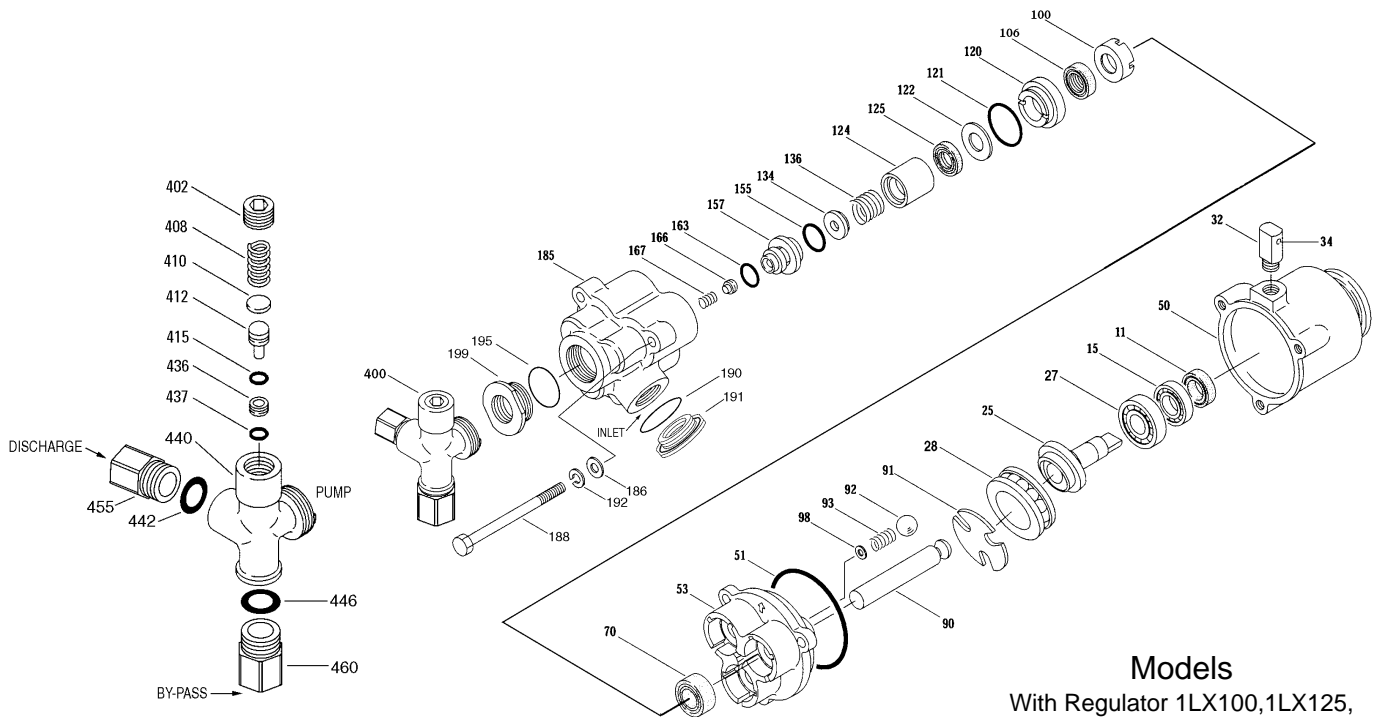


EXPLODED VIEW



Models
 With Regulator 1LX100, 1LX125,
 Without Regulator 1LXX100, 1LXX125
 Belt Drive with Regulator 1LXB100
 August 2003

