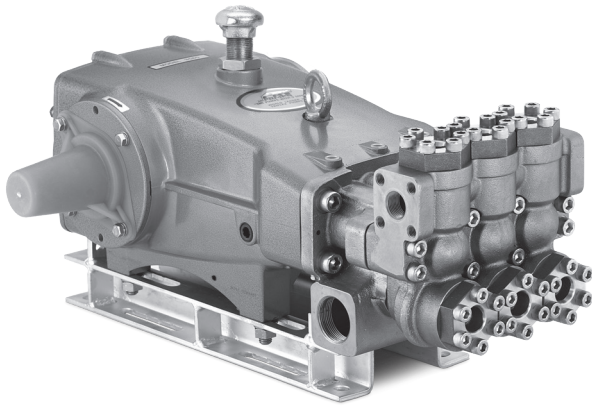


# DATA SHEET

## 35 FRAME PLUNGER PUMP



**Nickel Aluminum    3517.44101**  
**Bronze Model:**



Model 3517.44101 Shown  
 (Shaft protector included, mounting rails sold separately)

SPECIFICATIONS	U.S.	Metric
Flow	14 gpm	53 lpm
Pressure Range	100 - 3000 psi	6.9 - 207 bar
Pump RPM*	800 rpm	800 rpm
Inlet Pressure Range	Flooded to 70 psi	Flooded to 4.8 bar
Max. Liquid Temperature	240° F	115° C
Bore	0.984"	25 mm
Stroke	1.890"	48 mm
Crankcase Capacity	4.2 qts	4 l
Inlet Ports (2)	1-1/2" NPT(F)	1-1/2" NPT(F)
Discharge Ports (2)	1" NPT(F)	1" NPT(F)
Pulley Mounting	Either Side	Either Side
Shaft Diameter	1.378"	35 mm
Weight	139 lbs.	63 kg
Dimensions	24.51 x 18.11 x 9.72"	623 x 460 x 247 mm

\*Pump minimum is 100 RPM.

### 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 liquids 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.

### ELECTRIC HORSEPOWER REQUIREMENTS

FLOW		PRESSURE			RPM
		psi 2000	psi 2500	psi 3000	
U.S. gpm	lpm	bar 138	bar 172	bar 207	
14	53	19.2	24.0	28.8	800
12	45	16.4	20.5	24.7	685
10	38	13.7	17.1	20.5	571

**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.**

$$\frac{\text{gpm} \times \text{psi}}{1460} = \frac{\text{Electric Brake H. P. Required}}{\text{H. P. Required}}$$

