

# DATA SHEET

## 15 FRAME PLUNGER PUMPS



**Standard Model: 1050.44101**

**Stainless Steel Model: 1051.44101**



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

### FEATURES

- Positive displacement technology for optimum energy efficiency.
- Field tested, high pressure triplex pump configured for high-temperature applications up to 240° F (115° C).
- Designed for continuous-duty performance where low life cycle costs are a must.

### 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)
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
<b>1050.44101</b>		
Flow	10 gpm	38 lpm
Pressure Range	100 to 2200 psi	7 to 155 bar
RPM	958 rpm	958 rpm
Inlet Pressure Range	Flooded to 60 psi	Flooded to 4 bar
Max. Liquid Temperature	240° F	115° C
<b>1051.44101 ALTERNATE SPECIFICATIONS</b>		
Flow	12 gpm	45 lpm
Pressure Range	100 to 1800 psi	7 to 125 bar
RPM	1150 rpm	1150 rpm
Inlet Pressure Range	20 to 60 psi	1.4 to 4 bar
Max. Liquid Temperature	240° F	115° C

### ELECTRIC HORSEPOWER REQUIREMENTS

FLOW		PRESSURE			MOTOR PULLEY SIZE	
		psi 1800	psi 2000	psi 2200	Using 1725 RPM Motor & Std. 10" Pump Pulley	
U.S. gpm	lpm	bar 125	bar 140	bar 155	RPM	Pulley O.D.
12.0	45	14.8	N/A	N/A	1150	6.5
10.0	38	12.4	13.7	15.1	958	5.4
9.0	34	11.1	12.4	13.6	836	4.9

<b>DETERMINING THE PUMP R.P.M.</b>	$\frac{\text{Rated gpm}}{\text{Rated rpm}}$	=	$\frac{\text{"Desired" gpm}}{\text{"Desired" rpm}}$
<b>DETERMINING THE REQUIRED H.P.</b>	$\frac{\text{gpm} \times \text{psi}}{1460}$	=	$\frac{\text{Electric Brake H. P. Required}}{\text{H. P. Required}}$
<b>DETERMINING MOTOR PULLEY SIZE</b>	$\frac{\text{Motor Pulley O.D.} \times \text{Pump rpm}}{\text{Pump rpm}}$	=	$\frac{\text{Pump Pulley O.D.}}{\text{Motor rpm}}$

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

## PARTS LIST

ITEM	PART NUMBER		PART NUMBER		DESCRIPTION	QTY
	<b>1050.44101</b>	<b>MATL</b>	<b>1051.44101</b>	<b>MATL</b>		
5	<b>125824</b>	<b>STCP R</b>	<b>92538</b>	<b>S</b>	Screw, HHC Sems (M6x16)	8
8	43496	AL	43496	AL	Cover, Bearing	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	<b>126541</b>	<b>STCP R</b>	<b>92542</b>	<b>S</b>	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	43491	AL	43491	AL	Cover, Rear	1
51	76834	FPM	76834	FPM	O-Ring, Rear Cover - 75D	1
53	115471	AL	115471	AL	Crankcase w/Guide Pins	1
54	27488	S	27488	S	Pin, Guide	2
64	43507	CM	43507	CM	Pin, Crosshead	3
65	<b>43501</b>	<b>SZZ</b>	<b>45258</b>	<b>SSZZ</b>	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>	<b>BB</b>	<b>45879</b>	<b>SS</b>	Collar, Spacer	3
90	43552	CC	43552	CC	Plunger (M24x77)	3
95	—	<b>SS</b>	<b>89651</b>	<b>SS</b>	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	—	—	<b>44031</b>	<b>SS</b>	Retainer, Plunger (M6)	3
	<b>104360</b>	<b>S</b>	—	—	Retainer w/Stud	3
100	765001	AL	765001	AL	Retainer, Seal	3
106	76035	ST	76035	ST	Seal, LPS w/S-Spg	3
120	<b>49290</b>	<b>BB</b>	<b>49286</b>	<b>SSNP</b>	Case, Seal [07/05]	3
121	11737	FPM	11737	FPM	O-Ring, Seal Case - 75D	3
126	<b>43558</b>	<b>BB</b>	<b>45073</b>	<b>SS</b>	Adapter, Female	3
127	76692	ST4	76692	ST4	V-Packing	6
128	<b>43560</b>	<b>BB</b>	<b>45074</b>	<b>SS</b>	Adapter, Male	3
139	<b>20326</b>	<b>BBCP</b>	<b>44382</b>	<b>SS</b>	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	<b>44718</b>	<b>S</b>	<b>44037</b>	<b>SS</b>	Seat	6
166	<b>43721</b>	<b>S</b>	<b>48793</b>	<b>SS</b>	Valve	6
167	<b>43751</b>	<b>S</b>	<b>44039</b>	<b>SS</b>	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>	<b>BBCP</b>	<b>49293</b>	<b>SS</b>	Plug, Valve	6
185	<b>46704</b>	<b>BBCP</b>	<b>48726</b>	<b>SS</b>	Head, Manifold [9/00]	1
187	<b>126545</b>	<b>STCP R</b>	<b>44005</b>	<b>S</b>	Stud, Manifold (M10x45)	4
192	<b>126231</b>	<b>STCP R</b>	<b>15847</b>	<b>S</b>	Lockwasher (M10)	4
194	<b>126522</b>	<b>STCP R</b>	<b>81258</b>	<b>S</b>	Nut, Hex (M10)	4

