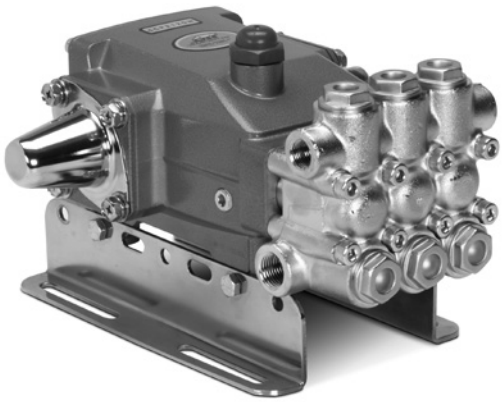
DATA SHEET
5CP PLUNGER PUMPS

The Pumps with Nine Lives

Standard Models: **5CP2120W, 5CP2140WCS, 5CP2150W**

Special Brass Models: **5CP2120B, 5CP2140BCS, 5CP2150B**



Model 5CP2120W Shown
(Rails and shaft protector sold separately)

FEATURES

- Triplex design offers high efficiency and low pulsation.
- Durable high pressure seals are lubricated and cooled by pumped liquid.
- Pre-set Lo-Pressure Seals provide secondary protection against external leaks and require no packing adjustment.
- Standard NBR seals with alternative options for temperature and chemical compatibility
  - FPM – .0110
  - EPDM – .0220
  - High Temp, 190°F – .3000
  - High Temp, 200°F, Run Dry – .3400

SPECIFICATIONS	U.S. Measure	Metric Measure
Models 5CP2120W and 5CP2120B Belt-Drive		
Flow	4.0 gpm	15 lpm
Pressure Range	100 - 2500 psi	6.9 - 172 bar
Pump RPM*	950 rpm	950 rpm
Bore	0.787"	20 mm
Stroke	0.709"	18 mm
Weight	19.14 lbs.	8.7 kg
Models 5CP2140WCS and 5CP2140BCS Direct-Drive		
Flow	4.0 gpm	15 lpm
Pressure Range	100 - 2500 psi	6.9 - 172 bar
Pump RPM*	1725 rpm	1725 rpm
Bore	0.787"	20 mm
Stroke	0.394"	10 mm
Weight	19.14 lbs.	8.7 kg
Models 5CP2150W and 5CP2150B Direct-Drive		
Flow	5.0 gpm	19 lpm
Pressure Range	100 - 2000 psi	6.9 - 138 bar
Pump RPM*	1725 rpm	1725 rpm
Bore	0.787"	20 mm
Stroke	0.472"	12 mm
Weight	19.14 lbs.	8.7 kg

*Pump minimum is 100 RPM.

ELECTRIC HORSEPOWER REQUIREMENTS

MODELS	FLOW		PRESSURE				RPM	MOTOR PULLEY SIZE Using 1725 rpm Motor & Std. 8" Pump Pulley
			psi 1200	psi 1500	psi 2000	psi 2500		
	U.S. gpm	lpm	bar 83	bar 103	bar 138	bar 172		PULLEY OUTER DIAMETER
5CP2120W	4.0	15	3.3	4.1	5.5	6.9	950	4.3
Alternate	5.0	19	4.1	5.1	6.9	N/A	1188	5.5
5CP2140WCS	4.0	15	3.3	4.1	5.5	6.9	1725	Direct Drive
5CP2150W	5.0	19	4.1	5.1	6.9	N/A	1725	Direct Drive

COMMON SPECIFICATIONS	U.S.	Metric
Inlet Pressure Range (950 rpm)	-5 to 60 psi	-0.35 to 4 bar
Inlet Pressure Range (1725 rpm)	Flooded to 60 psi	Flooded to 4 bar
Crankcase Capacity	17 oz.	0.51 l
Standard Liquid Temperature	160° F	71° C
Above 130° F call Cat Pumps for inlet conditions and elastomer recommendations.		
Inlet Ports (2)	1/2" NPT(F)	1/2" NPT(F)
Discharge Ports (2)	3/8" NPT(F)	3/8" NPT(F)
Shaft Diameter	0.787"	20 mm
Dimensions	10.35 x 10.0 x 5.78"	263 x 254 x 147

