

DATA SHEET

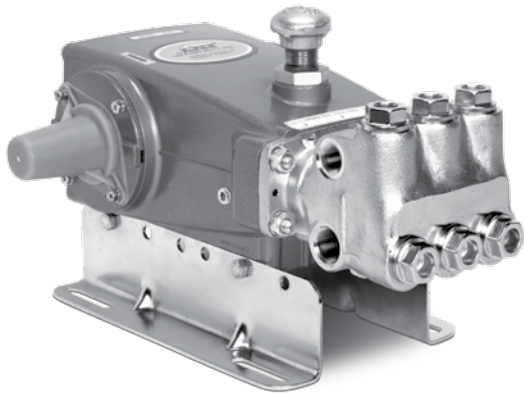
15 FRAME PLUNGER PUMPS



**Standard
Brass**
1050.44101

**Stainless
Steel**
1051.44101

**Stainless Steel
Flushed**
1051C.44101



Model 1050.44101 Shown
(Shaft protector and mounting rails sold separately)

FEATURES

- Field- tested, high pressure triplex pump configured for high temperature TEG (triethylene glycol) applications up to 240°F/115°C. May be used in other high temperature applications with fluids possessing adequate lubrication properties. Contact Cat Pumps for more information.
- Positive displacement technology for optimum energy efficiency.
- Re-configured pump .44101 option consists of following materials:
 - O-Ring material throughout the pump: Fluoropolymer elastomers.
 - Oil filler cap assembly: Brass adapters, chrome-plated steel vented cap.
 - Rear sight gauge assembly: Aluminum sight adapter and stainless steel sight gauge.
 - Seal retainers: Aluminum.
 - Low-pressure seals and V-Packings: Special PTFE blends.

COMMON

SPECIFICATIONS	U.S.	Metric
Bore	0.945"	24 mm
Stroke	1.181"	30 mm
Crankcase Capacity	42 oz.	1.26 l
Inlet Ports (2)	3/4" NPT(F)	3/4" NPT(F)
Flushing Ports (2)	1/8" NPT(F)	1/8" NPT(F)
Discharge Ports (2)	1/2" NPT(F)	1/2" NPT(F)
Pulley Mounting	Either Side	Either Side
Shaft Diameter	1.181"	30 mm
Weight	44 lbs.	20 kg
Dimensions	16.40 x 12.99 x 8.25"	417 x 330 x 210 mm

SPECIFICATIONS

	U.S. Measure	Metric Measure
Flow	10 gpm	38 lpm
Pressure Range	100 to 2200 psi	6.9 to 152 bar
Pump RPM*	958 rpm	958 rpm
Inlet Pressure Range	Flooded to 60 psi	Flooded to 4.1 bar
Max. Liquid Temperature	240° F	115° C

ALTERNATE SPECIFICATIONS

	U.S. Measure	Metric Measure
Flow	12 gpm	45 lpm
Pressure Range	100 to 1800 psi	6.9 to 124 bar
Pump RPM*	1150 rpm	1150 rpm
Inlet Pressure Range	20 to 60 psi	1.4 to 4.1 bar
Max. Liquid Temperature	240° F	115° C

*Pump minimum is 100 RPM.

ELECTRIC HORSEPOWER REQUIREMENTS

FLOW		PRESSURE			RPM
		psi 1800	psi 2000	psi 2200	
gpm	lpm	bar 124	bar 138	bar 152	
12.0	45	14.8	N/A	N/A	1150
10.0	38	12.4	13.7	15.1	958
9.0	34	11.1	12.4	13.6	836

