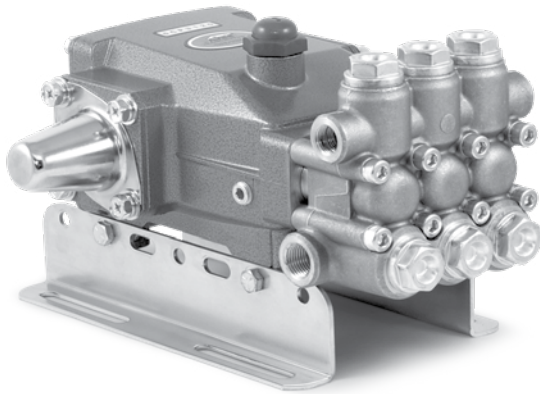


# DATA SHEET

## 5CP PLUNGER PUMPS



**Standard Models: 5CP5120, 5CP5120CSS**



Model 5CP5120 Shown  
(Shaft protector and mounting rails sold separately)

### FEATURES

- Industrial triplex design offers reliability and versatility.
- Ultra-compact footprint permits direct-drive to motor with bell housing and flexible coupling or belt drive for precision flow setting.
- Standard NBR seals with alternative options for temperature and chemical compatibility.
  - FPM – .0110
  - EPDM – .0220
  - High Temp, 190° F – .3000
  - High Temp, 200° F – .3400 (Intermittent Run-Dry)

### COMMON SPECIFICATIONS

	U.S.	Metric
Bore	0.709"	18 mm
Stroke	0.709"	18 mm
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" NPT(F)	1/2" NPT(F)
Discharge Ports (2)	3/8" NPT(F)	3/8" NPT(F)
Shaft Diameter	0.787"	20 mm
Weight	19.9 lbs.	9 kg
Dimensions	10.89 x 10.0 x 5.78"	277 x 254 x 147 mm

### SPECIFICATIONS

	U.S. Measure	Metric Measure
<b>5CP5120, 5CP5120CSS</b>		
Flow	5.0 gpm	19 lpm
Pressure Range	100 to 3000 psi	7 to 210 bar
RPM	1415 rpm	1415 rpm
Inlet Pressure Range	-2.5 to 60 psi	-2 to 4 bar
<b>5CP5120, 5CP5120CSS ALTERNATE SPECIFICATIONS</b>		
Flow	6.0 gpm	23 lpm
Pressure Range	100 to 2500 psi	7 to 170 bar
RPM	1750 rpm	1750 rpm
Inlet Pressure Range	10 to 60 psi	1 to 4 bar

### ELECTRIC HORSEPOWER REQUIREMENTS

MODEL	FLOW		PRESSURE					MOTOR PULLEY SIZE	
			psi 1200	psi 1500	psi 2000	psi 2500	psi 3000	Using 1725 RPM Motor & Std. 8" Pump Pulley	
	U.S. gpm	lpm	bar 83	bar 110	bar 138	bar 175	bar 210	RPM	Pulley O.D.
<b>5CP5120</b>	5.0	19	4.1	5.5	6.9	8.6	10.3	1415	6.5
<b>5CP5120 Alt.</b>	6.0	23	4.9	6.2	8.2	10.3	N/A	1750	Direct

