

# DATA SHEET

## 15 FRAME PLUNGER PUMPS



**Brass**

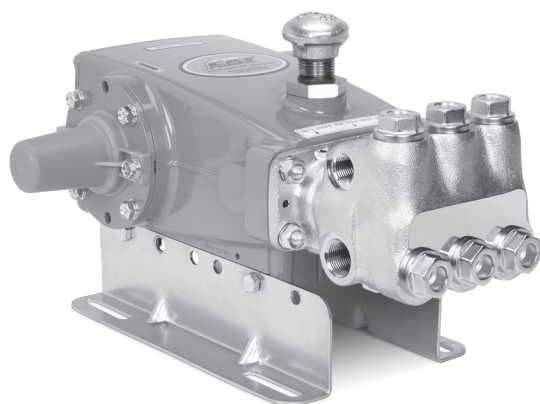
**1050.44101**

**Stainless Steel**

**1051.44101**

**Stainless Steel Flushed**

**1051C.44101**



Model 1050.44101 Shown  
(Shaft protector included 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)	¾" NPT(F)	¾" NPT(F)
Flushing Ports (2)	⅛" NPT(F)	⅛" NPT(F)
Discharge Ports (2)	½" NPT(F)	½" 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 – 2200 psi	6.9 – 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

Flow	12.3 gpm	46.6 lpm
Pressure Range	100 – 1800 psi	6.9 – 124 bar
Pump RPM*	1180 rpm	1180 rpm
Inlet Pressure Range	20 – 60 psi	1.4 – 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	
12.3	46.6	15.2	N/A	N/A	1180
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

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

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

# PARTS LIST

ITEM	PART NUMBER	MATL	PART NUMBER	MATL	DESCRIPTION	QTY
	<b>1050.44101</b>		<b>1051.44101</b>			
			<b>1051C.44101</b>			
5	<b>126540</b>	STCP R	<b>49651</b>	S	Screw, HHC Sems (M8 x 20) (See Tech Bulletin 074, 128)	8
8	134805	ALE	134805	ALE	Cover, Bearing (See Tech Bulletin 118, 128)	2
9	855043	FBR	855043	FBR	Shim, Split, Bearing Cover 2-Piece (See Tech Bulletin 128)	0-2
10	76340	FPM	76340	FPM	O-Ring, Bearing Cover – 75D	2
11	76491	FPM	76491	FPM	Seal, Oil, Crankshaft – 70D	2
12	855044	S	855044	S	Shim, Split, Bearing Cover 2-Piece (See Tech Bulletin 128)	0-2
15	39060	STL	39060	STL	Bearing, Roller	2
20	48600	TNM	48600	TNM	Rod, Connecting Assembly (See Tech Bulletin 074)	3
25	43494	FCM	43494	FCM	Crankshaft, Dual End (M30)	1
31	76411	BB	76411	BB	Adapter, [¾" NPT(F)]	1
32	992623	BB	992623	BB	Nipple, Close [¾" 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 (See Tech Bulletin 074)	1
38	44428	NBR	44428	NBR	Gasket, Flat, Adapter – 80D	1
40	<b>126541</b>	STCP R	<b>92542</b>	S	Screw, HHC Sems (M6 x 20) (See Tech Bulletin 074)	4
48	25625	STCP	25625	STCP	Plug, Drain (¼" x 19BSP)	1
49	30322	FPM	30322	FPM	O-Ring, Drain Plug	1
50	133576	ALE	133576	ALE	Cover, Rear (See Tech Bulletin 118)	1
51	76834	FPM	76834	FPM	O-Ring, Rear Cover – 75D	1
53	<b>134836</b>	ALE	<b>134848</b>	ALE	Crankcase (Includes: 54, 55) (See Tech Bulletin 118, 128)	1
54	27488	S	27488	S	Pin, Guide	2
55	<b>126545</b>	STCP R	<b>44005</b>	S	Stud, Manifold (M10 x 45)	4
64	43507	CM	43507	CM	Pin, Crosshead	3
65	<b>43501</b>	SZZ	<b>45258</b>	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	<b>43553</b>	BB	<b>45879</b>	SS	Collar, Spacer	3
90	43552	CC	43552	CC	Plunger (M24 x 77)	3
95	—	—	<b>89651</b>	SS	Stud, Plunger Retainer (M6 x 70)	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	—	—	<b>44031</b>	SS	Retainer, Plunger (M6) (See Tech Bulletin 074)	3
	<b>104360</b>	S	—	—	Retainer with Stud Plunger	3
100	765001	AL	765001	AL	Retainer, Seal	3
106	76035	ST	76035	ST	Seal, LPS with S-Spring	3
120	<b>49290</b>	BB	<b>49286</b>	SSNP	Case, Seal [07/05]	3
121	11737	FPM	11737	FPM	O-Ring, Seal Case – 75D	3
126	<b>43558</b>	BB	<b>45073</b>	SS	Adapter, Female	3
127	76692	ST4	76692	ST4	V-Packing	6
128	<b>43560</b>	BB	<b>45074</b>	SS	Adapter, Male	3
139	<b>20326</b>	BBCP	<b>44382</b>	SS	Plug, Inlet [¾" 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	<b>44718</b>	S	<b>44037</b>	SS	Seat	6
166	<b>43721</b>	S	<b>48793</b>	SS	Valve	6
167	<b>43751</b>	S	<b>44039</b>	SS	Spring, Valve	6
168	44564	PVDF	44564	PVDF	Retainer, Spring	6
172	11691	FPM	11691	FPM	O-Ring, Valve Plug – 90D	6
174	<b>43851</b>	BBCP	<b>49293</b>	SS	Plug, Valve (See Tech Bulletin 074)	6
185	<b>46704</b>	BBCP	<b>134823</b>	SS	Head, Manifold [9/00]	1
	—	—	<b>49188</b>	SS	Head, Manifold Flushed	1
192	<b>126231</b>	STCP R	<b>15847</b>	S	Lockwasher (M10)	4
194	<b>126522</b>	STCP R	<b>81258</b>	S	Nut, Hex (M10) (See Tech Bulletin 074)	4
250	<b>855046</b>	NY	—	—	Protector, Shaft with Two STCP R Screws (See Tech Bulletin 128)	1
			<b>855047</b>	NY	Protector, Shaft with Two SS Screws (See Tech Bulletin 128)	1