PUMP PARTS LIST

ITEM	P/N	MATL	DESCRIPTION	MODEL USED	QTY	ITEM	P/N	MATL	DESCRIPTION	MODEL USED	QTY
11	100552	NBR	Seal, Oil, Crankcase - 70D		1	124	48321	RTP	Cylinder		3
15	19585	STL	Bearing, Inner		1	125	48322	STG	Seal, HPS		3
25	48336	STL	Cam, Offset	1LX100	1	134	48325	NY	Valve, Inlet		3
—	48455	STL	Cam, Offset	1LX125	1	136	48339	S	Spring, Coil, Inlet		3
—	48616	STL	Cam, Solid	1LXB100	1	155	17549	NBR	O-Ring, Cylinder - 70D		3
27	12693	STL	Bearing, Outer	1LX100, 1LX125	1	157	48326	RTP	Seat, Inlet/Discharge		3
28	48346	STL	Bearing, Thrust		1	163	48348	NBR	O-Ring, Seat - 70D		3
32	48330	RTP	Cap, Oil Filler/Drain		1	166	48327	HT	Valve		3
34	—	NBR	Plug		1	167	48340	STZP	Spring, Coil		3
50	48314	AL	Cover, Crankcase		1	185	48319	RTP	Manifold		1
51	14029	NBR	O-Ring, Crankcase - 70D		1	186	12488	STZP	Washer, Flat (M6)		3
53	48317	RTP	Crankcase		1	188	82195	STZP	Screw, HH (M6x90)		3
70	29250	NBR	Seal, Oil, Crankcase		3	190	13973	NBR	O-Ring, Mfld, I.F.		1
90	48333	STCP	Plunger (M12x78)		3	191	48580	BB	Fitting, Inlet 1/2 NPSMx3/8 NPTF		1
91	48316	STL	Plate, Guide		1	192	12502	STZP	Lockwasher (M6)		3
92	48337	STL	Ball		1	195	<i>13982</i>	<i>NBR</i>	<i>O-Ring, Mfld, D.F.</i>	1LXX100, 1LXX125	1
93	48338	STL	Coil Spring		1	199	<i>48574</i>	<i>BB</i>	<i>Fitting, Discharge</i>	1LXX100, 1LXX125	1
98	20020	STL	Washer		2				<i>3/4-14 NPSM x 3/8 NPTF</i>		
100	48318	RTP	Retainer, Seal		3	255	<i>35950</i>	—	<i>Kit, Mounting</i>	1LX100, 1LX125	1
106	547682	NBR	Seal, LPS		3	275	<i>33836</i>	—	<i>Assembly, Drive Mount</i>	1LXB100	1
120	48320	RTP	Case, Seal		3	300	<i>33451</i>	<i>NBR</i>	<i>Kit, Seal (Incls: 106,121,125)</i>		1
121	13977	NBR	O-Ring, Seal Case - 70D		3	310	<i>33452</i>	<i>NBR</i>	<i>Kit, Valve (Incls: 134,136,155,157,163,166,167)</i>		1
122	48324	S	Washer, HPS		3	400	<i>7550</i>	<i>RTP</i>	<i>Regulator Assembly</i>	1LX100, 1LX125	1

Italics are optional items.

MATERIAL CODES (Not Part of Part Number): AL=Aluminum BB=Brass HT=Hi-Temp (EPDM Alternative) NY=Nylon NBR=Medium Nitrile (Buna-N)
 RTP=Reinforced Composite S=304SS STG=Special Blend (Teflon®) White STCP=Steel/Chrome Plated STL=Steel STZP=Steel/Zinc Plated

7550 REGULATOR PARTS LIST

ITEM	P/N	MATL	DESCRIPTION	QTY	ITEM	P/N	MATL	DESCRIPTION	QTY
400	7550	RTP	Regulator Assembly	1	437	14196	FPM	O-Ring, Seat	1
402	48329	RTP	Screw, Adjustment, Allen	1	440	48328	RTP	Body	1
408	48341	STZP	Spring, Coil	1	442	11343	NBR	O-Ring, Fitting	1
410	45862	BB	Retainer, Spring	1	446	11343	NBR	O-Ring, Fitting	1
412	48342	S	Stem, Piston	1	455	25144	BB	Fitting, By-Pass (1/4" NPTF)	1
415	14160	FPM	O-Ring, Stem - 80D	1	460	25144	BB	Fitting, Discharge (1/4" NPTF)	1
436	48343	S	Seat	1	468	33418	FPM	Kit, Repair, (Incls: 415,436,437)	1

Italics are optional items.

