

DATA SHEET

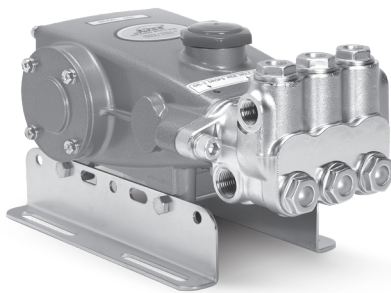
5 FRAME PLUNGER PUMPS



**Standard
Brass
30**

**Stainless
Steel
301**

**Stainless Steel
Flushed
301C**



Model 30 Shown
(Mounting rails sold separately)

FEATURES

- Triplex plunger design ensures high efficiency and low pulsation.
- Durable high-pressure seals are lubricated and cooled by pumped liquid.
- Pre-set low-pressure seals provide secondary protection against external leaks and require no packing adjustment.
- Pump comes standard with NBR seals. Alternative seal materials are available for higher temperature or chemical compatibility.

SPECIFICATIONS

	U.S. Measure	Metric Measure
Flow	3.2 gpm	12.1 lpm
Pressure Range	100–2200 psi	6.9–152 bar
Pump RPM*	1725 rpm	1725 rpm
Inlet Pressure Range	Flooded to 60 psi	Flooded to 4.1 bar
Standard Liquid Temp. (NBR)	160° F	71° C

Alternative seals available for higher temperatures up to 180° F

Bore	0.787"	20 mm
Stroke	0.315"	8 mm
Crankcase Capacity	18 oz	0.55 l
Inlet Ports (2)	½" NPT(F)	½" NPT(F)
Flush Ports (2)	⅛" NPT(F)	⅛" NPT(F)
Discharge Ports (2)	⅜" NPT(F)	⅜" NPT(F)
Shaft Diameter	0.787"	20 mm
Weight	20.1 lbs	9.1 kg
Dimensions	12.09 x 8.66 x 5.94"	307 x 220 x 151 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)
HT	.3000	180° F	(82° C)

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

ELECTRIC HORSEPOWER REQUIREMENTS

FLOW		PRESSURE								PUMP RPM
GPM	LPM	PSI	BAR	PSI	BAR	PSI	BAR	PSI	BAR	
		1200	83	1500	103	2000	138	2200	152	
		Horsepower								
3.2	12.1	2.6 hp		3.3 hp		4.4 hp		4.8 hp		1725

$$\text{DETERMINING THE PUMP RPM} \quad \frac{\text{Rated gpm}}{\text{Rated rpm}} = \frac{\text{Desired gpm}}{\text{Desired rpm}}$$

$$\text{DETERMINING THE REQUIRED HP} \quad \frac{\text{Hp (Electric Brake)}}{1460} = \frac{\text{gpm} \times \text{psi}}{1460}$$

$$\text{DETERMINING MOTOR PULLEY SIZE} \quad \frac{\text{Motor Pulley OD}}{\text{Pump rpm}} = \frac{\text{Pump Pulley OD}}{\text{Motor rpm}}$$