DETERMINING THE PUMP R.P.M. Rated gpm / Rated rpm = "Desired" gpm / "Desired" rpm

DETERMINING THE REQUIRED H.P. gpm x psi / 1460 = Electric Brake H. P. Required

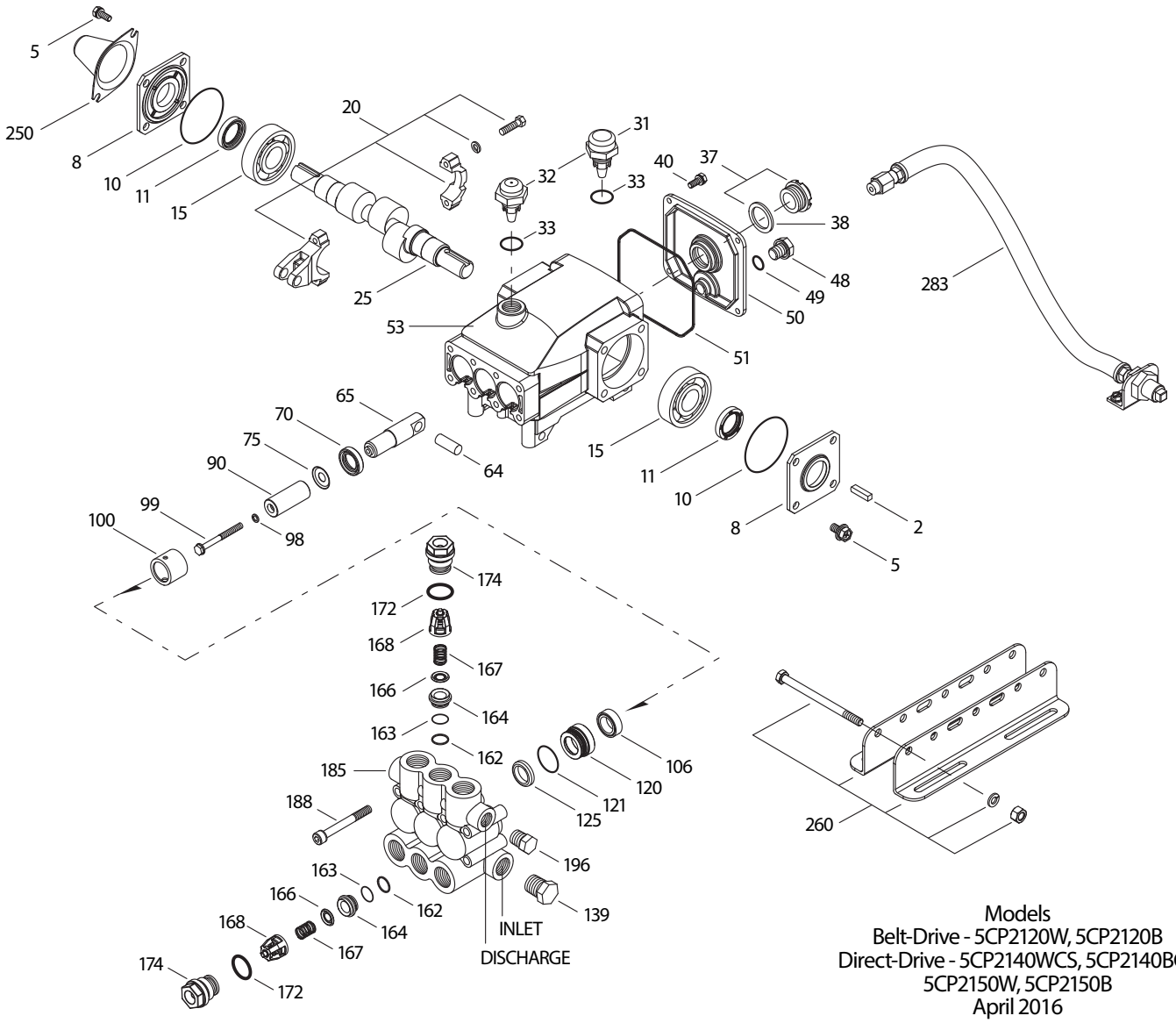
DETERMINING MOTOR PULLEY SIZE Motor Pulley O.D. / Pump rpm = Pump Pulley O.D. / Motor rpm

See complete Drive Packages [Inclds: Pulleys, Belts, Hubs, Key] Tech Bulletin 003.
Refer to pump **Service Manual** for repair procedure and additional technical information.

