

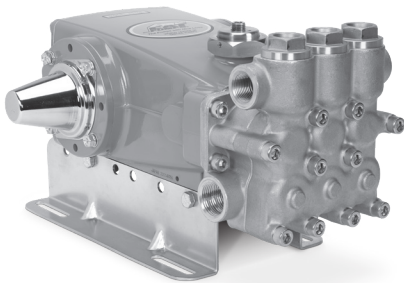
# DATA SHEET

## 15 FRAME PLUNGER PUMP



**Stainless Steel  
Model:**

**1541M.44101**



(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 liquids possessing adequate lubrication properties. Contact Cat Pumps for more information.
- Positive displacement technology delivers optimum energy efficiency.
- TEG\* pump configuration option consists of the following modifications:
  - FPM elastomers and O-ring material throughout the pump.
  - Stainless steel vented oil filler cap assembly.
  - Stainless steel sight gauge assembly and aluminum adapter.
  - Aluminum seal retainers.
  - Special PTFE blended high and low-pressure seals.

\*TEG pump configuration is denoted by adding ".44101" to the end of the pump model.

SPECIFICATIONS	U.S. Measure	Metric Measure
Flow	19.3 gpm	73.0 lpm
Pressure Range	100–1200 psi	6.9–83 bar
Pump RPM*	1180 rpm	1180 rpm
Inlet Pressure Range	Flooded to 70 psi	Flooded to 4.8 bar
Max. Liquid Temperature	240° F	115° C
Bore	1.181"	30 mm
Stroke	1.181"	30 mm
Crankcase Capacity	42 oz	1.26 l
Inlet Ports (2)	1" NPT(F)	1" NPT(F)
Discharge Ports (2)	¾" NPT(F)	¾" NPT(F)
Shaft Diameter	1.181"	30 mm
Pulley Mounting	Either Side	Either Side
Weight	42.6 lbs	21 kg
Dimensions	14.57 x 12.99 x 7.40"	370 x 330 x 188 mm

\*Pump minimum is 100 RPM.

### ELECTRIC HORSEPOWER REQUIREMENTS

FLOW		PRESSURE						PUMP RPM
GPM	LPM	PSI	BAR	PSI	BAR	PSI	BAR	
		800	55	1000	69	1200	83	
		Horsepower						
19.3	73	10.6 hp		13.2 hp		15.8 hp		1180

$$\text{DETERMINING THE PUMP RPM} \quad \frac{\text{Rated gpm}}{\text{Rated rpm}} = \frac{\text{Desired gpm}}{\text{Desired rpm}}$$

$$\text{DETERMINING THE REQUIRED HP} \quad \frac{\text{hp (Electric Brake)}}{1460} = \frac{\text{gpm} \times \text{psi}}{1460}$$

$$\text{DETERMINING MOTOR PULLEY SIZE} \quad \frac{\text{Motor Pulley OD}}{\text{Pump rpm}} = \frac{\text{Pump Pulley OD}}{\text{Motor rpm}}$$

