

DATA SHEET

25 FRAME PLUNGER PUMPS



**Standard
Brass**
2530, 2530E

**Stainless
Steel**
2531

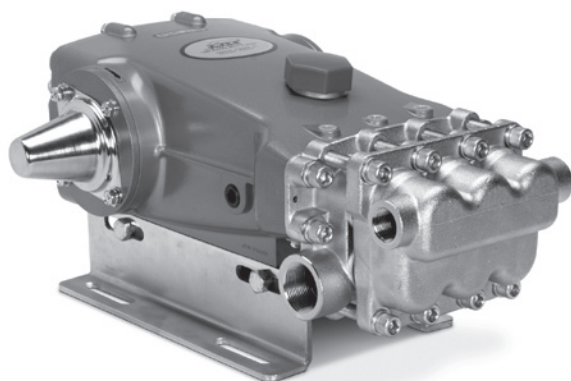
**Nickel Aluminum
Bronze**
2537



PIJTERSEN

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Internet: www.pijtersen.nl / www.catpumps.nl



Model 2530 Shown
(Shaft protector and mounting rails sold separately)

FEATURES

- Triplex design delivers high efficiency and low pulsation.
- Durable high pressure seals are lubricated and cooled by pumped liquid.
- Pre-set Lo-Pressure seals provide secondary protection against external leaks and require no packing adjustments.
- Standard NBR seals with alternative options for temperature and chemical compatibility.
 - FPM – .0110
 - EPDM – .0220
 - High Temp, 190° F – .3000

COMMON SPECIFICATIONS

	U.S.	Metric
Inlet Pressure Range	Flooded to 70 psi	Flooded to 4.9 bar
Bore	1.260"	32 mm
Stroke	1.516"	38.5 mm
Crankcase Capacity	84 oz.	2.5 l
Max. Liquid Temperature	160° F	71° C
Above 130°F call Cat Pumps for inlet conditions and elastomer recommendations.		
Inlet Ports (2)	1 1/4" NPT(F)	1 1/4" NPT(F)
Discharge Ports (2)	3/4" NPT(F)	3/4" NPT(F)
Pulley Mounting	Either Side	Either Side
Shaft Diameter	1.181"	30 mm
Weight	82 lbs.	37.1 kg
Dimensions	19.11 x 15.04 x 7.8"	485.44 x 382 x 198 mm

SPECIFICATIONS

	U.S. Measure	Metric Measure
2530, 2530E, 2531		
Flow	25 gpm	95 lpm
Pressure Range	100 to 1000 psi	7 to 70 bar
RPM	1025 rpm	1025 rpm
2537		
Flow	21 gpm	80 lpm
Pressure Range	100 to 1200psi	7 to 83 bar
RPM	860 rpm	860 rpm

ALTERNATE SPECIFICATIONS

2530, 2530E, 2531		
Flow	21 gpm	80 lpm
Pressure Range	100 to 1200psi	7 to 83 bar
RPM	860 rpm	860 rpm

ELECTRIC HORSEPOWER REQUIREMENTS

MODEL	FLOW		PRESSURE			RPM
			psi 800	psi 1000	psi 1200	
	U.S. gpm	lpm	bar 55	bar 70	bar 83	
2530, 2530E, 2531	25	95	13.7	17.1	N/A	1025
	21	80	11.5	14.4	17.3	860
2537	21	80	11.5	14.4	17.3	860
	18	68	9.9	12.3	14.8	738
	15	57	8.2	10.3	12.4	615

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.