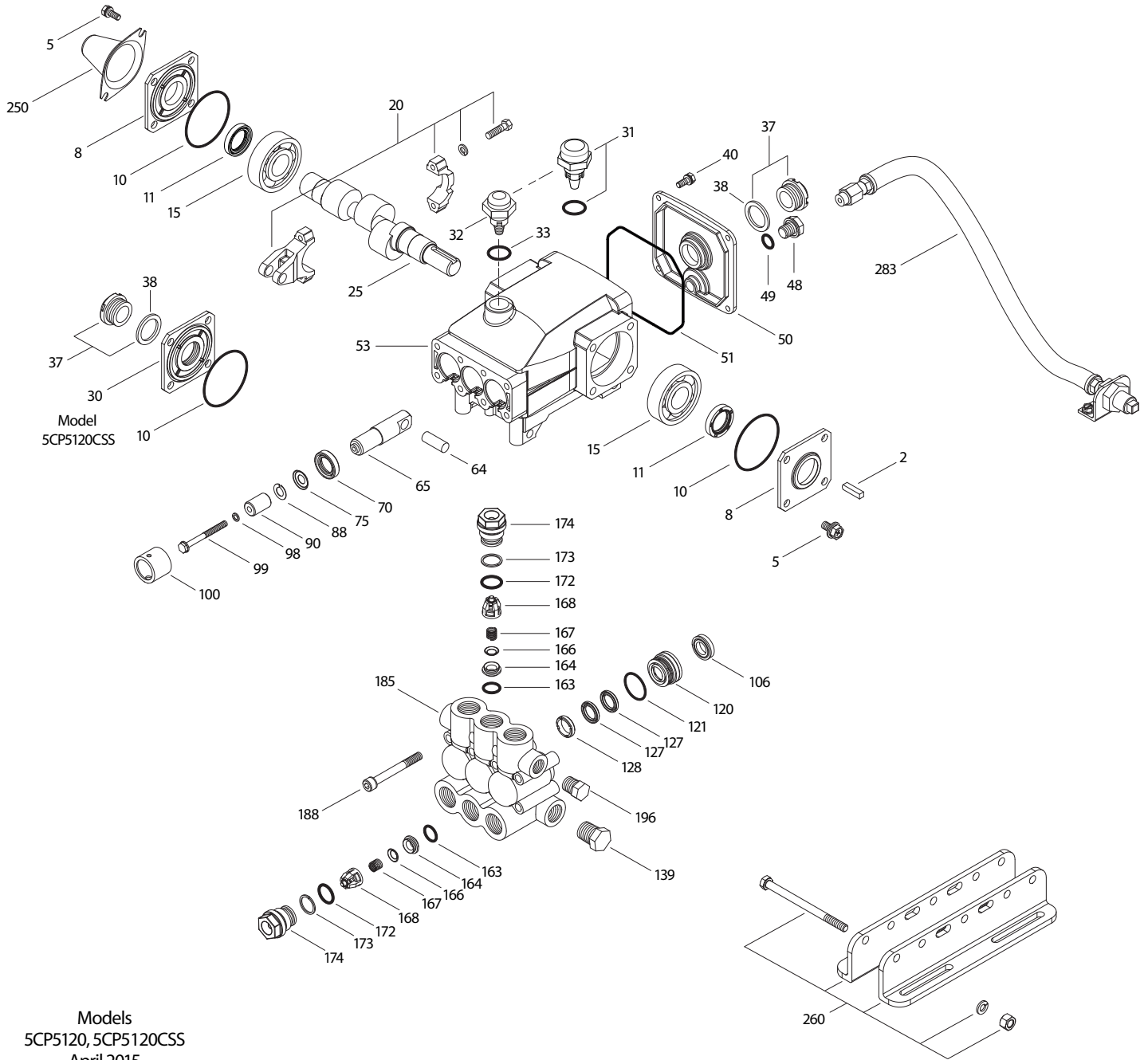
<b>DETERMINING THE PUMP R.P.M.</b>	Rated gpm	=	"Desired" gpm
	Rated rpm	=	"Desired" rpm
<b>DETERMINING THE REQUIRED H.P.</b>	gpm x psi	=	Electric Brake
	1460	=	H. P. Required
<b>DETERMINING MOTOR PULLEY SIZE</b>	Motor Pulley O.D.	=	Pump Pulley O.D.
	Pump rpm	=	Motor rpm

Refer to pump **Service Manual** for repair procedure and additional technical information.

