



Model 5CP6190 Shown
(Rails and shaft protector sold separately)

FEATURES

- Industrial high performance design offers reliability and versatility.
- Ultra-compact footprint enhances direct-drive pump-motor unit with bell housing and flexible coupling mount.
- Optional direct-drive motor and gearbox requirements.
- Optional FPM and EPDM elastomers for compatibility with many liquids.
- Press-in seal cases and interchangeable valve assemblies for easy servicing.

COMMON SPECIFICATIONS

	U.S.	Metric
Inlet Pressure Range.....	Flooded to 60 psi (Flooded to 4 bar)	
Crankcase Capacity	17 oz.	(0.51 l)
Max. Liquid Temperature	160°F	(71°C)
Above 130°F call Cat Pumps for inlet conditions and elastomer recommendations.		
Inlet Ports (2)	1/2" NPTF	(1/2" NPTF)
Discharge Ports (2).....	3/8" NPTF	(3/8" NPTF)
Shaft Diameter.....	0.787"	(20 mm)
Dimensions (Pump Only).....	10.82 x 10.0 x 5.78"	(275 x 254 x 147 mm)
Dimensions (w/Gearbox)	11.0 x 12.4 x 6.4"	(279 x 315 x 162 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 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.

5CP Plunger Pump

Standard Models

5CP6120
5CP6190

Gearbox Models

5CP6120G1
5CP6190G1

SPECIFICATIONS

	U.S.	Metric
MODEL 5CP6120		
Flow	6.0 gpm	(23 lpm)
Pressure Range	100-1600 psi	(7-110 bar)
RPM	1400 rpm	(1400 rpm)
Bore	0.787"	(20 mm)
Stroke	0.709"	(18 mm)
Weight	19.9 lbs.	(9 kg)

MODEL 5CP6120 ALTERNATE SPECIFICATIONS

Flow	7.4 gpm	(28 lpm)
Pressure Range	100-1200 psi	(7-85 bar)
Pump RPM	1750 rpm	(1750 rpm)

MODEL 5CP6120G1

Flow	6.7 gpm	(25 lpm)
Pressure Range	100-1600 psi	(7-110 bar)
Pump RPM	1570 rpm	(1570 rpm)
Engine RPM	3200 rpm	(3200 rpm)
Weight	26.5 lbs.	(12 kg)

MODEL 5CP6190

Flow	9.7 gpm	(37 lpm)
Pressure Range	100-1200 psi	(7-85 bar)
RPM	1750 rpm	(1750 rpm)
Bore	0.866"	(22 mm)
Stroke	0.787"	(20 mm)
Weight	19.9 lbs.	(9 kg)

MODEL 5CP6190 ALTERNATE SPECIFICATIONS

Flow	8.25 gpm	(31 lpm)
Pressure Range	100-1450 psi	(7-100 bar)
Pump RPM	1450 rpm	(1450 rpm)

MODEL 5CP6190G1

Flow	8.7 gpm	(33 lpm)
Pressure Range	100-1200 psi	(7-85 bar)
Pump RPM	1570 rpm	(1570 rpm)
Engine RPM	3200 rpm	(3200 rpm)
Weight	26.5 lbs.	(12 kg)

ELECTRIC HORSEPOWER REQUIREMENTS

MODEL	FLOW		PRESSURE				MOTOR PULLEY SIZE	
	U.S. gpm	lpm	psi 900	psi 1200	psi 1450	psi 1600	rpm	Pulley O.D.
6120	6.0	23	3.7	4.9	6.0	6.6	1400	6.4
6120G1	6.7	25	CONSULT ENG. MFG.				3200	Gearbox
6190	9.7	37	6.0	8.0	N/A	NA	1750	Direct
6190G1	8.7	33	CONSULT ENG. MFG.				3200	Gearbox

DETERMINING THE PUMP RPM

Rated gpm = "Desired" gpm
Rated rpm = "Desired" rpm

DETERMINING THE REQUIRED H.P.

