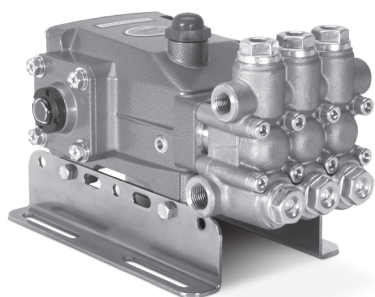


DATA SHEET

5CP PLUNGER PUMPS



Brass Model: **5CP3150CSS**
Gearbox Model: **5CP3150CSSG1**



Model 5CP3150CSS Shown
(Mounting rails sold separately)

FEATURES

- Triplex plunger design ensures high efficiency and low pulsation.
- Belt-driven option provide precise flow setting.
- Gearbox model available with 1" and 1½" hollow shaft fits a wide variety of engines.
- Direct-driven option offers a compact footprint for direct-drive motors with a NEMA or IEC frame, or SAE hydraulic motors with a bell housing/flexible coupler assembly.
- Pump comes standard with NBR seals. Alternative seal materials are available for higher temperature or chemical compatibility.

SPECIFICATIONS	U.S. Measure	Metric Measure
MODEL 5CP3150CSS		
Flow	5.2 gpm	19.7 lpm
Pressure Range	100–3000 psi	6.9–207 bar
Pump RPM*	1750 rpm	1750 rpm
Stroke	0.787"	20 mm
Weight	19.9 lbs	9 kg
Dimensions	10.90 x 8.90 x 5.75"	277 x 226 x 146 mm
MODEL 5CP3150CSSG1		
Flow	5.0 gpm	18.9 lpm
Pressure Range	100–3000 psi	6.9–207 bar
Engine RPM	3450 rpm	3450 rpm
Stroke	0.787"	20 mm
Weight	26.5 lbs	12 kg
Dimensions	11.0 x 12.7 x 6.4"	279 x 324 x 163 mm

*Pump minimum is 100 RPM.

COMMON

SPECIFICATIONS	U.S.	Metric
Inlet Pressure Range	-2.5 to 60 psi	-.2 to 4 bar
Max. Liquid Temp. (NBR)	160° F	71° C
Alternative seals available for higher temperatures up to 190° F		
Bore	0.630"	16 mm
Crankcase Capacity	17 oz	0.50 l
Inlet Ports (2)	½" NPT(F)	½" NPT (F)
Discharge Ports (2)	⅜" NPT (F)	⅜" NPT (F)
Shaft Diameter	0.787"	20 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)
HT	.3000	180° F	(82° C)
STHT	.3400	190° F	(88° C)

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

DETERMINING THE PUMP RPM	Rated gpm Rated rpm	=	Desired gpm Desired rpm
DETERMINING THE REQUIRED HP	Hp (Electric Brake)	=	gpm x psi 1460
DETERMINING MOTOR PULLEY SIZE	Motor Pulley OD Pump rpm	=	Pump Pulley OD Motor rpm

