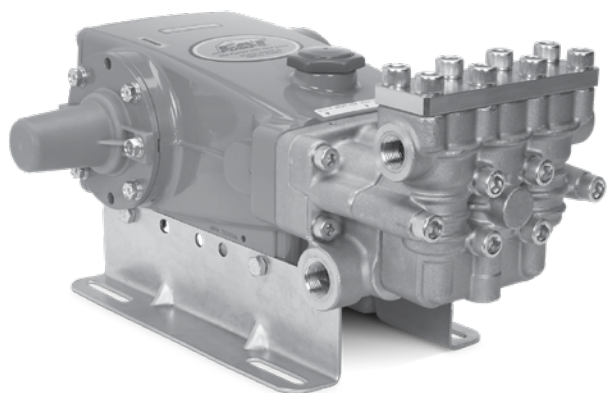


DATA SHEET

15 FRAME PLUNGER PUMPS



Brass Model: 1580



(Shaft protector included. Mounting rails sold separately)

FEATURES

- Triplex design offers high efficiency and low pulsation.
- Special high-density, polished, concentric plungers provide a true wear surface and extended seal life.
- Pre-set low-pressure seals provide secondary protection against external leaks and require no packing adjustment.
- Stacked valve design allows for ease of servicing.
- Belt-driven option provides precision flow setting.
- Compact direct-drive with bell housing and flexible coupler assembly. NEMA or IEC electric motor or SAE hydraulic options available.
- Standard pumps are fitted with NBR Seals. Optional seals are available for high temperatures or chemical compatibility.

SPECIFICATIONS

	U.S. Measure	Metric Measure
Flow	12.0 gpm	45.4 lpm
Pressure Range	100–3000 psi	6.9–207 bar
Pump RPM*	1180 rpm	1180 rpm
Inlet Pressure	Flooded to 70 psi	Flooded to 4.8 bar
Max. Liquid Temp. (NBR)	140°F	60°C
Alternative seals available for higher temperatures up to 190° F		
Bore	0.945"	24 mm
Stroke	1.181"	30 mm
Crankcase Capacity	42 oz.	1.26 L
Inlets Ports (2)	¾" NPT(F)	¾" NPT(F)
Discharge Ports (2)	½" NPT(F)	½" NPT(F)
Pulley Mounting	Either Side	Either Side
Shaft Diameter	1.181"	30 mm
Weight	59.5 lbs	27 kg
Dimensions	16.89 x 12.99 x 7.24"	429 x 330 x 184 mm

*Pump minimum is 100 RPM.

ALTERNATIVE SEAL CONFIGURATION

MATERIAL	SUFFIX CODE	MAXIMUM TEMPERATURE	
NBR	—	140°F	(60°C)
FPM	.0110	180°F	(82°C)
STHT	.3400	190°F	(88°C)

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

$$\frac{\text{Rated gpm}}{\text{Rated rpm}} = \frac{\text{"Desired" gpm}}{\text{"Desired" rpm}}$$