**DETERMINING MOTOR PULLEY SIZE**

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

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

## PARTS LIST

ITEM	PART NUMBER	MATL	DESCRIPTION	QTY
5	96049	S	Screw, HHC Sems (M10 x 25) (See Tech Bulletin 125) [6/18]	8
8	134604	ALE	Cover, Bearing (See Tech Bulletin 118, 125) [6/18]	2
9	815279	FBR	Shim, Split 2-piece (See Tech Bulletin 125) [6/18]	2
10	76173	FPM	O-Ring, Bearing Cover	2
11	76172	FPM	Seal, Oil, Crankshaft	2
15	29326	STL	Bearing, Roller	2
20	121467	TNM	Rod, Connecting Assy (Incls: 21, 22, 23)	3
21	126749	STCP R	Washer, Locking	3
22	126593	STCP R	Shim, Washer (M10.5)	6
23	122045	STZP	Screw, HH (M10 x 55)	6
25	29325	FCM	Crankshaft, Dual End (M48)	1
31	76411	BB	Adapter, 3/4"NPT(F)	1
32	992623	BB	Nipple, Close 3/4"NPT(M)	1
33	76331	STCP	Cap, Vented	1
34	126743	STCP R	Bolt, Eye (M12 x 1.75) (For lifting Pump Only)	1
36	76792	SS	Gauge, Sight	1
37	76791	AL	Adapter, Sight	1
38	44428	NBR	Gasket, Flat, Adapter - 80D	1
40	125753	S	Screw, HHC Sems (M8 x 25)	8
48	25625	STCP	Plug, Drain (1/4" x 19BSP)	1
49	30322	FPM	O-Ring, Drain Plug	1
50	45936	ALE	Cover, Rear (See Tech Bulletin 118)	1
51	76174	FPM	O-Ring, Rear Cover - 75D	1
53	134784	ALE	Crankcase Assy (Incls: 34,54) (See Tech Bulletin 118, 125) [6/18]	1
54	27488	S	Pin, Guide	2
64	43864	CM	Pin, Crosshead	3
65	45116	SSZZ	Rod, Plunger	3
69	126587	STCP R	Washer, Oil Seal	3
70	44739	FPM	Seal, Oil, Crankcase	3
75	43865	S	Slinger, Barrier	3
88	45676	S	Washer, Keyhole	3
90	43866	CC	Plunger (M25 x 145)	3
95	89778	SS	Stud, Plunger Retainer (M10 x 135)	3
96	20189	PTFE	Back-up-Ring, Plunger Retainer	3
97	11375	FPM	O-Ring, Plunger Retainer	3
98	44085	SS	Gasket, Plunger Retainer	3
99	44084	SS	Retainer, Plunger (M10)	3
100	999324	AL	Retainer, Seal	3
104	44826	FPM	O-Ring, Adapter-70D	3
105	44088	NAB	Adapter, LPS	3
106	76086	ST2	Seal, LPS w/S-Spg	3
107	44089	SS	Washer, LPS	3
110	44206	NAB	Manifold, Inlet	1
112	14183	FPM	O-Ring, Inlet Manifold	3
117	44585	S	Screw, HSH (M14 x 40)	4
123	13266	FPM	O-Ring, Inlet Manifold	3
124	44090	NAB	Cylinder, V-Packing	3
126	44091	NAB	Adapter, Female	3
127	76611	ST4	V-Packing	6
128	44092	NAB	Adapter, Male	3
155	14183	FPM	O-Ring, V-Packing Spacer - 70D	6
156	28243	PTFE	Backup-Ring, V-Packing Spacer	6
157	44093	NAB	Spacer, V-Packing	3
162	21985	PTFE	Back-up-Ring, Valve Seat	6
163	11377	FPM	O-Ring, Valve Seat - 80D	6
164	44080	SS	Seat	6
166	44081	SS	Valve	6
167	44082	SS	Spring	6
168	44735	PVDF	Retainer, Spring	6
170	44794	SS	Washer, Spring Retainer	6
171	44793	SS	Spring, Coil	6
172	11720	FPM	O-Ring, Valve Plug - 70D	6
173	20224	PTFE	Back-up-Ring, Valve Plug	6
174	44795	NAB	Plug, Valve	6
175	87951	S	Screw, HHC Sems (M10 x 30)	36
185	46565	NAB	Manifold, Discharge	1
188	89981	S	Screw, HSH (M12 x 70)	8
250	855042	NY	Protector, Shaft (See Tech Bulletin 125) [6/18]	1

Repair Kits/Parts and Optional Parts/Accessories On Page 4

R Components comply with RoHS Directive.

View Tech Bulletins 024, 040, 041, 050, 052, 053, 064, 069, 074, 083, 100, 105, 109, 114, 118 and 125 for additional information.

