

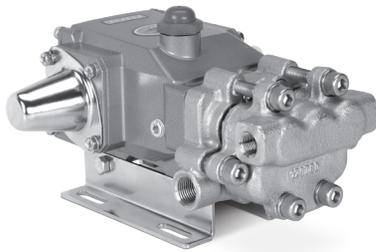
# DATA SHEET

## 3CP PLUNGER PUMPS



**Stainless Steel Models:** **3CP1221, 3CP1231, 3CP1241**

**Gearbox Model:** **3CP1241G**



Model 3CP1221 Shown  
(Mounting rails and shaft protector sold separately)

### FEATURES

- Triplex plunger design ensures high efficiency and low pulsation.
- Belt-driven option provides precision flow setting.
- Direct-driven option offers a compact footprint for electric motors with a NEMA or IEC frame, or SAE hydraulic motor with a bell housing/flexible coupler assembly.
- Pump comes standard with NBR seals. Alternative seal materials are available for higher temperature or chemical compatibility.

### COMMON SPECIFICATIONS

	U.S.	Metric
Pump RPM*	1725	1725
Inlet Pressure Range	Flooded to 70 psi	Flooded to 4.8 bar
Standard Liquid Temp. (NBR)	160° F	71° C
<b>Alternative seals available for higher temperatures up to 200° F</b>		
Bore	0.708"	18 mm
Crankcase Capacity	12 oz	0.35 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	0.650"	16.5mm
Pulley Mounting	Either Side	Either Side
Weight	14.84 lbs	6.7 kg
Dimensions	9.69 x 8.78 x 5.53"	246 x 223 x 136mm

### SPECIFICATIONS

	U.S. Measure	Metric Measure
<b>3CP1221</b>		
Flow	4.2 gpm	16 lpm
Pressure Range	100–2000 psi	6.9–138 bar
Stroke	0.500"	12.7 mm
<b>3CP1231</b>		
Flow	2.3 gpm	8.7 lpm
Pressure Range	100–2000 psi	6.9–138 bar
Stroke	0.287"	7.3 mm
<b>3CP1241</b>		
Flow	3.6 gpm	13.6 lpm
Pressure Range	100–2000 psi	6.9–138 bar
Stroke	0.433"	11 mm
<b>3CP1241G</b>		
Flow	3.0 gpm	11.4 lpm
Pressure Range	100–2000 psi	6.9–138 bar
Engine RPM	3600 rpm	3600 rpm
Stroke	0.433"	11 mm

\*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)
FFKM	.0770	200° F (93° C)
HT	.3000	180° F (82° C)
STHT	.3400	190° F (88° C)

See **Tech Bulletin 002** for inlet conditions and RPM at high temperature.

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

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

$$\frac{\text{Motor Pulley OD}}{\text{Pump rpm}} = \frac{\text{Pump Pulley OD}}{\text{Motor rpm}}$$