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
	1050.44101		1051.44101			
			1051C.44101			
5	125824	STCP R	92538	S	Screw, HHC Sems (M6x16)	8
8	43496	AL	43496	AL	Cover, Bearing (See Tech Bulletin 118)	2
9	815281	FBR	815281	FBR	Shim, Split, Bearing Cover 2-Pc	2/4
	814800	S	814800	S	Shim, Split, Bearing Cover 2-Pc	0/4
10	76340	FPM	76340	FPM	O-Ring, Bearing Cover - 75D	2
11	76491	FPM	76491	FPM	Seal, Oil, Crankshaft - 70D	2
15	39060	STL	39060	STL	Bearing, Roller	2
20	48600	TNM	48600	TNM	Rod, Connecting Assembly	3
25	43494	FCM	43494	FCM	Crankshaft, Dual End	1
31	76411	BB	76411	BB	Adapter, 3/4" NPT(F)	1
32	992623	BB	992623	BB	Nipple, Close 3/4" NPT(M)	1
33	76331	STCP	76331	STCP	Cap, Vented	1
36	76792	SS	76792	SS	Gauge, Sight	1
37	76791	AL	76791	AL	Adapter, Sight	1
38	44428	NBR	44428	NBR	Gasket, Flat, Adapter - 80D	1
40	126541	STCP R	92542	S	Screw, HHC Sems (M6x20)	4
48	25625	STCP	25625	STCP	Plug, Drain (1/4"x19BSP)	1
49	30322	FPM	30322	FPM	O-Ring, Drain Plug	1
50	49276	ALE	49276	ALE	Cover, Rear (See Tech Bulletin 118)	1
51	76834	FPM	76834	FPM	O-Ring, Rear Cover - 75D	1
53	115471	AL	115471	AL	Crankcase w/Guide Pins (See Tech Bulletin 118)	1
54	27488	S	27488	S	Pin, Guide	2
64	43507	CM	43507	CM	Pin, Crosshead	3
65	43501	SZZ	45258	SSZZ	Rod, Plunger	3
69	126592	STCP R	126592	STCP R	Washer, Oil Seal	3
70	76500	FPM	76500	FPM	Seal, Oil, Crankcase	3
75	43506	S	43506	S	Slinger, Barrier	3
88	45675	S	45675	S	Washer, Keyhole	3
89	43553	BB	45879	SS	Collar, Spacer	3
90	43552	CC	43552	CC	Plunger (M24x77)	3
95	—	SS	89651	SS	Stud, Plunger Retainer (M6x70)	3
96	43235	PTFE	43235	PTFE	Back-up-Ring, Plunger Retainer	3
97	14160	FPM	14160	FPM	O-Ring, Plunger Retainer - 80D	3
98	44041	SS	44041	SS	Gasket, Plunger Retainer	3
99	—	—	44031	SS	Retainer, Plunger (M6)	3
	104360	S	—	—	Retainer w/Stud	3
100	765001	AL	765001	AL	Retainer, Seal	3
106	76035	ST	76035	ST	Seal, LPS w/S-Spg	3
120	49290	BB	49286	SSNP	Case, Seal [07/05]	3
121	11737	FPM	11737	FPM	O-Ring, Seal Case - 75D	3
126	43558	BB	45073	SS	Adapter, Female	3
127	76692	ST4	76692	ST4	V-Packing	6
128	43560	BB	45074	SS	Adapter, Male	3
139	20326	BBCP	44382	SS	Plug, Inlet [3/4" NPT(M)]	1
162	43248	PTFE	43248	PTFE	Back-up-Ring, Valve Seat	6
163	44383	FPM	44383	FPM	O-Ring, Seat - 70D	6
164	44718	S	44037	SS	Seat	6
166	43721	S	48793	SS	Valve	6
167	43751	S	44039	SS	Spring, Valve	6
168	44564	PVDF	44564	PVDF	Retainer, Spring	6
172	11691	FPM	11691	FPM	O-Ring, Valve Plug - 90D	6
174	43851	BBCP	49293	SS	Plug, Valve	6
185	46704	BBCP	48726	SS	Head, Manifold [9/00]	1
	—	—	49188	SS	Head, Manifold Flushed	1
187	126545	STCP R	44005	S	Stud, Manifold (M10x45)	4
192	126231	STCP R	15847	S	Lockwasher (M10)	4
194	126522	STCP R	81258	S	Nut, Hex (M10)	4

Bold print part numbers are unique to a particular pump model. [] Date of latest production change.

R components comply with RoHS Directive. *Review individual parts in each kit for material code identification.