gpm x psi = Electric Brake
1460 = H. P. Required

DETERMINING MOTOR PULLEY SIZE

Motor Pulley O.D. = Pump Pulley O.D.
Pump rpm Motor rpm

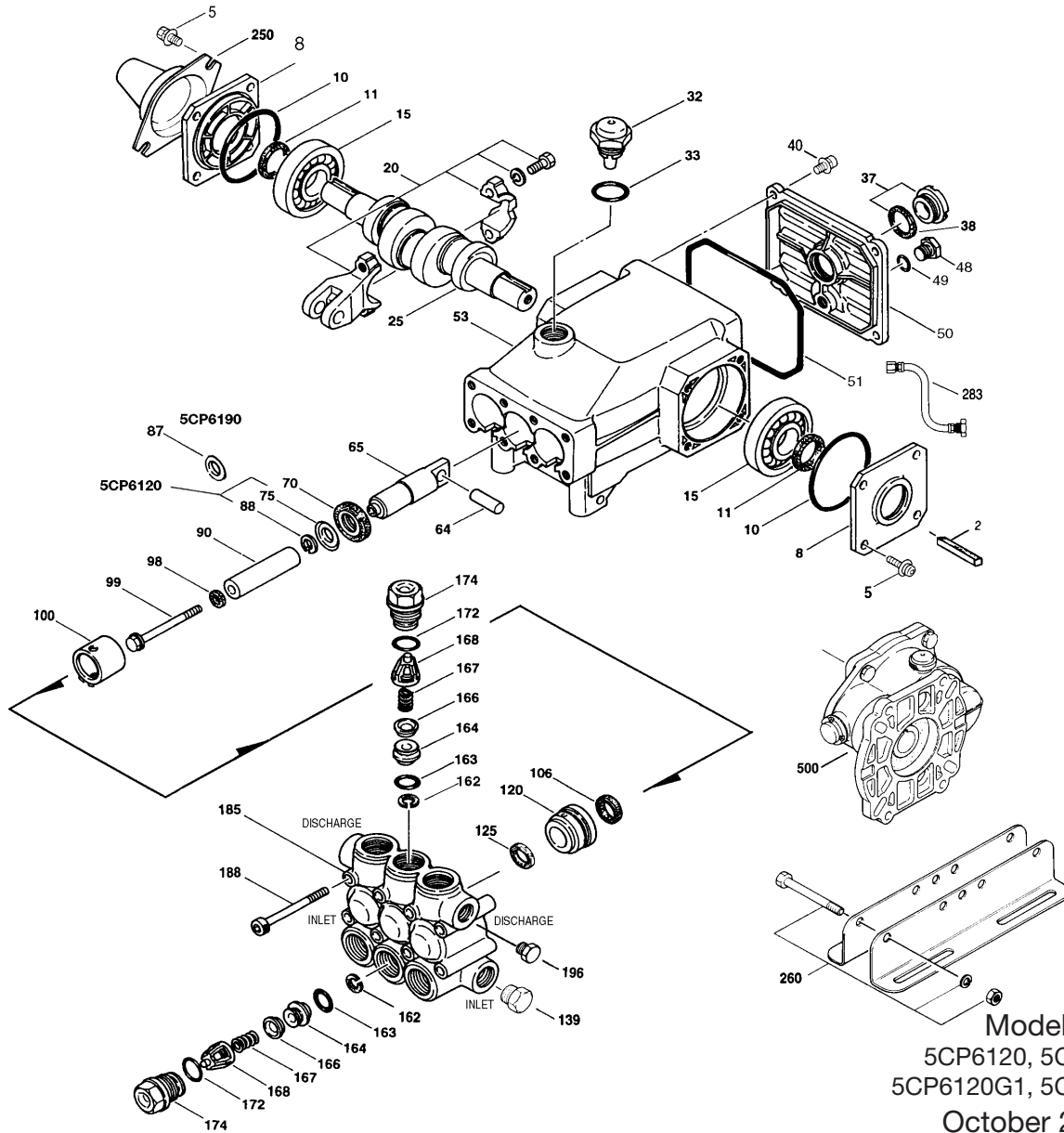
See complete Drive Packages [Incls: Pulleys, Belts, Hubs, Key] Tech Bulletin 003. Refer to pump **Service Manual** for repair procedure and additional technical information.

