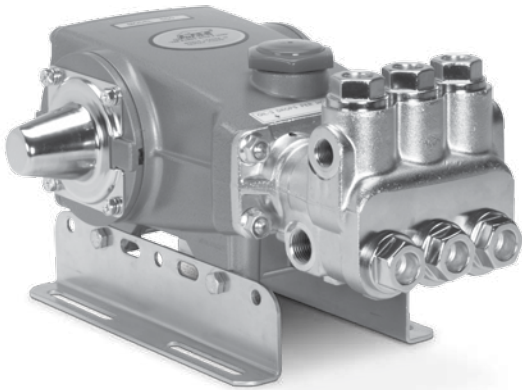


DATA SHEET

7 FRAME PLUNGER PUMP



Brass Models: 530, 550



Model 550 Shown
(Mounting rails and shaft protector sold separately)

FEATURES

- Triplex design delivers high efficiency and low pulsation.
- Durable V-Packings (model 550) or High-Pressure Seals (model 530) are lubricated and cooled by the liquid being pumped.
- Pre-set Lo-Pressure Seals provide secondary protection against external leaks and require no packing adjustment.
- Special high-density, polished, concentric plungers provide a true wear surface and extended seal life.
- Standard NBR seals with alternative options for temperature and chemical compatibility
 - FPM – .0110
 - High Temp, 200°F – .3000

COMMON SPECIFICATIONS

	U.S.	Metric
Inlet Pressure Range	Flooded to 60 psi	Flooded to 4.1 bar
Crankcase Capacity	25 oz.	1.75 l
Max. Liquid Temperature	160° F	71° C
Above 130°F call Cat Pumps for inlet conditions and elastomer recommendations.		
Inlet Ports (2)	1/2" NPT(F)	1/2" NPT(F)
Discharge Port (2)	3/8" NPT(F)	3/8" NPT(F)
Shaft Diameter	0.945"	24 mm
Weight	25.5 lbs	11.5 kg
Dimensions	13.70 x 9.61 x 5.95"	348 x 244 x 151 mm

SPECIFICATIONS

	U.S. Measure	Metric Measure
530		
Flow	5.0 gpm	19 lpm
Pressure Range	100 to 2500 psi	6.9 to 172 bar
Pump RPM*	1100 rpm	1100 rpm
Bore	0.708"	18 mm
Stroke	0.945"	24 mm
550		
Flow	5.0 gpm	19 lpm
Pressure Range	100 to 3000 psi	6.9 to 207 bar
Pump RPM*	1415 rpm	1415 rpm
Bore	0.630"	16 mm
Stroke	0.945"	24 mm

*Pump minimum is 100 RPM.

ELECTRIC HORSEPOWER REQUIREMENTS

MODELS	FLOW		PRESSURE				RPM
			psi 1800	psi 2150	psi 2500	psi 3000	
	gpm	lpm	bar 124	bar 148	bar 172	bar 207	
530	5.0	19.0	6.2	7.4	8.6	N/A	1100
	4.5	17.0	5.6	6.6	7.7	N/A	990
	4.0	15.0	5.0	5.9	6.9	N/A	880
550	5.0	19.0	6.2	7.4	8.6	10.3	1415
	4.0	15.0	5.0	5.9	6.9	8.3	1130
	3.0	11.4	3.7	4.4	5.2	6.2	850

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.