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

PARTS LIST

ITEM	PART NUMBER		DESCRIPTION	QTY
	5CP3150CSS			
	5CP3150CSSG1	MATL		
5	126542	STCP R	Screw, HHC, Sems (M8x16) (See Tech Bulletin 074)	8
8	46910	AL	Cover, Bearing	1-0
10	14028	NBR	O-Ring, Bearing Cover	2-1
11	43222	NBR	Seal, Oil, Crankshaft	1-0
15	14480	STL	Bearing, Ball	2
20	48742	TNM	Rod, Connecting Assembly (See Tech Bulletin 074)	3
25	49773	FCM	Crankshaft, Single-End (M20) (Models 5CP3150CSS, 5CP3150CSSG1)	1
30	49776	AL	Cover, Bearing	1
32	46798	—	Cap, Oil Filler, Domed	1
33	14179	NBR	O-Ring, Oil Filler Cap	1
37	92241	PC	Gauge, Oil, Bubble with Gasket	2
38	44428	NBR	Gasket, Flat, Oil Gauge	2
40	125824	STCP R	Screw, HHC, Sems (M6 x16)	4
48	25625	STCP	Plug, Drain (1/4" x 19 BSP)	1
49	23170	NBR	O-Ring, Drain Plug	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	3
75	43900	S	Slinger, Barrier	3
88	45697	S	Washer, Keyhole (M18 x 10)	3
90	46884	CC	Plunger (M16 x 50)	3
