

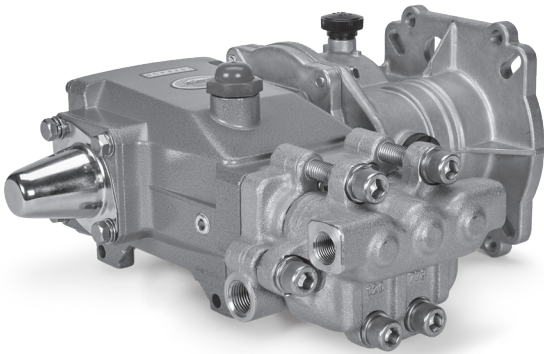
DATA SHEET

5CP PLUNGER PUMPS



The Pumps with Nine Lives

Stainless Steel **5CPQ6221G1, 5CPQ6241CSG1,**
Gearbox Models: **5CPQ6251G1**



Model 5CPQ6251G1 Shown
(Shaft protector sold separately)

FEATURES

- 316 Stainless Steel wet end.
- "Q" feature is designed for application where a reduced sound level is desirable.
- Gearbox model available with 1" and 1 1/8" hollow shaft to fit a wide variety of engines.
- Standard NBR seals with alternative options for temperature and chemical compatibility.

COMMON SPECIFICATIONS

	U.S.	Metric
Max. Liquid Temp (NBR)	160°F	71°C
Alternative seals available for high temp up to 180° F		
Bore	0.787"	20 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	24.1 lbs.	10.9 kg
Dimensions	11.69 x 12.91 x 6.46"	297 x 328 x 164 mm

SPECIFICATIONS

	U.S. Measure	Metric Measure
5CPQ6221G1		
Flow	7.4 gpm	28 lpm
Pressure Range	100 — 1200 psi	6.9 — 83 bar
Engine RPM	3600 rpm	3600 rpm
Inlet Pressure Range	Flooded to 60 psi	Flooded to 4.1 bar
Stroke	0.709"	18 mm
5CPQ6241CSG1		
Flow	4.0 gpm	15 lpm
Pressure Range	100 — 2000 psi	6.9 — 138 bar
Engine RPM	3600 rpm	3600 rpm
Inlet Pressure Range	Flooded to 60 psi	Flooded to 4.1 bar
Stroke	0.394"	10 mm
5CPQ6251G1		
Flow	5.0 gpm	19 lpm
Pressure Range	100 — 2000 psi	6.9 — 138 bar
Engine RPM	3600 rpm	3600 rpm
Inlet Pressure Range	Flooded to 60 psi	Flooded to 4.1 bar
Stroke	0.472"	12 mm

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)

