

Model 1050.44101 Shown
(Rails sold separately)

FEATURES

- Designed for continuous-duty performance for triethylene glycol (TEG) gas dehydration where low life cycle costs are a must.
- Field tested, high pressure triplex pump configured for TEG temperatures up to 240° F (116° C).
- Positive displacement technology for optimum energy efficiency.

15 Frame Plunger Pumps

Triethylene Glycol (TEG) Dehydration

Standard Model

1050.44101

Stainless Steel Model

1051.44101

SPECIFICATIONS

U.S. Measure

Metric Measure

STANDARD SPECIFICATIONS

Flow.....	10 gpm	(38 l/m)
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)
Maximum Liquid Temperature	240°F	(116°C)

ALTERNATE SPECIFICATIONS - MODEL 1050.44101 ONLY

Flow*.....	12 gpm	(45 l/m)
Pressure Range*.....	100 to 1800 psi	(7 to 125 bar)
RPM*.....	1150 rpm	(1150 rpm)
Inlet Pressure Range*.....	Flooded to 60 psi	(Flooded to 4 bar)
Maximum Liquid Temperature*.....	240°F	(116°C)

*C.A.T. Required

COMMON SPECIFICATIONS

Bore.....	0.945"	(24 mm)
Stroke.....	1.180"	(30 mm)
Crankcase Capacity.....	42 oz.	(1.26 l)
Inlet Ports (2).....	3/4" NPTF	(3/4" NPTF)
Discharge Ports (2).....	1/2" NPTF	(1/2" NPTF)
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)

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	l/m	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

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.	$\frac{\text{gpm} \times \text{psi}}{1460}$	=	Electric Brake H. P. Required
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 (Incls: Pulleys, Belts, Hubs, Key) Tech Bulletin 003.
Refer to pump **Service Manual** for repair procedure and additional technical information.

⚠ 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.

PARTS LIST

ITEM	PART NUMBER				DESCRIPTION	QTY
	1050.44101	MATL	1051.44101	MATL		
5	125824	STCP R	92538	S	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	1
32	992623	BB	992623	BB	Nipple, Close 3/4" NPT	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	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	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
101	43554	—	43554	—	Wick, Long Tab	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)	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
187	126545	STCP R	44005	S	Stud, Manifold (M10x45)	4
192	126231	STCP	15847	S	Lockwasher (M10)	4
194	126522	STCP R	81258	S	Nut, Hex (M10)	4