"Customer confidence is our greatest asset"

PARTS LIST

ITEM	PART NUMBERS		DESCRIPTION		QTY	
	5CP6120	MATL	5CP6190	MATL		
	5CP6120G1		5CP6190G1			
2	30057	STL	30057	STL	Key (M6x6x25)	1
5	96031	STZP	96031	STZP	Screw, HHC, Sems (M8x16)	8
	126542	STCP R	126542	STCP R	Screw, HHC, Sems (M8x16)	8
8	46910	AL	46910	AL	Cover, Bearing	2
10	14028	NBR	14028	NBR	O-Ring, Bearing Cover - 70D	2
11	43222	NBR	43222	NBR	Seal, Oil, Crankshaft - 70D	2
15	14480	STL	14480	STL	Bearing, Ball	2
20	48742	TNM	48742	TNM	Rod, Connecting Assy [10/01]	3
25	46928	FCM	—	—	Crankshaft, (M18) Dual End	1
	—	—	48646	FCM	Crankshaft, (M20) Dual End	1
32	46798	—	46798	—	Cap, Oil Filler, Domed	1
33	14179	NBR	14179	NBR	O-Ring, Oil Filler Cap - 70D	1
37	92241	—	92241	—	Gauge, Oil, Bubble w/Gasket - 80D	1
38	44428	NBR	44428	NBR	Gasket, Flat, Oil Gauge - 80D	1
40	92519	STZP	92519	STZP	Screw, HHC, Sems (M6x16)	4
	125824	STCP R	125824	STCP R	Screw, HHC, Sems (M6x16)	4
48	25625	STCP	25625	STCP	Plug, Drain (1/4"x19BSP)	1
49	23170	NBR	23170	NBR	O-Ring, Drain Plug - 70D	1
50	46940	AL	46940	AL	Cover, Rear	1
51	14044	NBR	14044	NBR	O-Ring, Rear Cover	1
53	48617	AL	48617	AL	Crankcase	1
64	46746	CM	46746	CM	Pin, Crosshead	3
65	48458	BBNP	48647	BBNP	Rod, Plunger	3
70	46838	NBR	46838	NBR	Seal, Oil, Crankcase - 70D	3
75	43328	S	—	—	Slinger, Barrier	3
87	—	—	48648	S	Washer, Flat (M10x24)	3
88	45697	S	—	—	Washer, Keyhole (M18)	3
90	46841	CC	—	—	Plunger (M20x50)	3
	—	—	121391	CC	Plunger (M22x50)	3
98	46730	NBR	46730	NBR	Washer, Seal - 90D	3
	48394	FPM	48394	FPM	Washer, Seal - 90D	3
◆ 48432	EPDM	◆ 48432	EPDM	Washer, Seal	3	
99	† 48201	SS	† 48201	SS	Retainer, Plunger w/Stud (M6)	3
100	46749	PVDF	46749	PVDF	Retainer, Seal	3
106	43305	NBR	—	—	Seal, LPS w/S-Spg	3
	45153	FPM	—	—	Seal, LPS w/SS-Spg	3
	76305	ST	76704	ST	Seal, LPS w/S-Spg	3
	—	—	49644	NBR	Seal, LPS w/SS-Spg	3
	—	—	49704	FPM	Seal, LPS w/SS-Spg	3
	—	—	◆ 48650	EPDM	Seal, LPS w/SS-Spg	3
120	46843	BB	121394	BB	Case, Seal	3
	49436	BB	—	—	Case, Seal (5CP6120.3400 Only) (Incls. 76305,13978)	3
121	13978	NBR	13980	NBR	O-Ring, Seal Case-70D	3
	14329	FPM	14330	FPM	O-Ring, Seal Case-70D	3
◆ 48904	EPDM	◆ 49731	EPDM	O-Ring, Seal Case	3	
125	43307	SNG	121395	SNG	Seal, HPS w/S	3
	44936	FPM	122188	STG	Seal, HPS w/S	3
	46667	HT	—	—	Seal, HPS, 2-Pc w/S-Support	3
139	22179	BBCP	22179	BBCP	Plug, Inlet (1/2"NPTM)	1
162	43248	PTFE	43248	PTFE	Back-up-Ring, Seat	6
163	43249	NBR	43249	NBR	O-Ring, Seat	6
	44383	FPM	44383	FPM	O-Ring, Seat	6
◆ 46206	EPDM	◆ 46206	EPDM	O-Ring, Seat - 70D	6	
164	43722	S	44718	S	Seat	6
166	43721	S	43721	S	Valve	6
167	43751	S	43751	S	Spring	6
168	44564	PVDF	44564	PVDF	Retainer, Spring	6
172	17617	NBR	17617	NBR	O-Ring, Valve Plug	6
	11691	FPM	11691	FPM	O-Ring, Valve Plug	6
◆ 46207	EPDM	◆ 46207	EPDM	O-Ring, Valve Plug	6	
174	125214	BBCP	125214	BBCP	Plug, Valve	6
185	49761	BBCP	49760	BBCP	Manifold, Head	1
188	126513	STCP R	126513	STCP R	Screw, HSH (M8x70)	8
196	22187	BBCP	22187	BBCP	Plug, Discharge (3/8"NPTM)	1
250	118672	STCP	118672	STCP	Protector, Shaft	1
255	30243	STZP	30243	STZP	Mount, Direct	1
260	30611	STZP	30611	STZP	Mount, Rail, Assy	1
	30637	STZP	30637	STZP	Mount, Angle Assy-Retro Fit (See Tech Bulletin 078)	1
265	30659	—	—	—	Kit, Complete Mounting	1
					(Incls: 30611, 30633, 118672) (Belt Drive Only)	
275	30944	STL	30944	STL	Assembly, Hub & Key (Incls. 30945, 30057)	1