PARTS LIST

ITEM	PART NUMBER	MATL	PART NUMBER	MATL	PART NUMBER	MATL	DESCRIPTION	QTY
	5CP2120W 5CP2120B		**5CP2140WCS 5CP2140BCS**		**5CP2150W 5CP2150B**			
2	30057	STL	30057	STL	30057	STL	Key (M6x6x25)	1
5	96031	STZP	96031	STZP	96031	STZP	Screw, Sems HHC (M8x16)	8
	126542	STCP R	126542	STCP R	126542	STCP R	Screw, Sems HHC (M8x16)	8
8	46910	AL	46910	AL	46910	AL	Cover, Bearing	2/1/2
10	14028	NBR	14028	NBR	14028	NBR	O-Ring, Bearing Cover - 70D	2
11	43222	NBR	43222	NBR	43222	NBR	Seal, Oil, Crankshaft - 70D	2/1/2
15	14480	STL	14480	STL	14480	STL	Bearing, Ball	2
20	48742	TNM	48742	TNM	48742	TNM	Rod, Connecting Assy [10/01]	3
25	**46928**	FCM	—	—	**46982**	FCM	Crankshaft, Dual End	1
	—	—	**48203**	FCM	—	—	Crankshaft, Single End	1
30	—	—	**48224**	AL	—	—	Cover, Bearing Blind	1
32	46798	—	46798	—	46798	—	Cap, Oil Filler, Domed	1
33	14179	NBR	14179	NBR	14179	NBR	O-Ring, Oil Filler Cap - 70D	1
37	92241	—	92241	—	92241	—	Gauge, Oil, Bubble w/Gasket - 80D	1
38	44428	NBR	44428	NBR	44428	NBR	Gasket, Flat, Oil Gauge - 80D	1
40	92519	STZP	92519	STZP	92519	STZP	Screw, Sems HHC (M6x16)	4
	125824	STCP R	125824	STCP R	125824	STCP R	Screw, Sems HHC (M6x16)	4
48	25625	STCP	25625	STCP	25625	STCP	Plug, Drain (1/4"x19BSP)	1
49	23170	NBR	23170	NBR	23170	NBR	O-Ring, Drain Plug - 70D	1
50	46940	AL	46940	AL	46940	AL	Cover, Rear	1
51	14044	NBR	14044	NBR	14044	NBR	O-Ring, Rear Cover	1
53	48617	AL	48617	AL	48617	AL	Crankcase	1
64	46746	CM	46746	CM	46746	CM	Pin, Crosshead	3
65	48458	BBNP	48458	BBNP	48458	BBNP	Rod, Plunger	3
70	46838	NBR	46838	NBR	46838	NBR	Seal, Oil, Crankcase - 70D	3
75	43328	S	43328	S	43328	S	Slinger, Barrier	3
88	45697	S	45697	S	45697	S	Washer, Keyhole (M18 x 10)	3
90	46841	CC	46841	CC	46841	CC	Plunger (M20x50)	3
98	46730	NBR	46730	NBR	46730	NBR	Washer, Seal - 90D	3
	48394	FPM	48394	FPM	48394	FPM	Washer, Seal - 90D	3
	◆ 48432	EPDM	◆ 48432	EPDM	◆ 48432	EPDM	Washer, Seal	3
99	† 48201	SS	† 48201	SS	† 48201	SS	Retainer, Plunger w/Stud (M6)	3
100	46749	PVDF	46749	PVDF	46749	PVDF	Retainer, Seal	3
106	43305	NBR	43305	NBR	43305	NBR	Seal, LPS w/S-Spg	3