MATERIAL CODES (Not Part of Part Number): BB=Brass FPM=Fluorocarbon (Viton®) NBR=Medium Nitrile (Buna-N)
 RTP=Reinforced Composite S=304SS STZP=Steel/Zinc Plated

MOTOR SPECIFICATIONS

Pump and Motor Unit 1LX100D331 Pump Model 1LX100 – Motor Model 8088

Horsepower	1/3
Shaft	Clamp Coupling
Hertz	50/60
Phase	Single
Max. Volts.....	115/230
FULL LOAD AMPS @ 115V, 50/60 Hz	4.0/3.4
FULL LOAD AMPS @ 230V, 50/60 Hz	2.0/1.7
RPM	1425/1725
Frame Size (Barrel-Carbonator Type).....	48
Service Factor	1.15
U. L. Reference No.	E22922
CSA Reference No.	LR2459
CE Reference No.	Pending
	U.S. Measure Metric Measure
Weight (Motor).....	20.0 lbs. (9.1 kg)
Weight (Unit).....	22.65 lbs. (10.3 kg)
Mounting Assy.....	35950
Dimensions	15.36 x 7.63 x 7.81" (390.14 x 193.8 x 198.37 mm)

Pump and Motor Unit 1LX125D501 Pump Model 1LX125 – Motor Model 8089

Horsepower	1/2
Shaft	Clamp Coupling
Hertz	50/60
Phase	Single
Max. Volts.....	115/230
FULL LOAD AMPS @ 115V, 50/60 Hz	7.6/5.8
FULL LOAD AMPS @ 230V, 50/60 Hz	3.8/3.0
RPM	1425/1725
Frame Size (Barrel-Carbonator Type).....	48
Service Factor	1.15
U. L. Reference No.	E22922
CSA Reference No.	LR2459
CE Reference No.	Pending
	U.S. Measure Metric Measure
Weight (Motor).....	21.25 lbs. (9.65 kg)
Weight (Unit).....	23.9 lbs. (10.9 kg)
Mounting Assy.....	35950
Dimensions	16.92 x 7.63 x 7.81" (429.76 x 193.8 x 198.37 mm)

Pump and Motor Unit 1LX100EM331 Pump Model 1LXB100 – Motor Model 8090

Horsepower	1/3
Shaft	Solid w/Keyway
Hertz	50/60
Phase	Single
Max. Volts.....	115/230
FULL LOAD AMPS @ 115V, 50/60 Hz	4.0/3.4
FULL LOAD AMPS @ 230V, 50/60 Hz	2.0/1.7
RPM	1725
Frame Size	56C
Service Factor	1.15
U. L. Reference No.	E22922
CSA Reference No.	LR2459
CE Reference No.	Pending
	U.S. Measure Metric Measure
Weight (Motor).....	16.25 lbs. (7.37 kg)
Weight (Unit).....	21.97 lbs. (9.96 kg)
Mounting Assy.....	33836
Dimensions	12.4 x 10.2 x 7.81" (314.96 x 259.1 x 198.37 mm)

SERVICE

This pump is designed for use with clean water. The seals and valves should last the life of the pump or 500 hour intervals. The Regulator is a separate item and can be replaced as needed.

Oil should be changed after 500 hours. Remove the oil filler cap, turn the body over and drain. **Fill with exactly 2.23 oz (66 ml) of CAT PUMPS crankcase oil.**

Seals and Valves

Disassembly:

1. Remove all hoses from the pump.
2. Remove oil filler cap and drain the oil from the crankcase.
3. Remove three manifold screws.
4. Remove manifold and crankcase from the crankcase cover.
NOTE: Cam and bearings will remain in crankcase cover. Thrust bearing will be a loose part.
5. Separate the manifold from the crankcase.
NOTE: Guide plate, plunger, ball, spring, washer and oil seal will remain in crankcase.
6. Remove seal retainer from each crankcase chamber.
7. Remove the Lo-Pressure Seal (LPS) and then seal case from each manifold chamber.
8. Remove washer and Hi-Pressure Seal (HPS) from each cylinder.
9. Using a reverse pliers, remove the cylinder from each manifold chamber.
CAUTION: Exercise caution as the reverse pliers may score HPS surface.
10. Separate the inlet/discharge seat from the cylinder.
11. Remove the inlet valve, o-ring and inlet spring from the each cylinder.
12. Using a pliers, remove discharge valve and spring from each manifold chamber.