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

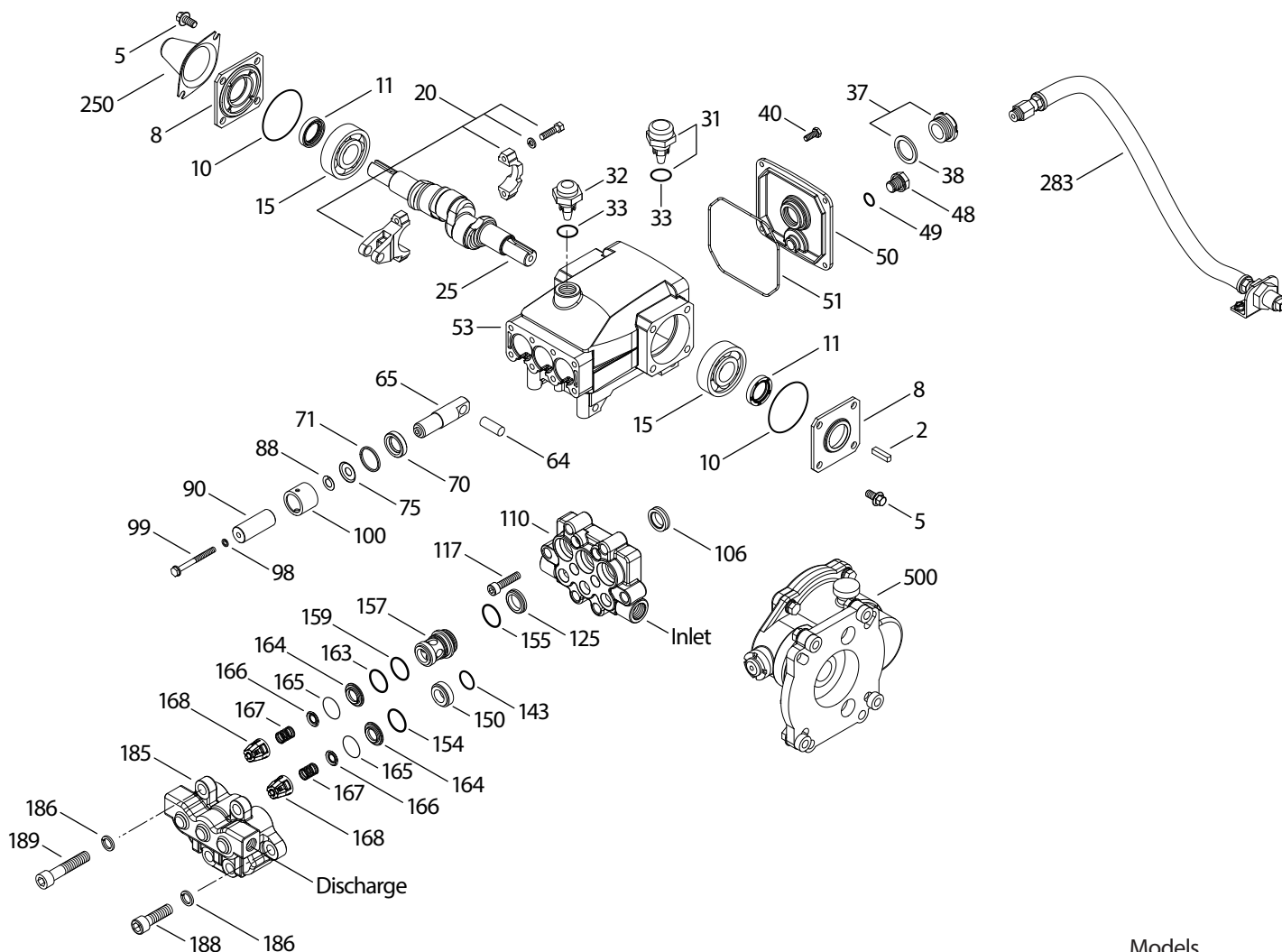
DETERMINING THE PUMP R.P.M.	Rated gpm	=	"Desired" gpm
	Rated rpm	=	"Desired" rpm
DETERMINING THE REQUIRED H.P.	Hp (Electric Brake)	=	$\frac{\text{gpm} \times \text{psi}}{1460}$
	DETERMINING MOTOR PULLEY SIZE	$\frac{\text{Motor Pulley O.D.}}{\text{Pump rpm}}$	= $\frac{\text{Pump Pulley O.D.}}{\text{Motor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