	45153	FPM	45153	FPM	45153	FPM	Seal, LPS w/SS-Spg	3
	◆ 48429	EPDM	◆ 48429	EPDM	◆ 48429	EPDM	Seal, LPS w/SS-Spg	3
	76305	ST2	76305	ST2	76305	ST2	Seal, LPS w/SS-Spg	3
120	46843	BB	46843	BB	46843	BB	Case, Seal (Press-in-style)	3
	49436	*BB*	*49436*	*BB*	*49436*	*BB*	*Case, Seal (Use w/76305,13978)*	*3*
121	13978	NBR	13978	NBR	13978	NBR	O-Ring, Seal Case - 70D	3
	14329	FPM	14329	FPM	14329	FPM	O-Ring, Seal Case	3
	◆ 48904	EPDM	◆ 48904	EPDM	◆ 48904	EPDM	O-Ring, Seal Case	3
125	43307	SNG	43307	SNG	43307	SNG	Seal, HPS w/S	3
	44936	FPM	44936	FPM	44936	FPM	Seal, HPS w/SS	3
	46667	HT	46667	HT	46667	HT	Seal, HPS 2-Pc w/S-Support	3
139	22179	BBCP	22179	BBCP	22179	BBCP	Plug, Inlet [1/2"NPT(M)]	1
162	48361	D	48361	D	48361	D	Back-up-Ring, Seat	6
163	43358	NBR	43358	NBR	43358	NBR	O-Ring, Seat - 70D	6
	44938	FPM	44938	FPM	44938	FPM	O-Ring, Seat - 70D	6
	◆ 48908	EPDM	◆ 48908	EPDM	◆ 48908	EPDM	O-Ring, Seat	6
164	43725	S	43725	S	43725	S	Seat	6
166	43723	S	43723	S	43723	S	Valve	6
167	43750	S	43750	S	43750	S	Spring	6
168	44565	PVDF	44565	PVDF	44565	PVDF	Retainer, Spring	6
172	17615	NBR	17615	NBR	17615	NBR	O-Ring, Valve Plug - 75D	6
	15855	FPM	15855	FPM	15855	FPM	O-Ring, Valve Plug - 70D	6
	◆ 48431	EPDM	◆ 48431	EPDM	◆ 48431	EPDM	O-Ring, Valve Plug - 75D	6
174	43849	BBCP	43849	BBCP	43849	BBCP	Plug, Valve	6
185	48245	W770	48245	W770	48245	W770	Manifold, Head - W770	1
	49716	SBCP	49716	SBCP	49716	SBCP	Manifold, Head - Special Brass	1
188	126513	STCP R	126513	STCP R	126513	STCP R	Screw, HSH (M8x70)	8
196	22187	BBCP	22187	BBCP	22187	BBCP	Plug, Discharge [3/8"NPT(M)]	1
250	*118672*	*STCP*	—	—	*118672*	*STCP*	*Protector, Shaft*	*1*
255	*30243*	*STZP*	*30243*	*STZP*	*30243*	*STZP*	*Mount, Direct (Not Shown)*	*1*
260	*30611*	*STZP R*	*30611*	*STZP R*	*30611*	*STZP R*	*Mounting, Angle Rail (Belt Drive Only)*	*1*
	30637	*STZP*	*30637*	*STZP*	*30637*	*STZP*	*Mount, Angle Assy-Retro Fit (See Tech Bulletin 078)*	*1*
265	*30659*	—	*30659*	—	*30659*	—	*Mount, Assy (Incldes: 30611, 30633, 118672)*	*1*
275	*30944*	*STL*	*30944*	*STL*	*30944*	*STL*	*Assy, Hub & Key (Incldes: 30057, 30945)*	*1*