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

DETERMINING MOTOR PULLEY SIZE

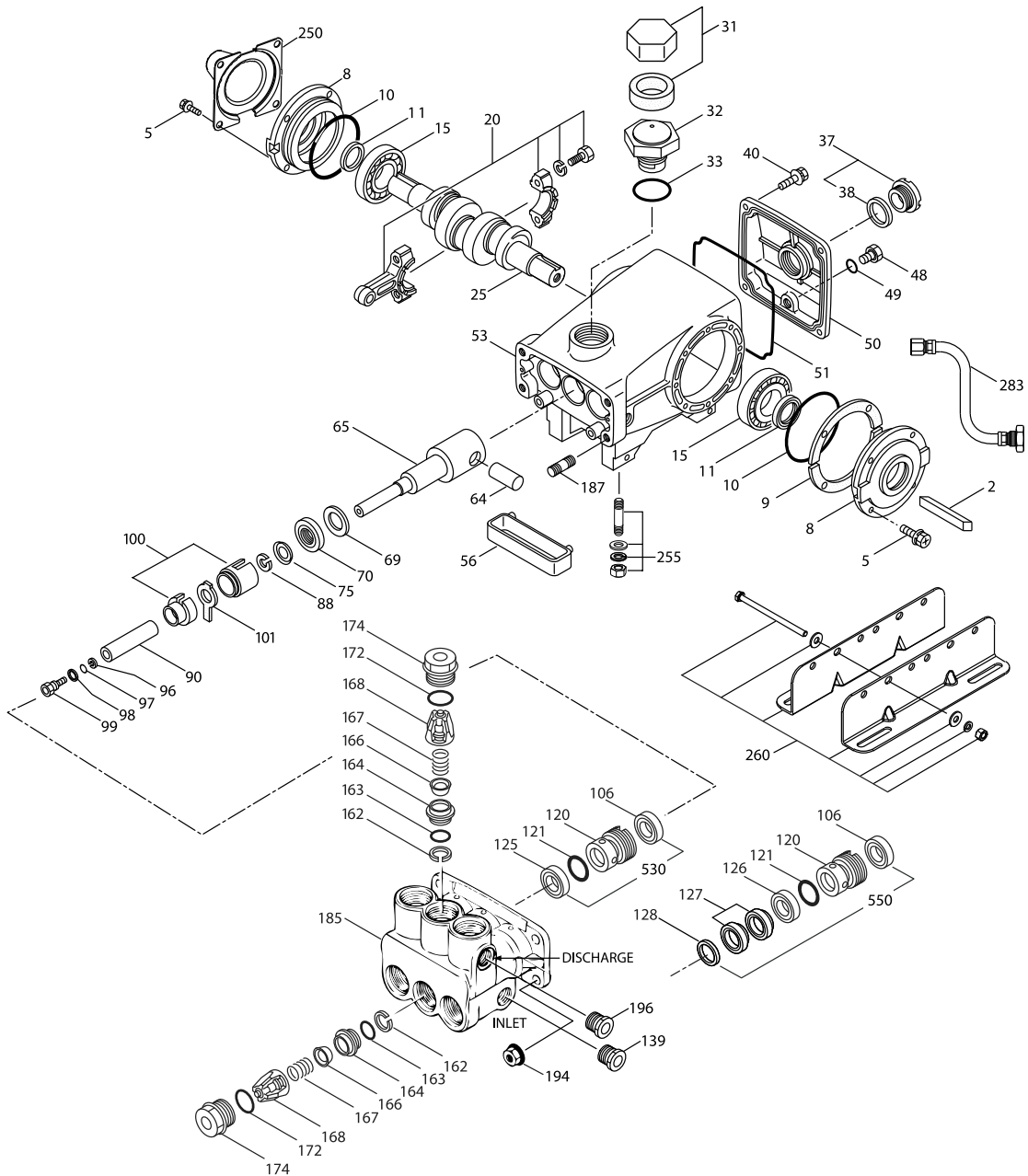
$$\frac{\text{Motor Pulley O.D.}}{\text{Pump rpm}} = \frac{\text{Pump Pulley O.D.}}{\text{Motor rpm}}$$