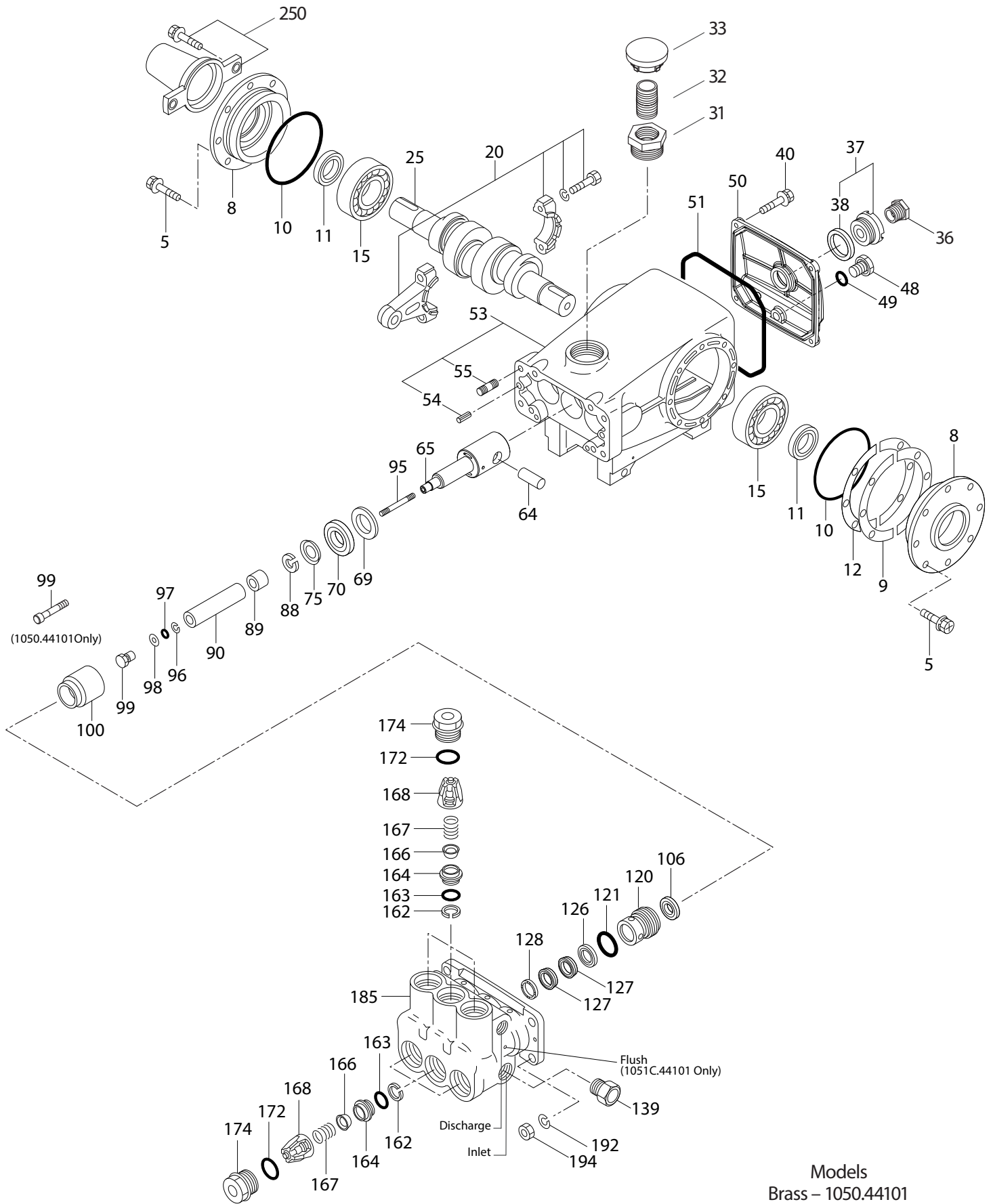
**Bold print part numbers are unique to a particular pump model.**