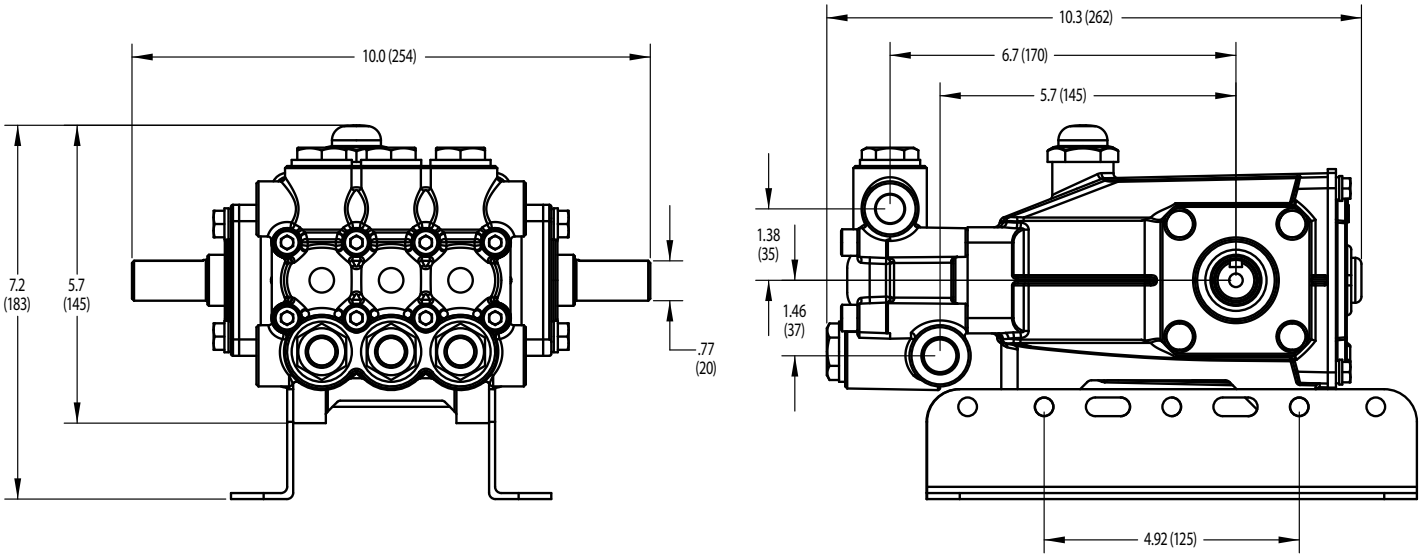
EXPLODED VIEW



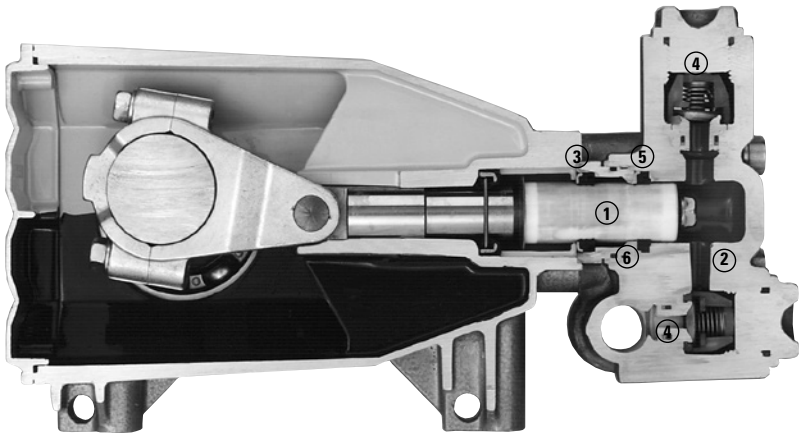
Models
Belt-Drive - 5CP2120W, 5CP2120B
Direct-Drive - 5CP2140WCS, 5CP2140BCS
5CP2150W, 5CP2150B
April 2016