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

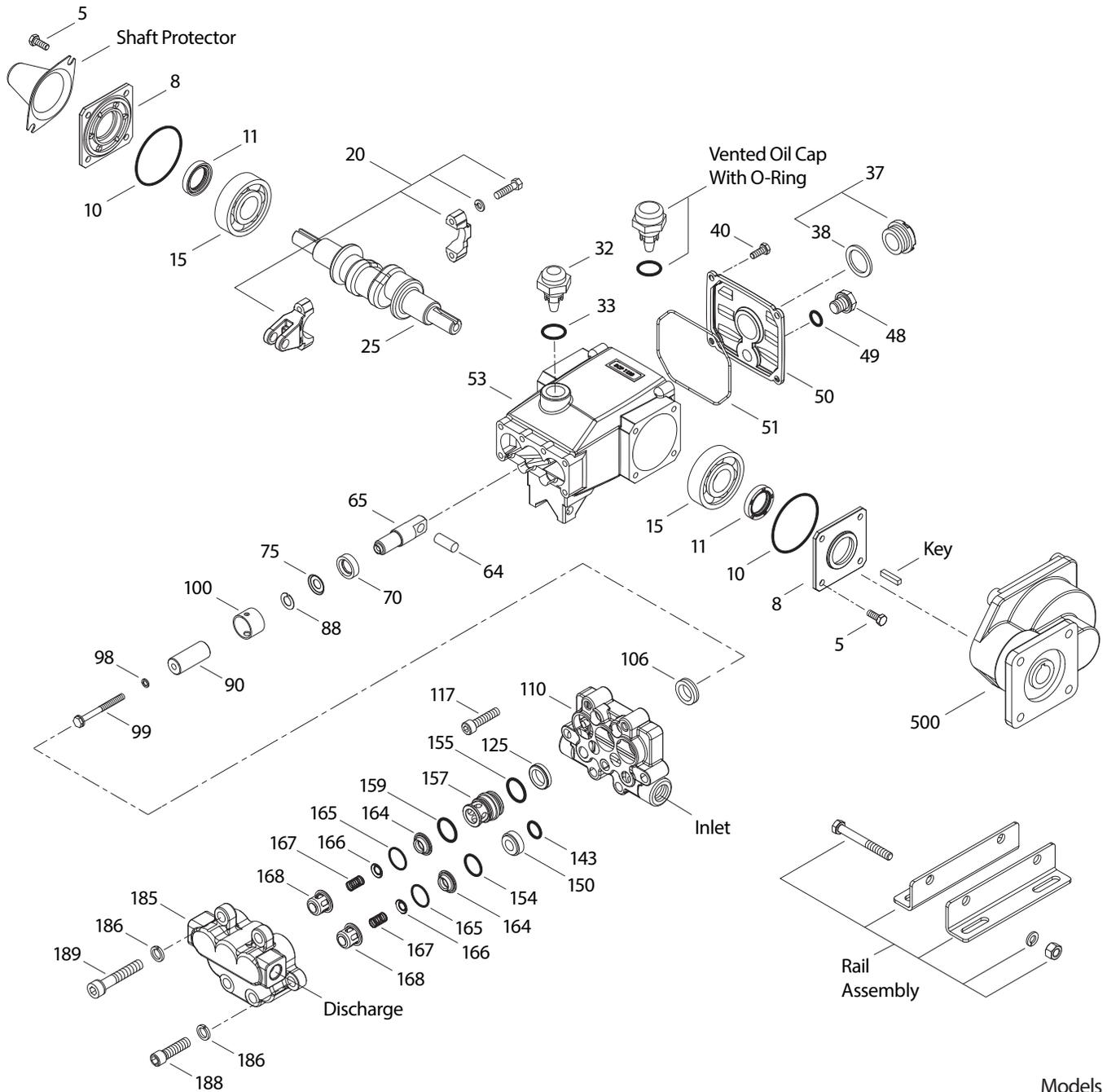
# PARTS LIST

ITEM	PART NUMBER				DESCRIPTION		QTY	
	3CP1221	MATL	3CP1231	MATL	3CP1241	MATL		
					<b>3CP1241G</b>			
5	92538	S	92538	S	92538	S	Screw, HHC Sems (M6 x 16) (See Tech Bulletin 074)	8
8	46901	AL	46901	AL	46901	AL	Cover, Bearing	2
	—	—	—	—	<b>48259</b>	AL	Cover, Blind (3CP1241G)	1
10	14028	NBR	14028	NBR	14028	NBR	O-Ring, Cover, Bearing	2
11	43222	NBR	43222	NBR	43222	NBR	Seal, Oil, Crankshaft	2
15	14480	STL	14480	STL	14480	STL	Bearing, Ball	2
20	48730	TNM	48730	TNM	48730	TNM	Rod, Connecting (See Tech Bulletin 074)	3
25	<b>46927</b>	FCM	—	—	—	—	Crankshaft, Dual-End (M12.7) (3CP1221)	1
	—	—	<b>46994</b>	FCM	—	—	Crankshaft, Dual-End (M7.3) (3CP1231)	1
	—	—	—	—	<b>46991</b>	FCM	Crankshaft, Dual-End (M11) (3CP1241)	1
	—	—	—	—	<b>48484</b>	FCM	Crankshaft, Single-End (M11) (3CP1241G)	1
32	46798	—	46798	—	46798	—	Cap, Oil Filler	1
33	14179	NBR	14179	NBR	14179	NBR	O-Ring, Oil Filler Cap	1
37	92241	PC	92241	PC	92241	PC	Gauge, Oil, Bubble with Gasket	1
38	44428	NBR	44428	NBR	44428	NBR	Gasket, Flat, Oil Gauge	1
40	92538	S	92538	S	92538	S	Screw, HHC Sems (M6 x 16)	4
48	25625	STCP	25625	STCP	25625	STCP	Plug, Drain (1/4" x 19 BSP)	1
49	23170	NBR	23170	NBR	23170	NBR	O-Ring, Drain Plug	1
50	46939	AL	46939	AL	46939	AL	Cover, Rear	1
51	14041	NBR	14041	NBR	14041	NBR	O-Ring, Cover, Rear	1
53	48644	AL	48644	AL	48644	AL	Crankcase	1
64	46615	CM	46615	CM	46615	CM	Pin, Crosshead	3
65	48459	BBNP	48459	BBNP	48459	BBNP	Rod, Plunger	3
70	46839	NBR	46839	NBR	46839	NBR	Seal, Oil, Crankcase	3