## PARTS LIST

ITEM	PART NUMBER		DESCRIPTION	QTY
	<b>5CP5120</b>			
	<b>5CP5120CSS</b>	<b>MATL</b>		
2	30057	STL	Key (M6x6x25)	1
5	96031	STZP	Screw, HHC, Sems (M8x16)	8
	126542	STCPR	Screw, HHC, Sems (M8x16)	8
8	46910	AL	Cover, Bearing	2-1
10	14028	NBR	O-Ring, Bearing Cover - 70D	2
11	43222	NBR	Seal, Oil, Crankshaft - 70D	2-1
15	14480	STL	Bearing, Ball	2
20	48742	TNM	Rod, Connecting Assy [10/01]	3
25	<b>46928</b>	FCM	Crankshaft, Dual End M18 - 5CP5120	1
	<b>48233</b>	FCM	Crankshaft, Single End M18 - 5CP5120CSS	1
30	<b>49776</b>	AL	Cover, Bearing - 5CP5120CSS	1
31	127409	—	Cap, Vented w/O-Ring (Rain Cap)	1
32	46798	—	Cap, Oil Filler, Domed	1
33	14179	NBR	O-Ring, Oil Filler Cap - 70D	1
37	92241	—	Gauge, Oil, Bubble w/Gasket - 80D	1-2
38	44428	NBR	Gasket, Flat, Oil Gauge - 80D	1-2
40	92519	STZP	Screw, HHC, Sems (M6x16)	4
	125824	STCPR	Screw, HHC, Sems (M6x16)	4
48	25625	STCP	Plug, Drain (1/4"x19BSP)	1
49	23170	NBR	O-Ring, Drain Plug - 70D	1
50	46940	AL	Cover, Rear	1
51	14044	NBR	O-Ring, Rear Cover	1
53	48617	AL	Crankcase	1
64	46746	CM	Pin, Crosshead	3
65	48458	BBNP	Rod, Plunger	3
70	46838	NBR	Seal, Oil, Crankcase - 70D	3
75	43328	S	Slinger, Barrier	3
88	45697	S	Washer, Keyhole (M18x10)	3
90	49655	CC	Plunger (M18x50)	3
98	46730	NBR	Washer, Seal - 90D	3
	48394	FPM	Washer, Seal - 90D	3
	◆ 48432	EPDM	Washer, Seal	3
99	† 48201	SS	Retainer, Plunger w/Stud (M6)	3
100	46749	PVDF	Retainer, Seal	3
106	43243	NBR	Seal, LPS w/S-Spg	3
	44926	FPM	Seal, LPS w/SS-Spg	3
	◆ 46651	EPDM	Seal, LPS w/SS-Spg	3
	76243	ST2	Seal, LPS w/S-Spg	3
120	49657	BB	Case, Seal (Press-in-style)	3
121	13978	NBR	O-Ring, Seal Case - 70D	3
	14329	FPM	O-Ring, Seal Case	3
	◆ 48904	EPDM	O-Ring, Seal Case	3
127	44549	SNG	V-Packing	6
	45617	SFG	V-Packing	6
	48300	STG	V-Packing	6
128	† 45618	BB	Adapter, Male	3
139	22179	BBCP	Plug, Inlet [1/2" NPT(M)]	1
163	17547	NBR	O-Ring, Seat - 85D	6
	11685	FPM	O-Ring, Seat - 85D	6
	◆ 46648	EPDM	O-Ring, Seat - 70D	6
164	45790	S	Seat	6
166	46429	S	Valve	6
167	43750	S	Spring	6
168	† 44565	PVDF	Retainer, Spring	6
172	17549	NBR	O-Ring, Valve Plug - 70D	6
	26996	FPM	O-Ring, Valve Plug - 70D	6
	◆ 49133	EPDM	O-Ring, Valve Plug	6
173	48365	D	Back-up-Ring, Valve Plug	6
174	45900	BB	Plug, Valve	6
185	46895	FBB	Manifold, Head	1
188	126513	STCPR	Screw, HSH (M8x70)	8
196	22187	BBCP	Plug, Discharge [3/8" NPT(M)]	1
250	118672	STCP	Protector, Shaft (Model 5CP5120 only)	1
255	30243	STZP	Mount, Direct	1
260	30611	STZPR	Mount, Rail, Assy (4.22")	1
	30613	STZPR	Mount, Rail, Assy (5.02")	1
	76513	STZPR	Mount, Rail, Assy (5.52")	1
	30637	STZP	Mount, Angle Assy-Retro Fit (See Tech Bulletin 078)	1
265	30659	—	Kit, Complete Mounting (Incls: 30611, 30633, 118672) (Model 5CP5120 only)	1
275	30944	STL	Assembly, Hub & Key (Incls: 30945, 30057)	1
283	34334	—	Kit, Oil Drain (3/8" x 24") (See Individual Data Sheet)	1
	76334	—	Kit, Oil Indicator (3/8" x 24") (See Individual Data Sheet)	1

