

7CP Plunger Pump

Model **7CP6170**

FEATURES

Superior Design

- Triplex plunger design gives smoother liquid flow.
- Packings are completely lubricated and cooled by the liquid being pumped.
- Inlet and discharge valve assemblies interchange for easier maintenance.
- Lubricated Lo-Pressure Seals provide double protection against external leakage.
- Oil bath crankcase assures optimum lubrication.
- Convenient dipstick for oil level check.

Quality Materials

- All stainless steel valves are heat treated and seats are roller burnished for a positive seal and extended valve life.
- Forged Brass manifold for strength and corrosion resistance.
- Special concentric, high density, polished, graphite impregnated, solid ceramic plungers are abrasion resistant and result in extended seal life.
- Specially formulated, CAT PUMP exclusive, V-Packings offer unmatched performance and seal life.
- Die cast aluminum crankcase provides high strength, minimum weight and precision tolerance control.
- Chrome-moly crankshaft gives unmatched strength and surface hardness.
- Oversized crankshaft bearings with greater loading capacity mean longer bearing life.

Easy Maintenance

- Convenient "press-in" style seal case for ease in servicing.
- Wet-end is easily serviced without entering crankcase, requiring less time and effort.
- Valve assemblies are accessible without disturbing piping, for quick service.
- Preset packings mean no packing gland adjustment is necessary, reducing maintenance costs.

SPECIFICATIONS

	U.S. Measure	Metric Measure
Flow	11 GPM	(41.6 L/M)
Pressure Range	100 to 2000 PSI	(7 to 140 BAR)
Maximum Inlet Pressure	Flooded to 70 PSI	(Flooded to 7 BAR)
RPM	1450 RPM	(1450 RPM)
Bore	0.866"	(22 mm)
Stroke	1.024"	(26 mm)
Crankcase Capacity38 oz.	(1.15 L)
Maximum Fluid Temperature	140°F	(60°C)
Inlet Ports (2)	3/4" NPT	(3/4" NPT)
Discharge Ports (2)	1/2" NPT	(1/2" NPT)
Shaft Diameter (D-End)	0.945"	(24 mm)
Weight40 lbs.	(14 kg)
Dimensions	13.47" x 11.15" x 6.85"	(342 x 283 x 174 mm)

HORSEPOWER REQUIREMENTS

FLOW		PRESSURE		MOTOR PULLEY SIZE	
		PSI 1500	PSI 2000	Using 1725 RPM Motor & Std. 9.75" Pump Pulley	
U.S. GPM	L/M	BAR 105	BAR 140	RPM	Pulley O.D.
11.0	41.6	11.3	15.1	1450	8.2

See complete Drive Packages [Incls: Pulleys, Belts, Hubs, Key] Tech Bulletin 03.

DETERMINING THE PUMP R.P.M.	$\frac{\text{Rated G.P.M.}}{\text{Rated R.P.M.}}$	=	$\frac{\text{"Desired" G.P.M.}}{\text{"Desired" R.P.M.}}$
DETERMINING THE REQUIRED H.P.	$\frac{\text{GPM x PSI}}{1460}$	=	Electric Brake H. P. Required
DETERMINING MOTOR PULLEY SIZE	$\frac{\text{Motor Pulley O.D.}}{\text{Pump R.P.M.}}$	=	$\frac{\text{Pump Pulley O.D.}}{\text{Motor R.P.M.}}$

Note: Consult engine manufacturer when using gas or diesel engine.
Refer to pump Service Manual for important Inlet Condition Check-List,
Start-up Procedure, Tech Bulletins and Pump Maintenance information.