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

PARTS LIST

ITEM	PART NUMBER	MATL	PART NUMBER	MATL	DESCRIPTION	QTY
	30		301, 301C			
5	125824	STCP R	92538	S	Screw, HHC Sems (M6x16) (See Tech Bulletin 074)	8
8	43745	AL	43344	AL	Cover, Bearing	1
10	43343	NBR	43343	NBR	O-Ring, Cover, Bearing	2
11	43222	NBR	43222	NBR	Seal, Oil, Crankshaft	1
15	14480	STL	14480	STL	Bearing, Ball	2
20	45883	HS	45883	HS	Rod, Connecting	3
25	44923	FCM	44923	FCM	Crankshaft, Single-End (M8)	1
30	44944	AL	44949	AL	Cover, Blind Shaft	1
32	43211	ABS	43211	ABS	Cap, Oil Filler	1
33	14177	NBR	14177	NBR	O-Ring, Filler Cap	1
37	92241	PC	92241	PC	Gauge, Oil, Bubble with Gasket (See Tech Bulletin 074)	1
38	44428	NBR	44428	NBR	Gasket, Flat, Flexible	1
40	126541	STCP R	92542	S	Screw, HHC Sems (M6 x 20) (See Tech Bulletin 074)	4
48	25625	STCP	25625	STCP	Plug, Drain (1/4" x 19 BSP)	1
49	23170	NBR	23170	NBR	O-Ring, Drain Plug	1
50	48772	AL	48772	AL	Cover, Rear	1
51	48773	NBR	48773	NBR	O-Ring, Crankcase Cover	1
53	48774	AL	48769	AL	Crankcase	1
56	43355	POP	43355	POP	Oil, Pan	1
64	43351	CM	43351	CM	Pin, Crosshead	3
65	45908	ZZCP	45256	SSZZ	Rod, Plunger, Short	3
70	43228	NBR	43228	NBR	Seal, Oil, Crankcase	3
75	43328	S	43328	S	Slinger, Barrier	3
88	45697	S	45697	S	Washer, Keyhole (M18 x M10)	3
90	43367	CC	43367	CC	Plunger (M20 x 72)	3
95	126558	STCP R	89653	SS	Stud, Plunger Retainer (M6 x 64.5)	3
96	43235	PTFE	43235	PTFE	Backup Ring, Plunger Retainer	3
97	17399	NBR	17399	NBR	O-Ring, Plunger Retainer	3
98	45891	CU	44041	SS	Gasket	3
99	46504	S	44031	SS	Retainer, Plunger (M6) (See Tech Bulletin 074)	3
100	45688	PVDF	45688	PVDF	Retainer, Seal, 2-Piece	3
101	43302	—	43302	—	Wick, Long Tab	3
106	43305	NBR	—	—	Seal, Low-Pressure with S-Spring	3
	—	—	44127	NBR	Seal, Low-Pressure with SS-Spring	3
120	45679	BB	45680	SS	Case, Seal (See Tech Bulletin 074)	3
121	14200	NBR	14200	NBR	O-Ring, Seal Case	3
125	43307	SNG	—	—	Seal, High-Pressure with S-Support	3
	—	—	44649	SNG	Seal, High-Pressure with SS-Support	3
162	48361	D	48361	D	Backup Ring, Seat	6
163	43358	NBR	43358	NBR	O-Ring, Seat	6
164	43725	S	44128	SS	Seat	6
166	43723	S	543669	SS	Valve	6
167	43750	S	44056	SS	Spring	6
168	44565	PVDF	44565	PVDF	Retainer, Spring	6
171	—	—	44832	S	Spring, Coil (Not Shown)	6
172	49382	NBR	49382	NBR	O-Ring, Valve Plug	6
174	46756	BB	49296	SS	Plug, Valve (See Tech Bulletin 074)	6
185	44837	BBCP	45151	SS	Head, Manifold	1
	—	—	49583	SS	<i>Head, Manifold, Flushed</i>	1
186	—	—	15847	S	Lockwasher (M10)	1
188	126520	STCP R	87950	S	Screw, HSH Sems (M10 x 35) (See Tech Bulletin 074)	2

Italics are optional items.

