

# DATA SHEET

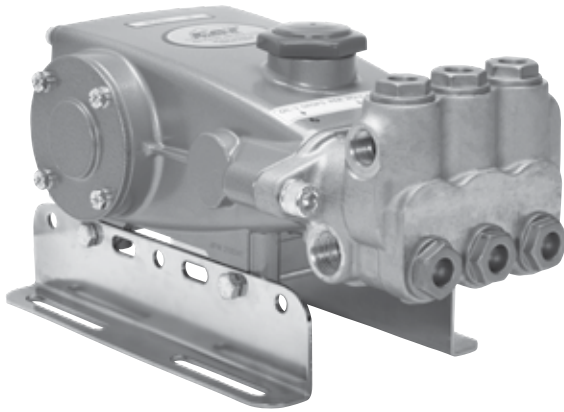
## 5 FRAME PLUNGER PUMP



**Standard  
Brass  
30**

**Stainless  
Steel  
301**

**Stainless Steel  
Flushed  
301C**



Model 30 Shown  
(Rails sold separately)

SPECIFICATIONS	U.S. Measure	Metric Measure
Flow	3.2 gpm	12.1 lpm
Pressure Range	100 to 2200 psi	6.9 to 152 bar
Pump RPM*	1725 rpm	1725 rpm
Inlet Pressure Range	Flooded to 60 psi	Flooded to 4.1 bar
Max. Liquid Temperature	160° F	71° C
Above 130°F call Cat Pumps for inlet conditions and elastomer recommendations.		
Bore	0.787"	20 mm
Stroke	0.315"	8 mm
Crankcase Capacity	18 oz.	0.55 l
Inlet Ports (2)	1/2" NPT(F)	1/2" NPT(F)
Flush Ports (2)	1/8" NPT(F)	1/8" NPT(F)
Discharge Ports (2)	3/8" NPT(F)	3/8" 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.

### FEATURES

- Triplex design offers high efficiency and low pulsation.
- Durable high pressure seals are lubricated and cooled by pumped liquid.
- Pre-set Lo-Pressure Seals provide secondary protection against external leaks and require no packing adjustment.
- Standard NBR seals with alternative options for temperature and chemical compatibility
  - FPM – .0110
  - High Temp, 190°F – .3000

### ELECTRIC HORSEPOWER REQUIREMENTS

FLOW		PRESSURE				RPM
		psi 1200 bar 83	psi 1500 bar 103	psi 2000 bar 138	psi 2200 bar 152	
gpm	lpm					
3.2	12.1	2.6	3.3	4.4	4.8	1725

