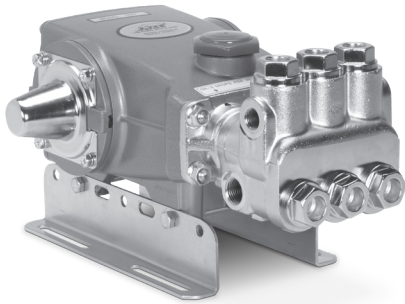


# DATA SHEET

## 7 FRAME PLUNGER PUMPS



**Brass Models: 530, 550**



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

### FEATURES

- Triplex design offers 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 low-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.
- Pump comes standard with NBR seals. Alternative seal materials are available for higher temperature or chemical compatibility.

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

\*Pump minimum is 100 RPM.

### COMMON

SPECIFICATIONS	U.S.	Metric
Inlet Pressure Range	Flooded to 60 psi	Flooded to 4.1 bar
Crankcase Capacity	25 oz	.75 l
Max. Liquid Temperature	160° F	71° C

### Alternative seals available for higher temperatures up to 180° F

Inlet Ports (2)	½" NPT(F)	½" NPT(F)
Discharge Port (2)	¾" NPT(F)	¾" 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

### ALTERNATIVE SEAL CONFIGURATION

MATERIAL	SUFFIX CODE	MAXIMUM TEMPERATURE	
NBR	—	160° F	(71° C)
FPM	.0110	180° F	(82° C)
HT	.3000	180° F	(82° C)

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

$$\begin{aligned} \text{DETERMINING THE PUMP RPM} & \quad \frac{\text{Rated gpm}}{\text{Rated rpm}} = \frac{\text{Desired gpm}}{\text{Desired rpm}} \\ \text{DETERMINING THE REQUIRED HP} & \quad \text{hp} = \frac{\text{gpm} \times \text{psi}}{1460} \\ \text{DETERMINING MOTOR PULLEY SIZE} & \quad \frac{\text{Motor Pulley OD}}{\text{Pump rpm}} = \frac{\text{Pump Pulley OD}}{\text{Motor rpm}} \end{aligned}$$

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

# PARTS LIST

ITEM	PART NUMBER	MATL	PART NUMBER	MATL	DESCRIPTION	QTY
	<b>530</b>		<b>550</b>			
5	125824	STCP R	125824	STCP R	Screw, HHC, Sems (M6 x 16) (See Tech Bulletin 074)	8
8	133571	ALE	133571	ALE	Cover, Bearing (See Tech Bulletin 118)	2
9	815280	FBR	815280	FBR	Shim, Split, 2-Piece	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, Assembly, Connecting [6/02] (See Tech Bulletin 074)	3
25	43220	FCM	43220	FCM	Crankshaft, Dual End (M24)	1
32	43211	ABS	43211	ABS	Cap, Oil Filler	1
33	14177	NBR	14177	NBR	O-Ring, Filler Cap-70D	1
37	92241	PC	92241	PC	Gauge, Oil, Bubble with Gasket-80D (See Tech Bulletin 074)	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 074, 106)	4
48	25625	STCP	25625	STCP	Plug, Drain (1/4" x 19 BSP)	1
49	23170	NBR	23170	NBR	O-Ring, Drain Plug-70D	1
50	133569	ALE	133569	ALE	Cover, Rear (M6 x 16) (See Tech Bulletin 106, 118)	1
51	14047	NBR	14047	NBR	O-Ring, Rear Cover-70D (M6 x 16) (See Tech Bulletin 106)	1
53	127698	AL	127698	AL	Crankcase (M10) (M6 x 16) (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 (M18 x M10)	3
90	<b>43232</b>	CC	<b>43311</b>	CC	Plunger (M18 x 77 and M16 x 77)	3
96	43235	PTFE	43235	PTFE	Backup Ring, Plunger Retainer	3
97	17399	NBR	17399	NBR	O-Ring, Plunger Retainer-80D	3
98	45891	CU	45891	CU	Gasket, Plunger Retainer	3
99	104360	S	104360	S	Retainer, Plunger with Stud (See Tech Bulletin 045, 074)	3
100	45689	PVDF	45689	PVDF	Retainer, Seal, 2-Piece (See Tech Bulletin 105)	3
101	<b>43239</b>	—	<b>43313</b>	—	Wick, Long Tab	3
106	<b>43243</b>	NBR	<b>43316</b>	NBR	Seal, LPS with S-Spring	3
120	<b>45683</b>	BB	<b>45684</b>	BB	Case, Seal	3
121	20285	NBR	20285	NBR	O-Ring, Seal Case-70D	3
125	<b>43245</b>	SNG	—	—	Seal, HPS with S (Model 530)	3
126	—	—	<b>43320</b>	BB	Adapter, Female	3
127	—	—	<b>43319</b>	SNG	V-Packing (Model 550)	6
128	—	—	<b>43318</b>	BB	Adapter, Male	3
139	22179	BBCP	22179	BBCP	Plug [1/2" NPT(M)]	1
162	43248	PTFE	43248	PTFE	Backup Ring, Seat	6
163	43249	NBR	43249	NBR	O-Ring, Seat-80D	6
164	43722	S	43722	S	Seat	6
166	43721	S	43721	S	Valve	6
167	43751	S	43751	S	Spring	6
168	44564	PVDF	44564	PVDF	Retainer, Spring	6
172	17617	NBR	17617	NBR	O-Ring, Valve Plug-90D	6
174	43851	BBCP	43851	BBCP	Plug, Valve (See Tech Bulletin 074)	6
185	<b>45417</b>	BBCP	<b>45547</b>	BBCP	Head, Manifold	1
187	46868	S	46868	S	Stud, Manifold (M10 x 35)	4
194	126567	STCP R	126567	STCP R	Nut, Flanged (M10) (See Tech Bulletin 074)	4
196	43633	BB	43633	BB	Plug, Discharge [3/8" NPT(M)]	1