75	43900	S	43900	S	43900	S	Slinger, Barrier	3
88	45697	S	45697	S	45697	S	Washer, Keyhole (M18 x 10)	3
90	46976	CC	46976	CC	46976	CC	Plunger (M18 x 43)	3
97	76729	SS	76729	SS	76729	SS	Washer, Flat (Not Shown) Used in 76985 Seal Kit	3
98	46730	NBR	46730	NBR	46730	NBR	Washer, Seal	3
99	† 48201	SS	† 48201	SS	† 48201	SS	Retainer, Plunger (See Tech Bulletin 074)	3
100	46541	PVDF	46541	PVDF	46541	PVDF	Retainer, Seal	3
106	44053	NBR	44053	NBR	44053	NBR	Seal, Low-Pressure with SS-Spring	3
110	48556	SS	48556	SS	48556	SS	Manifold, Inlet	1
117	119034	S	119034	S	119034	S	Screw, HSH (M8 x 35) (See Tech Bulletin 074)	4
125	44652	SNG	44652	SNG	44652	SNG	Seal, High-Pressure with SS-Support	3
143	17547	NBR	17547	NBR	17547	NBR	O-Ring, Adapter, Valve, Rear	3
150	44060	SS	44060	SS	44060	SS	Adapter, Valve	3
154	43893	NBR	43893	NBR	43893	NBR	O-Ring, Adapter, Valve, Front	3
155	26089	NBR	26089	NBR	26089	NBR	O-Ring, Adapter, Valve, Rear	3
157	44059	SS	44059	SS	44059	SS	Adapter, Valve	3
159	26089	NBR	26089	NBR	26089	NBR	O-Ring, Adapter, Valve, Front	3
164	44058	SS	44058	SS	44058	SS	Seat	6
165	44001	NBR	44001	NBR	44001	NBR	O-Ring, Seat	6
166	543669	SS	543669	SS	543669	SS	Valve	6
167	44056	SS	44056	SS	44056	SS	Spring	6
168	44055	SS	44055	SS	44055	SS	Retainer, Spring	6
185	48558	SS	48558	SS	48558	SS	Manifold, Discharge	1
186	15847	S	15847	S	15847	S	Lockwasher (M10)	6
188	87950	S	87950	S	87950	S	Screw, HSH (M10 x 35) (See Tech Bulletin 074)	2
189	87952	S	87952	S	87952	S	Screw, HSH (M10 x 55) (See Tech Bulletin 074)	4
500	—	—	—	—	<b>8075</b>	—	Gearbox (See Individual Data Sheet)	1

