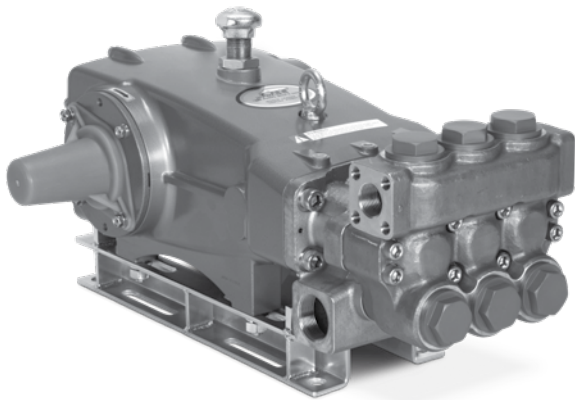


DATA SHEET

35 FRAME PLUNGER PUMPS



Stainless Steel Model: **3531D.44101**
Brass Model: **3535.44101**



Model 3531D.44101 Shown
 (Shaft protector included, mounting rails sold separately)

SPECIFICATIONS	U.S.	Metric
Flow	36 gpm	136 lpm
Pressure Range	100 - 1200 psi	6.9 - 83 bar
Inlet Pressure Range	Flooded to 70 psi	Flooded to 4.8 bar
RPM	800 rpm	800 rpm
Bore	1.575"	40 mm
Stroke	1.890"	48 mm
Crankcase Capacity	4.2 qts	4 l
Max. Liquid Temperature	240° F	115° C
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	24.33 x 18.11 x 9.72"	618 x 460 x 247 mm

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.

ELECTRIC HORSEPOWER REQUIREMENTS

FLOW		PRESSURE			RPM
		psi 800	psi 1000	psi 1200	
gpm	lpm	bar 55	bar 69	bar 83	
36	136	19.8	24.7	29.7	800
30	114	16.5	20.6	24.7	667
25	95	13.7	17.2	20.6	556

