

# DATA SHEET

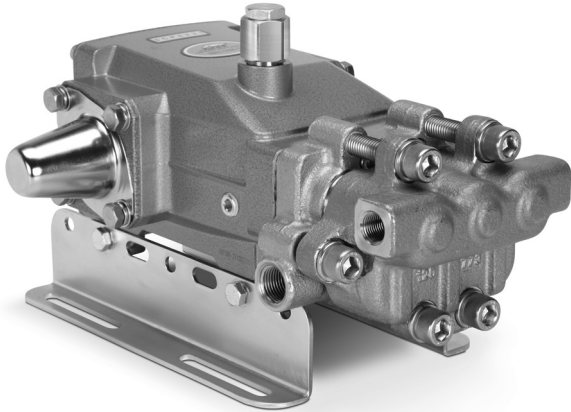
## 5CP PLUNGER PUMPS



The Pumps with Nine Lives

**Stainless Steel Models:**

**5CPQ6221.44101, 5CPQ6241.44101, 5CPQ6251.44101**



Model 5CPQ6221.44101 Shown  
(Rails and shaft protector sold separately)

### FEATURES

- Field- tested, high-pressure triplex pump configured for high-temperature TEG (triethylene glycol) applications up to 240° F/115° C. May be used in other high-temperature applications with liquids possessing adequate lubrication properties. Contact Cat Pumps for more information.
- Positive displacement technology for optimum energy efficiency.
- TEG\* pump configuration option consists of following materials:
  - O-ring material throughout the pump: FPM elastomers.
  - Oil filler cap assembly: brass adapters, chrome-plated steel vented cap.
  - Rear sight gauge assembly: aluminum sight adapter and stainless steel sight gauge.
  - Seal retainers: aluminum.
  - Low-pressure seals and V-packings: special PTFE blends.

\*TEG pump configuration is denoted by adding ".44101" to the end of the pump model.

### COMMON

SPECIFICATIONS	U.S.	Metric
Bore	0.787"	20 mm
Crankcase Capacity	17 oz	0.53 l
Maximum Liquid Temperature	240° F	115° C
Inlet Ports (2)	½" NPT(F)	½" NPT(F)
Discharge Port (2)	¾" NPT(F)	¾" NPT(F)
Shaft Diameter	0.787"	20 mm
Weight	20 lbs	8 kg
Dimensions	11.69 x 10.0 x 6.75"	297 x 254 x 171 mm

### SPECIFICATIONS

	U.S. Measure	Metric Measure
<b>5CPQ6221.44101</b>		
Flow	6.0 gpm	23 lpm
Pressure Range	100–2000 psi	6.9–138 bar
Pump RPM*	1400 rpm	1400 rpm
Inlet Pressure Range	–5–60 psi	–0.35–4.1 bar
Stroke	0.709"	18 mm

### 5CPQ6241.44101

Flow	4.0 gpm	15 lpm
Pressure Range	100–2000 psi	6.9–138 bar
Pump RPM*	1725 rpm	1725 rpm
Inlet Pressure Range	Flooded to 60 psi	Flooded to 4.1 bar
Stroke	0.394"	10 mm

### 5CPQ6251.44101

Flow	5.0 gpm	19 lpm
Pressure Range	100–2000 psi	6.9–138 bar
Pump RPM*	1725 rpm	1725 rpm
Inlet Pressure Range	Flooded to 60 psi	Flooded to 4.1 bar
Stroke	0.472"	12 mm

### 5CPQ6221.44101 ALTERNATE SPECIFICATIONS

Flow	7.4 gpm	28.0 lpm
Pressure Range	100–1500 psi	6.9–103 bar
Pump RPM*	1725 rpm	1725 rpm
Inlet Pressure Range	Flooded to 60 psi	Flooded to 4.1 bar
Stroke	0.709"	18 mm

\*Pump minimum is 100 RPM.

