

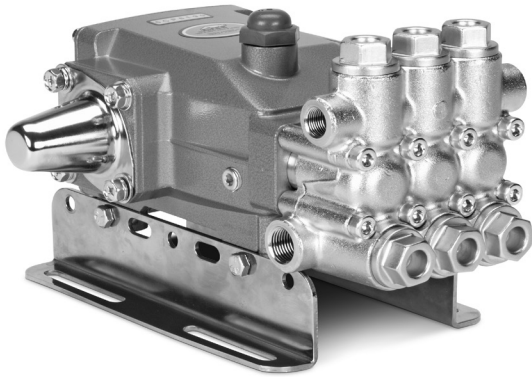
# DATA SHEET

## 5CP PLUNGER PUMPS



**Brass Models: 5CP6180CSS, 5CP6190**

**Gearbox Model: 5CP6180CSSG1, 5CP6190G1**



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

### FEATURES

- Industrial triplex design offers reliability and versatility.
- Compact direct-drive mount to motor using bell housing and flexible coupling (NEMA or IEC available).
- Gearbox model available with 1" and 1-1/8" hollow shaft to fit a wide variety of engines.
- Optional belt-drive for precision flow setting.
- Press-in seal cases and interchangeable valve assemblies for easy servicing.
- Standard NBR seals with alternative options for temperature and chemical compatibility.

### COMMON SPECIFICATIONS

	U.S.	Metric
Inlet Pressure Range	Flooded to 60 psi	Flooded to 4.1 bar
Max. Liquid Temp. (NBR)	160° F	71° C
Alternative seals available for high temp up to 180° F		
Bore	0.866"	22 mm
Crankcase Capacity	17 oz.	0.50 l
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 (5CP6180CSS,6190)	20.5 lbs.	9.3 kg
Weight (5CP6180CSSG1,6190G1)	26.5 lbs.	12 kg
Dimensions (5CP6180CSS)	10.79 x 8.92 x 5.79"	274 x 226.5 x 147 mm
Dimensions (5CP6190)	10.79 x 10.0 x 5.79"	274 x 254 x 147 mm
Dimensions (w/ Gearbox)	11.0 x 12.4 x 6.40"	279 x 315 x 162 mm

SPECIFICATIONS	U.S. Measure	Metric Measure
<b>5CP6180CSS</b>		
Flow	8.2 gpm	31 lpm
Pressure Range	100 - 1500 psi	6.9 - 103 bar
Pump RPM*	1750 rpm	1750 rpm
Stroke	0.650"	16.5 mm

<b>5CP6190</b>		
Flow	10.0 gpm	38 lpm
Pressure Range	100 - 1200 psi	6.9 - 83 bar
Pump RPM*	1750 rpm	1750 rpm
Stroke	0.787"	20 mm

### ALTERNATE SPECIFICATIONS

<b>5CP6190</b>		
Flow	8.0 gpm	30.3 lpm
Pressure Range	100 - 1450 psi	6.9 - 100 bar
Pump RPM*	1450 rpm	1450 rpm

<b>5CP6180CSSG1</b>		
Flow	8.0 gpm	30.3 lpm
Pressure Range	100 - 1500 psi	6.9 - 103 bar
Engine RPM	3450 rpm	3450 rpm

<b>5CP6190G1</b>		
Flow	9.7 gpm	36.7 lpm
Pressure Range	100 - 1200 psi	6.9 - 83 bar
Engine RPM	3450 rpm	3450 rpm

\*Pump minimum is 100 RPM.



### ALTERNATIVE SEAL CONFIGURATION

MATERIAL	SUFFIX CODE	MAXIMUM TEMPERATURE
NBR	—	160° F (71° C)
FPM	.0110	180° F (82° C)
EPDM	.0220	160° F (71° C)
HT	.3000	180° F (82° C)

See Reference Document 99TCH002 for inlet conditions and RPM at high temperature.