ITEM	PART NUMBER	MATL	PART NUMBER	MATL	PART NUMBER	MATL	DESCRIPTION	QTY
	5CP2120W 5CP2120B		**5CP2140WCS 5CP2140BCS**		**5CP2150W 5CP2150B**			
283	*34334*	*—*	*34334*	*—*	*34334*	*—*	*Kit, Oil Drain (3/8" x 24") (see Individual Data Sht)*	*1*
	76334	*—*	*76334*	*—*	*76334*	*—*	*Kit, Oil Level Indicator (3/8"x24") (see Individual Data Sht)*	*1*
299	*816650*	*W770*	*816650*	*W770*	*816650*	*W770*	*Head, Complete - W770* ***Standard***	*1*
	818472	*SBCP*	*818472*	*SBCP*	*818472*	*SBCP*	*Head, Complete - Special Brass* ***Standard***	*1*
300	*33628*	*NBR*	*33628*	*NBR*	*33628*	*NBR*	*Kit, Seal (Incldes: 98, 106, 121, 125)* ***Standard***	*1*
	31628	*FPM*	*31628*	*FPM*	*31628*	*FPM*	*Kit, Seal (Incldes: 98, 106, 121, 125)* ***.0110***	*1*
	◆ *31648*	*EPDM**	◆ *31648*	*EPDM**	◆ *31648*	*EPDM**	*Kit, Seal (Incldes: 98, 106, 121, 125)* ***.0220***	*1*
	31638	*HT*	*31638*	*HT*	*31638*	*HT*	*Kit, Seal (Incldes: 98, 106, 121, 125)* ***.3000***	*1*
	76536	*STHT*	*76536*	*STHT*	*76536*	*STHT*	*Kit, Seal (Incldes: 98, 106, 120, 121, 125)* ***.3400***	*1*
310	*30821*	*NBR*	*30821*	*NBR*	*30821*	*NBR*	*Kit, Valve, Preassembled (Incldes: 162 - 164, 166 - 168, 172)* ***Standard, .3000, .3400***	*2*
	31821	*FPM*	*31821*	*FPM*	*31821*	*FPM*	*Kit, Valve, Preassembled (Incldes: 162 - 164, 166 - 168, 172)* ***.0110***	*2*
	◆ *31162*	*EPDM*	◆ *31162*	*EPDM*	◆ *31162*	*EPDM*	*Kit, Valve, Preassembled (Incldes: 162 - 164, 166 - 168, 172)* ***.0220***	*2*
—	*6107*	*—*	*6107*	*—*	*6107*	*—*	*Oil, Bottle (21 oz) ISO-68 Hydraulic (Fill to specified crankcase capacity prior to start-up)*	*1*

Bold print part numbers are unique to a particular pump model. *Italics are optional items.* ◆ Silicone oil/grease required. † Production parts are different than repair parts.
R Components comply with RoHS Directive. [ ] Date of latest production change. W770 effective with 97 production.
*Review individual parts in each kit for material code identification.
Review Tech Bulletins 002, 003, 024, 036, 043, 053, 060, 061, 064, 073, 074, 077, 078, 083 and 103 for additional information.
MATERIAL CODES (Not Part of Part Number): AL=Aluminum BB=Brass BBCP=Brass/Chrome Plated BBNP=Brass/Nickel Plated CC=Ceramic CM=Chrome-moly D=Acetal
EPDM=Ethylene Propylene Diene Monamer FCM=Forged Chrome-moly FPM=Fluorocarbon HT=Hi-Temp (EPDM Alternative) NBR=Medium Nitrile (Buna-N)
PVDF=Polyvinylidene Fluoride S=304SS SBCP=Special Brass/Chrome Plated SS=316SS SNG=Special Blend (Buna) ST 2=Special PTFE 2 STL=Steel STHT=Special PTFE High Temp
STCP=Steel/Chrome Plated STZP=Steel/Zinc Plated TNM=Special High Strength W770=Special Alloy



Models 5CP2120W,5CP2120B, 5CP2140WCS, 5CP2140BCS, 5CP2150W, 5CP2150B



1 Special concentric, high-density, polished, solid ceramic **plungers** provide a true wear surface and extended seal life.

2 **Manifolds** are a high tensile strength forged W770 alloy or special brass for long term, continuous duty.

3 100% wet **seal** design adds to service life by allowing pumped liquids to cool and lubricate on both sides.

4 Stainless steel **valves, seats and springs** provide corrosion-resistance, ultimate seating and extended life.

5 Specially formulated, Cat Pump exclusive, **Lo-Pressure and Hi-Pressure Seals** offer unmatched performance and seal life.

6 Press-in style seal case offers alignment and support for seals and "no tools" servicing.

⚠ 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 or can be requested directly from Cat Pumps.

WARRANTY

View the Limited Warranty on-line at www.catpumps.com/warranty.

The Pumps with Nine Lives

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PN 993407 Rev G 4/16