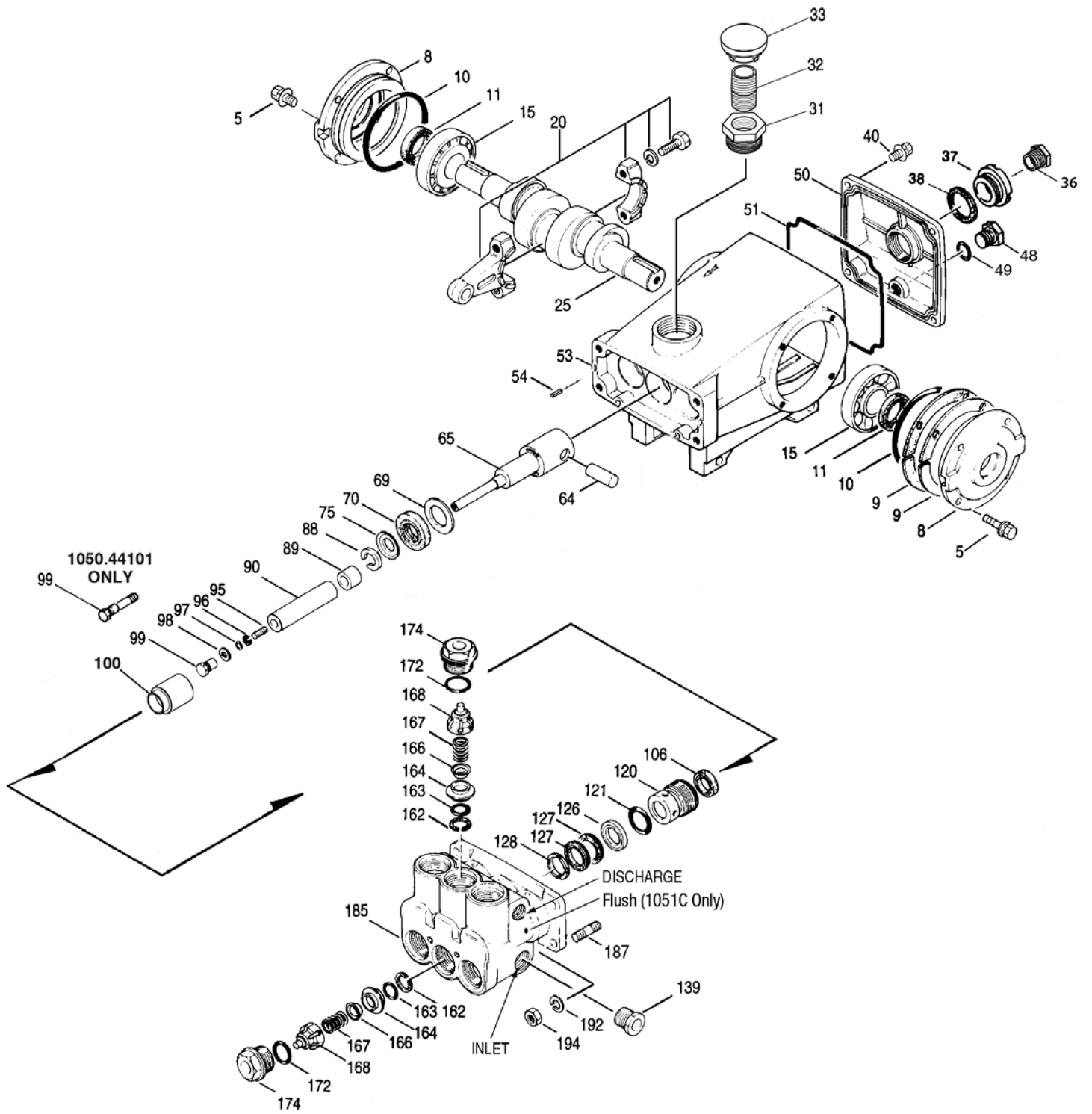
View Tech Bulletins 002, 003, 024, 027, 035, 036, 043, 045, 046, 048, 049, 052, 053, 072, 074, 083, 087, 089, 095 and 118 for additional information.

MATERIAL CODES (Not Part of Part Number): AL=Aluminum ALE=Aluminum Epoxy BB=Brass BBCP=Brass/Chrome Plated CC=Ceramic CM=Chrome-moly FBR=Fiber

FCM=Forged Chrome-moly FPM=Fluorocarbon NBR=Medium Nitrile (Buna-N) PTFE=Pure Polytetrafluoroethylene PVDF=Polyvinylidene Fluoride S=304SS SS=316SS

ST4=Special PTFE 4 SSZZ=316SS/Zamak STCP=Steel/Chrome Plated SSNP=316SS/Nickel Plated ST= Polyetheretherketon STL=Steel SZZ=304SS/Zamak TNM=Special High Strength