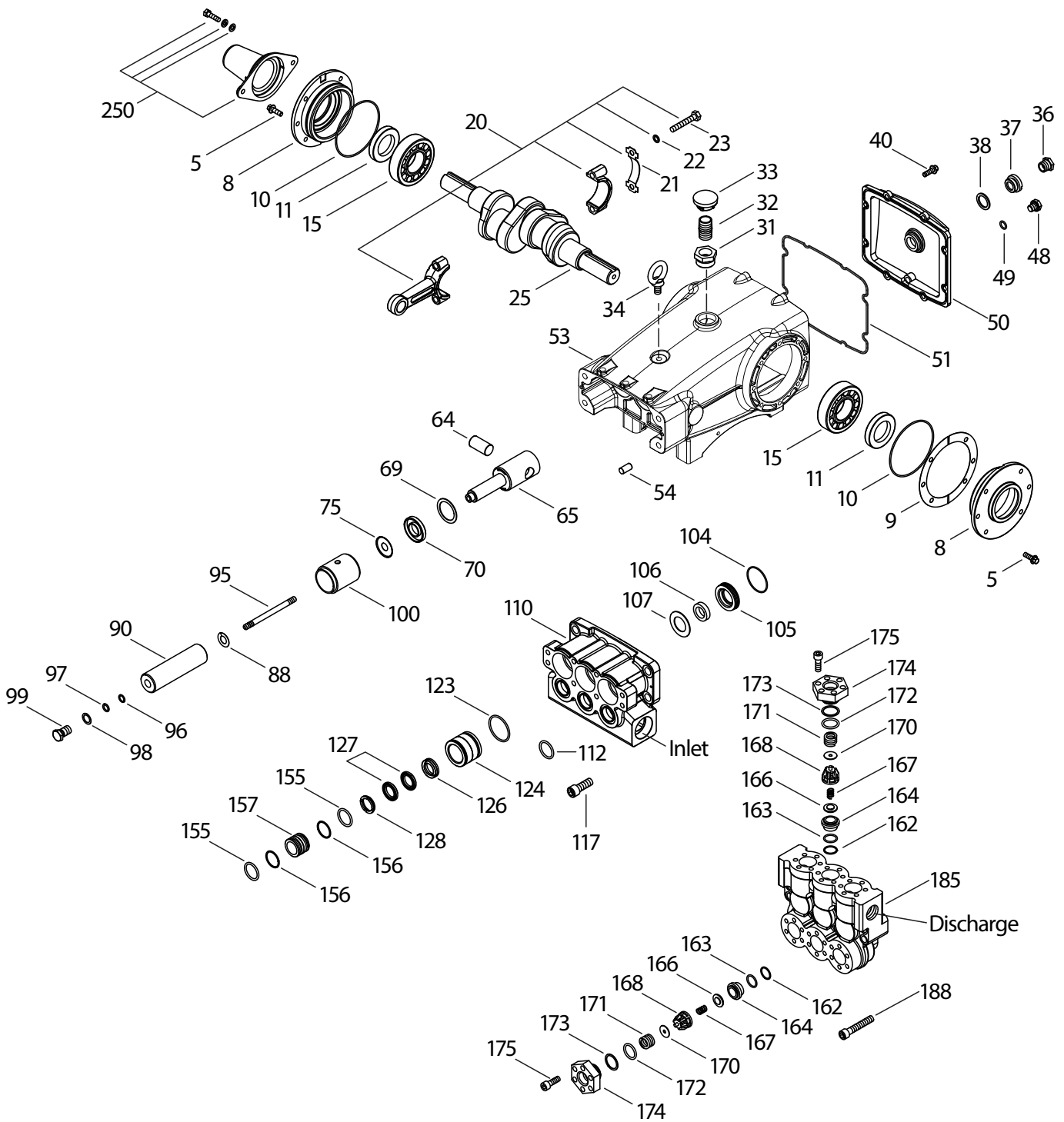
MATERIAL CODES (Not Part of Part Number): AL=Aluminum ALE=Aluminum Epoxy BB=Brass BBCP=Brass/Chrome Plated CC=Ceramic CM=Chrome-Moly