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

DETERMINING MOTOR PULLEY SIZE

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

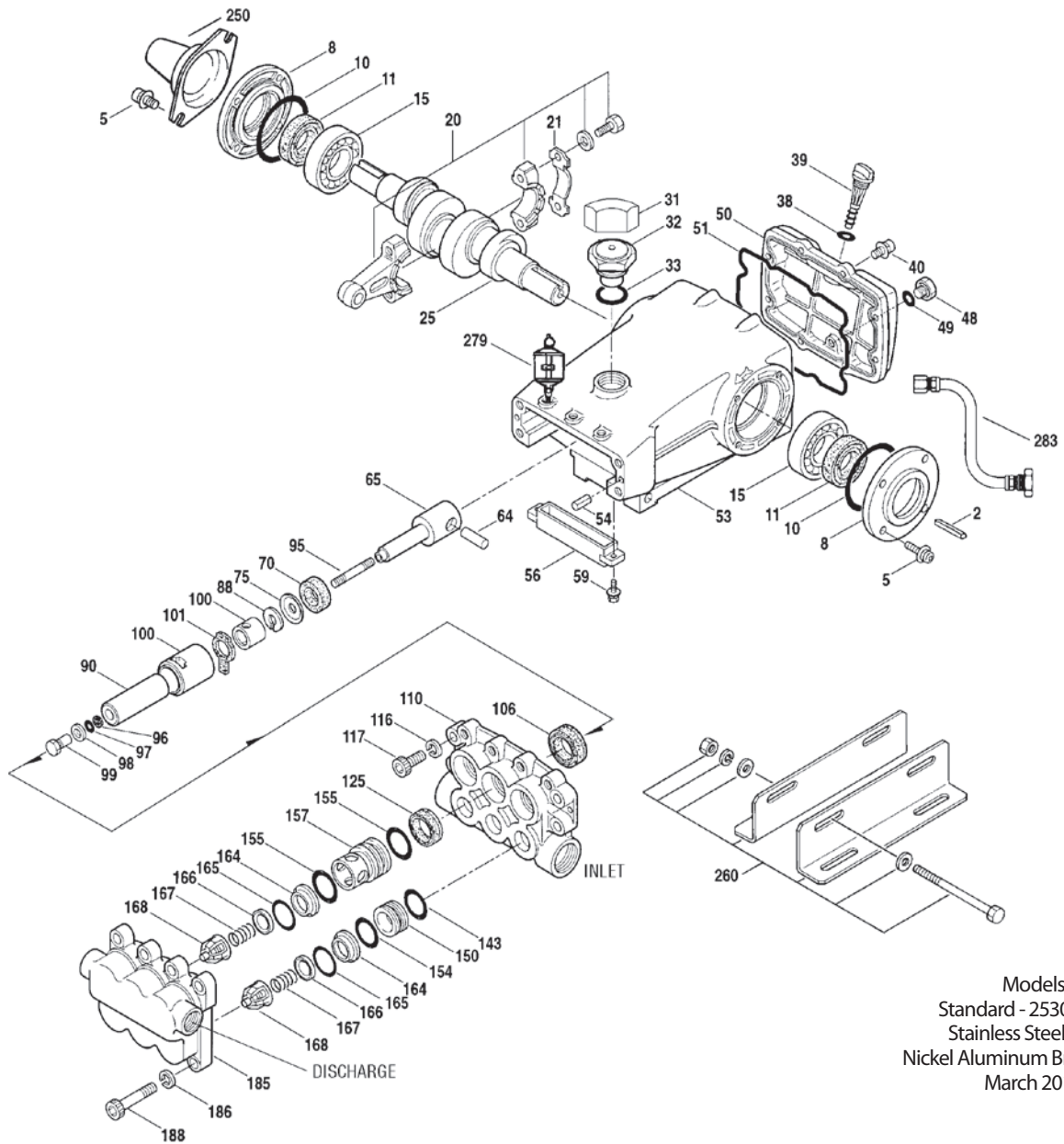
See complete Drive Packages [Incls: Pulleys, Belts, Hubs, Key] Tech Bulletin 003.