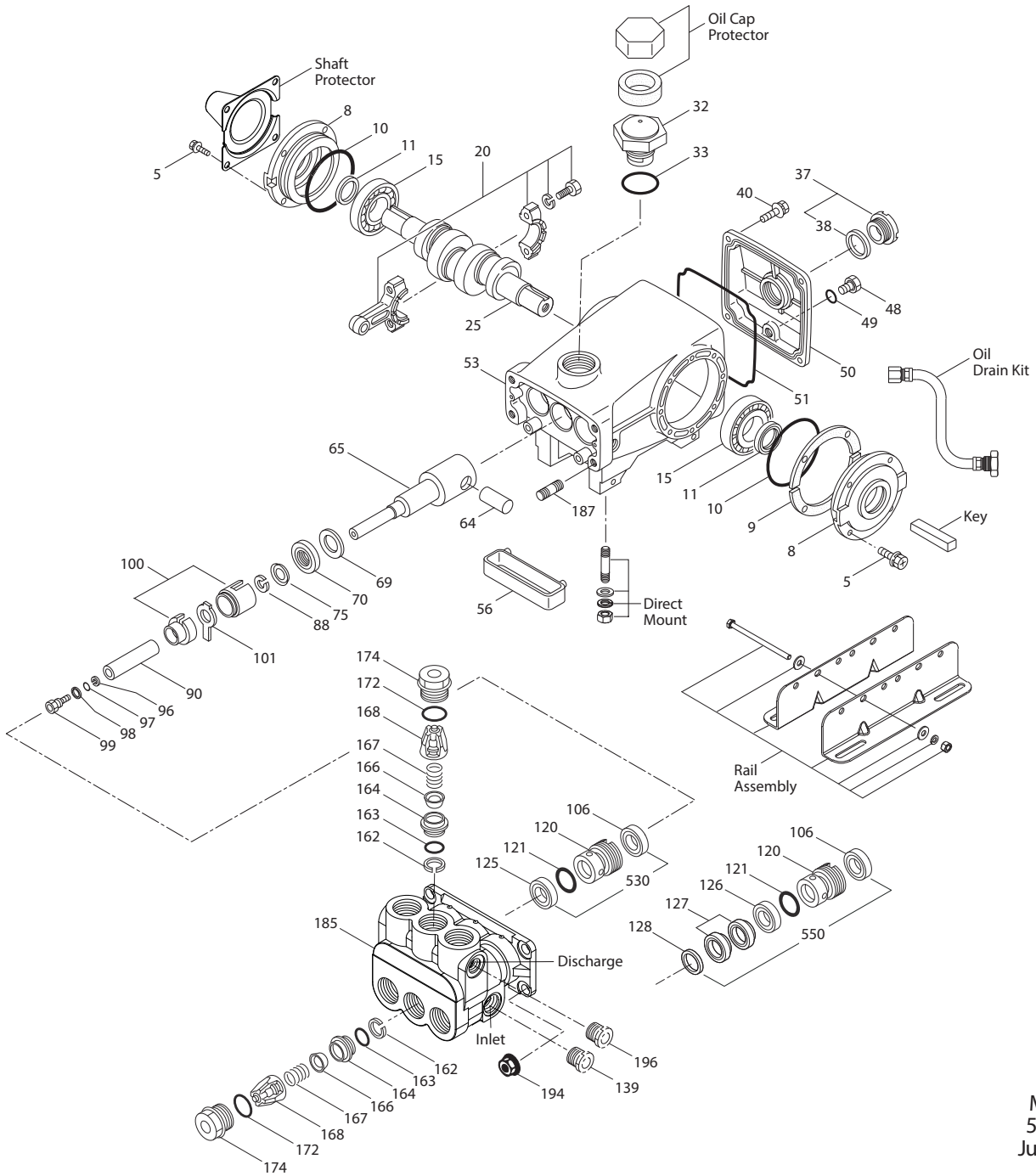
**Bold print part numbers are unique to a particular pump model. Italics are optional items.**

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

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): ABS=ABS Plastic AL=Aluminum ALE=Aluminum Epoxy 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) PC=Poly Carbonate  
 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

