NBR	O-Ring, Filler Cap - 70D	1
34	126743	STCP R	126743	STCP R	126743	STCP R	126743	STCP R	Bolt, Eye (M12) (For Lifting Pump Only)	1
38	11338	NBR	11338	NBR	11338	NBR	11338	NBR	O-Ring, Dip Stick - 70D	1
39	27769	ABS	27769	ABS	27769	ABS	27769	ABS	Stick, Dip	1
40	89627	S	89627	S	89627	S	89627	S	Screw, HH (M10x30)	8
41	15847	S	15847	S	15847	S	15847	S	Lockwasher (M10)	8
42	19934	S	19934	S	19934	S	19934	S	Washer, Flat (M10)	8
48	25625	STCP	25625	STCP	25625	STCP	25625	STCP	Plug, Drain (1/4"x19BSP)	1
49	23170	NBR	23170	NBR	23170	NBR	23170	NBR	O-Ring, Drain Plug - 70D	1
50	29438	AL	29438	AL	29438	AL	29438	AL	Cover, Rear (See Tech Bulletin 118)	1
51	129386	NBR	129386	NBR	129386	NBR	129386	NBR	Gasket, Rear Cover	1
53	45303	AL	45303	AL	45303	AL	45303	AL	Crankcase (Incls: 34, 54) (See Tech Bulletin 118)	1
54	43282	S	43282	S	43282	S	43282	S	Pin, Guide	2
64	29481	CM	29481	CM	29481	CM	29481	CM	Pin, Crosshead	3
65	48735	SSZZ	48735	SSZZ	48735	SSZZ	48735	SSZZ	Rod, Plunger	3
69	126588	STCP R	126588	STCP R	126588	STCP R	126588	STCP R	Washer, Oil Seal	3
70	29454	NBR	29454	NBR	29454	NBR	29454	NBR	Seal, Oil Crankcase - 80D	3
75	43865	S	43865	S	43865	S	43865	S	Slinger Barrier	3
88	45676	S	45676	S	45676	S	45676	S	Washer, Keyhole (M16)	3
90	43866	CC	43866	CC	43866	CC	43866	CC	Plunger (M12x145)	3
95	89778	SS	89778	SS	89778	SS	89778	SS	Stud, Plunger Retainer (M10x135)	3
96	20189	PTFE	20189	PTFE	20189	PTFE	20189	PTFE	Back-up-Ring, Plunger Retainer	3
97	11345	NBR	11345	NBR	11345	NBR	11345	NBR	O-Ring, Plunger Retainer - 70D	3
98	44085	SS	44085	SS	44085	SS	44085	SS	Gasket, Plunger Retainer	3
99	44084	SS	44084	SS	44084	SS	44084	SS	Retainer, Plunger (M10)	3
100	703084	D	703084	D	703084	D	703084	D	Retainer, Seal	3
104	43875	NBR	43875	NBR	43875	NBR	43875	NBR	O-Ring, Adapter, Inlet - 70D	3
105	701323	SS	701323	SS	701323	SS	701323	SS	Adapter, Inlet, LPS	3
106	44086	NBR	44086	NBR	44086	NBR	44086	NBR	Seal, LPS, w/SS-Spg	3
107	44089	SS	44089	SS	44089	SS	44089	SS	Washer, LPS	3
110	701321	SS	—	—	701321	SS	—	—	Manifold Inlet, Block-Style	1
—	—	—	701322	SS	—	—	701322	SS	Manifold Inlet, Block-Style, Flushed [1/2" NPT(F) Port]	1
111	701116	SS	701116	SS	701116	SS	701116	SS	Plug, Inlet Manifold [1-1/2" NPT(M)]	1
112	701632	NBR	701632	NBR	701632	NBR	701632	NBR	O-Ring, Spacer	6
113	701329	PTFE	701329	PTFE	701329	PTFE	701329	PTFE	Back-up-Ring, Spacer	6
114	701327	SS	701327	SS	701327	SS	701327	SS	Spacer, Inlet	3
117	89694	S	89694	S	89694	S	89694	S	Screw, HSH (M16x110)	8
118	—	—	701077	SS	—	—	701077	SS	Plug [1/4" NPT(M)]	3
123	12391	NBR	12391	NBR	12391	NBR	12391	NBR	O-Ring, V-Packing Cylinder - 70D	3
124	701324	SS	701324	SS	701324	SS	701324	SS	Cylinder, V-Packing	3
126	701325	SS	701325	SS	701325	SS	701325	SS	Adapter, Female	3
127	44610	STG	44610	STG	44610	STG	44610	STG	V-Packing	6
128	701326	SS	701326	SS	701326	SS	701326	SS	Adapter, Male	3
155	11379	NBR	11379	NBR	11379	NBR	11379	NBR	O-Ring, V-Packing Spacer, Inner - 70D	3
156	28243	PTFE	28243	PTFE	28243	PTFE	28243	PTFE	Back-up-Ring, Spacer, Inner	3
157	701294	SS	701294	SS	701294	SS	701294	SS	Spacer, V-Packing	3
158	28243	PTFE	28243	PTFE	28243	PTFE	28243	PTFE	Back-up-Ring, Spacer, Outer	3
159	11379	NBR	11379	NBR	11379	NBR	11379	NBR	O-Ring, V-Packing Spacer, Outer - 70D	3
160	44756	S	44756	S	44756	S	44756	S	Pin, Guide IMDM	2
162	21985	PTFE	21985	PTFE	21985	PTFE	21985	PTFE	Back-up-Ring, Seat	12/6
163	26089	NBR	26089	NBR	26089	NBR	26089	NBR	O-Ring, Seat - 80D	12/6
164	44080	SS	44080	SS	44080	SS	44080	SS	Seat	6
166	44081	SS	44081	SS	44081	SS	44081	SS	Valve	6
167	44082	SS	44082	SS	44082	SS	44082	SS	Spring	6
168	44735	PVDF	44735	PVDF	44735	PVDF	44735	PVDF	Retainer, Spring	6
170	44794	SS	44794	SS	44794	SS	44794	SS	Washer, Retainer	6
171	44793	SS	44793	SS	44793	SS	44793	SS	Spring, Coil	6