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

PARTS LIST

ITEM	2530		PART NUMBER		DESCRIPTION		QTY	
	2530E	MATL	2531	MATL	2537	MATL		
2	990036	STL	990036	STL	990036	STL	Key (M8x7x40) [2/00]	1
5	126544	STCPR	125753	S	125753	S	Screw, HHC, Sems (M8x25)	8
8	27773	AL	27773	AL	27773	AL	Cover, Bearing	2
	49533	ALE	—	—	—	—	Cover, Bearing (2530E Only)	2
10	27772	NBR	27772	NBR	27772	NBR	O-Ring, Oil Seal Case - 70D	2
11	27771	NBR	27771	NBR	27771	NBR	Seal, Oil, Crankshaft - 70D	2
15	26512	STL	26512	STL	26512	STL	Bearing, Ball	2
20	48613	TNM	48613	TNM	48613	TNM	Rod, Connecting	3
21	126562	STCPR	126562	STCPR	126562	STCPR	Washer, Locking	3
25	49795	FCM	49795	FCM	49795	FCM	Crankshaft - Dual End [3/11]	1
31	828710	PE	828710	PE	828710	PE	Protector, Oil Cap w/Gasket	1
32	43211	ABS	43211	ABS	43211	ABS	Cap, Oil Filler	1
33	14177	NBR	14177	NBR	14177	NBR	O-Ring, Oil Filler Cap -70D	1
38	129343	RBR	129343	RBR	129343	RBR	Gasket, Flat	1
39	49948	ABS	49948	ABS	49948	ABS	Dipstick	1
40	126544	STCPR	125753	S	125753	S	Screw, HHC, Sems (M8x25)	8
48	25625	STCP	25625	STCP	25625	STCP	Plug, Drain (1/4"x19BSP)	1
49	23170	NBR	23170	NBR	23170	NBR	O-Ring, Drain Plug -70D	1
50	27768	AL	27768	AL	27768	AL	Cover, Rear	1
	49531	ALE	—	—	—	—	Cover, Rear (2530E Only)	1
51	27767	NBR	27767	NBR	27767	NBR	O-Ring, Rear Cover - 70D	1
53	27762	AL	27762	AL	27762	AL	Crankcase w/Guide Pins	1
	49528	ALE	—	—	—	—	Crankcase w/Guide Pins (2530E Only)	1
54	27488	S	27488	S	27488	S	Pin, Guide	2
56	27790	POP	27790	POP	27790	POP	Pan, Oil	1
59	92519	STZP	92538	S	92538	S	Screw, HHC, Sems (M6x16)	2
	125824	STCPR	—	—	—	—	Screw, HHC, Sems (M6x16)	2
64	27784	CM	27784	CM	27784	CM	Pin, Crosshead	3
65	48719	SSHS	48719	SSHS	48719	SSHS	Rod, Plunger	3
70	27785	NBR	27785	NBR	27785	NBR	Seal, Crankcase Oil -70D	3
75	110669	S	110669	S	110669	S	Slinger, Barrier	3
88	110670	S	110670	S	110670	S	Washer, Keyhole	3
90	45749	CC	45749	CC	45749	CC	Plunger (M32x93)	3
95	+ 89835	SS	89835	SS	89835	SS	Stud, Retainer (M7x87)	3
96	20184	PTFE	20184	PTFE	20184	PTFE	Back-up-Ring, Plunger Retainer	3
97	14190	NBR	14190	NBR	14190	NBR	O-Ring, Plunger Retainer - 70D	3
	14161	FPM	14161	FPM	14161	FPM	O-Ring, Plunger Retainer - 70D	3
	◆ 48239	EPDM	◆ 48239	EPDM	◆ 48239	EPDM	O-Ring, Plunger Retainer	3
98	44069	SS	44069	SS	44069	SS	Gasket, Plunger Retainer	3
99	44068	SS	44068	SS	44068	SS	Retainer, Plunger (M7) [7/02]	3
100	49788	NY	49788	NY	49788	NY	Retainer, LPS, Front	3
	49789	NY	49789	NY	49789	NY	Retainer, LPS, Rear	3
101	110796	—	110796	—	110796	—	Wick, Long Tab (M32)	3
106	+ 44098	NBR	+ 44098	NBR	+ 44098	NBR	Seal, LPS w/SS-Spg	3
	44827	FPM	44827	FPM	44827	FPM	Seal, LPS w/SS-Spg	3
	◆ 48244	EPDM	◆ 48244	EPDM	◆ 48244	EPDM	Seal, LPS w/SS-Spg	3
	76298	ST2	76298	ST2	76298	ST2	Seal, LPS	3
110	49265	CFBB	48583	SS	45830	NAB	Manifold, Inlet	1
116	126570	STCPR	19085	S	19085	S	Lockwasher, Split	4
117	126518	STCPR	88398	S	88398	S	Screw, HSH (M12x40)	4
125	+ 45832	SNG	45832	SNG	45832	SNG	Seal, HPS w/SS	3
	48220	HT*	48220	HT*	48220	HT*	Seal, HPS w/SS, 2-PC w/S-Support	3
143	14203	NBR	14203	NBR	14203	NBR	O-Ring, Adapter, LPS, Rear-70D	3
	11731	FPM	11731	FPM	11731	FPM	O-Ring, Adapter, LPS, Rear	3
	◆ 48241	EPDM	◆ 48241	EPDM	◆ 48241	EPDM	O-Ring, Adapter, LPS, Rear	3
150	45752	BB	45835	SS	45835	SS	Adapter, LPS	3
154	18690	NBR	18690	NBR	18690	NBR	O-Ring, Adapter, LPS, Front -70D	3
	11744	FPM	11744	FPM	11744	FPM	O-Ring, Adapter, LPS, Front	3
	◆ 48242	EPDM	◆ 48242	EPDM	◆ 48242	EPDM	O-Ring, Adapter, LPS, Front	3
155	14520	NBR	14520	NBR	14520	NBR	O-Ring, Adapter, Valve -70D	6
	11745	FPM	11745	FPM	11745	FPM	O-Ring, Adapter, Valve -70D	6
	◆ 48240	EPDM	◆ 48240	EPDM	◆ 48240	EPDM	O-Ring, Adapter, Valve	6
157	45751	BB	45834	SS	45834	SS	Adapter, Valve	3
164	+ 46857	SS	46857	SS	46857	SS	Seat [11/95] [See Tech Bulletin 076]	6
165	14014	NBR	14014	NBR	14014	NBR	O-Ring, Seat	6
	48238	FPM	48238	FPM	48238	FPM	O-Ring, Seat	6
	◆ 48243	EPDM	◆ 48243	EPDM	◆ 48243	EPDM	O-Ring, Seat	6
166	+ 45839	SS	45839	SS	45839	SS	Valve	6
167	+ 45840	SS	45840	SS	45840	SS	Spring	6
168	110682	PVDF	110682	PVDF	110682	PVDF	Retainer, Spring	6
185	49267	CFBB	48585	SS	45836	NAB	Manifold, Discharge	1
186	126570	STCPR	19085	S	19085	S	Lockwasher, Split	8
188	126517	STCPR	—	—	—	—	Screw, HSH (M12x65)	8
250	26516	STCP	26516	STCP	26516	STCP	Protector, Shaft	1
260	30614	STZP R	30614	STZP R	30614	STZP R	Mount, Rail, Assy.	1
269	30206	F	30206	F	30206	F	Pulley (10") [See Tech Bulletin 003]	1
270	30059	STL	30059	STL	30059	STL	Hub, "H", M30 (Keyway M8) [See Tech Bulletin 003] [2/00]	1
279	30278	STZP	30278	STZP	30278	STZP	Oilers (1 oz.)	3