EXPLODED VIEW



Models
5CP6120, 5CP6190
5CP6120G1, 5CP6190G1
October 2010

	5CP6120		5CP6190			
	5CP6120G1	MATL	5CP6190G1	MATL		
277	31542	AL	31542	AL	Bell Housing Assy (213-215TC)	1
278	8275	STL	8275	AL	Flexible Coupling Assy (M20x1-3/8")	1
283	34334	—	34334	—	Kit, Oil Drain (3/8" x 24") (See Tech Bulletin 077)	1
299	816666	BBCP	818460	BBCP	Head, Complete	1
300	31628	NBR	76620	NBR	Kit, Seal (Incls: 98,106,121,125)	1
	31648	FPM	76610	FPM	Kit, Seal (Incls: 98,106,121,125)	1
	31638	EPDM	76650	EPDM	Kit, Seal (Incls: 98,106,121,125)	1
	76536	HT	—	—	Kit, Seal (Incls: 98,106,121,125)	1
	76536	STHT	—	—	Kit, Seal (Incls: 98,106,120,121,125)	1
310	30820	NBR	34920	NBR	Kit, Valve Preassembled (Incls: 162,163,164,166-168,172)	2
	31263	FPM	31256	FPM	Kit, Valve Preassembled (Incls: 162,163,164,166-168,172)	2
	31259	EPDM	31253	EPDM	Kit, Valve Preassembled (Incls: 162,163,164,166-168,172)	2
350	30696	STZP	30696	STZP	Pliers, Reverse	1
500	8076-8077	—	8076-8077	—	Gearbox (See Individual Data Sheet)	1
—	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. [] 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. (HT generally may be used as alternate).

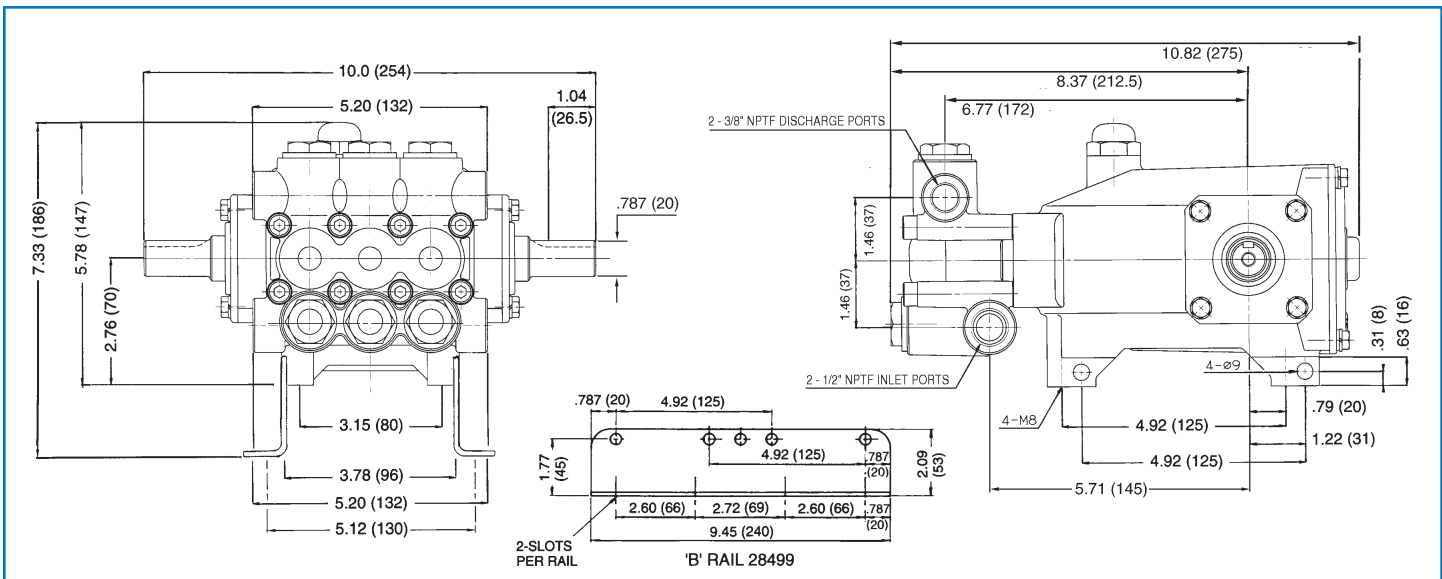
View Tech Bulletins 002, 003, 024, 036, 043, 053, 060, 061, 064, 073, 074, 077, 078 and 083 for additional information.