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

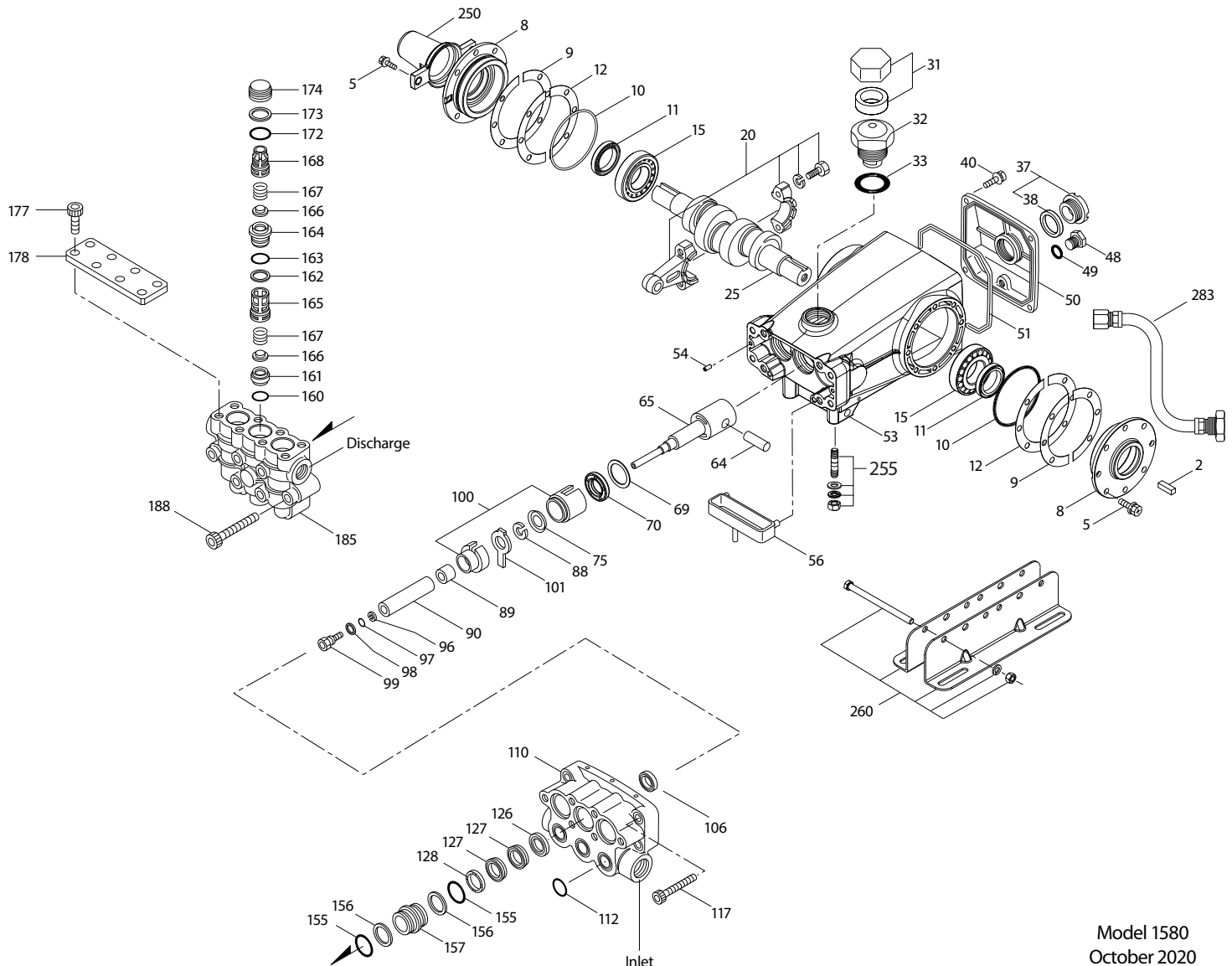
$$\frac{\text{Motor Pulley O.D.}}{\text{Pump rpm}} = \frac{\text{Pump Pulley O.D.}}{\text{Motor rpm}}$$