**Bold print part numbers are unique to a particular pump model.** 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  
 BBNP=Brass/Nickel Plated CC=Ceramic CM=Chrome-moly EPDM=Ethylene Propylene Diene Monomer FCM=Forged Chrome-moly  
 FFKM=Perfluoroelstomer FPM=Fluorocarbon HS=High Strength HT=High-Temp (EPDM Alternative) NBR=Medium Nitrile (Buna-N)  
 PC=Polycarbonate PTFE=Polytetra Fluoroethylene PVDF=Polyvinylidene Fluoride S=304SS SNG=Special Blend (Buna)  
 SS=316SS ST2=Special PTFE2 ST4=Special PTFE4 STL=Steel STHT=Special PTFE High Temp  
 STCP=Steel/Chrome Plated STZP=Steel/Zinc Plated TNM=Special High Strength

**Optional Parts and Accessories and Service Parts listed on page 3. Standard and Optional Seal and Valve Kits listed on page 4.**

# EXPLODED VIEW



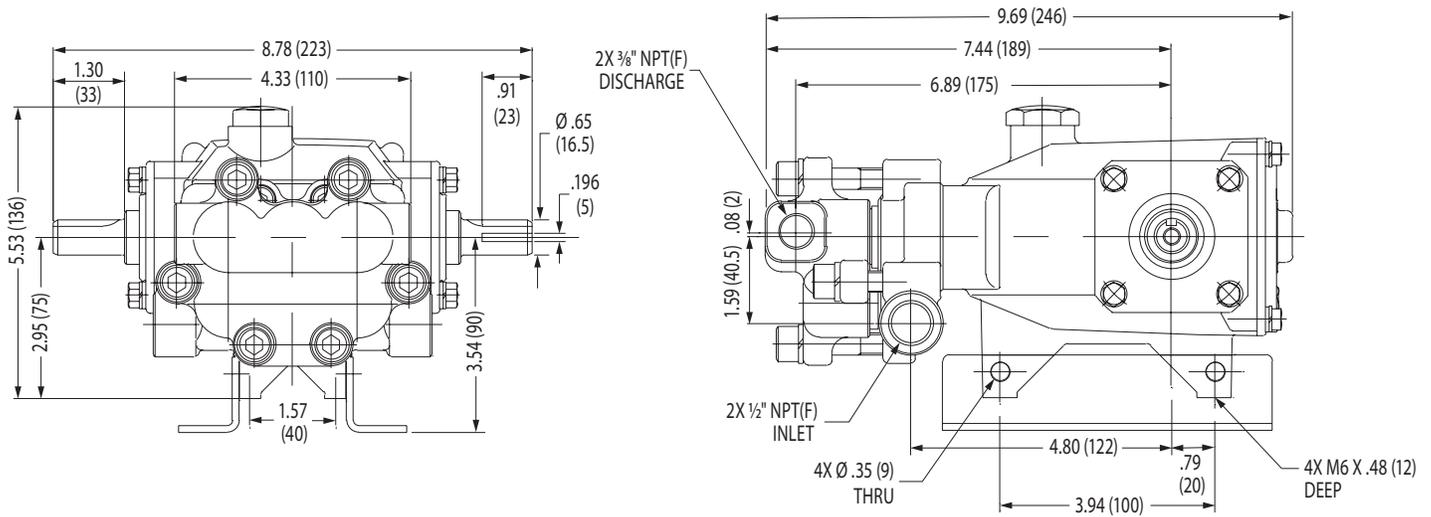
Models  
3CP1221, 3CP1231,  
3CP1241, 3CP1241G  
February 2026