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

PARTS LIST

ITEM	PART NUMBER	MATL	PART NUMBER	MATL	PART NUMBER	MATL	DESCRIPTION	QTY
	5CPQ6221G1		5CPQ6241CSG1		5CPQ6251G1			
2	30057	STL	30057	STL	30057	STL	Key (M6x6x25)	1
5	119049	SS	119049	SS	119049	SS	Screw, HHC, Sems (M8x16)	8
8	46910	AL	46910	AL	46910	AL	Cover, Bearing	2/1
10	14028	NBR	14028	NBR	14028	NBR	O-Ring, Cover, Bearing - 70D	2/1
11	43222	NBR	43222	NBR	43222	NBR	Seal, Oil, Crankshaft - 70D	2
15	127472	STL	127472	STL	127472	STL	Bearing, Ball	2
20	48742	TNM	48742	TNM	48742	TNM	Rod Assy, Connecting [10/01]	3
25	46928	FCM	—	—	46982	FCM	Crankshaft, Dual End	1
	—	—	48203	FCM	—	—	Crankshaft, Single End	1
30	—	—	48224	AL	—	—	Cover, Blind Bearing	1
31	127409	—	127409	—	127409	—	Cap, Vented w/ O-Ring (Rain Cap)	1
32	46798	—	46798	—	46798	—	Cap, Oil Filler	1
33	14179	NBR	14179	NBR	14179	NBR	O-Ring, Oil Filler Cap - 70D	1
37	92241	—	92241	—	92241	—	Gauge, Oil, Bubble w/Gasket - 80D	1
38	44428	NBR	44428	NBR	44428	NBR	Gasket, Flat, Oil Gauge - 80D	1
40	92538	S	92538	S	92538	S	Screw, HHC, Sems (M6x16)	4
48	25625	STCP	25625	STCP	25625	STCP	Plug, Drain (1/4" X19BSP)	1
49	23170	NBR	23170	NBR	23170	NBR	O-Ring, Drain Plug - 70D	1
50	46940	AL	46940	AL	46940	AL	Cover, Rear	1
51	14044	NBR	14044	NBR	14044	NBR	O-Ring, Cover, Rear	1
53	48617	AL	48617	AL	48617	AL	Crankcase	1
64	46746	CM	46746	CM	46746	CM	Pin, Crosshead	3
65	48458	BBNP	48458	BBNP	48458	BBNP	Rod, Plunger	3
70	46838	NBR	46838	NBR	46838	NBR	Seal, Oil, Crankcase - 70D	3
71	48208	PVDF	48208	PVDF	48208	PVDF	Washer, Oil Seal	3
75	43328	S	43328	S	43328	S	Slinger, Barrier	3
88	45697	S	45697	S	45697	S	Washer, Keyhole (M18x10)	3
90	46841	CC	46841	CC	46841	CC	Plunger (M20x50)	3
98	46730	NBR	46730	NBR	46730	NBR	Washer, Seal - 90D	3
	48394	FPM	48394	FPM	48394	FPM	Washer, Seal - 90D	3
	◆ 48432	EPDM	◆ 48432	EPDM	◆ 48432	EPDM	Washer, Seal	3
99	† 48201	SS	† 48201	SS	† 48201	SS	Retainer, Plunger (M6x30)	3
100	46749	PVDF	46749	PVDF	46749	PVDF	Retainer, Seal	3
106	132277	NBR	132277	NBR	132277	NBR	Seal, LPS	3
	45153	FPM	45153	FPM	45153	FPM	Seal, LPS w/SS-Spg	3
	◆ 48429	EPDM	◆ 48429	EPDM	◆ 48429	EPDM	Seal, LPS w/SS-Spg, 2-Pc w/S Support	3
110	48552	SS	48552	SS	48552	SS	Manifold, Inlet (See Tech Bulletin 088)	1
117	119034	S	119034	S	119034	S	Screw, HSH (M8x35)	4
125	833824	SNG	833824	SNG	833824	SNG	Seal, HPS	3
	44936	FPM	44936	FPM	44936	FPM	Seal, HPS w/SS	3
	46667	HT	46667	HT	46667	HT	Seal, HPS w/S	3
143	17615	NBR	17615	NBR	17615	NBR	O-Ring, I.V. Adapter, Rear - 75D	3
	15855	FPM	15855	FPM	15855	FPM	O-Ring, I.V. Adapter, Rear - 70D	3
	◆ 48431	EPDM	◆ 48431	EPDM	◆ 48431	EPDM	O-Ring, I.V. Adapter, Rear - 75D	3
150	48212	SS	48212	SS	48212	SS	Adapter, Inlet	3
154	43781	NBR	43781	NBR	43781	NBR	O-Ring, I.V. Adapter, Front - 75D	3
	11337	FPM	11337	FPM	11337	FPM	O-Ring, I.V. Adapter, Front - 75D	3
	◆ 48430	EPDM	◆ 48430	EPDM	◆ 48430	EPDM	O-Ring, I.V. Adapter, Front - 75D	3
155	43781	NBR	43781	NBR	43781	NBR	O-Ring, D.V. Adater, Rear - 75D	3
	11337	FPM	11337	FPM	11337	FPM	O-Ring, I.V. Adapter, Front - 75D	3
	◆ 48430	EPDM	◆ 48430	EPDM	◆ 48430	EPDM	O-Ring, I.V. Adapter, Front - 75D	3
157	48211	SS	48211	SS	48211	SS	Adapter, Discharge	3
159	43781	NBR	43781	NBR	43781	NBR	O-Ring, D.V. Adapter, Front - 75D	3
	11337	FPM	11337	FPM	11337	FPM	O-Ring, I.V. Adapter, Front - 75D	3
	◆ 48430	EPDM	48430	EPDM	48430	EPDM	O-Ring, I.V. Adapter, Front - 75D	3
163	43781	NBR	43781	NBR	43781	NBR	O-Ring, Seat - 75D	3
	11337	FPM	11337	FPM	11337	FPM	O-Ring, Seat - 75D	3
	◆ 48430	EPDM	◆ 48430	EPDM	◆ 48430	EPDM	O-Ring, Seat - 75D	3
164	48216	SS	48216	SS	48216	SS	Seat	6
165	43793	NBR	43793	NBR	43793	NBR	O-Ring, Seat - 90D	6
	43791	FPM	43791	FPM	43791	FPM	O-Ring, Seat - 90D	6
	◆ 48490	EPDM	◆ 48490	EPDM	◆ 48490	EPDM	O-Ring, Seat - 90D	6
166	44038	SS	44038	SS	44038	SS	Valve	6
167	44039	SS	44039	SS	44039	SS	Spring	6
168	44564	PVDF	44564	PVDF	44564	PVDF	Retainer, Spring	6
185	48554	SS	48554	SS	48554	SS	Manifold, Discharge (See Tech Bulletin 088)	1
186	19085	S	19085	S	19085	S	Lockwasher, Split (M12)	6
188	120774	S	120774	S	120774	S	Screw, HSH (M12x40)	2
189	89575	S	89575	S	89575	S	Screw, HSH (M12x60)	4

