

Model 7CP6170 Shown
(Rails sold separately)

FEATURES

- Forged Brass head with optional FPM and EPDM elastomers offer compatibility with a wide range of liquids.
- Flexible coupling/bell housing, gearbox and belt drive options provide flexibility with a compact footprint.
- Rugged continuous-duty triplex design provides long life and low maintenance.
- Matched system accessories to complete your system whether you design or we custom build to your specifications.

COMMON SPECIFICATIONS

Inlet Pressure Range	Flooded to 70 psi	(Flooded to 4.9 bar)
Bore	0.866"	(22 mm)
Crankcase Capacity	38 oz.	(1.15 l)
Maximum Liquid Temperature	140°F	(60°C)
Above 130°F call CAT PUMPS for inlet conditions and elastomer recommendations.		
Inlet Ports (2)	3/4" NPTF	(3/4" NPTF)
Discharge Ports (2)	1/2" NPTF	(1/2" NPTF)
Shaft Diameter	0.945"	(24 mm)
Weight (7CP6110)	29.1 lbs.	(13.2 kg)
Weight (7CP6170)	29.7 lbs.	(13.5 kg)
Weight (7CP6110G1)	38.6 lbs.	(17.5 kg)
Dimensions (7CP6170)	13.45 x 11.14 x 6.89"	(342 x 283 x 175 mm)
Dimensions (7CP6110)	13.45 x 9.26 x 6.89"	(342 x 235 x 175 mm)
Dimensions (7CP6110G1)	13.45 x 12.89 x 8.19"	(342 x 327 x 208 mm)

⚠ 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 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.

7CP Plunger Pump

Direct-Drive Model **7CP6110**

Belt-Drive Model **7CP6170**

Gearbox Model **7CP6110G1**

SPECIFICATIONS

U.S. Measure Metric Measure

MODEL 7CP6110

Flow	10.5 gpm	(40 l/m)
Pressure Range	100 to 2000 psi	(7 to 140 bar)
RPM	1750 rpm	(1750 rpm)
Stroke	0.854"	(21.7 mm)

MODEL 7CP6170

Flow	10.5 gpm	(40 l/m)
Pressure Range	100 to 2000 psi	(7 to 140 bar)
RPM	1450 rpm	(1450 rpm)
Stroke	1.024"	(26 mm)

MODEL 7CP6110G1

Flow	10.0 gpm	(38.0 l/m)
Pressure Range	100 to 2000 psi	(7 to 140 bar)
Pump RPM	1667 rpm	(1667 rpm)
Engine RPM	3400 rpm	(3400 rpm)
Stroke	0.854"	(21.7 mm)

ELECTRIC HORSEPOWER REQUIREMENTS

MODEL	FLOW		PRESSURE			MOTOR PULLEY SIZE	
	U.S. gpm	l/m	psi 1500	psi 1800	psi 2000	Using 1725 rpm Motor & Std. 9.75" Pump Pulley	
			bar 105	bar 125	bar 140	rpm	Pulley O.D.
7CP6110	10.5	40.0	10.8	13.0	14.4	1750	Direct-Drive
7CP6170	10.5	40.0	10.8	13.0	14.4	1450	8.2
7CP6110G1	10.0	38.0	Consult	Eng.	Mfg.	1667	Gearbox

DETERMINING THE PUMP RPM	$\frac{\text{Rated gpm}}{\text{Rated rpm}}$	=	$\frac{\text{"Desired" gpm}}{\text{"Desired" rpm}}$
DETERMINING THE REQUIRED H.P.	$\frac{\text{gpm} \times \text{psi}}{1460}$	=	Electric Brake H. P. Required
DETERMINING MOTOR PULLEY SIZE	$\frac{\text{Motor Pulley O.D.}}{\text{Pump rpm}}$	=	$\frac{\text{Pump Pulley O.D.}}{\text{Motor rpm}}$