### ELECTRIC HORSEPOWER REQUIREMENTS

MODELS	PRESSURE						FLOW		PUMP RPM
	PSI		BAR		PSI		BAR		
	1200	83	1500	103	2000	138	GPM	LPM	
5CPQ6221.44101	6.1 Hp	7.6 Hp	—		7.4	28	1725		
	5.0 Hp	6.2 Hp	8.2 Hp	6.0	23	1400			
5CPQ6241.44101	3.3 Hp	4.1 Hp	5.5 Hp	4.0	15	1725			
5CPQ6251.44101	4.1 Hp	5.1 Hp	6.8 Hp	5.0	19	1725			

**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.**

$$\frac{\text{gpm} \times \text{psi}}{1460} = \frac{\text{Electric Brake H.P. Required}}{\text{H.P. Required}}$$

**DETERMINING MOTOR PULLEY SIZE**

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

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

# PARTS LIST

ITEM	PART NUMBER	MATL	DESCRIPTION	QTY
5	119049	SS	Screw, HHC, Sems (M8 x 16) (See Tech Bulletin 074)	8
8	46910	AL	Cover, Bearing	2/1
10	76028	FPM	O-Ring, Cover, Bearing-70D	2/1
11	76236	FPM	Seal, Oil, Crankshaft	2
15	127472	STL	Bearing, Ball	2
20	48742	TNM	Rod Assembly, Connecting (See Tech Bulletin 074)	3
25	<b>46928</b>	FCM	Crankshaft, Dual End-5CPQ6221.44101 (18 mm)	1
	<b>48203</b>	FCM	Crankshaft, Single End-5CPQ6241.44101 (10 mm)	1
	<b>46982</b>	FCM	Crankshaft, Dual End-5CPQ6251.44101 (12 mm)	1
30	<b>48224</b>	AL	Cover, Blind Bearing-5CPQ6241.44101	1
31	76142	AL	Adapter, Breather	1
32	76797	BB	Cap, Vented	1
36	76792	SS	Gauge, Sight	1
37	76791	AL	Adapter, Sight	1
38	44428	NBR	Gasket, Flat, Adapter-80D	1
40	92538	S	Screw, HHC, Sems (M6 x 16) (See Tech Bulletin 074)	4
48	25625	STCP	Plug, Drain (1/4" x 19 BSP)	1
49	30322	FPM	O-Ring, Drain Plug	1
50	46940	AL	Cover, Rear	1
51	76234	FPM	O-Ring, Cover, Rear-70D	1
53	48617	AL	Crankcase	1
64	46746	CM	Pin, Crosshead	3
65	48458	BBNP	Rod, Plunger	3
70	76838	FPM	Seal, Oil, Crankcase	3
71	48208	PVDF	Washer, Oil Seal	3
75	43328	S	Slinger, Barrier	3
88	45697	S	Washer, Keyhole (M18 x 10)	3
90	46841	CC	Plunger (M20 x 50)	3
98	48394	FPM	Washer, Seal-90D	3
99	† 48201	SS	Retainer, Plunger with Stud (M6) (See Tech Bulletin 074)	3
100	76748	AL	Retainer, Seal	3
106	76149	ST4	Seal, LPS with S-Spring	3
110	48552	SS	Manifold, Inlet	1
117	119034	S	Screw, HSH (M8 x 35) (See Tech Bulletin 074)	4
125	76395	ST4	Seal, HPS with S	3
143	15855	FPM	O-Ring, I.V. Adapter, Rear-70D	3
150	48212	SS	Adapter, Inlet	3
154	11337	FPM	O-Ring, I.V. Adapter, Front-75D	3
155	11337	FPM	O-Ring, D.V. Adapter, Rear-75D	3
157	48211	SS	Adapter, Discharge	3
159	11337	FPM	O-Ring, D.V. Adapter, Front-75D	3
163	11337	FPM	O-Ring, Seat-75D	3
164	48216	SS	Seat	6
165	43791	FPM	O-Ring, Seat-90D	6
166	44038	SS	Valve	6
167	44039	SS	Spring	6
168	44564	PVDF	Retainer, Spring	6
185	48554	SS	Manifold, Discharge	1
186	19085	S	Lockwasher, Split (M12)	6
188	120774	S	Screw, HSH (M12 x 40) (See Tech Bulletin 074)	2
189	89575	S	Screw, HSH (M12 x 60) (See Tech Bulletin 074)	4