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

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

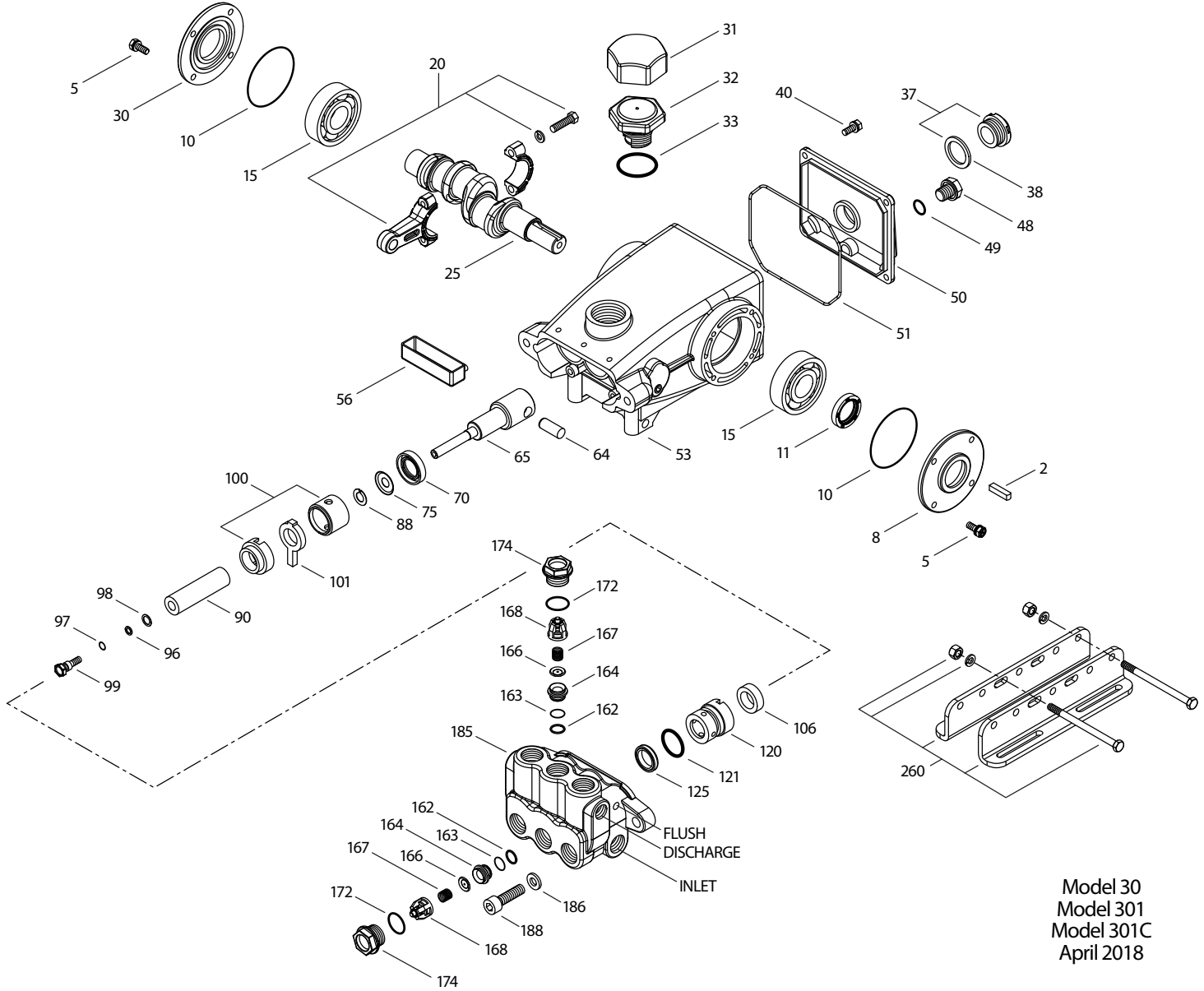
$$\frac{\text{Motor Pulley O.D.}}{\text{Pump rpm}} = \frac{\text{Pump Pulley O.D.}}{\text{Motor rpm}}$$

See complete Drive Packages [Includes: pulleys, belts, hubs, key] Tech Bulletin 003.  
Refer to pump **Service Manual** for repair procedure and additional technical information.