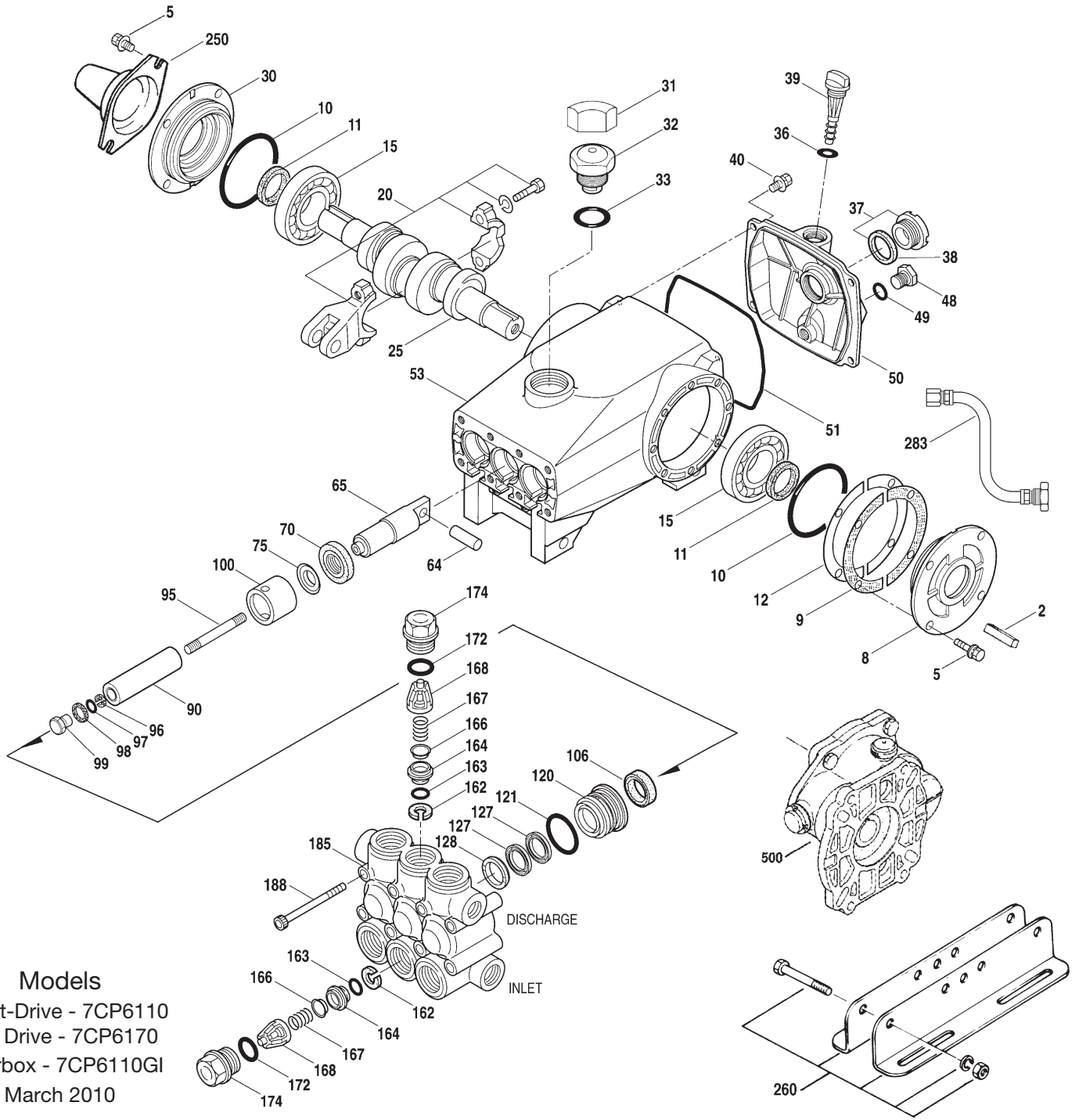
See complete Drive Packages [Includes: Pulleys, Belts, Hubs, Key] Tech Bulletin 003. Refer to pump Service Manual for repair procedure, additional technical information and pump warranty.

"Customer confidence is our greatest asset"