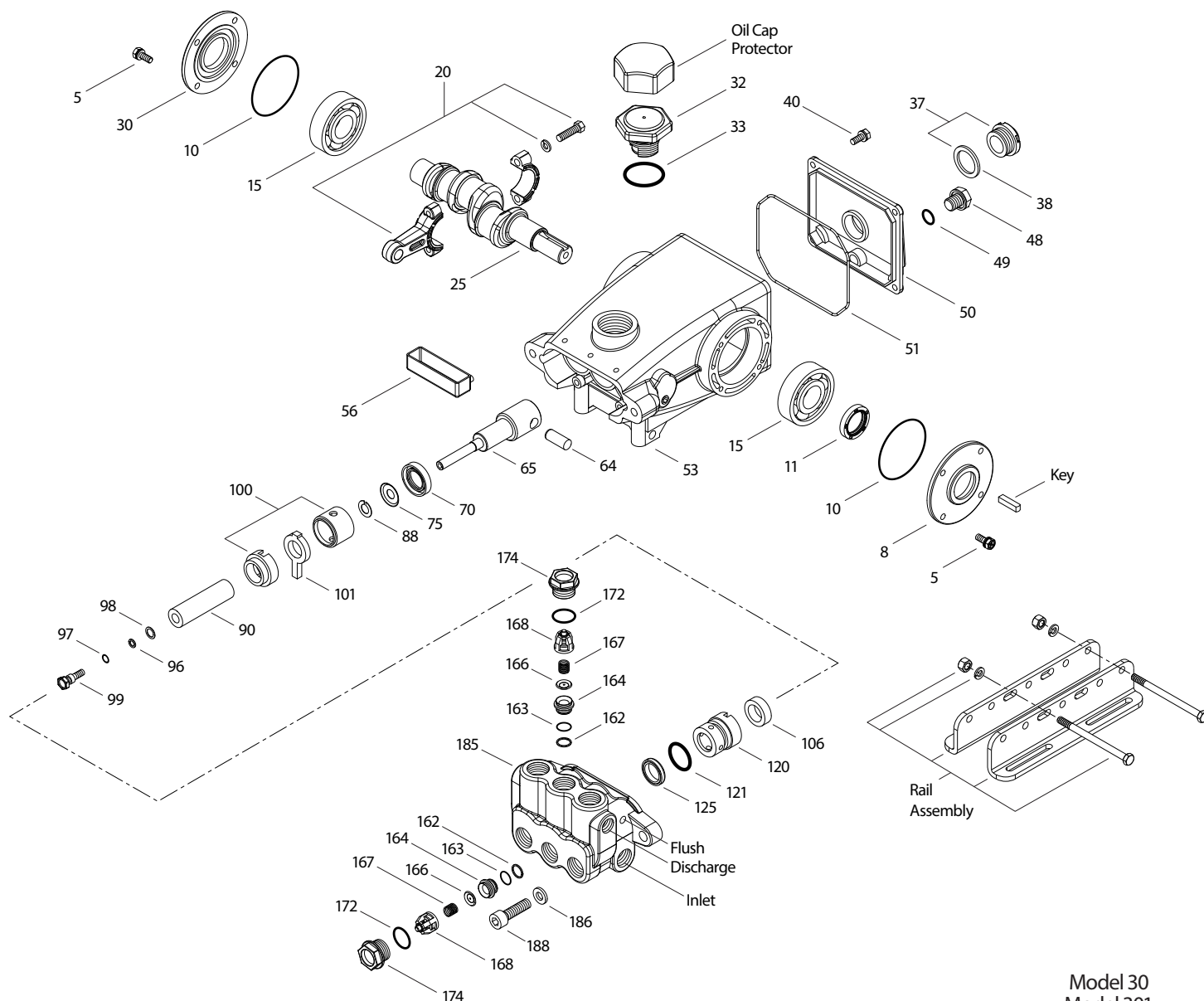
Bold print part numbers are unique to a particular pump model.

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

MATERIAL CODES (Not Part of Part Number): ABS=ABS Plastic AL=Aluminum BB=Brass BBCP=Brass/Chrome Plated CC=Ceramic CM=Chrome-Moly CU=Copper D=Acetal EPDM=Ethylene Propylene Diene Monomer FCM=Forged Chrome-moly FPM=Fluorocarbon HS=High Strength HT=High Temp NBR=Medium Nitrile (Buna-N) PC=Polycarbide POP=Polypropylene PTFE=Pure Polytetrafluoroethylene PVDF=Polyvinylidene Fluoride S=304SS SNG=Special Blend (Buna) SS=316SS STL=Steel STCP=Steel/Chrome Plated STZP=Steel/Zinc Plated ZZCP=Zamak/Chrome Plated

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

EXPLODED VIEW



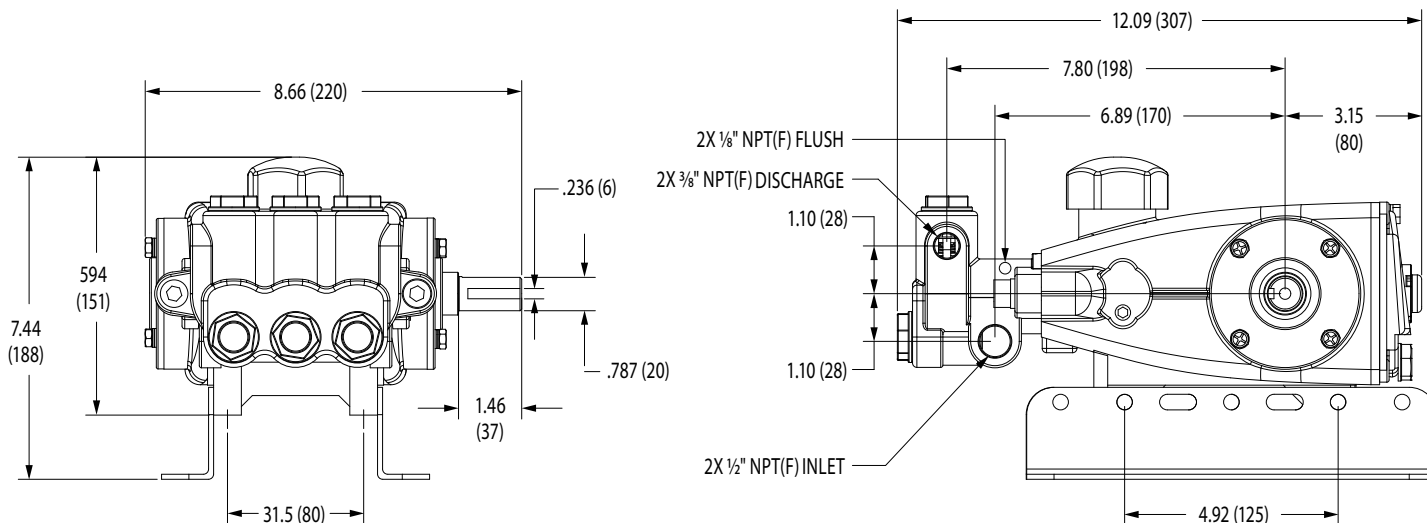
Model 30
Model 301
Model 301C
January 2026