Optional Parts And Accessories On Page 4

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

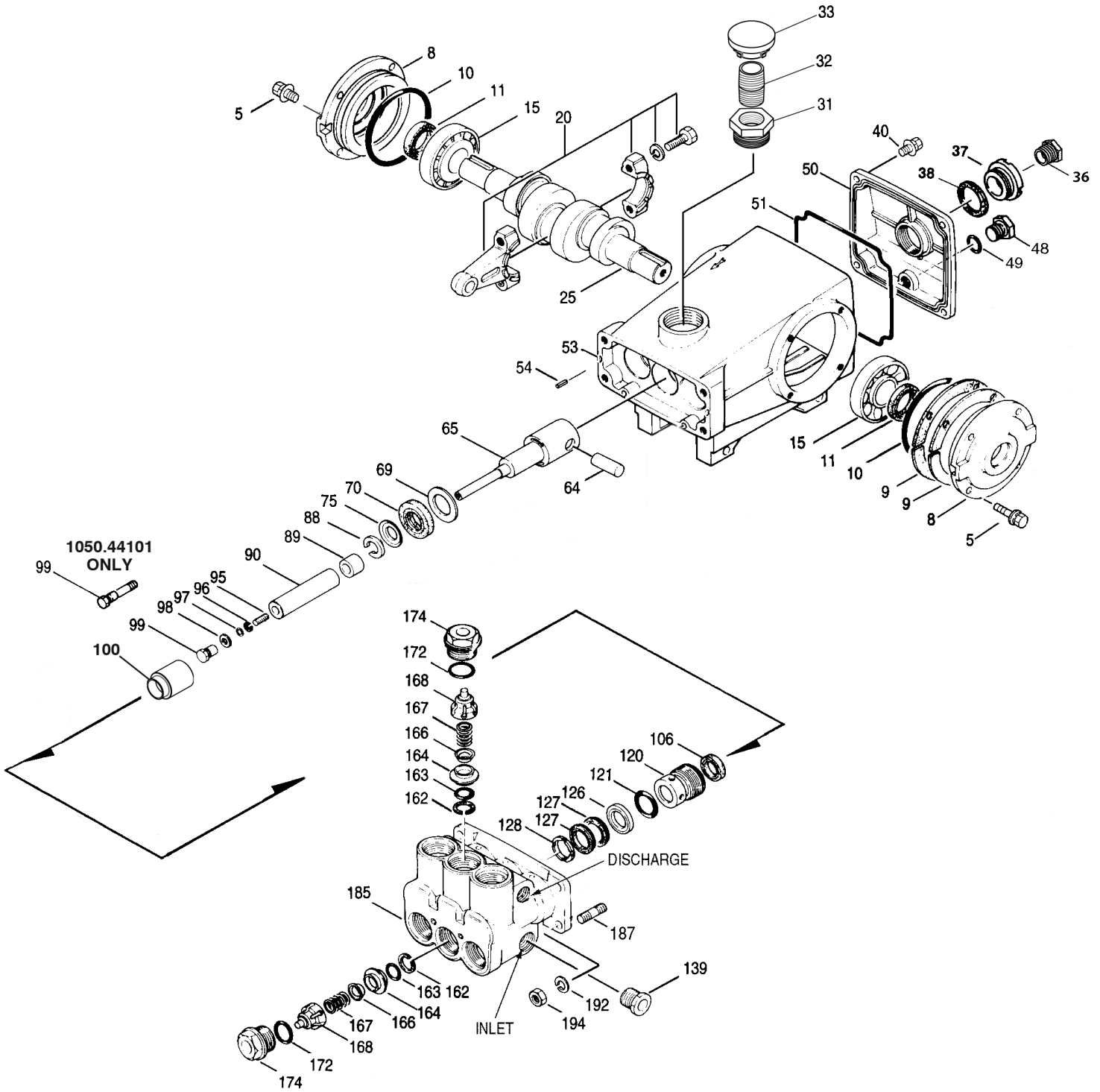
† Production parts are different than service parts. R components comply with RoHS Directive. *Review individual parts in each kit for material code identification.

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.