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

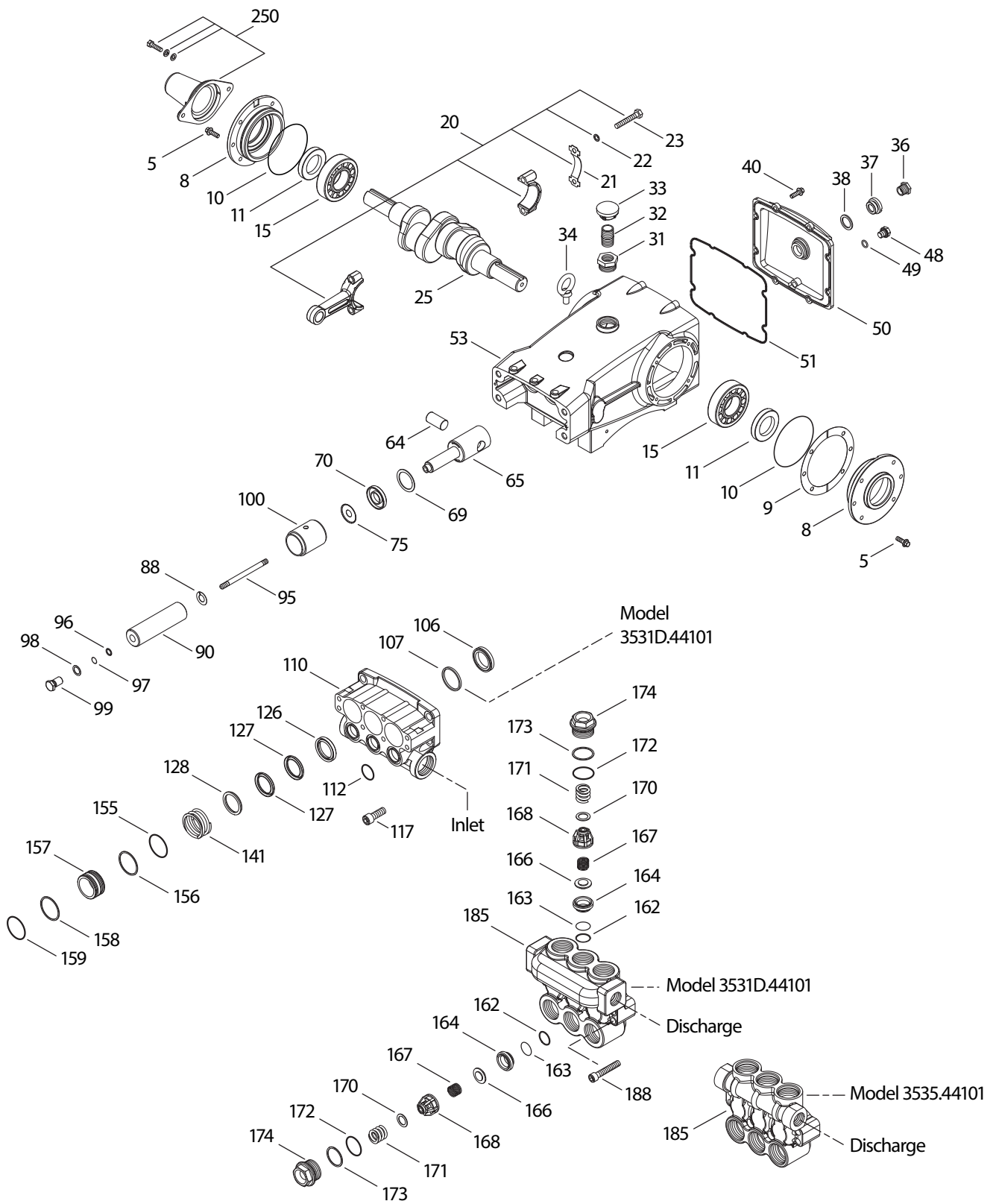
ITEM	MATL		MATL		DESCRIPTION	QTY
	3531D.44101		3535.44101			
5	96049	S	96049	S	Screw, HHC Sems (M10 x 25) (See Tech Bulletin 125) (06/18)	8
8	134604	AL	134604	AL	Cover, Bearing (See Tech Bulletin 118, 125) (06/18)	2
9	815279	FBR	815279	FBR	Shim, Split 2-piece (See Tech Bulletin 125) (06/18)	2
10	76173	FPM	76173	FPM	O-Ring, Bearing Cover	2
11	76172	FPM	76172	FPM	Seal, Oil, Crankshaft	2
15	29326	STL	29326	STL	Bearing, Roller	2
20	121467	TNM	121467	TNM	Rod, Connecting Assy (Incls: 21, 22, 23)	3
21	126749	STCP R	126749	STCP R	Washer, Locking	3
22	126593	STCP R	126593	STCP R	Shim, Washer (M10.5)	6
23	122045	STZP	122045	STZP	Screw, HH (M10 x 55)	6
25	29325	FCM	29325	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
34	126743	STCP R	126743	STCP R	Bolt, Eye (M12 x 1.75) (For lifting Pump Only)	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	125753	S	125753	S	Screw, HHC Sems (M8 x 25)	8
48	25625	STCP	25625	STCP	Plug, Drain (1/4" x 19BSP)	1
49	30322	FPM	30322	FPM	O-Ring, Drain Plug	1
50	45936	AL	45936	AL	Cover, Rear (See Tech Bulletin 118)	1
51	76174	FPM	76174	FPM	O-Ring, Rear Cover - 75D	1
53	134784	AL	134784	AL	Crankcase Assy (Incls: 34,54) (See Tech Bulletin 118, 125) (06/18)	1
54	27488	S	27488	S	Pin, Guide	2
64	43864	CM	43864	CM	Pin, Crosshead	3
65	45116	SSZZ	45116	SSZZ	Rod, Plunger	3
69	126587	STCP R	126587	STCP R	Washer, Oil Seal	3
70	44739	FPM	44739	FPM	Seal, Oil, Crankcase	3
75	43865	S	43865	S	Slinger, Barrier	3
88	45676	S	45676	S	Washer, Keyhole	3
90	43921	CC	43921	CC	Plunger (M40 x 145)	3
95	89778	SS	89778	SS	Stud, Plunger Retainer (M10 x 135)	3
96	20189	PTFE	20189	PTFE	Back-up-Ring, Plunger Retainer	3
97	11375	FPM	11375	FPM	O-Ring, Plunger Retainer	3
98	44085	SS	44085	SS	Gasket, Plunger Retainer	3
99	44084	SS	44084	SS	Retainer, Plunger (M10)	3
100	999324	AL	999324	AL	Retainer, Seal	3
106	701066	SFTB	76398	ST4	Seal, LPS w/S-Spg	3
107	45381	SS	—	—	Spacer, LPS	3
110	45365	SS	49464	BBCP R	Manifold, Inlet	1
112	14183	FPM	14183	FPM	O-Ring, Inlet Manifold	3
117	44585	S	44585	S	Screw, HSH (M14 x 40)	4
126	45367	SS	46494	BB	Adapter, Female	3
127	76780	ST4	76780	ST4	V-Packing	6
128	45368	SS	43928	BB	Adapter, Male	3
141	49519	SS	49519	SS	Spring, Coil	3
155	20137	FPM	20137	FPM	O-Ring, V-Packing Spacer - 70D	3
156	20464	PTFE	20464	PTFE	Backup-Ring, V-Packing Spacer	3
157	49520	SS	49478	BB	Spacer, V-Packing	3
158	20464	PTFE	20464	PTFE	Back-up-Ring, V-Packing Spacer	3
159	20137	FPM	20137	FPM	O-Ring, V-Packing Spacer - 70D	3
162	44614	PTFE	44614	PTFE	Back-up-Ring, Valve Seat	6
163	14330	FPM	14330	FPM	O-Ring, Valve Seat	6
164	44612	SS	44727	S	Seat	6
166	44108	SS	43932	S	Valve	6
167	44109	SS	44109	SS	Spring	6
168	44728	PVDF	44728	PVDF	Retainer, Spring	6
170	44729	SS	44729	SS	Washer, Spring Retainer	6
171	44644	SS	44644	SS	Spring, Coil	6
172	11747	FPM	11747	FPM	O-Ring, Valve Plug - 90D	6
173	20388	PTFE	20388	PTFE	Back-up-Ring, Valve Plug	6
174	49300	SSD	46444	FBB	Plug, Valve	6
185	49299	SSD	49465	BBCP R	Manifold, Discharge	1
188	89981	S	89981	S	Screw, HSH (M12 x 70)	8
250	855042	NY	855042	NY	Protector, Shaft (See Tech Bulletin 125) (06/18)	1