Repair Kits and Parts, Optional Parts and Accessories on page 4

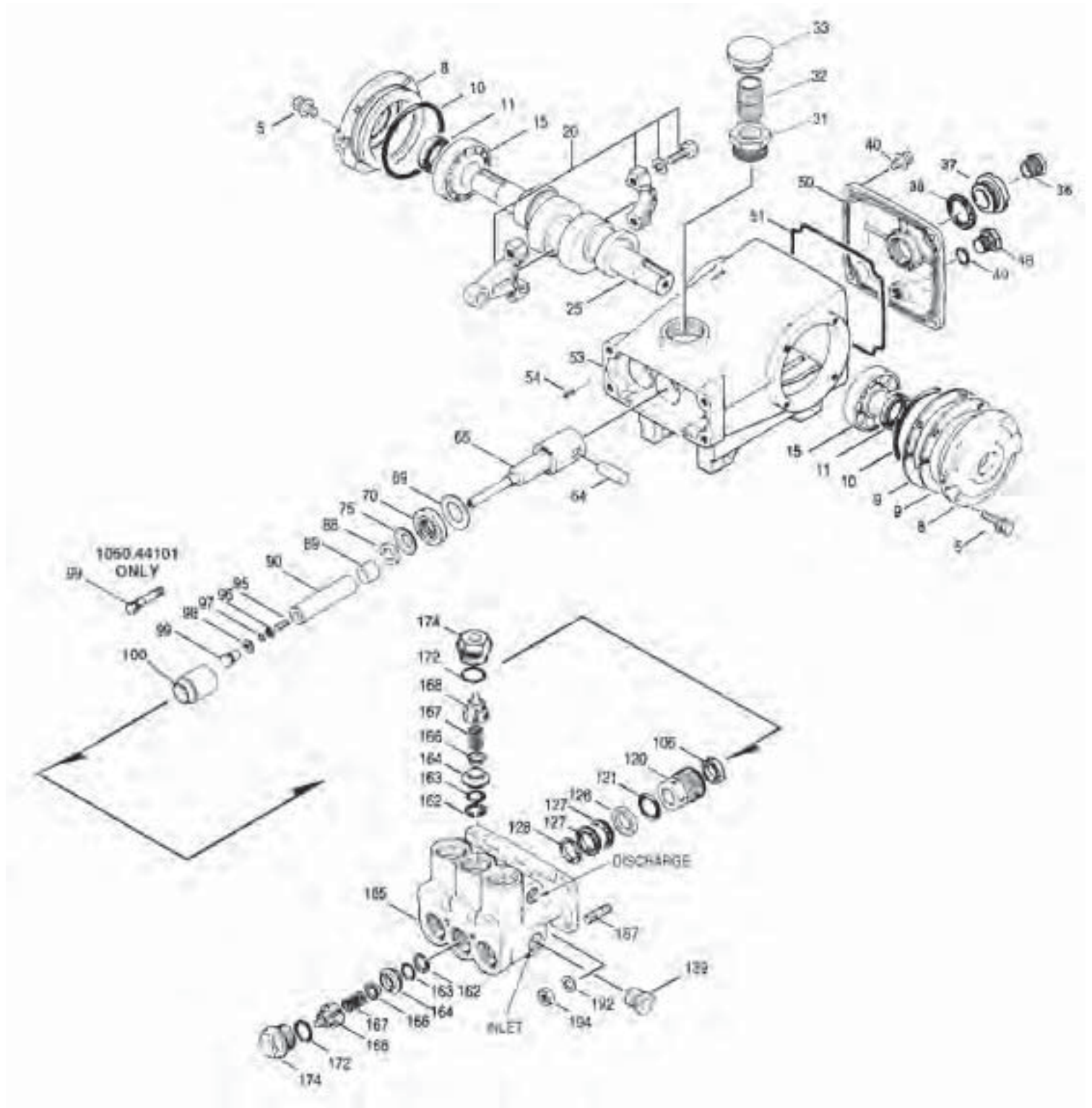
**Bold print part numbers are unique to a particular pump model.** [ ] Date of latest production change.