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

PARTS LIST

ITEM	P/N	MATL	DESCRIPTION	QTY
2	990036	STL	Key (M8 x 7 x 40) Use with 30059 and 990012	1
	30067	STL	Key (M8 x 7.5 x 25) Use with 30059 "H" Hub	1
5	126540	STCPR	Screw, HHC, Sems (M8 x 20) (See Tech Bulletin 074, 128)	8
8	134805	ALE	Cover, Bearing (See Tech Bulletin 118, 128)	2
9	855043	FBR	Shim, Split, 2-Piece (See Tech Bulletin 128)	0-2
10	11340	NBR	O-Ring, Bearing Cover - 70D	2
11	43495	NBR	Seal, Oil, Crankshaft	2
12	855044	S	Shim, Split, 2-Piece (See Tech Bulletin 128)	0-2
15	39060	STL	Bearing, Roller	2
20	126805	BZ	Rod, Connecting Assembly (See Tech Bulletin 074)	3
25	43494	FCM	Crankshaft, Dual-End (M30)	1
31	828710	PE	Protector, Oil Cap with Foam Gasket	1
32	43211	ABS	Cap, Oil Filler	1
33	14177	NBR	O-Ring, Filler Cap - 70D	1
37	92241	PC	Gauge, Oil, Bubble with Gasket - 80D (See Tech Bulletin 074)	1
38	44428	NBR	Gasket, Flat, Oil Gauge - 80D	1
40	126541	STCPR	Screw, HHC, Sems (M6 x 20) (See Tech Bulletin 074)	4
48	25625	STCPR	Plug, Drain (1/4" x 19BSP)	1
49	23170	NBR	O-Ring, Drain Plug - 70D	1
50	133576	ALE	Cover, Rear (See Tech Bulletin 118)	1
51	44834	NBR	O-Ring, Rear Cover - 70D	1
53	134889	ALE	Crankcase (Includes Guide Pins) (See Tech Bulletin 118, 128)	1
54	27488	S	Pin, Guide	2
56	44664	POP	Pan, Oil	1
64	43507	CM	Pin, Crosshead	3
65	49223	SBZ	Rod, Plunger	3
69	126592	STCPR	Washer, Oil Seal	3
70	43500	NBR	Seal, Oil Crankcase	3
75	43506	S	Slinger, Barrier	3
88	45675	S	Washer, Keyhole	3
89	43553	BB	Spacer	3
90	43552	CC	Plunger, Ceramic (M24 x 77)	3
96	43235	PTFE	Back-up Ring, Plunger Retainer	3
97	17399	NBR	O-Ring, Plunger Retainer - 80D	3
	14160	FPM	O-Ring, Plunger Retainer - 80D	3
98	45891	CU	Gasket, Plunger Retainer	3
99	104360	S	Retainer with Stud, Plunger (See Tech Bulletin 074)	3
100	855001	POP	Retainer, Seal, 2-Piece	3
101	43554	—	Wick	3
106	44035	NBR	Seal, LPS with SS-Spring	3
	44388	FPM	Seal, LPS with SS-Spring	3
	76035	ST	Seal, LPS with S-Spring	3
110	133140	FBB	Manifold, Inlet	1
112	14179	NBR	O-Ring, Inlet Manifold - 70D	3
	15855	FPM	O-Ring, Inlet Manifold - 70D	3
117	126515	STCPR	Screw, HSH (M10 x 55) (See Tech Bulletin 074)	4
126	43558	BB	Adapter, Female	3
127	43559	SNG	V-Packing	6
	103692	STG	V-Packing	6
128	43560	BB	Adapter, Male	3
155	11442	NBR	O-Ring, Adapter - 70D	6
	77318	FPM	O-Ring, Adapter	6
156	23086	PTFE	Back-up Ring, Adapter	6
157	133141	BB	Adapter	3
160	49238	NBR	O-Ring, Seat, Inlet - 90D	3
	129593	FPM	O-Ring, Seat, Inlet - 70D	3
161	133144	S	Seat, Inlet	3
162	49235	PTFE	Back-up Ring, Seat	3
163	49236	NBR	O-Ring, Seat, Discharge - 70D	3
	129594	FPM	O-Ring, Seat, Discharge - 70D	3
164	49234	S	Seat, Discharge	3
165	49198	PVDF	Retainer, Spring, Inlet	3
166	48793	SS	Valve	6
167	43751	S	Spring	6
168	49199	PVDF	Retainer, Spring, Discharge	3
172	14176	NBR	O-Ring, Valve Plug - 70D	3
	77319	FPM	O-Ring, Valve Plug - 70D	3
173	49232	PTFE	Back-up Ring, Valve Plug	3
174	49239	BB	Plug, Valve	3
177	126783	STCPR	Screw, HSH (M12 x 25) (See Tech Bulletin 074)	8