# PARTS LIST

ITEM	PART NUMBER	MATL	PART NUMBER	MATL	DESCRIPTION	QTY
	<b>30</b>		<b>301, 301C</b>			
2	30057	STL	30057	STL	Key (M6x6x25)	1
5	<b>125824</b>	STCP R	<b>92538</b>	S	Screw, HHC Sems (M6x16)	8
8	<b>43745</b>	AL	<b>43344</b>	AL	Cover, Bearing	1
10	43343	NBR	43343	NBR	O-Ring, Bearing Case - 70D	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, Assy	3
25	44923	FCM	44923	FCM	Crankshaft, Single End (M8)	1
30	<b>44944</b>	AL	<b>44949</b>	AL	Cover, Blind Shaft	1
31	828710	—	828710	—	Protector, Oil Cap w/Foam Gasket	1
32	43211	ABS	43211	ABS	Cap, Oil Filler	1
33	14177	NBR	14177	NBR	O-Ring, Filler Cap - 70D	1
37	92241	—	92241	—	Gauge, Oil, Bubble w/Gasket - 80D	1
38	44428	NBR	44428	NBR	Gasket, Flat, Oil Gauge - 80D	1
40	<b>126541</b>	STCP R	<b>92542</b>	S	Screw, HHC Sems (M6x20)	4
48	25625	STCP	25625	STCP	Plug, Drain (1/4"x19BSP)	1
49	23170	NBR	23170	NBR	O-Ring, Drain Plug - 70D	1
50	48772	AL	48772	AL	Cover, Rear (See Tech Bulletin 090)	1
51	48773	NBR	48773	NBR	O-Ring, Crankcase Cover (See Tech Bulletin 090)	1
53	<b>48774</b>	AL	<b>48769</b>	AL	Crankcase (See Tech Bulletin 090)	1
56	43355	POP	43355	POP	Pan, Oil	1
64	43351	CM	43351	CM	Pin, Crosshead	3
65	<b>45908</b>	ZZCP	<b>45256</b>	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 (M18xM10)	3
90	43367	CC	43367	CC	Plunger (M20x72)	3
95	<b>126558</b>	STCP R	<b>89653</b>	SS	Stud, Plunger Retainer (M6x64.5)	3
96	43235	PTFE	43235	PTFE	Back-up-Ring, Plunger Retainer	3
97	17399	NBR	17399	NBR	O-Ring, Plunger Retainer - 80D	3
	14160	FPM	14160	FPM	O-Ring, Plunger Retainer - 80D	3
	◆ 46204	EPDM	◆ 46204	EPDM	O-Ring, Plunger Retainer - 70D	3
98	<b>45891</b>	CU	<b>44041</b>	SS	Gasket	3
99	<b>46504</b>	S	<b>44031</b>	SS	Retainer, Plunger (M6)	3
100	45688	PVDF	45688	PVDF	Retainer, Seal, 2-Pc (See Tech Bulletin 105)	3
101	43302	—	43302	—	Wick, Long Tab	3
106	<b>43305</b>	NBR	<b>44127</b>	NBR	Seal, LPS w/S-Spg (Model 30), w/SS-Spg (Models 301, 301C)	3
	45153	FPM	45153	FPM	Seal, LPS w/SS-Spg	3
	◆ 48429	EPDM	◆ 48429	EPDM	Seal, LPS w/SS-Spg	3
120	<b>45679</b>	BB	<b>45680</b>	SS	Case, Seal	3
121	14200	NBR	14200	NBR	O-Ring, Seal Case - 70D	3
	11719	FPM	11719	FPM	O-Ring, Seal Case	3
	◆ 48907	EPDM	◆ 48907	EPDM	O-Ring, Seal Case	3
125	<b>43307</b>	SNG	<b>44649</b>	SNG	Seal, HPS w/S (Model 30), w/SS (Models 301, 301C)	3
	44936	FPM	44936	FPM	Seal, HPS w/SS	3
	46667	HT	46667	HT	Seal, HPS 2-Pc w/S-Support, Hi-Temp	3
162	48361	D	48361	D	Back-up-Ring, Seat	6
163	43358	NBR	43358	NBR	O-Ring, Seat - 70D	6
	44938	FPM	44938	FPM	O-Ring, Seat - 70D	6
	◆ 48908	EPDM	◆ 48908	EPDM	O-Ring, Seat	6
164	<b>43725</b>	S	<b>44128</b>	SS	Seat	6
166	<b>43723</b>	S	<b>44057</b>	SS	Valve	6
167	<b>43750</b>	S	<b>44056</b>	SS	Spring	6
168	44565	PVDF	44565	PVDF	Retainer, Spring	6
171	—	—	44832	S	Spring, Coil (Not Shown)	6
172	17615	NBR	17615	NBR	O-Ring, Valve Plug - 75D	6
	15855	FPM	15855	FPM	O-Ring, Valve Plug - 70D	6
	◆ 48431	EPDM	◆ 48431	EPDM	O-Ring, Valve Plug - 75D	6
174	<b>46756</b>	BB	<b>49296</b>	SS	Plug, Valve	6
185	<b>44837</b>	BBCP	<b>45151</b>	SS	Head, Manifold	1
	—	—	<b>49583</b>	SS	Head, Manifold - Flushed	1
186	—	—	<b>15847</b>	S	Lockwasher (M10)	1
188	<b>126520</b>	STCP R	<b>87950</b>	S	Screw, HSH Sems (M10x35)	2
255	30243	STZP	30243	STZP	Mount Kit, Direct	1
260	30611	STZP	30611	STZP	Rail Mounting, Angle - B	1
270	30633	STL	30633	STL	Pulley & Key Assy (Incls: 30058, 30057)	1
275	30944	STL	30944	STL	Hub & Key Assy (Incls: 30945, 300057)	1
283	34334	—	34334	—	Kit, Oil Drain	1