"Customer confidence is our greatest asset"

PARTS LIST

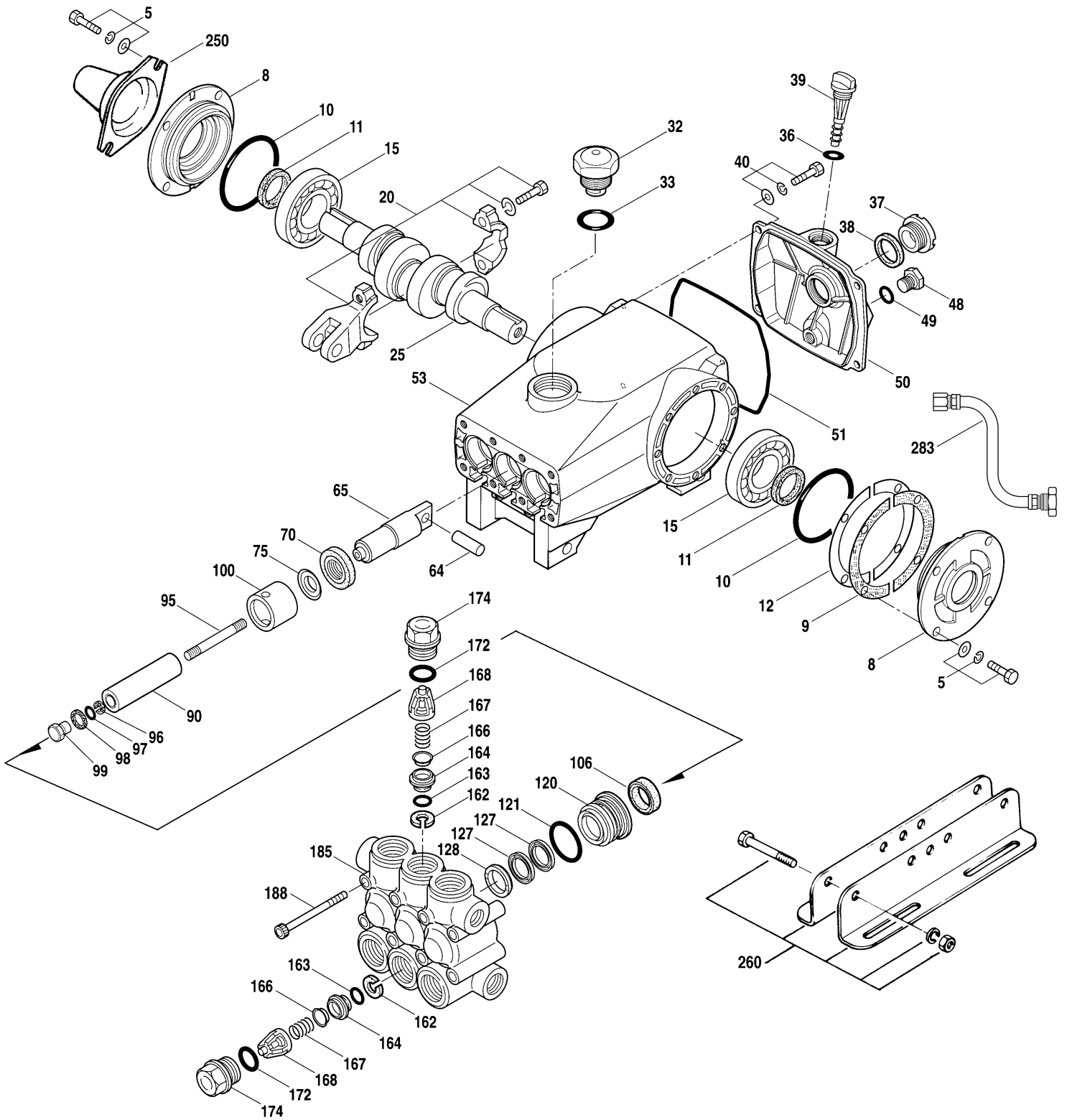
ITEM	P/N	MATL	DESCRIPTION	QTY
● 2	30067	STL	Key (M8x7.5x25)	1 ●
5	48479	STZP	Screw, (M8x20) Sems HHC	8
8	48266	AL	Cover, Bearing	2
9	48469	FBR	Shim, Split (OUTER)	0-6
10	12393	NBR	O-Ring, Bearing Cover - 70D	2
11	55337	NBR	Seal, Oil Crankshaft - 70D	2
12	48568	S	Shim, Split (INNER)	0-4
15	63479	STL	Bearing, Roller	2
20	46960	ZZ	Rod, Connecting Assembly	3
25	46963	FCM	Crankshaft (Dual-End)	1
32	43211	ABS	Cap, Oil Filler	1
33	14177	NBR	O-Ring, Oil Filler Cap - 70D	1
36	11338	NBR	O-Ring, Dip-Stick - 70D	1
37	92241		Gauge, Oil, Bubble w/Gasket - 80D	1
38	44428	NBR	Gasket, Flat, Oil Gauge - 80D	1
39	27769	ABS	Stick, Dip	1
40	92519	STZP	Screw, (M6x16) Sems HHC	4
48	25625	STCP	Plug, Drain (1/4"x11)	1
49	23170	NBR	O-Ring, Drain Plug - 70D	1
50	46959	AL	Cover, Rear	1
51	14030	NBR	O-Ring, Rear Cover - 70D	1
● 53	48577	AL	Crankcase	1 ●
64	46969	CM	Pin, Crosshead	3
65	46968	BBNP	Rod, Plunger	3
70	48281	NBR	Seal, Oil Crankcase - 70D	3
75	43328	S	Slinger, Barrier	3
90	48559	CC	Plunger, Ceramic (M22x53)	3
95	85590	STZP	Stud, Plunger Retainer (M6x50)	3
96	43235	PTFE	Back-up-Ring, Plunger Retainer	3
97	17399	NBR	O-Ring, Plunger Retainer - 80D	3
	◆ 46204	EPDM	O-Ring, Plunger Retainer - 80D	3