MATERIAL CODES (Not Part of Part Number): AL=Aluminum BB=Brass BBCP=Brass/Chrome Plated BBNP=Brass/Nickel Plated CC=Ceramic

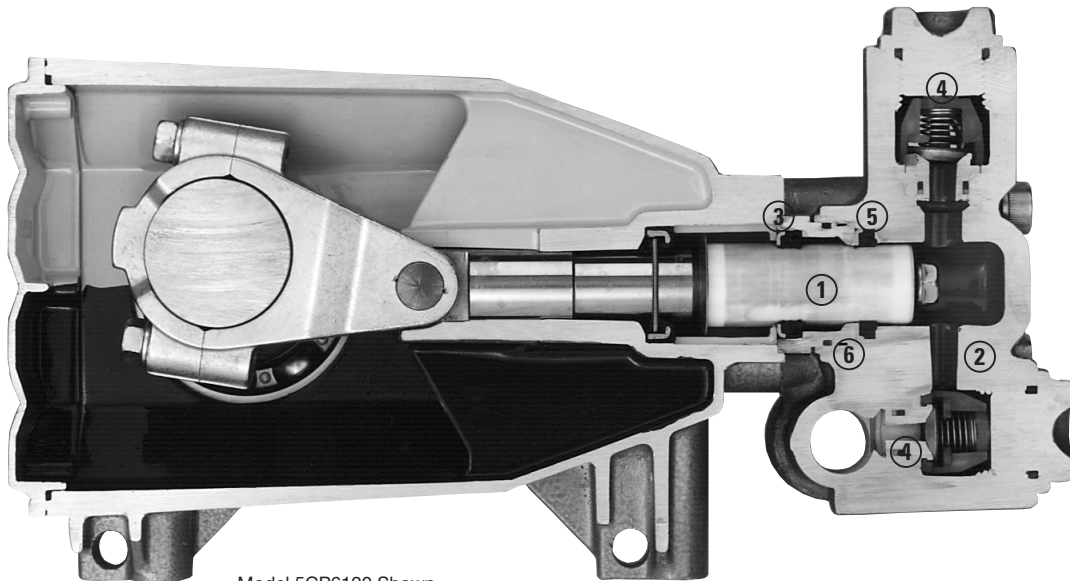
CM=Chrome-moly EPDM=Ethylene Propylene Diene Monomer FCM=Forged Chrome-moly FPM=Fluorocarbon HT=Hi-Temp (EPDM Alternative)

NBR=Medium Nitrile (Buna-N) PTFE=Pure Polytetrafluoroethylene PVDF=Polyvinylidene Fluoride S=304SS SS=316SS SNG=Special Blend

ST=Special Blend PTFE Grey STG=Special Blend PTFE White STL=Steel STCP=Steel/Chrome Plated STZP=Steel/Zinc Plated TNM=Special High Strength



Models 5CP6120, 5CP6190



Model 5CP6120 Shown

- 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 chrome plated forged 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 of the seals.
- 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.

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 www.catpumps.co.uk

N.V. CAT PUMPS INTERNATIONAL S.A.

Heiveldkens 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