Reassembly:

1. Examine the discharge valves and springs for wear and replace as needed. Snap spring to each discharge valve.
2. Using a pliers, insert the discharge valve/spring assembly into the **notches at the bottom of the manifold.**
3. Examine the inlet/discharge seats for wear and replace as needed. Install new o-rings onto both ends of the inlet/discharge seats.
4. Examine the inlet valves and springs for wear and replace as needed.
5. Examine cylinders for wear and replace as needed.
6. Install inlet spring, then valve into each cylinder.
7. Lubricate the outer surface of both o-rings on each inlet/discharge seat, then press inlet/discharge seat into each cylinder.
8. Press inlet/discharge seat and cylinder assembly into manifold chamber.
9. Examine HPS and replace as needed. Press HPS into each cylinder with **groove down.**
10. Examine washer and replace as needed. Press washer into each cylinder with **beveled edge down.**
11. Examine seal case and replace as needed. Press seal case into each manifold chamber.
12. Examine LPS and replace as needed. Press LPS into each seal case with **groove down.**
13. Examine seal retainer for wear and replace as needed. Install seal retainer into each crankcase chamber.
14. Place hand over the end of the plunger guide plate to keep the ball, spring and washer contained within the crankcase. Press crankcase into manifold.
15. Place manifold and crankcase assemblies into the crankcase cover.
16. Insert the three manifold screws and torque to 30 in/lbs.

TORQUE CHART

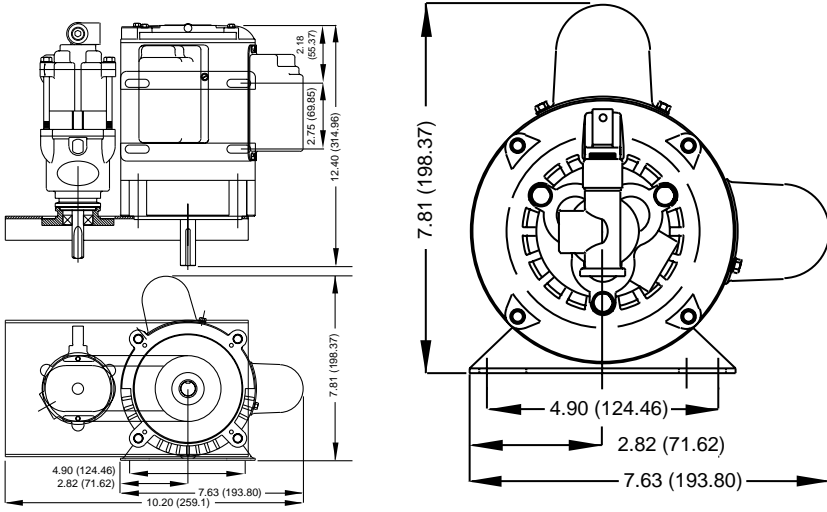
Item	Size	in.lbs.	Nm
Pump Inlet	1/2"	25	3
Unloader Discharge	1/4"	50	6
Unloader By-Pass	1/4"	25	3
Manifold Screw	M6x90	31	3.5
Clamp Screw	10-32	20	2.4

WARRANTY

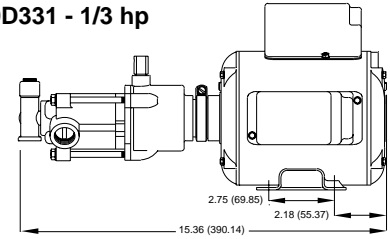
6 Month Warranty

Refer to complete CAT PUMPS Warranty for further information.