98	45891	CU	Gasket	3
99	46504	S	Retainer, Plunger	3
100	46964	PVDF	Retainer, Seal	3
106	48276	NBR	Seal, LPS w/S-Spg	3
	◆ 48650	EPDM	Seal, LPS w/S-Spg	3
120	48279	BB	Case, Seal	3
121	13984	NBR	O-Ring, Seal Case - 70D	3
	◆ 48649	EPDM	O-Ring, Seal Case	3
127	48278	STG	V-Packing	6
	48278	STG	V-Packing (EPDM Alternate)	6
128	48280	BB	Adapter, Male	3
162	43248	PTFE	Back-up-Ring, Seat	6
163	43249	NBR	O-Ring, Seat - 70D	6
	◆ 46206	EPDM	O-Ring, Seat - 70D	6
164	44718	S	Seat	6
166	43721	S	Valve	6
167	43751	S	Spring	6
168	44564	PVDF	Retainer, Spring	6
172	17617	NBR	O-Ring, Valve Plug - 90D	6
	◆ 46207	EPDM	O-Ring, Valve Plug - 90D	6
174	43850	BB	Plug, Valve	6
185	48274	FBB	Head, Manifold	1
188	87872	STZP	Screw, (M8x70) HSH	8
250	120220	STCP	Protector, Shaft	1
255	30264	STZP	Mount, Direct	1
260	30613	STZP	Assy, Angle, Rail (Incls: 30635, 30903, 30921, 30912)	1
● 269	30206	F	Pulley (9.75) [See Drive Packages, Tech Bulletin 03]	1 ●
● 274	33000	STL	Hub, "H", M24 (Keyway M8) [See Drive Packages, Tech Bulletin 03]	1 ●
● 283	34334		Kit, Oil Drain	1 ●
300	31933	NBR	Kit, Seal (Incls: 97, 106, 121, 127)	1
	◆ 31936	EPDM	Kit, Seal (Incls: 97, 106, 121, 127)	1
310	34920	NBR	Kit, Valve (Incls: 162, 163, 164, 166, 167, 168, 172)	2
	◆ 31253	EPDM	Kit, Valve (Incls: 162, 163, 164, 166, 167, 168, 172)	2