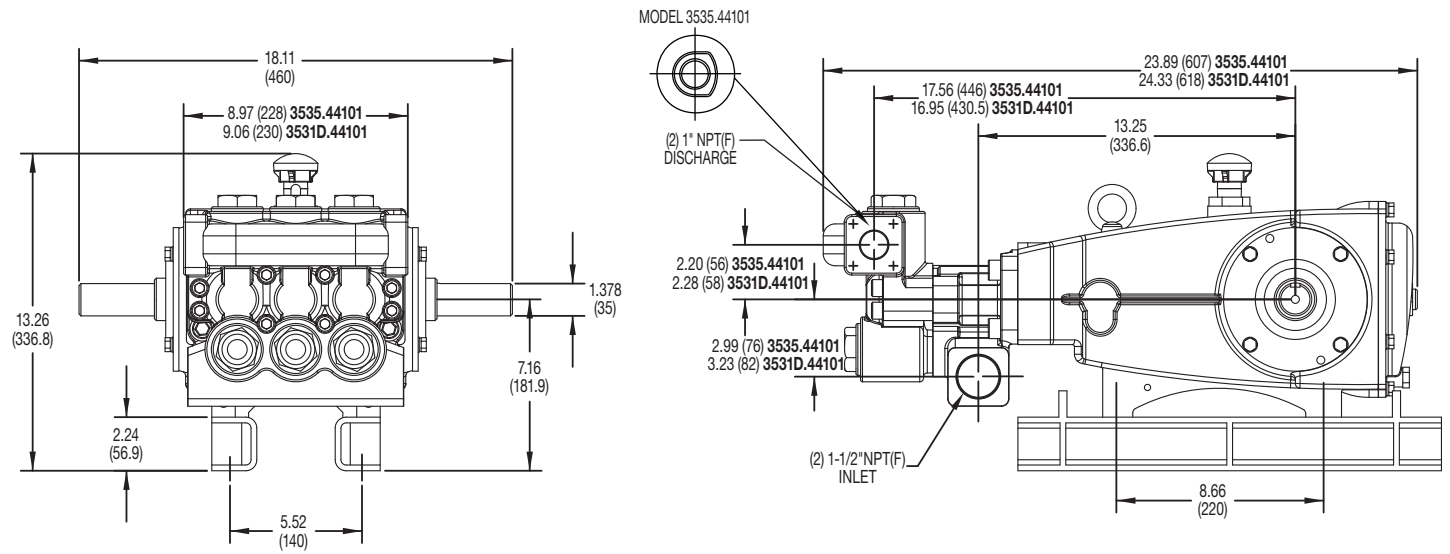
Bold face part numbers are unique to a particular pump model R Components comply with RoHS Directive.