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

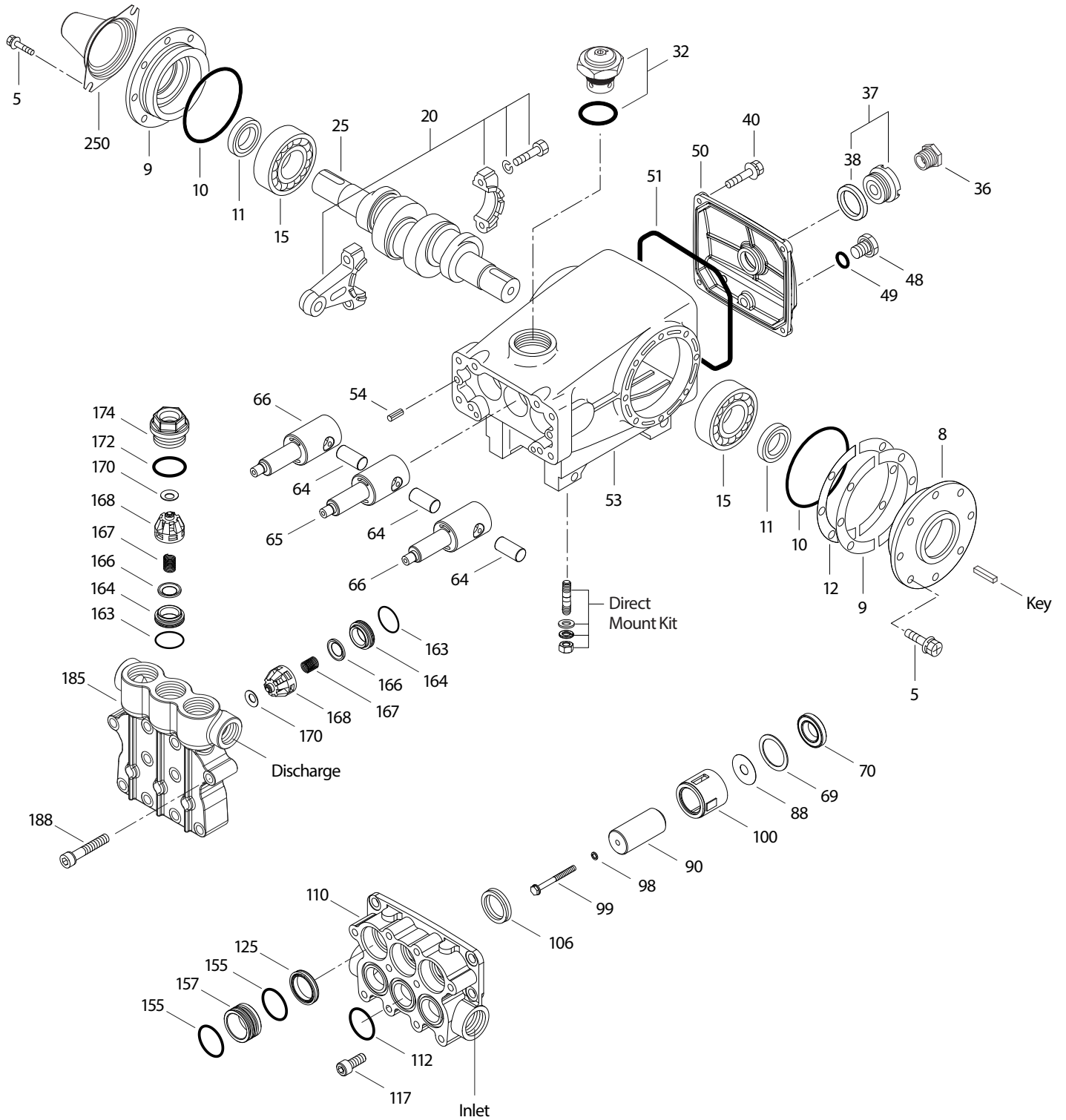
# PARTS LIST

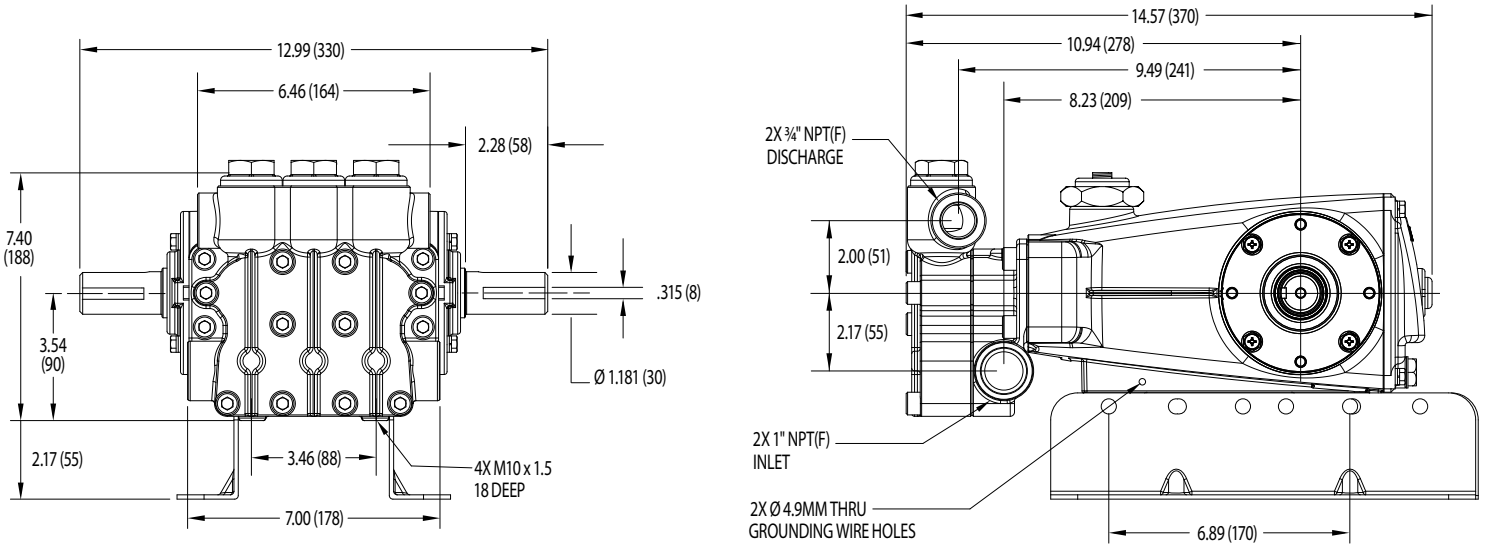
ITEM	PART NUMBER	MATL	DESCRIPTION	QTY
5	49651	S	Screw, HHC Sems (M8 x 20) (See Tech Bulletins 074, 128)	8
8	134805	ALE	Cover, Bearing (See Tech Bulletins 118, 128)	2
9	855043	FBR	Shim, Split 2-Piece (See Tech Bulletin 128)	0-2
10	76340	FPM	O-Ring, Bearing Cover-75D	2
11	76491	FPM	Seal, Oil, Crankshaft	2
12	855044	SS	Shim, Split, 2-Piece (See Tech Bulletin 128)	0-2
15	39060	STL	Bearing, Roller	2
20	768600	TNM	Rod, Connecting Assembly (See Tech Bulletin 074)	3
25	43494	FCM	Crankshaft, Dual-End (M30)	1
32	997574	SS	Cap, Filler with O-Ring	1
36	76792	SS	Gauge, Sight	1
37	76791	AL	Adapter, Sight	1
38	44428	NBR	Gasket, Flat, Adapter-80D	1
40	92542	S	Screw, HHC Sems (M6 x 20) (See Tech Bulletin 074)	4
48	25625	STCP	Plug, Drain (1/4" x 19 BSP)	1
49	30322	FPM	O-Ring, Drain Plug	1
50	133576	ALE	Cover, Rear (See Tech Bulletin 118)	1
51	76834	FPM	O-Ring, Rear Cover-75D	1
53	134858	ALE	Crankcase, Assembly (Includes: 54) (See Tech Bulletins 118, 128)	1
54	27488	S	Pin, Guide	2
64	763507	CM	Pin, Crosshead	3
65	76614	SS	Rod, Plunger (Center)	1
66	76612	SS	Rod, Plunger (Outside)	2
69	126596	STCP R	Washer, Oil Seal	3
70	76500	FPM	Seal, Oil Crankcase	3
75	48937	S	Slinger, Barrier	3
90	48938	CC	Plunger, Ceramic (M30 x 65)	3
98	48394	FPM	Washer, Seal-90D	3
99	48201	SS	Retainer, Plunger (See Tech Bulletin 074)	3
100	76926	AL	Retainer, Seal	3
106	702939	ST4	Seal, Low-Pressure with NIH-Spring	3
110	49614	SS	Manifold, Inlet	1
112	76903	FPM	O-Ring, Inlet Manifold - 80D	3
117	49044	S	Screw, HSH (M10 x 25) (See Tech Bulletin 074)	4
125	702945	ST4	Seal, High-Pressure	3
155	76903	FPM	O-Ring, Spacer-80D	6
157	49621	SS	Spacer, High-Pressure	3
163	14331	FPM	O-Ring, Seat-70D	6
164	49626	SS	Seat	6
166	670108	SS	Valve	6
167	48687	SS	Spring, Valve	6
168	48994	PVDF	Retainer, Spring	6
170	49627	SS	Washer, Spring Retainer	6
172	14183	FPM	O-Ring, Valve Plug	3
174	49628	SS	Plug, Valve (See Tech Bulletin 074)	3
185	49623	SS	Manifold, Discharge	1
188	87952	S	Screw, HSH (M10 x 55) (See Tech Bulletin 074)	10
250	26516.15FR	STCP	Protector, Shaft	1