## OPTIONAL PARTS AND ACCESSORIES

PART	DESCRIPTION	QTY
30047	Key (M5 x 5 x 24)	1
30612	Assembly, Rail (Belt Drive)	1
32603	Pulley, Assembly (99AK51H, 30047, 30943)	1
118672	Protector, Shaft	1
32604	Mount, Assembly (32603, 118672)	1
127409	Cap, Vented with O-Ring (Rain Cap)	1
34334	Kit, Oil Drain (3/8" x 24) (Not Shown)	1

## SERVICE PARTS

PART	DESCRIPTION	QTY
<b>33985</b>	Kit, Seal – Standard NBR	1
<b>30982</b>	Kit, Valve – Standard NBR	1
6107	Oil, Bottle (21 oz) (Fill to Specified Crankcase Capacity Prior to Start-up)	1
6124	Gasket, Liquid (3 oz)	1
6139	Lubricant, Anti-Seize (8 oz)	2
30696	Reverse Pliers (Not Shown)	1
816719	Head, Complete with NBR Seals and O-Rings	1



## SEAL KITS

One (1) seal kit required per pump

PUMP MODELS	NBR (STD)	FPM (.0110)	EPDM (.0220) ◆	FFKM (.0770)	HT (.3000)	STHT (.3400)
3CP1221, 3CP1231, 3CP1241, 3CP1241G	<b>33985</b>	<b>33309</b>	<b>33944*</b>	<b>76985*</b>	<b>76136</b>	<b>76167</b>

ITEM (Included in Seal Kits)							DESCRIPTION	QTY
97				76729			Washer, Flat	3
98	46730	48394	48432	76730	46730	46730	O-Ring, Plunger Retainer	3
106	44053	44926	46651	76243	44053	76243	Seal, Low-Pressure with SS-Spring	3
125	44652	44925	46652	46652	46652	46652	Seal, High-Pressure	3
143	17547	11685	46648	703308	17547	17547	O-Ring, Adapter, Valve, Rear	3
154	43893	44927	46649	703307	43893	43893	O-Ring, Adapter, Valve, Front	3
155	26089	11377	46647	703244	26089	26089	O-Ring, Adapter, Valve, Rear	3
159	26089	11377	46647	703244	26089	26089	O-Ring, Adapter, Valve, Front	3

◆ Silicone oil/grease required

\*Review material codes for individual items (HT, SNG, ST2 may be used as alternative)

## VALVE KITS

One (1) valve kit required per pump

PUMP MODELS	NBR (STD)	FPM (.0110)	EPDM (.0220) ◆	FFKM (.0770)	HT (.3000)	STHT (.3400)
3CP1221, 3CP1231, 3CP1241, 3CP1241G	<b>30982</b>	<b>31216</b>	<b>31217</b>	<b>76690</b>	<b>30982</b>	<b>30982</b>

ITEM (Included in Valve Kits)							DESCRIPTION	QTY
143	17547	11685	46648	703308	17547	17547	O-Ring, Adapter, Valve, Rear	3
154	43893	44927	46649	703307	43893	43893	O-Ring, Adapter, Valve, Front	3
159	26089	11377	46647	703244	26089	26089	O-Ring, Adapter, Valve, Front	3
164	44058	44058	44058	44058	44058	44058	Seat	6
165	44001	44928	46650	703309	44001	44001	O-Ring, Seat	6
166	543669	543669	543669	543669	543669	543669	Valve	6
167	44056	44056	44056	44056	44056	44056	Spring	6
168	44055	44055	44055	44055	44055	44055	Retainer, Spring	6

◆ Silicone oil/grease required

### ⚠ CAUTIONS AND WARNINGS

All high-pressure systems require a primary pressure regulating device (e.g. regulator, unloader) and a secondary pressure relief device (e.g. 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 online at [www.catpumps.com/literature/cat-pumps-limited-warranty](http://www.catpumps.com/literature/cat-pumps-limited-warranty)