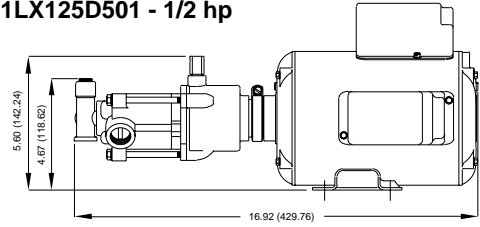
1LXB100D331 - 1/3 hp



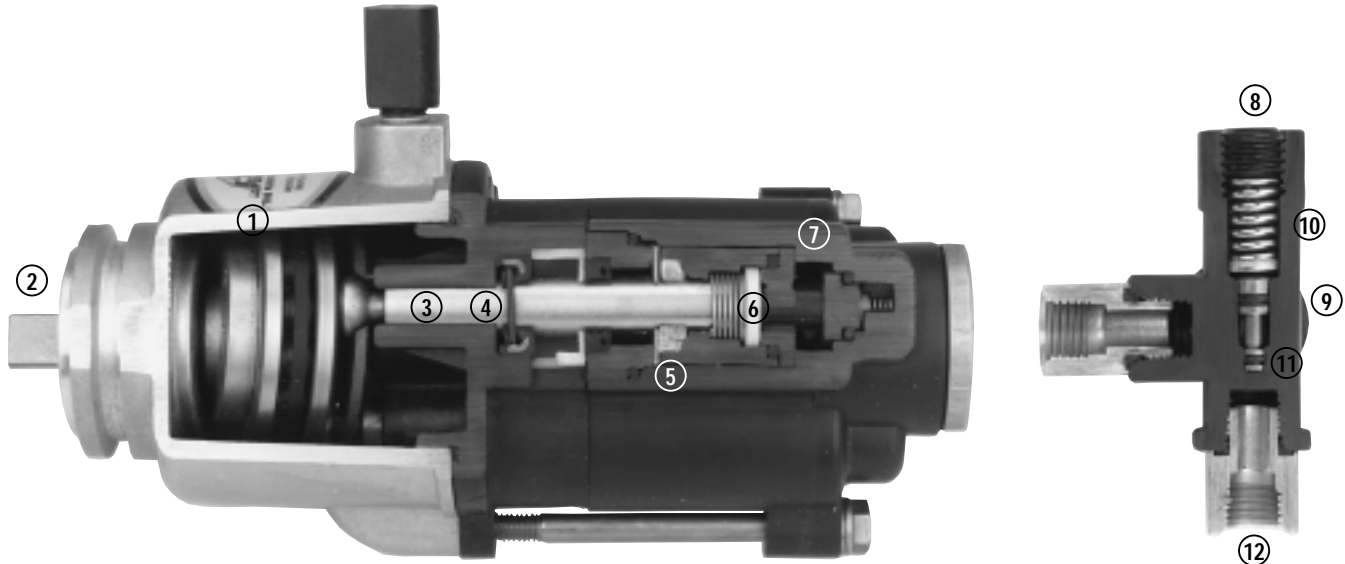
1LX100D331 - 1/3 hp



1LX125D501 - 1/2 hp



Models 1LX100, 1LX125, 1LXB100



- | | | |
|--|--|--|
| <p>1 High strength, lightweight, die cast aluminum crankcase.</p> <p>2 Direct coupled, clamp mounting for easy, compact assembly and disassembly.</p> <p>3 360° guided, mechanically actuated plungers offer precise flow with greater efficiency.</p> <p>4 Spring reinforced oil seal separates crankcase from liquid end and allows easy maintenance of Lo-Pressure and Hi-Pressure Seals.</p> | <p>5 CAT PUMP exclusive, Hi-Pressure Seals offer exceptional performance and unmatched seal life with high temperature liquids.</p> <p>6 Spring guided inlet valve design offers positive seating and a smooth, consistent flow.</p> <p>7 Lightweight, heat-resistant RTP liquid end and Regulator offer extended life.</p> | <p>8 Easy access adjusting screw for precise pressure adjustment and servicing.</p> <p>9 Ultra compact design and threaded back port permits direct mounting on manifold head.</p> <p>10 RTP heat and chemical resistant body.</p> <p>11 Stainless Steel piston and seat for multiple cycle durability.</p> <p>12 Bottom by-pass port redirects liquid if discharge line becomes blocked protecting pump from over pressure.</p> |
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Products described hereon are covered by one or more of the following U.S. patents 3558244, 3652188, 3809508, 3920356, 3930756 and 5035580

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