# EXPLODED VIEW



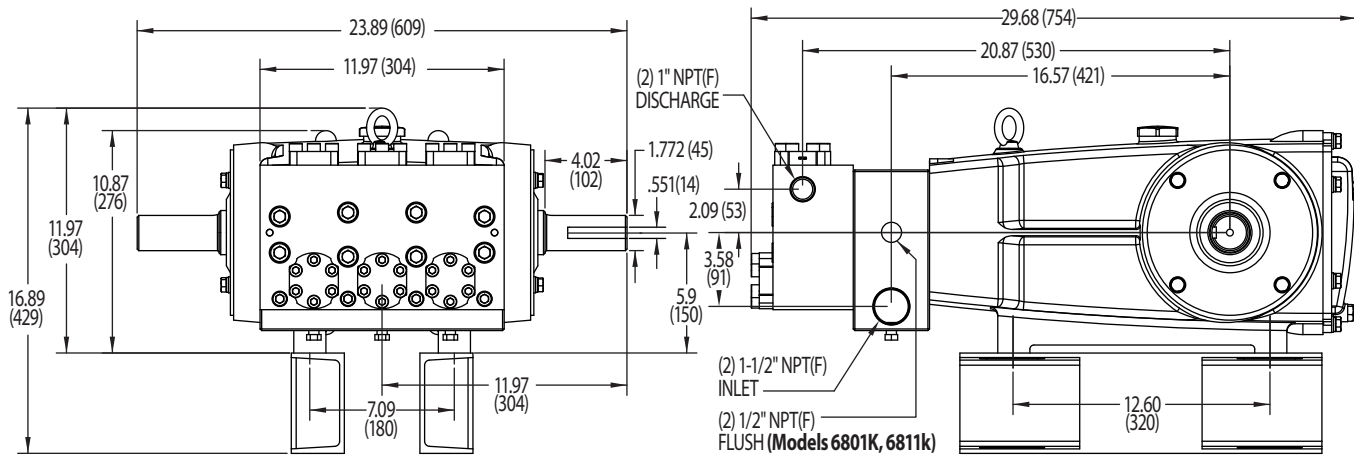
Models  
Standard - 6801, 6811  
Flushed - 6801K, 6811K  
September 2016

ITEM	PART NUMBER								DESCRIPTION	QTY
	6801	MATL	6801K	MATL	6811	MATL	6811K	MATL		
172	15853	NBR	15853	NBR	15853	NBR	15853	NBR	O-Ring, Valve Plug - 70D	6
173	20224	PTFE	20224	PTFE	20224	PTFE	20224	PTFE	Back-up-Ring, Valve Plug	6
174	701260	SS	701260	SS	701260	SS	701260	SS	Plug, Valve	6
175	87951	S	87951	S	87951	S	87951	S	Screw, HSH (M10x30)	36
185	<b>703206</b>	SSD	<b>703206</b>	SSD	<b>701320</b>	SS	<b>701320</b>	SS	Manifold, Discharge, Block-Style	1
188	701279	S	701279	S	701279	S	701279	S	Screw, HSH (M12x100), Lower	4
193	89694	S	89694	S	89694	S	89694	S	Screw, HSH (M16x110), Upper	8
250	29445	AL	29445	AL	29445	AL	29445	AL	Protector, Shaft (Included w/Pump) (See Tech Bulletin 118)	1
255	33243	STZP	33243	STZP	33243	STZP	33243	STZP	Kit, Mount (Included w/Pump)	2
259	126604	STCP R	126604	STCP R	126604	STCP R	126604	STCP R	Rail, Box (Included w/Pump)	2
275	990014	STL	990014	STL	990014	STL	990014	STL	Hub, "B", M45 w/Keyway [See Tech Bulletin 003]	1
283	34314	—	34314	—	34314	—	34314	—	Kit, Oil Drain	1
290	6124	—	6124	—	6124	—	6124	—	Gasket, Liquid (3 oz.)	1
299	<b>910008</b>	SS	—	—	<b>910000</b>	SS	—	—	Head, Complete, Block-Style w/NBR Seals and O-Rings	1
—	—	—	<b>910009</b>	SS	—	—	<b>910005</b>	SS	Head, Complete, Block-Style, Flushed w/NBR Seals and O-Rings	1
—	819010	F	819010	F	819010	F	819010	F	Assy, Crankcase, Cast Iron Conversion	1
370	—	—	<b>990663</b>	—	—	—	<b>990663</b>	—	Assembly, Flushing, 5 gal., 115V, 1.1 Amp, 1/2" NPT	1
—	6105	—	6105	—	6105	—	6105	—	Oil, Twin Pack (Two-2.5 Gal) ISO-68 Hydraulic (Fill to specified crankcase capacity prior to start-up)	1
—	6119	—	6119	—	6119	—	6119	—	Lubricant, Antiseize (2 oz.) (See Tech Bulletin 095)	1