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

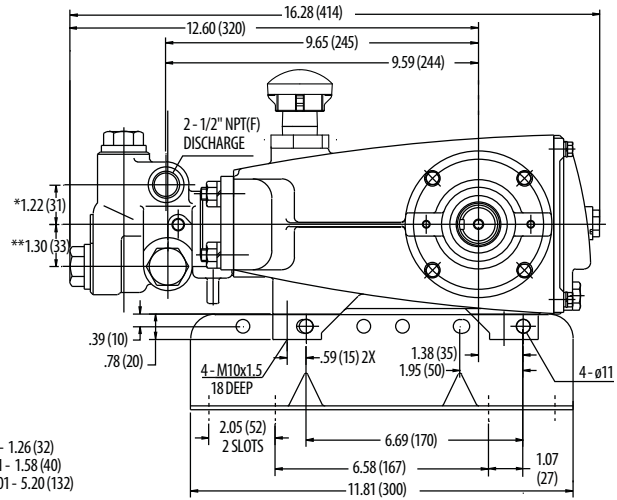
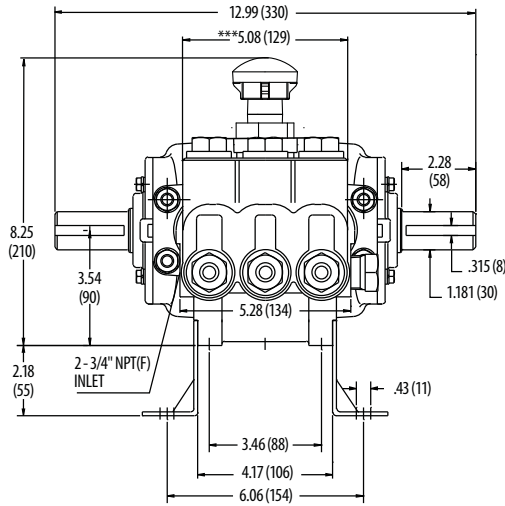
View Tech Bulletins 002, 003, 024, 027, 035, 036, 043, 045, 046, 048, 049, 052, 053, 072, 074, 077, 083, 087, 089 and 095 for additional information.

MATERIAL CODES (Not Part of Part Number): AL=Aluminum 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



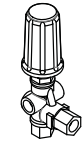
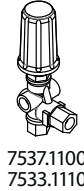
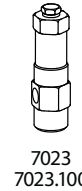
**Models**  
Standard - 1050.44101  
Stainless Steel - 1051.44101  
January 2015



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

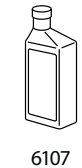
## REPAIR KITS AND PARTS

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	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](http://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](http://www.catpumps.com/warranty).



### CAT PUMPS

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