**DETERMINING THE PUMP R.P.M.**

$$\frac{\text{Rated gpm}}{\text{Rated rpm}} = \frac{\text{"Desired" gpm}}{\text{"Desired" rpm}}$$

**DETERMINING THE REQUIRED H.P.**

$$\frac{\text{Hp (Electric Brake)}}{1460} = \frac{\text{gpm x psi}}{1460}$$

**DETERMINING MOTOR PULLEY SIZE**

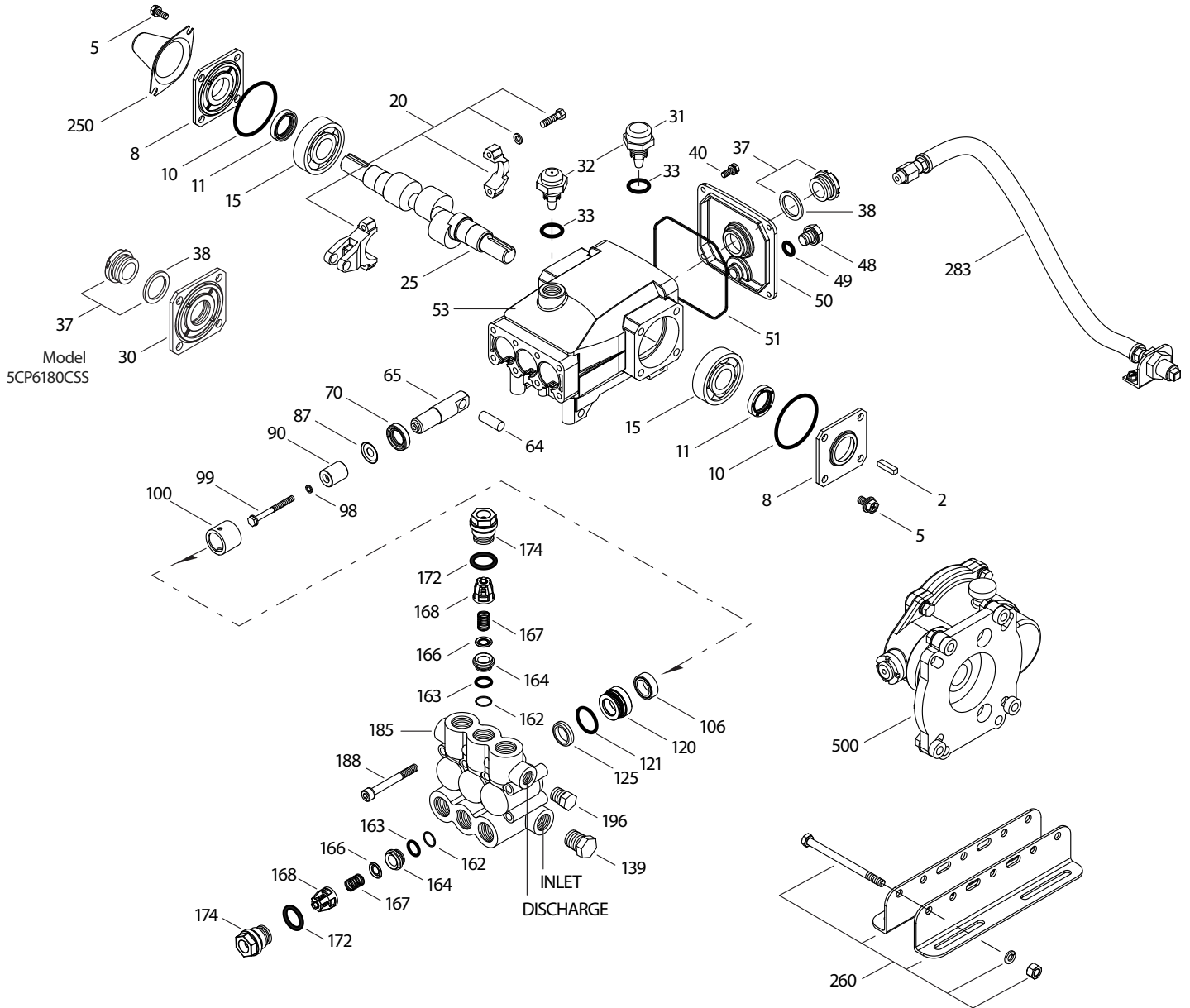
$$\frac{\text{Motor Pulley O.D.}}{\text{Pump rpm}} = \frac{\text{Pump Pulley O.D.}}{\text{Motor rpm}}$$