**Bold print part numbers are unique to a particular pump model. Italics are optional items.** R Components comply with RoHS Directive.

See Tech Bulletins 003, 024, 036, 074, 083, 084, 095, 105 and 118 for additional information.

MATERIAL CODES (Not Part of Part Number): ABS=ABS Plastic AL=Aluminum BBHS=Brass/High Strength CC=Ceramic CM=Chrome-Moly D=Acetal F=Cast Iron FCM=Forged Chrome-Moly  
NBR=Medium Nitrile (Buna-N) PE=Polyethylene PTFE=Pure Polytetrafluoroethylene PVDF=Polyvinylidene Fluoride S=304SS  
SS=316SS SSZZ=316SS/Zamak STCP=Steel/Chrome Plated STG=Special Blend PTFE White STL=Steel STZP=Steel/Zinc Plated



### SEAL KITS

PUMP MODELS 6801, 6801K, 6811, 6811K	NBR (STD)	FPM (0.0110)	EPDM (0.0220) ♦	IPFE (0.0770)	DESCRIPTION	QTY
	701648*	33710*	702353*	76788*		
ITEM (Included in Seal Kits)	PART NUMBER					
97	11345	11375	701490	702961	O-Ring, Plunger Retainer	3
104	43875	44826	701656	702977	O-Ring, Inlet Adapter	3
106	44086	45846	49196	701944	Seal, LPS, w/SS-Spg	3
112	701632	701328	701973	703291	O-Ring, Inlet Spacer	6
113	701329	701329	701329	701329	Backup-Ring, Spacer	6
123	12391	13266	701657	703481	O-Ring, V-Packing Cylinder	3
127	44610	44610	44610	703050	V-Packing	6
155	11379	14183	701491	702705	O-Ring, V-Packing Spacer, Inner	3
156	28243	28243	28243	28243	Backup-Ring, Spacer, Inner	3
158	28243	28243	28243	28243	Backup-Ring, Spacer, Outer	3
159	11379	14183	701491	702705	O-Ring, V-Packing Spacer, Outer	3

Note: One (1) seal kit required per pump \* Review material codes for individual items (STG generally may be used as alternate) ♦ Silicone oil/grease required

### VALVE KITS

PUMP MODELS 6801, 6801K, 68811, 6811K	NBR (STD)	FPM (0.0110)	EPDM (0.0220) ♦	IPFE (0.0770)	DESCRIPTION	QTY
	34151	701798	701799	76171		
ITEM (Included in Valve Kits)	PART NUMBER					
162	21985	21985	21985	21985	Backup-Ring, Seat	3
163	26089	11377	46647	703244	O-Ring, Seat	3
164	44080	44080	44080	44080	Seat	3
166	44081	44081	44081	44081	Valve	3
167	44082	44082	44082	44082	Spring	3
168	44735	44735	44735	44735	Retainer, Spring	3
170	44794	44794	44794	44794	Washer, Retainer	3
172	15853	11720	701481	702974	O-Ring, Valve Plug	3
173	20224	20224	20224	20224	Backup-Ring, Valve Plug	3

Note: Two (2) valve kits required per pump ♦ Silicone oil/grease required

### ⚠ CAUTIONS AND WARNINGS

All High Pressure Systems require a primary pressure regulating device (i.e. regulator, unloader) and a secondary pressure relief device (i.e. pop-off valve, relief valve). Failure to install such relief devices could result in personal injury or damage to pump or property. Cat Pumps does not assume any liability or responsibility for the operation of a customer's high pressure system.

Read all CAUTIONS and WARNINGS before commencing service or operation of any high pressure system. The CAUTIONS and WARNINGS are included in each service manual and with each Accessory Data sheet. CAUTIONS and WARNINGS can also be viewed online at [www.catpumps.com/cautions-warnings](http://www.catpumps.com/cautions-warnings) or can be requested directly from Cat Pumps.

### WARRANTY

View the Limited Warranty on-line at [www.catpumps.com/warranty](http://www.catpumps.com/warranty).



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