# EXPLODED VIEW



Models  
5CP5120, 5CP5120CSS  
April 2015

5CP5120 5CP5120CSS		MATL		
299	814844	FBB	Head, Complete <b>Standard</b>	1
300	33630	NBR	Kit, Seal (Incls: 98,106,121,127) <b>Standard</b>	1
	31350	FPM*	Kit, Seal (Incls: 98,106,121,127) <b>.0110</b>	1
	76645	HT	Kit, Seal (Incls: 98,106,121,127) <b>.3000</b>	1
◆	76630	EPDM	Kit, Seal (Incls: 98,106,121,127) <b>.0220</b>	1
	76960	STHT	Kit, Seal (Incls: 98,106,121,127) After 2/09 <b>.3400</b>	1
310	33060	NBR	Kit, Valve Preassembled (Incls: 163,164,166-168,172,173) <b>Standard, .3400, .3000</b>	2
	31345	FPM	Kit, Valve Preassembled (Incls: 163,164,166-168,172,173) <b>.0110</b>	2
◆	31735	EPDM	Kit, Valve Preassembled (Incls: 163,164,166-168,172,173) <b>.0220</b>	2
—	6107	—	Oil, Bottle (21 oz.) ISO 68 Hydraulic	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.

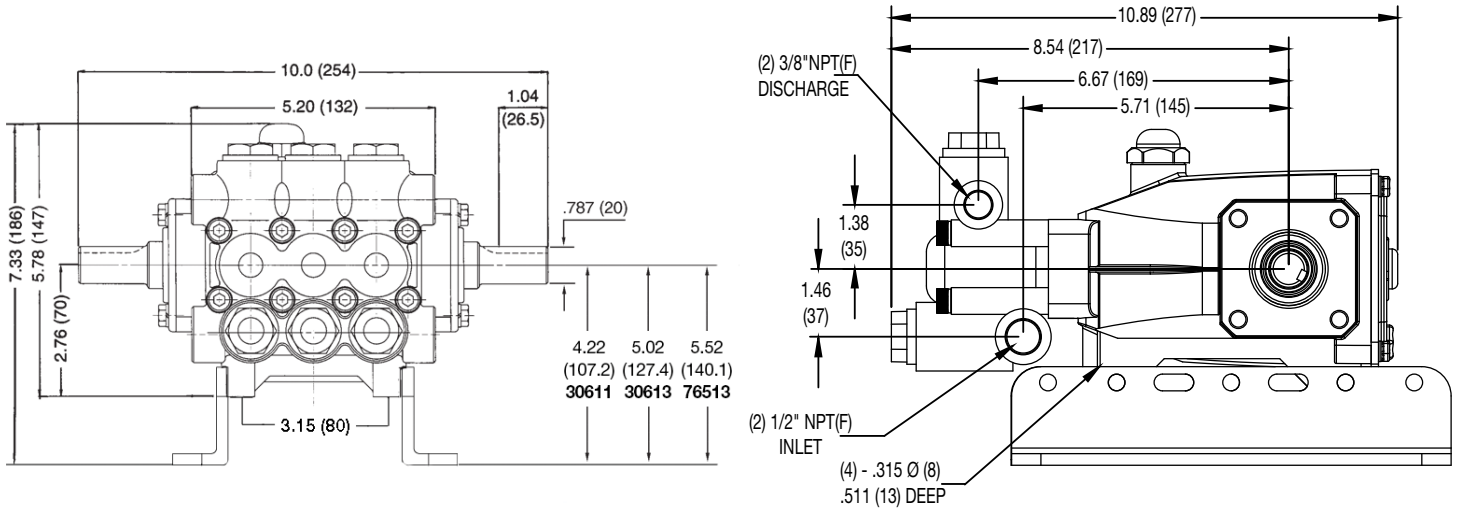
View Tech Bulletins 002, 003, 024, 036, 043, 053, 060, 061, 064, 073, 074, 078 and 083 for additional information.

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

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

NBR=Medium Nitrile (Buna-N) PVDF=Polyvinylidene Fluoride S=304SS SS=316SS SNG=Special Blend (Buna) SFG=Special Blend (FPM) STG=Special Blend PTFE White

ST2=Special Blend PTFE Grey STL=Steel STCP=Steel/Chrome Plated STHT=Special PTFE High Temp STZP=Steel/Zinc Plated TNM=Special High Strength



Model 5CP5120

**⚠ 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).



**CAT PUMPS**

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