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
	530		550			
2	30067	STL	30067	STL	Key (M8x7.5x25)	1
5	125824	STCP R	125824	STCP R	Screw, HHC, Sems (M6x16)	8
8	43223	AL	43223	AL	Cover, Bearing	2
9	815280	FBR	815280	FBR	Shim, Split, 2-Pc	1
10	12393	NBR	12393	NBR	O-Ring, Bearing Cover	2
11	43222	NBR	43222	NBR	Seal, Oil, Crankshaft	2
15	43221	STL	43221	STL	Bearing, Roller	2
20	48863	TNM	48863	TNM	Rod, Assy, Connecting [6/02]	3
25	43220	FCM	43220	FCM	Crankshaft, Dual End (M24)	1
31	828710	PE	828710	PE	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	125824	STCP R	125824	STCP R	Screw, HHC Sems (M6x16) (See Tech Bulletin 106)	4
48	25625	STCP	25625	STCP	Plug, Drain (1/4"x19BSP)	1
49	23170	NBR	23170	NBR	O-Ring, Drain Plug - 70D	1
50	127701	AL	127701	AL	Cover, Rear (M6x16) (See Tech Bulletin 106)	1
51	14047	NBR	14047	NBR	O-Ring, Rear Cover - 70D (M6x16) (See Tech Bulletin 106)	1
53	127698	AL	127698	AL	Crankcase (M10) (M6x16) (See Tech Bulletin 106)	1
56	43240	POP	43240	POP	Pan, Oil	1
64	43237	CM	43237	CM	Pin, Crosshead	3
65	43229	ZZCP	43229	ZZCP	Rod, Plunger	3
69	126589	STCP R	126589	STCP R	Washer, Oil Seal	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	43232	CC	43311	CC	Plunger (M18x77 and M16x77)	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 - 70D	3
98	45891	CU	45891	CU	Gasket, Plunger Retainer	3
99	104360	S	104360	S	Retainer, Plunger w/Stud (See Tech Bulletin 045)	3
100	45689	PVDF	45689	PVDF	Retainer, Seal, 2-Pc (See Tech Bulletin 105)	3
101	43239	—	43313	—	Wick, Long Tab	3
106	43243	NBR	43316	NBR	Seal, LPS w/S-Spg	3
	44926	FPM	—	—	Seal, LPS w/SS-Spg	3
	—	—	106660	FPM	Seal, LPS w/S-Spg	3
120	45683	BB	45684	BB	Case, Seal	3
121	20285	NBR	20285	NBR	O-Ring, Seal Case - 70D	3
	11693	FPM	11693	FPM	O-Ring, Seal Case	3
125	43245	SNG	—	—	Seal, HPS w/S	3
	44925	FPM	—	—	Seal, HPS w/SS	3
126	—	—	43320	BB	Adapter, Female	3
127	—	—	43319	SNG	V-Packing	6
	—	—	46287	HT	V-Packing	6
128	—	—	43318	BB	Adapter, Male	3
139	22179	BBCP	22179	BBCP	Plug [1/2" NPT(M)]	1
162	43248	PTFE	43248	PTFE	Back-up-Ring, Seat	6
163	43249	NBR	43249	NBR	O-Ring, Seat - 80D	6
	44383	FPM	44383	FPM	O-Ring, Seat - 70D	6
164	43722	S	43722	S	Seat, Q.V.	6
166	43721	S	43721	S	Valve, Q.V.	6
167	43751	S	43751	S	Spring, Q.V.	6
168	44564	PVDF	44564	PVDF	Retainer, Spring	6
172	17617	NBR	17617	NBR	O-Ring, Valve Plug - 90D	6
	11691	FPM	11691	FPM	O-Ring, Valve Plug - 90D	6
174	43851	BBCP	43851	BBCP	Plug, Valve	6
185	45417	BBCP	45547	BBCP	Head, Manifold (M10F)	1
187	46868	S	46868	S	Stud, Manifold (M10x35)	4
194	126567	STCP R	126567	STCP R	Nut, Flanged (M10)	4
196	43633	BB	43633	BB	Plug, Discharge [3/8" NPT(M)]	1
250	43256	STCP	43256	STCP	Protector, Shaft	1
255	30243	STZP	30243	STZP	Kit, Direct Mounting	1
260	30645	STZP R	30645	STZP R	Rail, Angle, Assy A-U.S. (2.95")	1
	30611	STZP R	30611	STZP R	Rail, Angle, Assy B-U.S. (2.09")	1
265	30660	—	30660	—	Kit, Mounting (Incls: 30645, 30206, 33000, 30067, 43256)	1
269	30206	F	30206	F	Pulley (10") (See Tech Bulletin 003)	1
274	33000	STL	33000	STL	Hub "H", M24 (Keyway M8) (See Tech Bulletin 003)	1