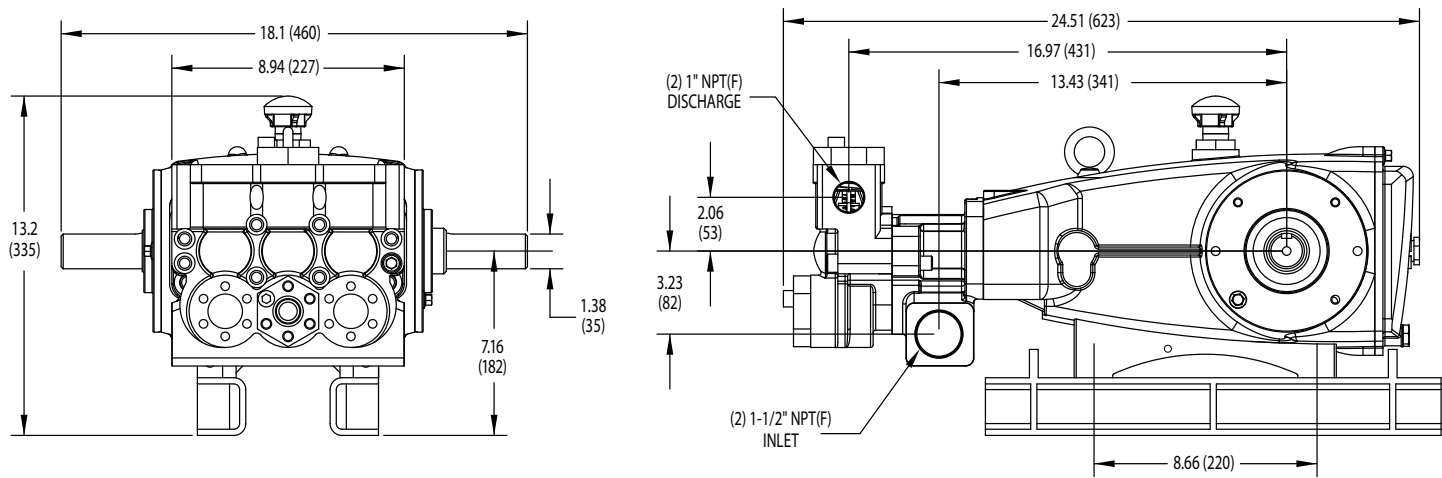
FBB=Forged/Brass FBR=Fiber FCM=Forged Chrome-moly FPM=Fluorocarbon NAB=Nickel Aluminum Bronze NBR=Medium Nitrile (Buna-N) NY=Nylon

PTFE=Pure Polytetrafluoroethylene PVDF=Polyvinylidene Fluoride S=304SS SS=316SS STL=Steel ST2=Special PTFE2 ST4=Special PTFE4

STCP=Steel/Chrome Plated STZP=Steel/Zinc Plated SSZZ=316SS/Zamak TNM=Special High Strength

# EXPLODED VIEW



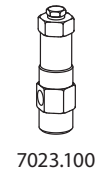


## REPAIR KITS AND PARTS

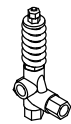
PART NUMBER	DESCRIPTION	QTY
76447	Kit, Seal (Includes Items 97, 104, 106, 112, 123, 127, 155 and 156)	1
701798	Kit, Valve (Includes Items 162, 163, 164, 166,167, 168, 170, 172 and 173)	2
6107	Oil, Bottle (21 oz.) ISO 68 Hydraulic	6-7
34021	Key (M10x8x70)	1

## OPTIONAL PARTS AND ACCESSORIES

PART NUMBER	DESCRIPTION	QTY
7023.100	Regulator (Primary Pressure Control)	1
7531.1110	Relief Valve (Secondary Pressure Control)	1
9941	Pop-Off Valve (Secondary Pressure Control)	1
6076	Pressure Gauge	1
6030	Accumulator	1
92674	Mounting 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



7023.100



7531.1110



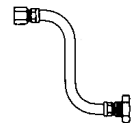
9941



6076



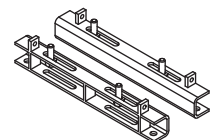
6030



34334



6107



92674

### ⚠ 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).