EXPLODED VIEW



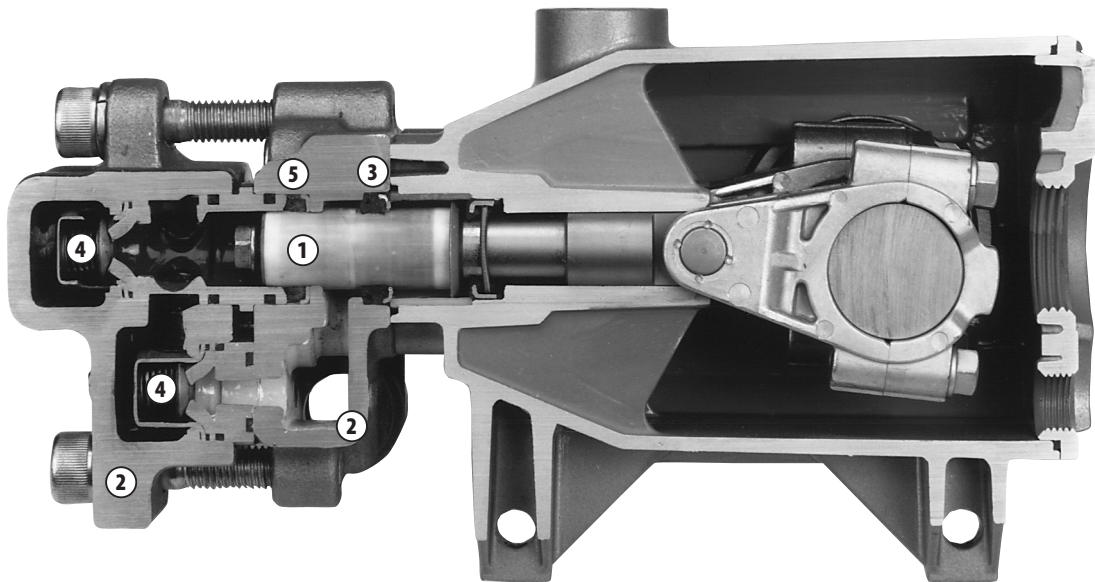
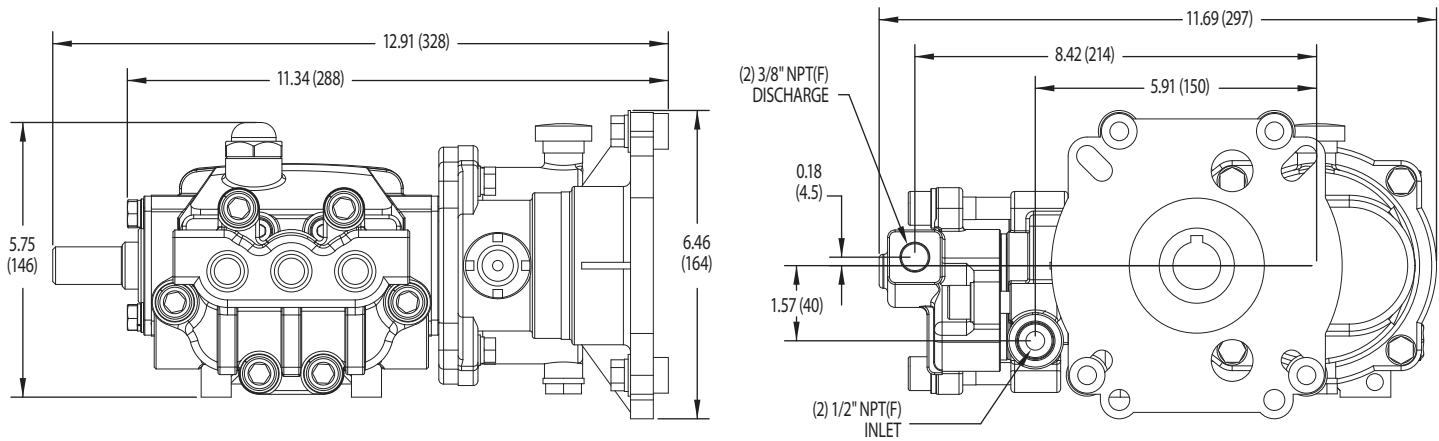
Models
5CPQ6221G1,
5CPQ6241CSG1,
5CPQ6251G1
March 2020