EXPLODED VIEW



Models
530, 550
June 2017

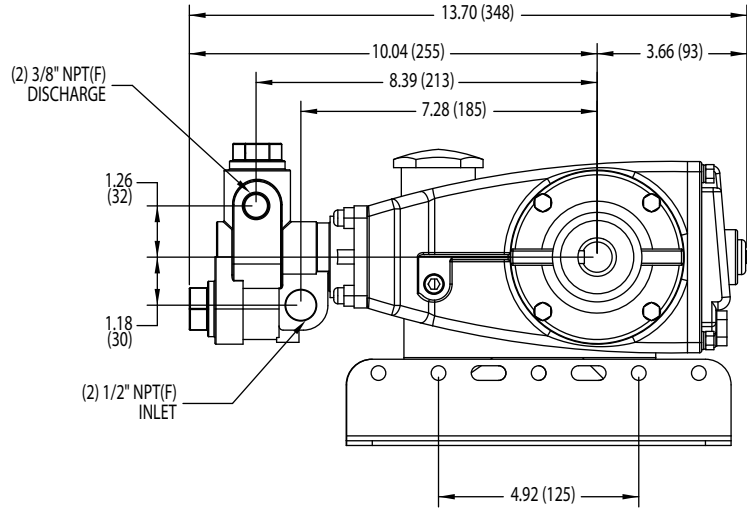
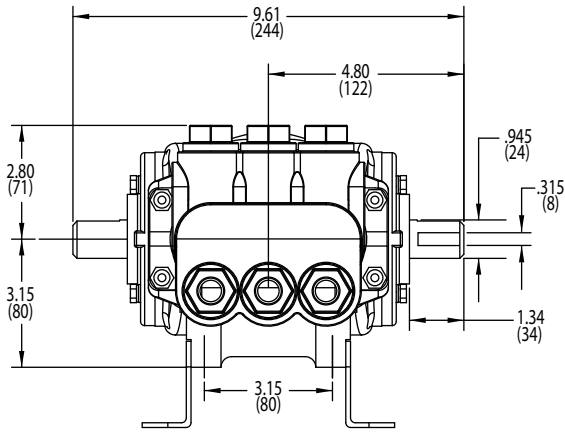
ITEM	PART NUMBER	MATL	PART NUMBER	MATL	DESCRIPTION	QTY
283	34334	—	34334	—	Kit, Oil Drain	1
299	812183	BBCP	812184	BBCP	Head, Complete w/NBR Seals and O-Rings	1
300	30488	NBR	30610	NBR	Kit, Seal (Incls: 97, 101, 106, 121, 125 or 127) Standard	1
—	—	—	32936	FPM	Kit, Seal (Incls: 97, 101, 106, 121, 127) .0110	1
—	—	—	31610	HT	Kit, Seal, HT (Incls: 97, 101, 106, 121, 127) .3000	1
310	30820	NBR	30820	NBR	Kit, Valve, Quiet Valve (Incls: 162-164, 166, 167, 168, 172) Standard	2
—	31820	NBR	31820	NBR	Kit, Valve, Flat Valve (Incls: 162-164, 166, 167, 168, 172) Standard	2
—	31263	FPM	31263	FPM	Kit, Valve (Incls: 162-164, 166, 167, 168, 172) .0110	2
350	30696	STZP	30696	STZP	Plier, Reverse	1
351	43257	STZP	43257	STZP	Tool, Seal Case Removal	1
352	44050	STZP	44050	STZP	Tool, Oil Gauge Removal	1
—	6107	—	6107	—	Oil, Bottle (21 oz.) ISO 68 Hydraulic (Fill tp specified crankcase capacity prior to start-up)	1-2

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

[] Date of latest production change. R Components comply with RoHS Directive

Refer to Tech Bulletins 002, 003, 024, 027, 035, 036, 043, 045, 051, 053, 054, 074, 083, 105 and 106 for additional information.

MATERIAL CODES (Not Part of Part Number): AL=Aluminum ABS=ABS Plastic BB=Brass BBCP=Brass/Chrome Plated CC=Ceramic CM=Chrome-Moly CU=Copper F=Cast Iron FBR=Fiber
FCM=Forged Chrome-moly FPM=Fluorocarbon HT=Hi-Temp NBR=Medium Nitrile (Buna-N) PE=Ployethylene POP=Polypropylene PTFE=Pure Polytetrafluoroethylene
PVDF=Polyvinylidene Fluoride S=304SS SNG=Special Blend (Buna) STCP=Steel/Chrome Plated STL=Steel STZP=Steel/Zinc Plated TNM=Special High Strength 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 or can be requested directly from Cat Pumps.

WARRANTY

View the Limited Warranty on-line at www.catpumps.com/warranty.



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