# EXPLODED VIEW



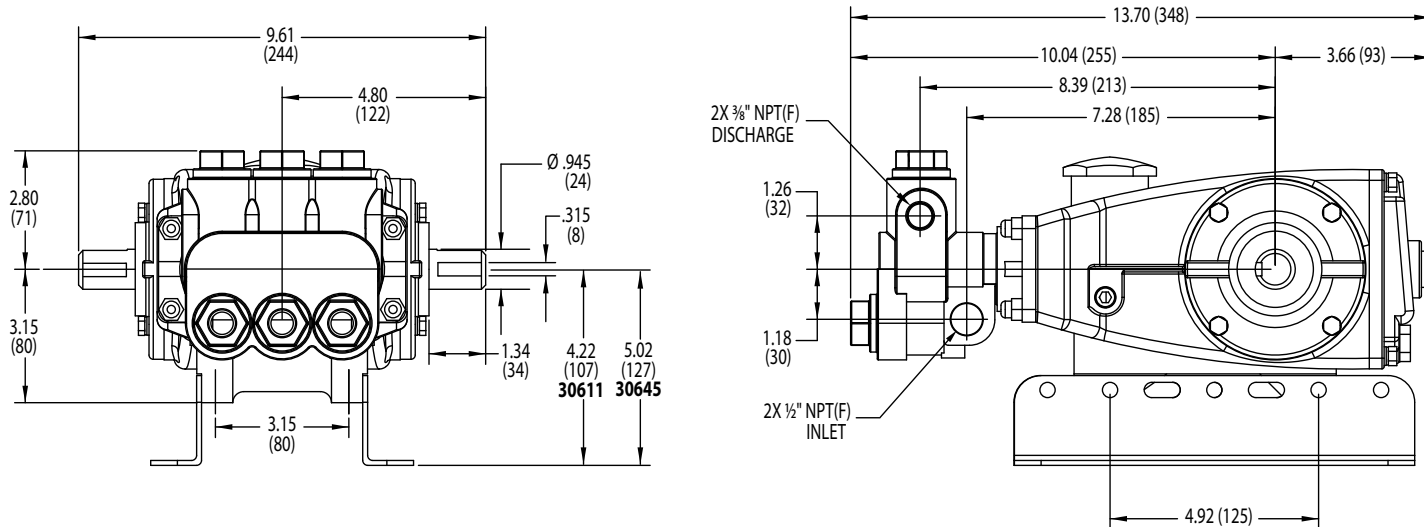
Models  
530, 550  
June 2021

## OPTIONAL PARTS AND ACCESSORIES

PART	DESCRIPTION	QTY
30067	Key (M8 x 7.5 x 25)	1
30611	Assembly, Rail (4.22" See Dimensional Drawing)	1
30645	Assembly, Rail (5.02" See Dimensional Drawing)	1
30660	Assembly, Mount	1
30243	Mount, Direct	1
43256	Protector, Shaft	1
828710	Protector, Oil Cap	1
34334	Kit, Oil Drain	1
33000	Hub,"H" 24MM	1
33005	Socket, Seal Case 1/2" drive	1

## SERVICE PARTS

PART	DESCRIPTION	QTY
30488	Kit, Seal – Standard NBR (Model 530)	1
30610	Kit, Seal – Standard NBR (Model 550)	1
30820	Kit, Valve – Standard NBR (Models 530, 550)	2
6107	Oil, Bottle (21 oz) ISO 68 Hydraulic (Fill to Specified Crankcase Capacity Prior to Start-up)	1
812183	Head, Complete with NBR Seals and O-Rings (Model 530)	1
812184	Head, Complete with NBR Seals and O-Rings (Model 550)	1



## SEAL KITS One (1) seal kit required per pump

PUMP MODELS	NBR (STD)	NBR (STD)	FPM* (.0110)	HT (.3000)	HT (.3000)		
530	<b>30488</b>	—	—	<b>77067</b>	—		
550	—	<b>30610</b>	<b>32936</b>	—	<b>31610</b>		
ITEM (Included in Seal Kits)	PART NUMBER					DESCRIPTION	QTY
97	17399	17399	14160	17399	17399	O-Ring, Plunger Retainer	3
101	43239	43313	43313	43239	43313	Wick, Long Tab	3
106	43243	43316	106660	43243	43316	Seal, LPS with S-Spring	3
121	20285	20285	11693	20285	20285	O-Ring, Seal Case	3
125	43245	—	—	46652	—	Seal, HPS with S	3
127	—	43319	46287	—	46287	V-Packing	6

\* Review individual parts in each kit for material code identification.

## VALVE KITS Two (2) valve kits required per pump

PUMP MODELS	NBR (STD)	FPM (.0110)	HT (.3000)		
530, 550	<b>30820</b>	<b>31263</b>	<b>30820</b>		
ITEM (Included in Valve Kits)	PART NUMBER			DESCRIPTION	QTY
162	43248	43248	43248	Backup Ring, Seat	3
163	43249	44383	43249	O-Ring, Seat	3
164	43722	43722	43722	Seat	3
166	43721	43721	43721	Valve	3
167	43751	43751	43751	Spring	3
168	44564	44564	44564	Retainer, Spring	3
172	17617	11691	17617	Washer, Retainer	3

### ⚠ 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/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)

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