98	46730	NBR	Washer, Seal	3
99	† 48201	SS	Retainer, Plunger with Stud (M6)	3
100	46749	PVDF	Retainer, Seal	3
106	43316	NBR	Seal, Low-Pressure with S-Spring	3
120	46888	BB	Case, Seal	3
121	13978	NBR	O-Ring, Seal Case	3
127	43319	SNG	V-Packing	6
128	46618	NY	Adapter, Male	3
163	17547	NBR	O-Ring, Seat	6
164	45790	S	Seat	6
166	46429	S	Valve	6
167	43750	S	Spring	6
168	† 44565	PVDF	Retainer, Spring	6
172	142807	NBR	O-Ring, Valve Plug	6
173	48365	D	Backup Ring, Valve Plug	6
174	45900	BB	Plug, Valve (See Tech Bulletin 074)	6
185	46886	FBB	Manifold, Head	1
188	126513	STCP R	Screw, HSH (M8 x 70) (See Tech Bulletin 074)	8
500	8076	—	Gearbox (See Individual Data Sheet) (5CP3150CSSG1)	1

Bold print part numbers are unique to a particular pump model. † Production parts are different than repair parts.

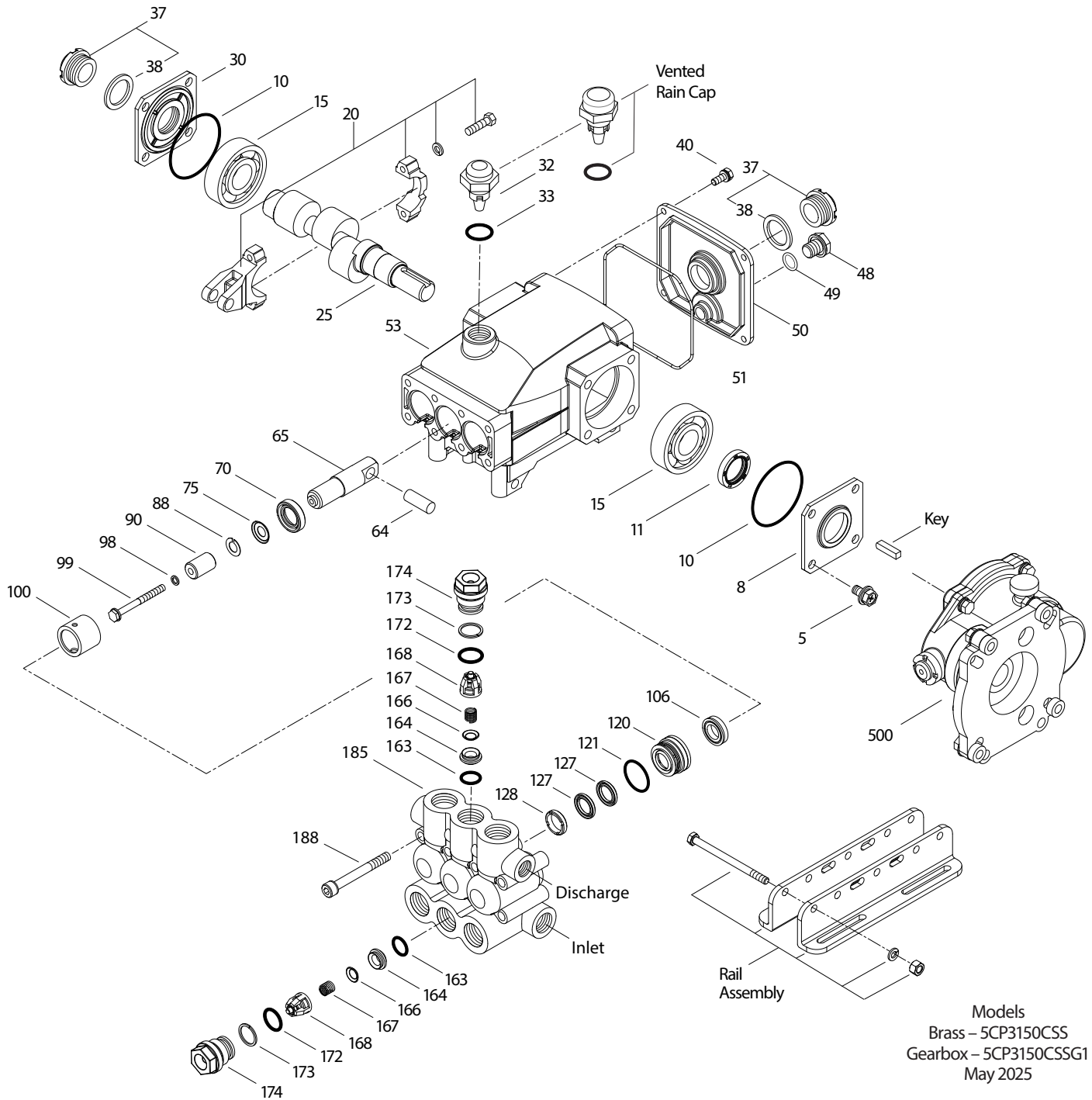
R Components comply with RoHS Directive. For additional technical information see www.catpumps.com/literature/tech-bulletins.