● Industrial discount. *Italics are optional items.* ◆ Silicone oil/grease required.
See Tech Bulletins 03, 24, 36, 43, 53, 64, 74 and 77 for additional information.

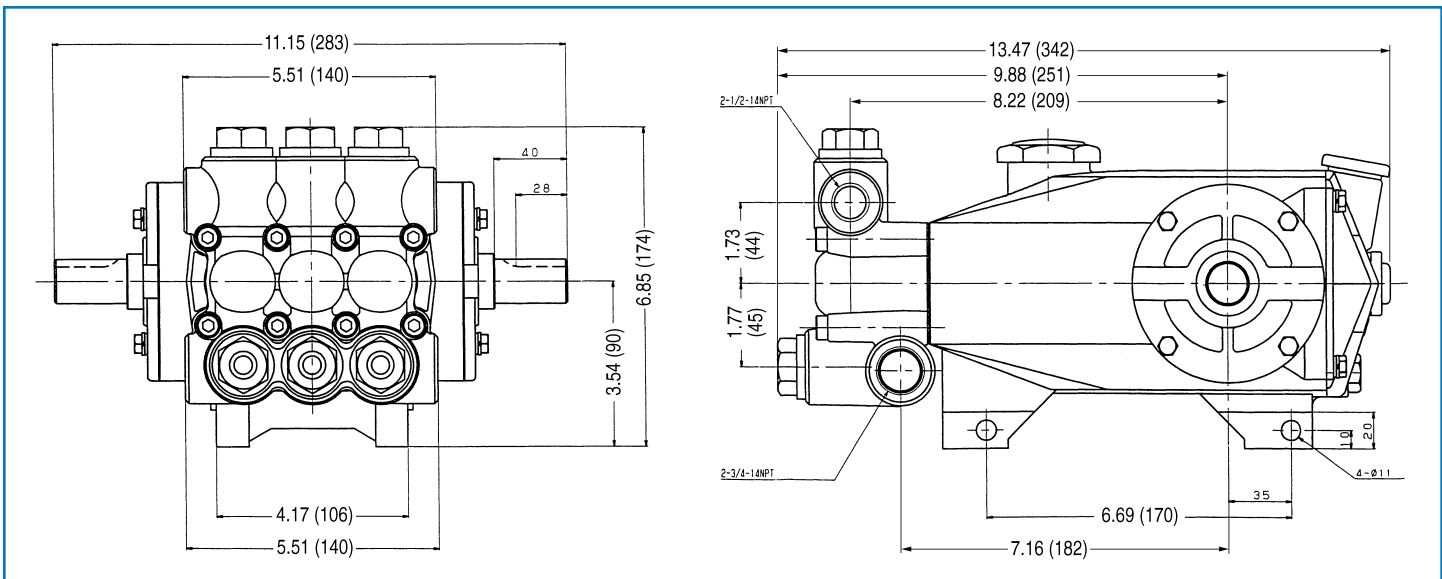
MATERIAL CODES (Not Part of Part Number): ABS=ABS Plastic AL=Aluminum BB=Brass BBNP=Brass/Nickel Plated CC=Ceramic CM=Chrome-moly
CU=Copper EPDM=Ethylene Propylene Diene Monomer F=Cast Iron FBB=Forged Brass FBR=Fiber FCM=Forged Chrome-moly NBR=Medium Nitrile (Buna-N)
PTFE=Polytetrafluoroethylene (Teflon®) PVDF=Fluoroplastic (High Strength) S=304SS STG=Special Blend (Teflon®) White STL=Steel
STCP=Steel/Chrome Plated STZP=Steel/Zinc Plated ZZ=Zamak

ORDER CODES: Add to Model Number .0220 for EPDM. Consult factory for pricing.