R Components comply with RoHS Directive.

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 CC=Ceramic CM=Chrome-moly FBR=Fiber FCM=Forged Chrome-moly FPM=Fluorocarbon NBR=Medium Nitrile (Buna-N)  
 PVDF=Polyvinylidene Fluoride S=304SS SS=316SS ST4=Special PTFE 4 STCP=Steel/Chrome Plated STL=Steel TNM=Special High Strength

# EXPLODED VIEW





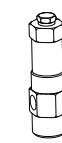
Model 1541M.44101

**REPAIR KITS AND PARTS**

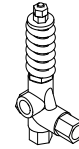
PART NUMBER	DESCRIPTION	QTY
76093	Kit, Seal (Includes Items: 98, 106, 112, 125, 155)	1
76450	Kit, Valve (Includes Items: 163, 164, 166, 167, 168, 170, 172)	2
6107	Oil, Bottle (21 oz) ISO 68 Hydraulic (Fill to Specified Crankcase Capacity Prior to Start-up)	2
30067/990036	Key (M8 x 7.5 x 25)/(M8 x 7 x 40)	1
6139	Lubricant, Anti-Seize (8 oz)	1

**OPTIONAL PARTS AND ACCESSORIES**

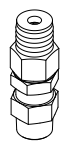
PART NUMBER	DESCRIPTION	QTY
7022.100	Regulator (Primary Pressure Control)	1
7531.1110	Valve, Relief (Primary or Secondary Pressure Control)	1
9941.0110	Valve, Pop-Off (Secondary Pressure Control)	1
6073	Gauge, Pressure	1
6013	Dampener, Pulsation	1
30613	Assembly, Rail	1
30264	Kit, Direct Mount	1
76334	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	Reverse Pliers	1
44050	Tool, Sight Gauge Removal	1



7022.100



7531.1110



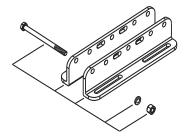
9941.0110



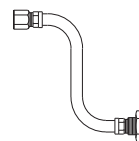
6073



6013



30613



34334



6107

**⚠ CAUTIONS AND WARNINGS**

All high-pressure systems require a primary pressure regulating device (e.g. regulator, unloader) and a secondary pressure relief device (e.g. 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 online at [www.catpumps.com/literature/cat-pumps-limited-warranty](http://www.catpumps.com/literature/cat-pumps-limited-warranty)