EXPLODED VIEW

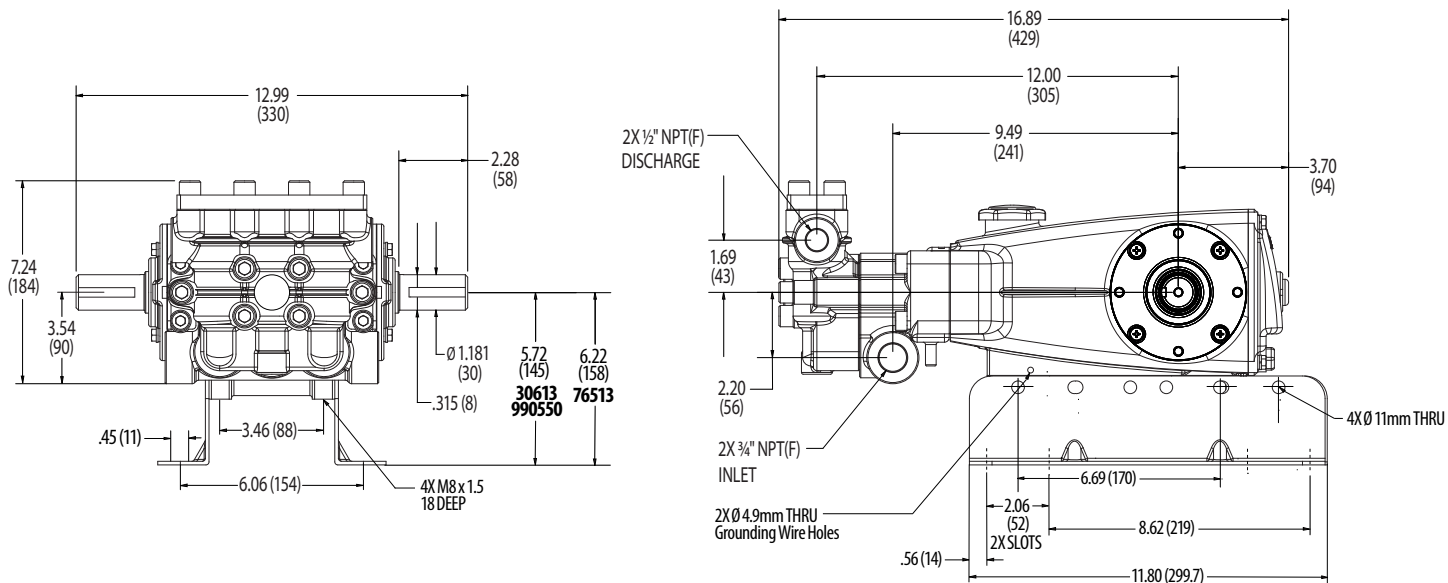


Model 1580
October 2020

ITEM	P/N	MATL	DESCRIPTION	QTY
178	49227	BB	Cover, Valve	1
185	133143	BB	Manifold, Discharge	1
188	126519	STCP R	Screw, HSH (M12 x 70) (See Tech Bulletin 074)	6
250	855046	NY	Protector, Shaft with 2 Screws (See Tech Bulletin 128)	1
255	30264	STZP	Kit, Direct Mount	1
260	30613	STZPR	Mount, Rail Assembly	1
	990550	STZPR	Mount, Rail Assembly (Required on Diesel/Gas)	1
269	30206	F	Pulley (10") [See Tech Bulletin 003]	1
270	30059	STL	Hub, "H", M30 (Keyway M8) [See Tech Bulletin 003]	1
—	990012	STL	Hub, "B", M30 (Keyway M8) [See Tech Bulletin 003]	1
283	34334	—	Kit, Oil Drain (3/8" x 24")	1
290	6124	—	Sealant, Hylomar (3 oz.)	1
299	818606	BB	Head, Complete with NBR Seals and O-Rings	1
300	76432	NBR	Kit, Seal (Includes: 97, 106, 112, 127, 155, 156) Standard	1
	76858	FPM	Kit, Seal (Includes: 97, 106, 112, 127, 155, 156) .0110	1
310	76428	NBR	Kit, Valve (Includes: 160–168, 172, 173) Standard	1
	76871	FPM	Kit, Valve (Includes: 160–168, 172, 173) .0110	1
—	6107	—	Oil, Bottle (21 oz.) ISO-68 Hydraulic (Fill to specified crankcase capacity prior to start-up)	2

*Review individual parts in each kit for material code identification. *Italics are optional items.*

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 ALE=Aluminum Epoxy BB=Brass BZ=Bronze CC=Ceramic CM=Chrome-moly CU=Copper
 F=Cast Iron FBB=Forged Brass FBR=Fiber FCM=Forged Chrome-moly FPM=Fluorocarbon NBR=Medium Nitrile (Buna-N) NY=Nylon PC=Poly Carbonate
 PE=Polyethylene POP=Polypropylene PTFE=Pure Polytetrafluoroethylene PVDF=Polyvinylidene Fluoride S=304SS SS=316SS SBZ=304SS/Bronze
 STCP=Steel/Chrome Plated SNG=Special Blend (Buna) STG=Special Blend PTFE White ST=Special PTFE
 STL=Steel STZP=Steel/Zinc 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/dynamic-literature/cautions-and-warnings or can be requested directly from Cat Pumps.

WARRANTY

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