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

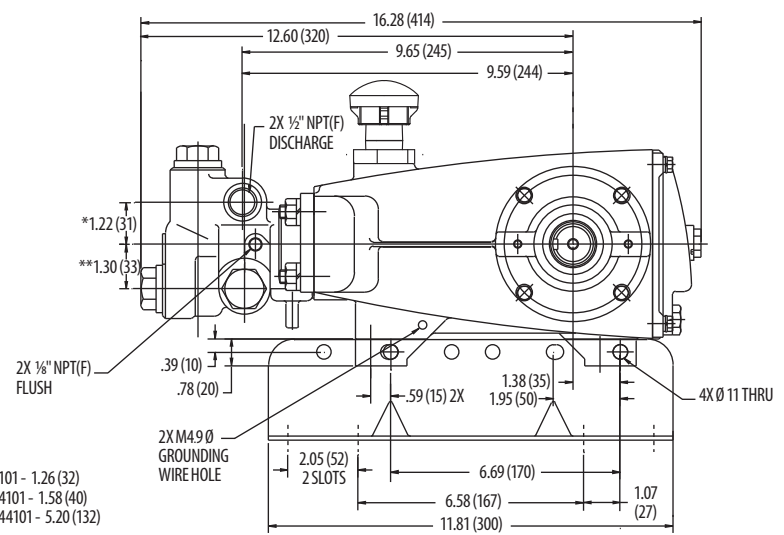
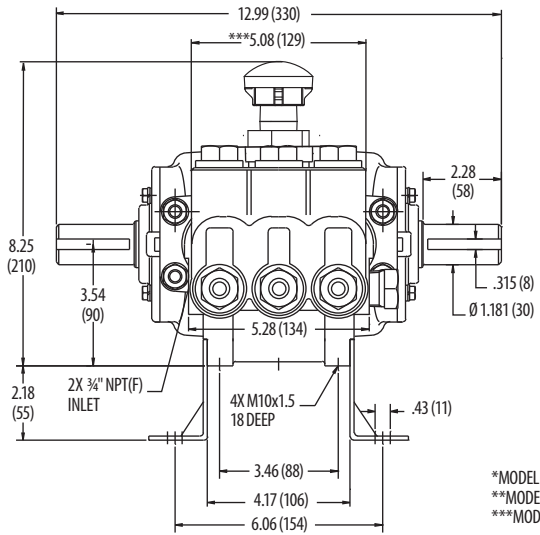
\*Review individual parts in each kit for material code identification. For additional technical information see [www.catpumps.com/literature/tech-bulletins](http://www.catpumps.com/literature/tech-bulletins).

MATERIAL CODES (Not Part of Part Number): 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 NY=Nylon 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



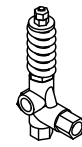
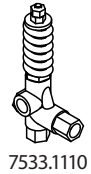
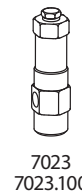
Models  
 Brass – 1050.44101  
 Stainless Steel – 1051.44101  
 Stainless Steel Flushed – 1051C.44101  
 September 2020



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

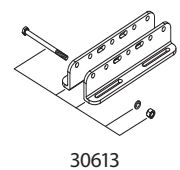
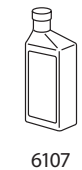
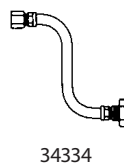
## REPAIR KITS AND PARTS

PART NUMBER	DESCRIPTION	QTY
76094	Kit, Seal (Includes Items 97, 106, 121, and 127)	1
31256 (1050)	Kit, Valve (Includes Items 162, 163, 164, 166,167, 168 and 172)	2
30986 (1051)	Kit, Valve (Includes Items 162, 163, 164, 166,167, 168 and 172)	2
6107	Oil, Bottle (21 oz.) ISO 68 Hydraulic	2
30067	Key (M8 x 7.5 x 25)	1
855046	Shaft Protector with Two Screws	1
855047	Shaft Protector with Two Stainless Steel Screws	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
7533.0110	Relief Valve (Secondary Pressure Control)	1
6073	Pressure Gauge	1
6030	Accumulator	1
30613	Rail Assembly	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/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 on-line at [www.catpumps.com/literature/cat-pumps-limited-warranty](http://www.catpumps.com/literature/cat-pumps-limited-warranty)