# EXPLODED VIEW



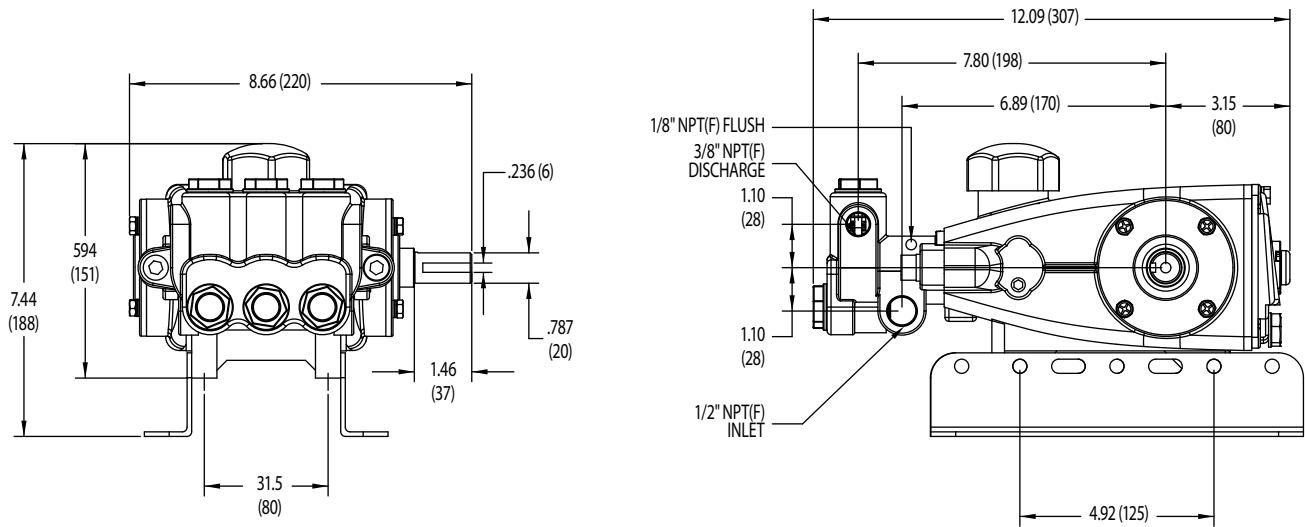
Model 30  
Model 301  
Model 301C  
April 2018

ITEM	PART NUMBER	MATL	PART NUMBER	MATL	DESCRIPTION	QTY
	<b>30</b>		<b>301, 301C</b>			
299	<b>810027</b>	BBCP	<b>812207</b>	SS	Head, Complete w/NBR Seals and O-Rings	1
			<b>818444</b>	SS	Head, Complete-Flushed (Model 301C w/NBR Seals and O-Rings)	1
300	<b>30623</b>	NBR	<b>34153</b>	NBR	Kit, Seal (Incls: 97,101,106,121,125) <b>Standard</b>	1
	34155	FPM	34155	FPM	Kit, Seal (Incls: 97,101,106,121,125) <b>.0110</b>	1
	33623	HT	33623	HT	Kit, Seal (Incls: 97,101,106,121,125) <b>.3000</b>	1
	◆ 31163	EPDM*	◆ 31163	EPDM*	Kit, Seal (Incls: 97,101,106,121,125) <b>.0220</b>	1
310	<b>30821</b>	NBR	<b>31152</b>	NBR	Kit, Valve (Incls: 162,163,164,166,167,168,172) <b>Standard</b>	2
	<b>31821</b>	FPM	<b>34152</b>	FPM	Kit, Valve pre-assembled (Incls: 162-164,166-168,171,172) <b>.0110</b>	2
350	30696	STZP	30696	STZP	Plier, Reverse	1
351	33004	STZP	33004	STZP	Seal Case Socket, 1/2" Drive	1
—	6107	—	6107	—	Oil, Bottle (21 oz.) ISO 68 Hydraulic (Fill to specified crankcase capacity prior to start-up)	1
—	—	—	<b>6119</b>	—	Lubricant, Antiseize (2 oz.) (See Tech Bulletin 095)	1

**Bold print part numbers are unique to a particular pump model. Italics are optional items.** R Components comply with RoHS Directive. ◆ Silicone oil/grease required.

[ ] Date of latest production change. See Tech Bulletins 002, 003, 024, 036, 074, 083, 090 and 105 for additional information.

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) 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




**⚠ 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](http://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](http://www.catpumps.com/warranty).

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