MATERIAL CODES (Not Part of Part Number): AL=Aluminum BB=Brass BBP=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) NY=Nylon PC=Polycarbonate PVDF=Polyvinylidene Fluoride S=304SS

SS=316SS SNG=Special Blend (Buna) ST2=Special Blend PTFE STHT=Special PTFE High Temp STL=Steel

STCP=Steel/Chrome Plated STZP=Steel/Zinc Plated TNM=Special High Strength

EXPLODED VIEW



Models
Brass – 5CP3150CSS
Gearbox – 5CP3150CSSG1
May 2025

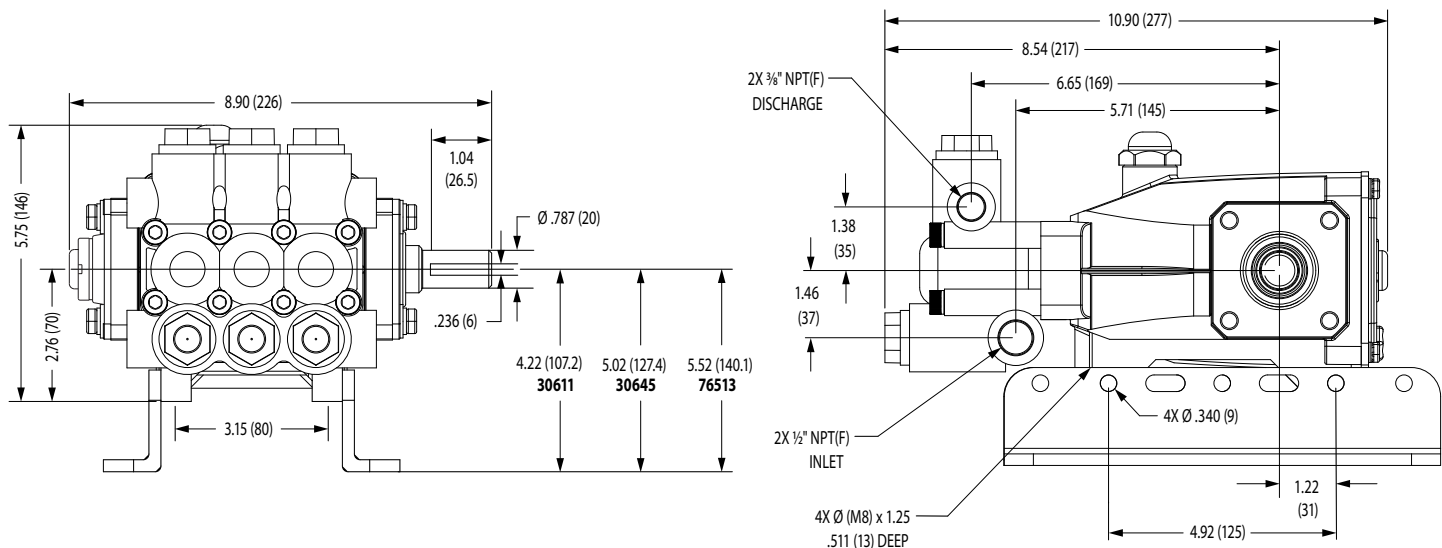
OPTIONAL PARTS AND ACCESSORIES

PART	DESCRIPTION	QTY
30057	Key(M6 x 6 x 25)	1
30611	Assembly, Rail (4.22" See Dimensional Drawing)	1
30645	Assembly, Rail (5.02" See Dimensional Drawing)	1
76513	Assembly, Rail (5.52" See Dimensional Drawing)	1
30637	Mount, Rail Assembly (Retro Fit – See Tech Bulletin 078)	1
30243	Mount, Direct	1
118672	Protector, Shaft	1
127409	Cap, Vented with O-Ring (Rain Cap)	1
34334	Kit, Oil Drain (3/8" x 24") (Not Shown)	1
22179	Plug, Inlet (1/2" NPT[M]) (Not Shown)	1
22187	Plug, Discharge (3/8" NPT[M]) (Not Shown)	1

SERVICE PARTS

PART	DESCRIPTION	QTY
33629	Seal Kit – Standard NBR	1
33060	Valve Kit – Standard NBR	2
6107	Oil, Bottle (21 oz bottle) (Fill to Specified Crankcase Capacity Prior to Start-up)	1
6124	Gasket, Liquid (3 oz)	1
30696	Reverse Pliers (Not Shown)	1
814843	Head, Complete – with NBR Seals and O-Rings	1

Kits – NBR, FPM (.0110), EPDM (.0220), HT (.3000), STHT (.3400) listed on page 4.



Model 5CP3150CSS

SEAL KITS

One (1) seal kit required per pump

PUMP MODELS	NBR (STD)	FPM (.0110)	EPDM (.0220) ◆	HT (.3000)	STHT (.3400)
5CP3150CSS, 5CP3150CSSG1	33629	31340 *	31730 *	31665	76556

ITEM (Included in Seal Kits)						DESCRIPTION	QTY
98	46730	48394	48432	46730	46730	O-Ring, Plunger Retainer	3
106	43316	106660	49134	43316	76316	Seal, Low-Pressure with S-Spring	3
120					46888	Case, Seal	3
121	13978	14329	48904	13978	13978	O-Ring, Seal Case	3
127	43319	46287	46287	46287	46287	V-Packing	6
128	46618	46618	46618	46618	46618	Adapter, Male	3

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

◆ Silicone oil/grease required

VALVE KITS

Two (2) valve kits required per pump

PUMP MODELS	NBR (STD)	FPM (.0110)	EPDM (.0220) ◆	HT (.3000)	STHT (.3400)
5CP3150CSS, 5CP3150CSSG1	33060	31345	31735	33060	33060

ITEM (Included in Valve Kits)						DESCRIPTION	QTY
163	17547	11685	46648	17547	17547	O-Ring, Seat	3
164	45790	45790	45790	45790	45790	Seat	3
166	46429	46429	46429	46429	46429	Valve	3
167	43750	43750	43750	43750	43750	Spring	3
168	44565	44565	44565	44565	44565	Retainer, Spring	3
172	142807	26996	49133	142807	142807	O-Ring, Valve Plug	3
173	48365	48365	48365	48365	48365	Backup Ring, Valve Plug	3

◆ 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 or can be requested directly from Cat Pumps.

WARRANTY

View the Limited Warranty online at www.catpumps.com/literature/cat-pumps-limited-warranty