EXPLODED VIEW



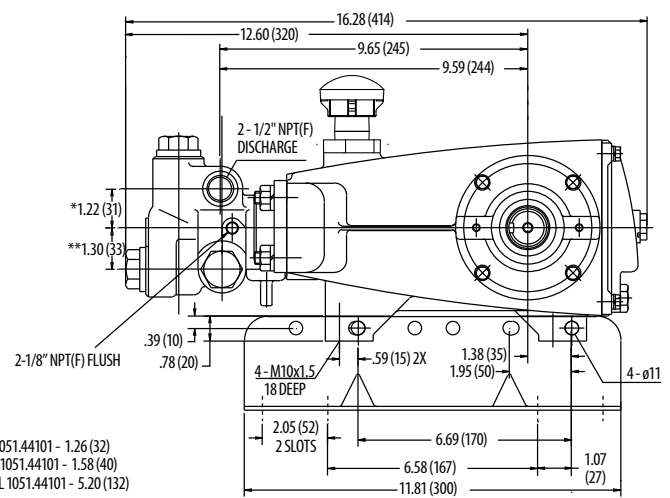
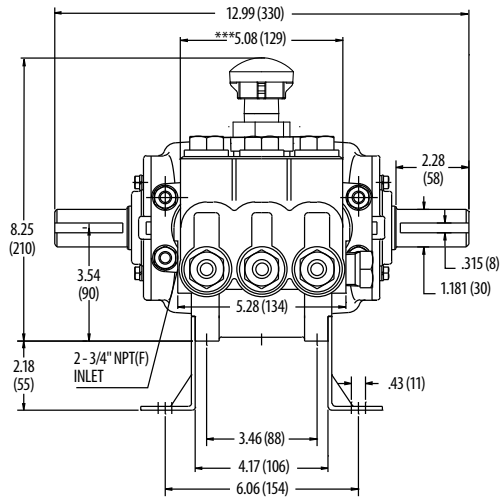
Models

Standard - 1050.44101

Stainless Steel - 1051.44101

Stainless Steel Flushed - 1051C.44101

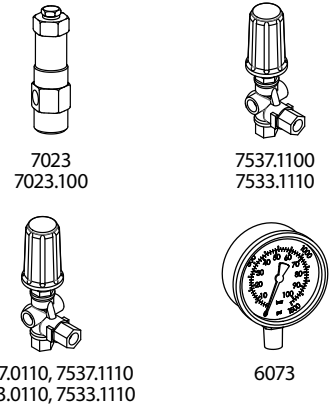
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*MODEL 1051.44101 - 1.26 (32)
 **MODEL 1051.44101 - 1.58 (40)
 ***MODEL 1051.44101 - 5.20 (132)

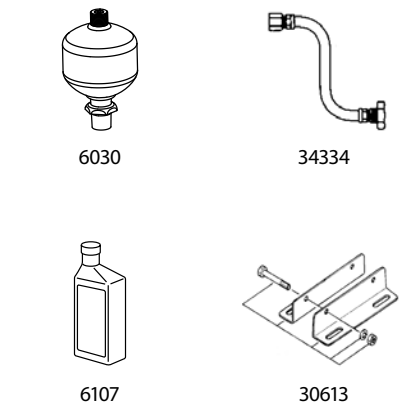
REPAIR KITS AND PARTS

PART NUMBER	DESCRIPTION	QTY
76094	Kit, Seal (Includes Items 97, 106, 121, and 127)	1
31256	Kit, Valve (Includes Items 162, 163, 164, 166,167, 168 and 172)	2
6107	Oil, Bottle (21 oz.) ISO 68 Hydraulic	2
30067	Key (M8x7.5x25)	1
814560.44101/ 816771.44101	Complete Head (1050.44101 and 1051.44101 only)	1



OPTIONAL PARTS AND ACCESSORIES

PART NUMBER	DESCRIPTION	QTY
7023/ 7023.100	Regulator (Primary Pressure Control)	1
7537.0110/ 7533.0110	Unloader (Primary Pressure Control)	1
7537.1110/ 7533.0110	Relief Valve (Secondary Pressure Control)	1
7537.1110/ 7533.1110	Pop-Off Valve (Secondary Pressure Control)	1
6073	Pressure Gauge	1
6030	Accumulator	1
30613	Mounting Rails	1
30764	Shaft Protector	1
76334	Kit, Oil Indicator (3/8" x 24") See Individual Data Sheet	1
34334	Kit, Oil Drain (3/8" x 24") See Individual Data Sheet	1
30696	Pliers (Reverse)	1
44050	Tool, Sight Gauge Removal	1



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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