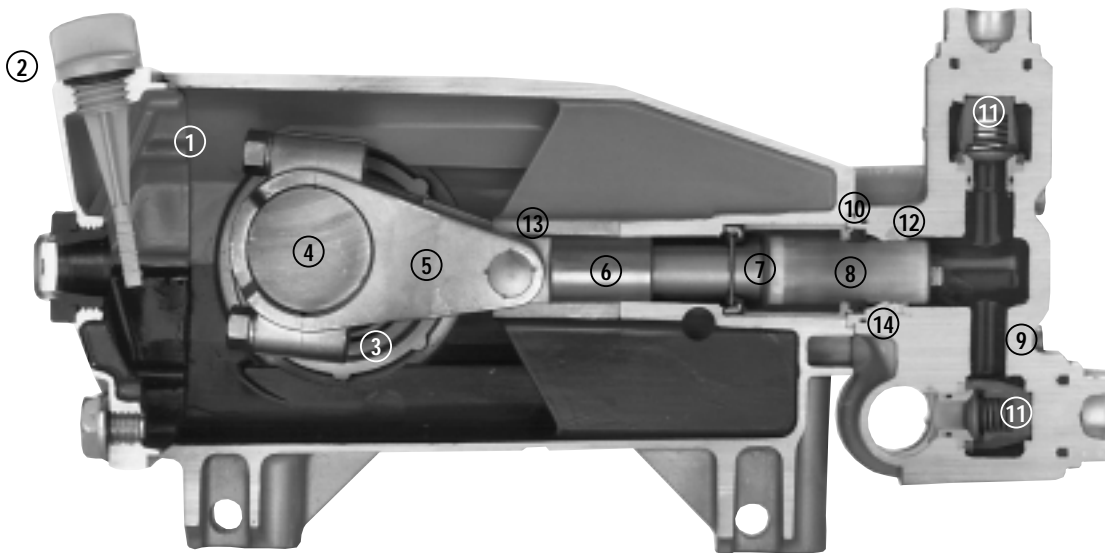
EXPLODED VIEW



Model 7CP6170
October 1999



Model 7CP6170



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|---|---|--|
| <p>1 Die cast aluminum crankcase offers high strength, lightweight, and excellent tolerance control with convenient top filling oil cap.</p> <p>2 Dipstick offers optional top access in addition to real bubble oil gauge for easy oil level check.</p> <p>3 Oversized crankshaft bearings provide extended bearing life and pump performance.</p> <p>4 Chrome-moly crankshaft provides unmatched strength and surface hardness for long life.</p> <p>5 Matched high strength connecting rods noted for strength and superior bearing quality.</p> | <p>6 The plunger rods with hardened surfaces offer wear resistance and Zamak cross-heads for high load capacity.</p> <p>7 The stainless steel slinger provides backup protection for the crankcase seal, keeping pumped fluids out of the crankcase.</p> <p>8 Special concentric, high density, polished, graphite impregnated, solid ceramic plungers are abrasion resistant and result in extended seal life.</p> <p>9 Manifolds are a high tensile strength forged brass for long term, continuous duty.</p> | <p>10 100% wet seal design adds to service life by allowing pumped fluids to cool and lubricate on both sides.</p> <p>11 Stainless steel valves, seats and springs provide corrosion-resistance, positive seating and long life.</p> <p>12 Specially formulated, CAT PUMP exclusive, V-Packings offer unmatched performance and seal life.</p> <p>13 Crossheads are 360° supported for uncompromising alignment.</p> <p>14 Press-in style seal case offers alignment and support for seals and “no tools” servicing.</p> |
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Products described hereon are covered by one or more of the following U.S. patents 3558244, 3652188, 3809508, 3920356, 3930756 and 5035580

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World Headquarters

CAT PUMPS

1681 - 94th Lane N.E. Minneapolis, MN 55449-4324

Phone (612) 780-5440 — FAX (612) 780-2958

e-mail: sales@catpumps.com

www.catpumps.com

International Inquiries

FAX (612) 785-4329

e-mail: intlsales@catpumps.com



“The World’s Longest Lasting Pumps”

CAT PUMPS (U.K.) LTD.

1 Fleet Business Park, Sandy Lane, Church Crookham, Fleet

Hampshire GU13 0BF, England

Phone Fleet 44 1252-622031 — Fax 44 1252-626655

N.V. CAT PUMPS INTERNATIONAL S.A.

Heiveldkens 6A, 2550 Kontich, Belgium

Phone 32-3-450.71.50 — Fax 32-3-450.71.51

e-mail: cpi@catpumps.be www.catpumps.be

CAT PUMPS DEUTSCHLAND GmbH

Buchwiese 2, D-65510 Idstein, Germany

Phone 49 6126-93030 — Fax 49 6126-930333

e-mail: catpumps@t-online.de www.catpumps.de