OPTIONAL PARTS AND ACCESSORIES

PART	DESCRIPTION	QTY
30057	Key (M6 x 6 x 25)	1
30659	Kit, Complete Mounting	1
30611	Mount, Rail Assembly (Belt Drive Only)	1
30243	Mount, Direct (Belt Drive Only)	1
828710	Protector, Oil Cap	1
30633	Assembly, Pulley & Key (Not Shown)	1
30944	Assembly, Hub & Key (Not Shown)	1
34334	Kit, Oil Drain (3/8" x 24") (Not Shown)	1

SERVICE PARTS

PART	DESCRIPTION	QTY
30623	Kit, Seal – Standard NBR (Model 30)	1
34153	Kit, Seal – Standard NBR (Models: 301, 301C)	2
30821	Kit, Valve – Standard NBR (Model 30)	2
31152	Kit, Valve – Standard NBR (Models: 301, 301C)	2
6107	Oil, Bottle (21 oz) (Fill to Specific Crankcase Capacity Prior to Start-up)	1
6139	Lubricate, Anti-Seize (8 oz) (See Tech Bulletin 095)	1
30696	Reverse Pliers (Not Shown)	1
33004	Socket, Seal Case (1/2" Drive) (Not Shown)	1
810027	Head, Complete with NBR Seals & O-Rings (Model 30)	1
812207	Head, Complete with NBR Seals & O-Rings (Model 301)	1
818444	Head, Complete With NBR Seals & O-Rings (Model 301C)	1



SEAL KITS

One (1) seal kit required per pump

PUMP MODELS	NBR (STD)	FPM (.0110)	EPDM (.0220) ♦	HT (.3000)
30	30623	34155	31163	33623
301, 301C	34153	34155	31163	33623

ITEM (Included in Seal Kits)					DESCRIPTION	QTY
97	17399	14160	46204	17399	O-Ring, Plunger Retainer	3
101	43302	43302	43302	43302	Wick, Long Tab	3
106	43305	45153	48429	43305	Seal, Low-Pressure with S-Spring (Model 30)	3
	44127	45153	48429	43305	Seal, Low-Pressure with SS-Spring (Models: 301, 301C)	3
112	14200	11719	48907	14200	O-Ring, Seal Case	3
125	43307	44936	—	—	Seal, High-Pressure with S-Support (Model 30)	3
	44649	44936	—	—	Seal, High-Pressure with SS-Support (Models: 301, 301C)	3
	—	—	46667	46667	Seal, High-Pressure with 2-Piece Support	3

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

♦ Silicone oil/grease required

VALVE KITS

Two (2) valve kits required per pump

PUMP MODELS	NBR (STD)	FPM (.0110)	EPDM (.0220) ♦	HT (.3000)
30	30821	31821	31162	30821
301, 301C	31152	34152	76148	31152

ITEM (Included in Valve Kits)					DESCRIPTION	QTY
162	48361	48361	48361	48361	Backup Ring, Seat	3
163	43358	44938	48908	43358	O-Ring, Seat	3
164	43725	—	—	43725	Seat (Model 30)	3
	—	44128	44128	—	Seat (Models: 301, 301C)	3
166	43723	—	—	43723	Valve (Model 30)	3
	—	543669	543669	—	Valve (Models: 301, 301C)	3
167	43750	—	—	43750	Spring (Model 30)	3
	—	44056	44056	—	Spring (Models: 301, 301C)	3
168	44565	44565	44565	44565	Retainer, Spring	3
171	44832	44832	44832	44832	Spring, Coil (Models: 301, 301C Only)	3
172	49382	15855	48431	49382	O-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