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

# PARTS LIST

ITEM	PART NUMBERS	MATL	DESCRIPTION	QTY
2	30057	STL	Key (M6x6x25)	1
5	126542	STCP R	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>48646</b>	FCM	Crankshaft, Dual End M20 - 5CP6190, 5CP6190G1	1
	<b>48368</b>	FCM	Crankshaft, Single End M16.5 - 5CP6180CSS, 5CP6180CSSG1	1
30	<b>49776</b>	AL	Cover, Cover Bearing - 5CP6180CSS	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	PC	Gauge, Oil, Bubble w/Gasket - 80D	1-2
38	44428	NBR	Gasket, Flat, Oil Gauge - 80D	1-2
40	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	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	48647	BBNP	Rod, Plunger	3
70	46838	NBR	Seal, Oil, Crankcase - 70D	3
87	48648	S	Washer, Flat (M10x24)	3
90	121391	CC	Plunger (M22x50)	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	49644	NBR	Seal, LPS w/SS-Spg	3
	49704	FPM	Seal, LPS w/SS-Spg	3
	◆ 48650	EPDM	Seal, LPS w/SS-Spg	3
	76704	ST	Seal, LPS w/S-Spg	3
120	121394	BB	Case, Seal	3
121	13980	NBR	O-Ring, Seal Case-70D	3
	14330	FPM	O-Ring, Seal Case-70D	3
	◆ 49731	EPDM	O-Ring, Seal Case	3
125	121395	SNG	Seal, HPS w/S	3
	122188	STG	Seal, HPS w/S	3
139	22179	BBCP	Plug, Inlet [1/2" NPT(M)]	1
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	125214	BBCP	Plug, Valve	6
185	49760	BBCP	Manifold, Head	1
188	126513	STCP R	Screw, HSH (M8x70)	8
196	22187	BBCP	Plug, Discharge [3/8" NPT(M)]	1
250	118672	STCP	Protector, Shaft	1
255	30243	STZP	Mount, Direct	1
260	30611	STZP R	Mount, Rail, Assy	1
	30637	STZP	Mount, Angle Assy-Retro Fit (See Tech Bulletin 078)	1
265	—	—	Kit, Complete Mounting (Incls: 30611, 30633, 118672) (Belt Drive 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
299	818460	BBCP	Head, Complete w/NBR Seals and O-Rings	1

# EXPLODED VIEW



MODELS  
5CP6180CSS, 5CP6190  
5CP6180CSSG1, 5CP6190G1  
December 2019

ITEM	PART NUMBERS	MATL	DESCRIPTION	QTY
300	76620	NBR	Kit, Seal (Incls: 98,106,121,125) <b>Standard</b>	1
	76610	FPM	Kit, Seal (Incls: 98,106,121,125) <b>.0110</b>	1
	◆ 76650	EPDM	Kit, Seal (Incls: 98,106,121,125) <b>.0220</b>	1
	76616	HT	Kit, Seal (Incls: 98, 106, 121, 125) <b>.3000</b>	1
310	34920	NBR	Kit, Valve Preassembled (Incls: 162,163,164,166-168,172) <b>Standard, .3000</b>	2
	31256	FPM	Kit, Valve Preassembled (Incls: 162,163,164,166-168,172) <b>.0110</b>	2
	◆ 31253	EPDM	Kit, Valve Preassembled (Incls: 162,163,164,166-168,172) <b>.0220</b>	2
350	30696	STZP	Pliers, Reverse	1
500	<b>8076</b>	—	Gearbox (See Individual Data Sheet)	1
—	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.

For additional technical information see [www.catpumps.com/literature/tech-bulletins](http://www.catpumps.com/literature/tech-bulletins).

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=High Temp NBR=Medium Nitrile (Buna-N) PC=Poly Carbonate  
PTFE=Pure Polytetrafluoroethylene PVDF=Polyvinylidene Fluoride S=304SS SS=316SS SNG=Special Blend (Buna) ST=Special PTFE STG= Special Blend PTFE White STL=Steel  
STCP=Steel/Chrome Plated STZP=Steel/Zinc Plated TNM=Special High Strength