View Tech Bulletins 024, 040, 041, 050, 052, 053, 064, 069, 074, 083, 100, 105, 109, 114, 118, 125 and 127 for additional information. See Service Bulletin 001.

MATERIAL CODES (Not Part of Part Number): AL=Aluminum BB=Brass BBCP=Brass/Chrome Plated CC=Ceramic CM=Chrome-Moly FBB=Forged/Brass FBR=Fiber
 FCM=Forged Chrome-moly FPM=Fluorocarbon NBR=Medium Nitrile (Buna-N) NY=Nylon PTFE=Pure Polytetrafluoroethylene PVDF=Polyvinylidene Fluoride
 S=304SS SFTB=Special Blend PTFE Black SS=316SS SSD=Duplex Stainless Steel STL=Steel ST4=Special PTFE4 STCP=Steel/Chrome Plated STZP=Steel/Zinc Plated
 SSZZ=316SS/Zamak TNM=Special High Strength

EXPLODED VIEW



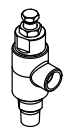


REPAIR KITS AND PARTS

PART NUMBER	DESCRIPTION	QTY
76276 (3531D.44101)	Kit, Seal (Includes Items 97, 106, 112, 127, 155, 156, 158 and 159)	1
76269 (3535.44101)		
77029 (3531D.44101)	Kit, Valve (Includes Items 162, 163, 164, 166,167, 168, 170, 172 and 173)	2
76263 (3535.44101)		
6107	Oil, Bottle (21 oz.) ISO 68 Hydraulic	4
34021	Key (M10x8x70)	1
6119	Lubricant, Anti seize (2 oz.) (Model 3531D.44101)	1



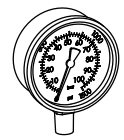
7032, 7032.100



890711



890710



6073

OPTIONAL PARTS AND ACCESSORIES

PART NUMBER	DESCRIPTION	QTY
7032, 7032.100	Regulator (Primary Pressure Control)	1
890702	Relief Valve (Secondary Pressure Control)	1
890711	Pop-Off Valve (Secondary Pressure Control)	1
6073	Pressure Gauge	1
6013	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



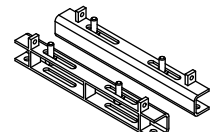
6013



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 or can be requested directly from Cat Pumps.

WARRANTY

View the Limited Warranty on-line at www.catpumps.com/warranty.