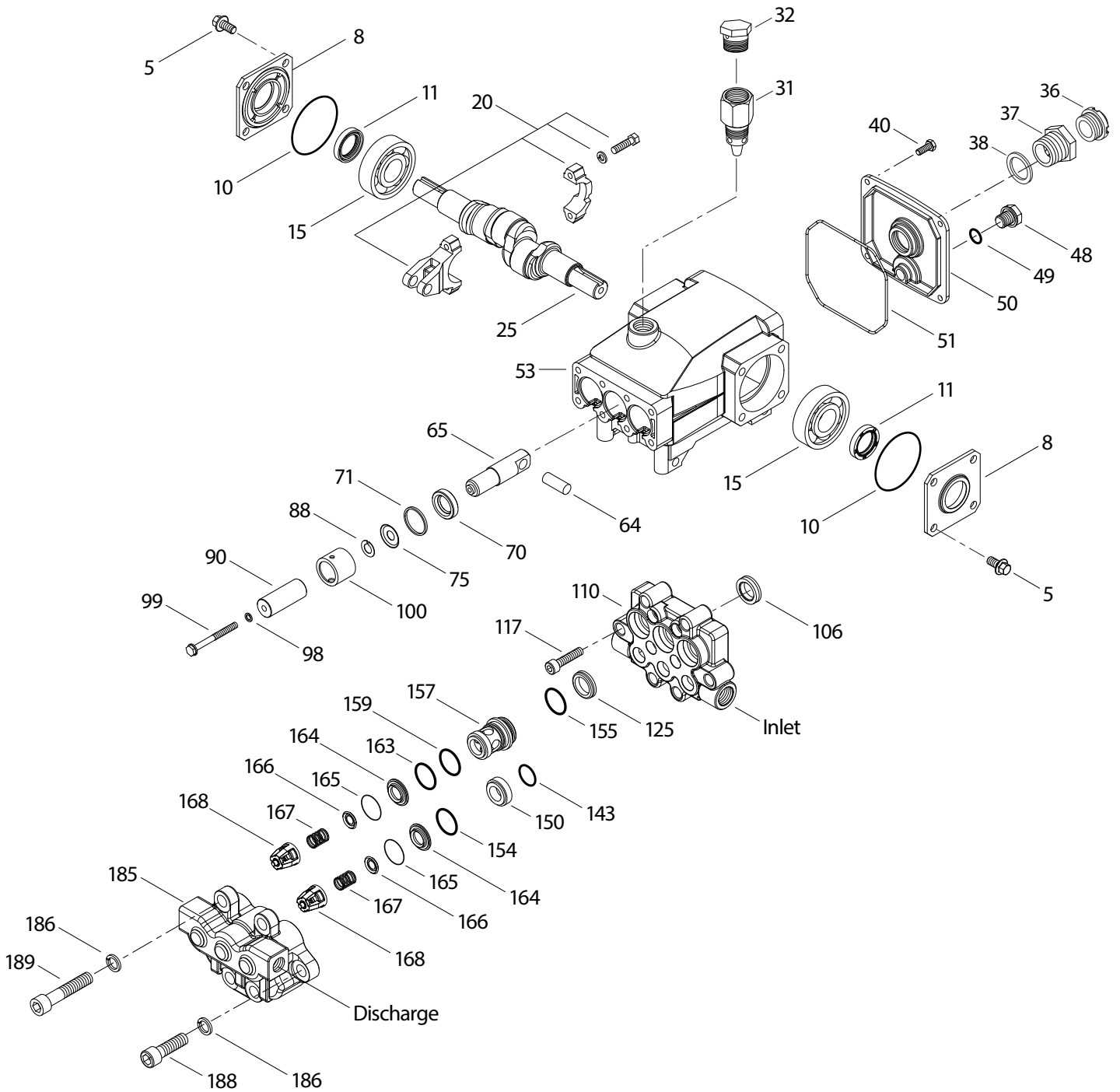
### Repair Kits/Parts and Optional Parts and Accessories on Page 4