ITEM	PART NUMBER	MATL	PART NUMBER	MATL	PART NUMBER	MATL	DESCRIPTION	QTY
	5CPQ6221G1		5CPQ6241CSG1		5CPQ6251G1			
250	118672	<i>STCP</i>	—	—	118672	<i>STCP</i>	Protector, Shaft	1
283	34334	—	34334	—	34334	—	Kit, Oil Drain	1
300	76283	<i>NBR</i>	76283	<i>NBR</i>	76283	<i>NBR</i>	Kit, Seal (Incls: 98,106,125,143,154,155,159) STD	1
	34351	<i>FPM</i>	34351	<i>FPM</i>	34351	<i>FPM</i>	Kit, Seal (Incls: 98,106,125,143,154,155,159) .0110	1
	◆ 34352	<i>EPDM</i>	◆ 34352	<i>EPDM</i>	◆ 34352	<i>EPDM</i>	Kit, Seal (Incls: 98,106,125,143,154,155,159) .0220	1
310	33972	<i>NBR</i>	33972	<i>NBR</i>	33972	<i>NBR</i>	Kit, Valve (Incls: 143,154,163,164,165,166,167,168) STD	1
	34362	<i>FPM</i>	34362	<i>FPM</i>	34362	<i>FPM</i>	Kit, Valve (Incls: 143,154,163,164,165,166,167,168) .0110	1
	◆ 34363	<i>EPDM</i>	◆ 34363	<i>EPDM</i>	◆ 34363	<i>EPDM</i>	Kit, Valve (Incls: 143,154,163,164,165,166,167,168) .0220	1
500	8076	—	8076	—	8076	—	Gearbox 1" Shaft (See Individual Data Sheet)	1
—	6107	—	6107	—	6107	—	Oil, Bottle (21 oz.) ISO 68 Hydraulic (Fill to specified crankcase capacity prior to start-up)	1
—	6119	—	6119	—	6119	—	Lubricant, Antiseize (2.0 oz.) (See Tech Bulletin 095)	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. For additional technical information see www.catpumps.com/literature/tech-bulletins.

MATERIAL CODES (Not Part of Part Number): AL=Aluminum BBNP=Brass/Nickel Plated CC=Ceramic CM=Chrome-moly EPDM=Ethylene Propylene Diene Monomer FCM=Forged Chrome-Moly
FPM=Fluorocarbon NBR=Medium Nitrile (Buna-N) PVDF=Polyvinylidene Fluoride S=304SS SS=316SS SNG=Special Blend (Buna) STCP=Steel/Chrome Plated STZP=Steel/Zinc Plated
STL=Steel TNM=Special High Strength



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|---|---|--|
| <p>1. Special concentric, high-density, polished, solid ceramic plungers provide a true wear surface and extended seal life.</p> <p>2. Manifolds are high tensile strength 316 stainless steel for liquid compatibility and long term, continuous duty.</p> | <p>3. 100% wet seal design adds to service life by allowing pumped liquids to cool and lubricate on both sides.</p> <p>4. 316 stainless steel valves, seats and springs provide corrosion-resistance, ultimate seating and extended life.</p> | <p>5. Specially formulated, Cat Pump exclusive, Hi-Pressure Seals offer unmatched performance and seal life.</p> |
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⚠ 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.