PARTS LIST

ITEM	P/N	MATL	DESCRIPTION	QTY
2	30067	STL	Key (M8x7.5x25)	1
5	126540	STCP R	Screw, HHC Sems (M8x20)	8/12
8	49501	AL	Cover, Bearing (7CP6110, 7CP6110GI)	1
-	48266	AL	Cover, Bearing (7CP6170)	2
9	811462	FBR	Shim, Split, 2-Pc, Outer	0-6
10	12393	NBR	O-Ring, Bearing Cover - 70D	2
11	49190	NBR	Seal, Oil Crankshaft - 70D	1/2
12	811461	FBR	Shim, Split, 2-Pc, Inner	0-4
15	63479	STL	Bearing, Roller	2
20	48727	TNM	Rod, Connecting Assy [2/03]	3
25	49498	FCM	Crankshaft, Single-End (M21.7) (7CP6110, 7CP6110GI)	1
-	46963	FCM	Crankshaft, Dual-End (M26) (7CP6170)	1
30	48527	AL	Cover, Blind Bearing (7CP6110, 7CP6110GI)	1
31	828710	—	Protector, Oil Cap w/Foam Gasket	1
32	43211	ABS	Cap, Oil Filler	1
33	14177	NBR	O-Ring, Oil Filler Cap - 70D	1
36	103686	RBR	Gasket, Flat	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, HHC Sems (M6x16)	4
	125824	STCP R	Screw, HHC Sems (M6x16)	4
48	25625	STCP	Plug, Drain (1/4"x19BSP)	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	126555	STCP R	Stud, Plunger Retainer (M6x50)	3
96	43235	PTFE	Back-up-Ring, Plunger Retainer	3
97	17399	NBR	O-Ring, Plunger Retainer - 80D	3
	14160	FPM	O-Ring, Plunger Retainer - 80D	3
	◆ 46204	EPDM	O-Ring, Plunger Retainer - 70D	3
98	45891	CU	Gasket	3
99	46504	S	Retainer, Plunger (M6)	3
100	46964	NY	Retainer, Seal	3
106	†48276	NBR	Seal, LPS w/SS-Spg	3
	49704	FPM	Seal, LPS w/SS-Spg	3
	◆ 48650	EPDM	Seal, LPS w/SS-Spg	3
120	48279	BB	Case, Seal	3
121	13984	NBR	O-Ring, Seal Case - 70D	3
	14333	FPM	O-Ring, Seal Case	3
	◆ 48649	EPDM	O-Ring, Seal Case	3
127	48278	STG*	V-Packing	6
128	48280	BB	Adapter, Male	3
162	43248	PTFE	Back-up-Ring, Seat	6
163	43249	NBR	O-Ring, Seat - 80D	6
	44383	FPM	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
	11691	FPM	O-Ring, Valve Plug - 90D	6
	◆ 46207	EPDM	O-Ring, Valve Plug - 70D	6
174	43850	BB	Plug, Valve	6
185	48274	FBB	Head, Manifold	1
188	126513	STCP R	Screw, HSH (M8x70)	8
250	120220	STCP	Protector, Shaft	1
260	30613	STZP R	Mount, Rail, Assy	1
269	30206	F	Pulley (10") [See Tech Bulletin 003]	1
274	33000	STL	Hub, "H", M24 (Keyway M8) [See Tech Bulletin 003]	1
277	31570	AL	Bell Housing Assy, (184TC, 213-215TC) (+990213-254-256TC)	1
278	8370	STL	Flexible Coupling Assy (M24 x 1-1/8")	1
	8375	STL	Flexible Coupling Assy (M24 x 1-3/8")	1
	8380	STL	Flexible Coupling Assy (M24 x 1-5/8")	1