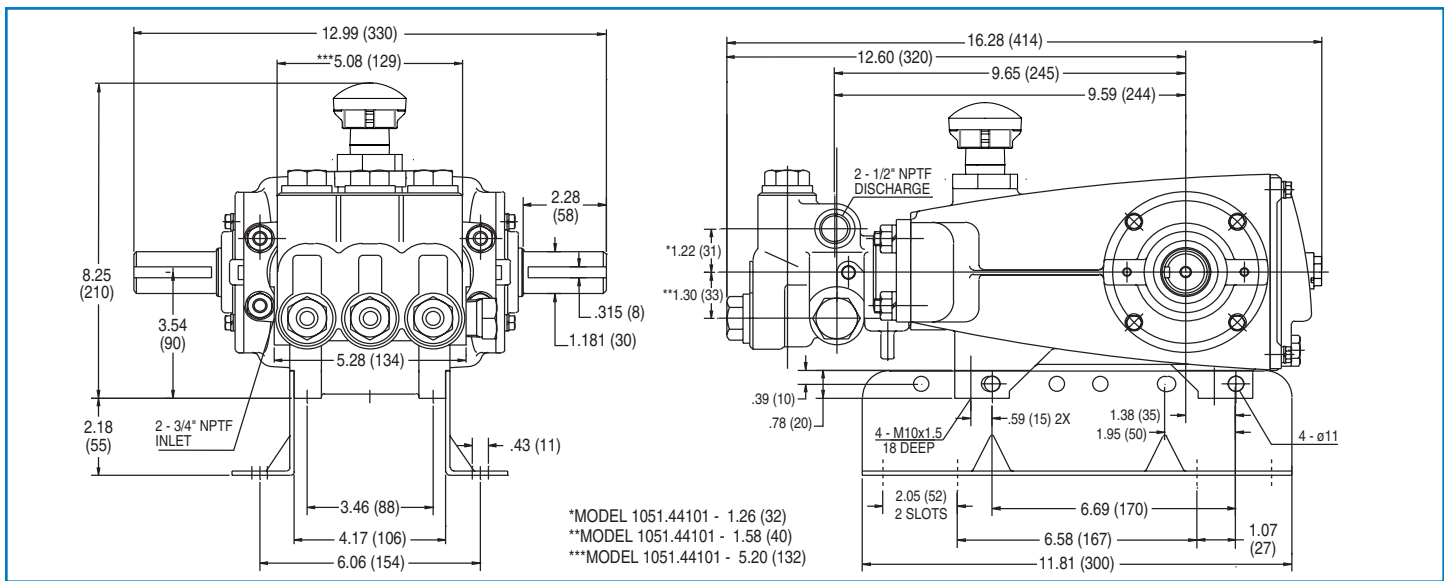
MATERIAL CODES (Not Part of Part Number): AL=Aluminum BB=Brass BBCP=Brass/Chrome Plated CC=Ceramic CM=Chrome-moly FBR=Fiber FCM=Forged Chrome-moly FPM=Fluorocarbon NBR=Medium Nitrile (Buna-N) PTFE=Pure Polytetrafluoroethylene PVDF=Polyvinylidene Fluoride S=304SS SS=316SS ST4=Special PTFE 4 SSZZ=316SS/Zamak STCP=Steel/Chrome Plated SSNP=316SS/Nickel Plated ST= Polyetheretherketon

STL=Steel SZZ=304SS/Zamak TNM=Special High Strength

EXPLODED VIEW



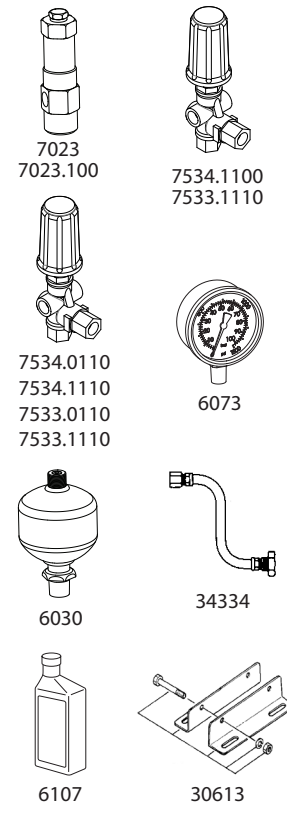
Models
Standard - 1050.44101
Stainless Steel - 1051.44101
November 2011



Models 1050.44101, 1051.44101

OPTIONAL PARTS AND ACCESSORIES

Part Number	Description	QTY
7023/ 7023.100	Regulator (Primary Pressure Control)	1
7534.0110/ 7533.0110	Unloader (Primary Pressure Control)	1
7534.1110/ 7533.0110	Relief Valve (Secondary Pressure Control)	1
7534.1110/ 7533.1110	Pop-Off Valve (Secondary Pressure Control)	1
6073	Pressure Gauge	1
6030	Accumulator	1
30613	Mounting Rails	1
30067	Key (M8x7.5x25)	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
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
814560.44101/ 816771.44101	Complete Head	1
30696	Pliers (Reverse)	1
44050	Tool, Sight Gauge Removal	1
6107	Oil, Bottle (21 oz.) ISO 68 Hydraulic	2



Demand Genuine Cat Pump Parts And Accessories.



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