**Bold print part numbers are unique to a particular pump model.** [ ] Date of latest production change.

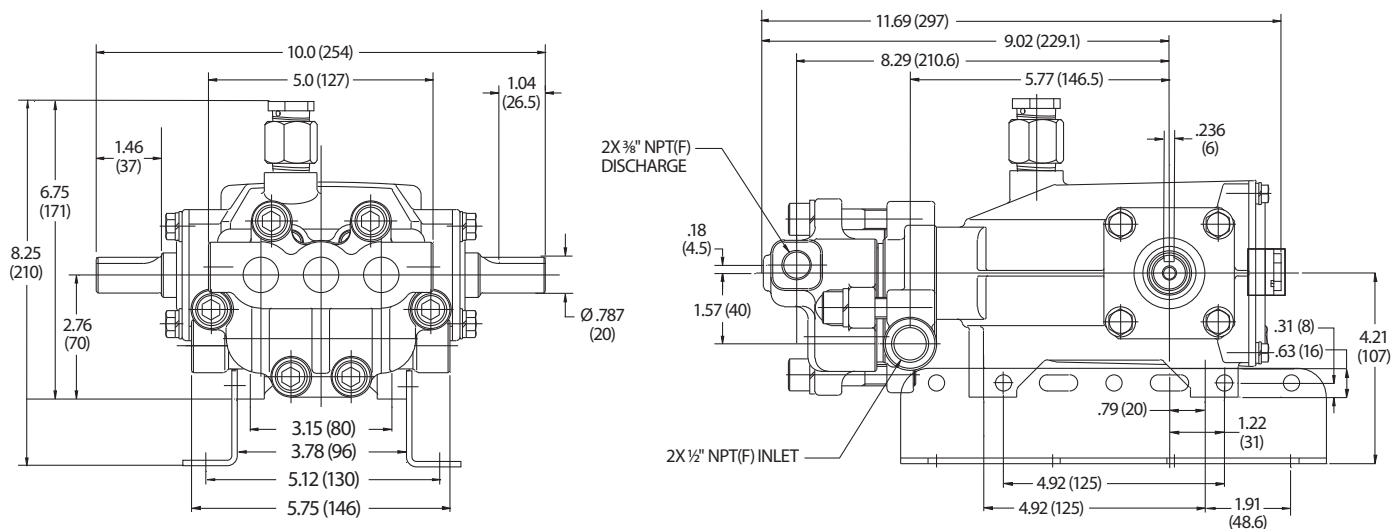
† Production parts are different than repair parts. For additional technical information see [www.catpumps.com/literature/tech-bulletins](http://www.catpumps.com/literature/tech-bulletins).

MATERIAL CODES (Not Part of Part Number): AL=Aluminum BBNP=Brass/Nickel Plated CC=Ceramic CM=Chrome-moly FCM=Forged Chrome-Moly  
FPM=Fluorocarbon NBR=Medium Nitrile (Buna-N) PVDF=Polyvinylidene Fluoride S=304SS SS=316SS STCP=Steel/Chrome Plated ST4=Special PTFE 4 STL=Steel  
TNM=Special High Strength

# EXPLODED VIEW



Models  
5CPQ6221.44101  
5CPQ6241.44101  
5CPQ6251.44101  
January 2021



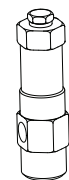
Models 5CPQ6221.44101, 5CPQ6251.44101

### REPAIR KITS AND PARTS

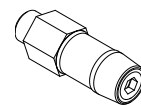
Part No.	Description	QTY
76095	Kit, Seal (Includes Items 98, 106, 125, 143, 154, 155, 159)	1
34362	Kit, Valve (Includes Items 143, 154, 163, 164, 165, 166, 167, 168)	1
6107	Oil, Bottle (21 oz) ISO 68 Hydraulic	1
30057	Key (M6 x 6 x 25)	1
6119	Lubricant, Antiseize (2 oz)	1

### OPTIONAL PARTS AND ACCESSORIES

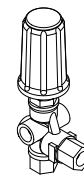
Part No.	Description	QTY
7012.100	Regulator (Primary Pressure Control)	1
7531.1110	Relief Valve (Primary or Secondary Pressure Control)	1
9961S	Pop-Off Valve (Secondary Pressure Control)	1
6073	Pressure Gauge	1
6030	Pulsation Dampener	1
30611	Mount, Rail Assembly	1
118672	Shaft Protector	1
76334	Kit, Oil Indicator (3/8" x 24") See Individual Data Sheet	1
34334	Kit, Oil Drain (3/8" x 24") See Individual Data Sheet	1
30696	Pliers (Reverse)	1
44050	Tool, Sight Gauge Removal	1



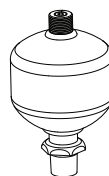
7012.100



9961S



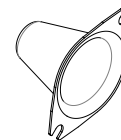
7531.1110



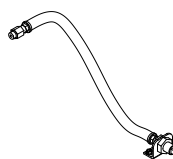
6030



6073



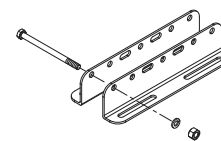
118672



34334



6107



30611

### 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/dynamic-literature/cautions-and-warnings](http://www.catpumps.com/dynamic-literature/cautions-and-warnings) or can be requested directly from Cat Pumps.

### WARRANTY

View the Limited Warranty on-line at [www.catpumps.com/literature/cat-pumps-limited-warranty](http://www.catpumps.com/literature/cat-pumps-limited-warranty)