EXPLODED VIEW

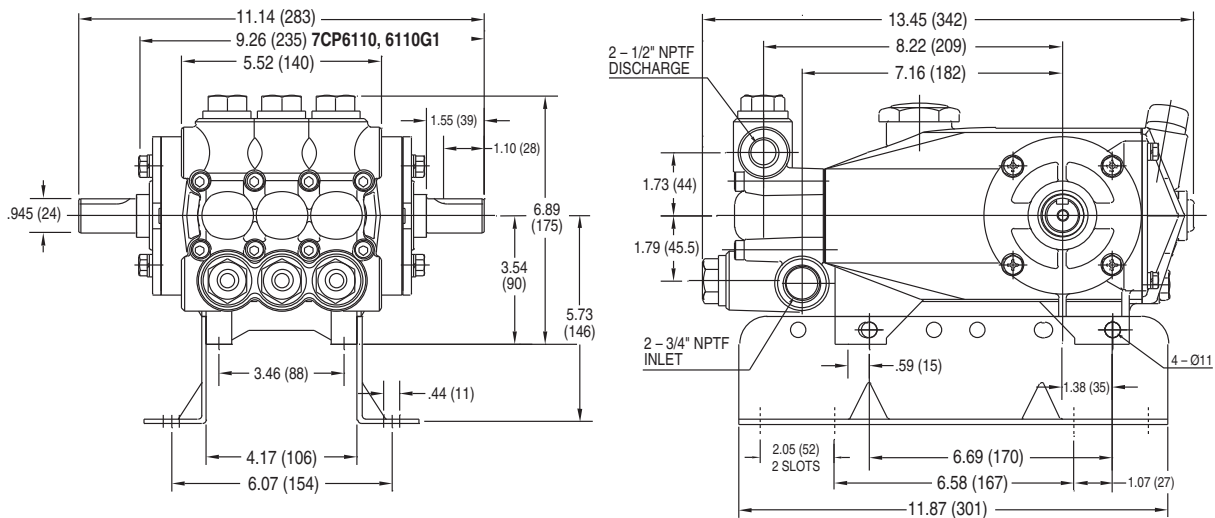


Models

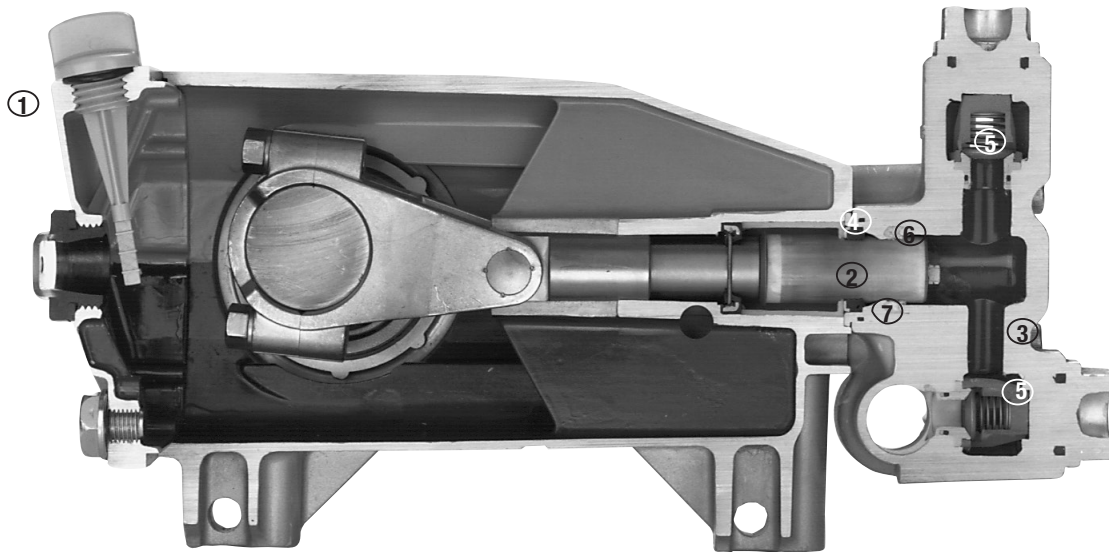
Direct-Drive - 7CP6110
 Belt Drive - 7CP6170
 Gearbox - 7CP6110GI
 March 2010

ITEM	P/N	MATL	DESCRIPTION	QTY
283	34334	—	Kit, Oil Drain [See Tech Bulletin 077]	1
299	816764	FBB	Head, Complete	1
300	31933	NBR*	Kit, Seal (Incls: 97, 106, 121, 127)	1
	76950	FPM*	Kit, Seal (Incls: 97, 106, 121, 127)	1
	◆ 31936	EPDM*	Kit, Seal (Incls: 97, 106, 121, 127)	1
310	34920	NBR	Kit, Valve Pre-Assembled (Incls: 162, 163, 164, 166, 167, 168, 172)	2
	31256	FPM	Kit, Valve Pre-Assembled (Incls: 162, 163, 164, 166, 167, 168, 172)	2
	◆ 31253	EPDM	Kit, Valve Pre-Assembled (Incls: 162, 163, 164, 166, 167, 168, 172)	2
500	8081	—	Gearbox (See Individual Data Sheet)	1
—	6107	—	Oil, Bottle (21 oz.) ISO 68 Hydraulic (Fill to specified crankcase capacity prior to start-up)	1-2

Bold print part numbers are unique to a particular pump model. Italics are optional items. [] Date of latest production change. ◆ Silicone oil/grease required.
 †Production parts are different than repair parts. R Components comply with RoHS Directive. *Review individual parts in each kit for material code identification.
 View Tech Bulletins 002, 003, 024, 036, 043, 053, 064, 074, 077 and 083 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 FPM=Fluorocarbon
 NBR=Medium Nitrile (Buna-N) NY= Nylon PTFE=Pure Polytetrafluoroethylene PVDF=Polyvinylidene Fluoride RBR=Rubber S=304SS STG=Special Blend PTFE
 White STL=Steel STCP=Steel/Chrome Plated STZP=Steel/Zinc Plated TNM=Special High Strength



Models 7CP6110,7CP6110GI,7CP6170



- 1 **Dipstick** offers optional top access in addition to rear bubble oil gauge for easy oil level check.
- 2 Special concentric, high-density, polished, solid ceramic **plungers** provide a true wear surface and extended seal life.
- 3 **Manifold** is a high tensile strength forged brass for strength and corrosion-resistance.
- 4 100% wet **seal** design adds to service life by allowing pumped liquids to cool and lubricate on both sides.
- 5 Stainless steel **valve** and seats are with hardened and polished for ultimate seating and extended life.
- 6 Exclusive specially formulated **V-Packings** offer unmatched performance and seal life.
- 7 Press-in style **seal case** offers alignment and support for seals and “no tools” servicing.

World Headquarters

CAT PUMPS

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

Phone (763) 780-5440 — FAX (763) 780-2958

e-mail: techsupport@catpumps.com

www.catpumps.com

International Inquiries

FAX (763) 785-4329

e-mail: intlsales@catpumps.com



The Pumps with Nine Lives

CAT PUMPS (U.K.) LTD.

1 Fleet Business Park, Sandy Lane, Church Crookham

FLEET, Hampshire, GU52 8BF, England

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

e-mail: sales@catpumps.co.uk

N.V. CAT PUMPS INTERNATIONAL S.A.

Heiveldekens 6A, B-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 6126-9303 0 — Fax 49 6126-9303 33

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