EXPLODED VIEW



Models
Standard - 2530, 2530E
Stainless Steel - 2531
Nickel Aluminum Bronze - 2537
March 2015

ITEM	2530	PART NUMBER				DESCRIPTION	QTY
283	34334	—	34334	—	34334	Kit, Oil Drain (3/8"x24") (See Individual Data Sheet)	1
	76144	—	76144	—	76144	Kit, Oil Drain (3/8"x24") (See Individual Data Sheet)	1
290	6124	—	6124	—	6124	Gasket, Liquid (3 oz.) (See Tech Bulletin 053)	1
299	814838	BB	816735	SS	816538	NAB Head, Complete	1
300	30952	NBR	30952	NBR	30952	NBR Kit, Seal (Incls: 97,106,125,143,154,155) Standard	1
	33607	FPM*	33607	FPM*	33607	FPM* Kit, Seal (Incls: 97,106,125,143,154,155) .0110	1
	◆ 33608	EPDM*	◆ 33608	EPDM*	◆ 33608	EPDM* Kit, Seal (Incls: 97,106,125,143,154,155) .0220	1
310	33952	NBR	33952	NBR	33952	NBR Kit, Valve (Incls: 143,154,155,164,165,166,167,168) Standard	2
	31267	FPM	31267	FPM	31267	FPM Kit, Valve (Incls: 143,154,155,164,165,166,167,168) .0110	2
	◆ 31268	EPDM	◆ 31268	EPDM	◆ 31268	EPDM Kit, Valve (Incls: 143,154,155,164,165,166,167,168) .0220	2
—	—	—	6119	—	—	Lubricant, Antiseize (2 oz.) (See Tech Bulletin 095)	1
—	701931	—	—	—	—	Sealant, Silicone (3 oz.) (2530E Only)	1
—	6100	—	6100	—	6100	Oil, Case (12 Bottles) ISO 68 Hydraulic (Fill to specified crankcase capacity prior to start-up)	1

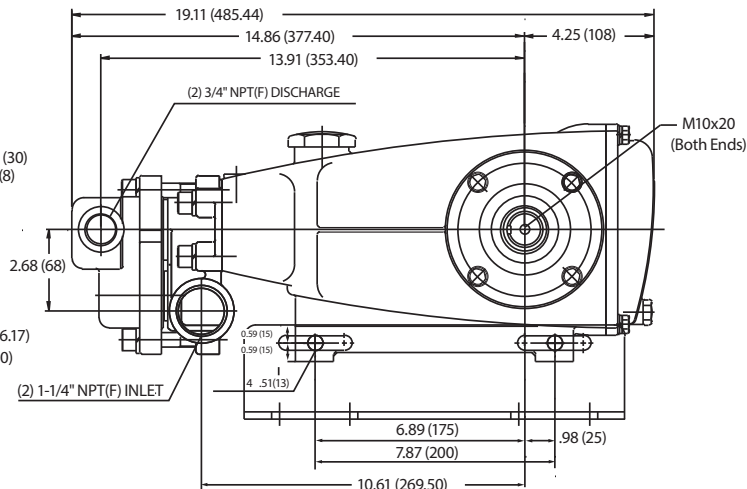
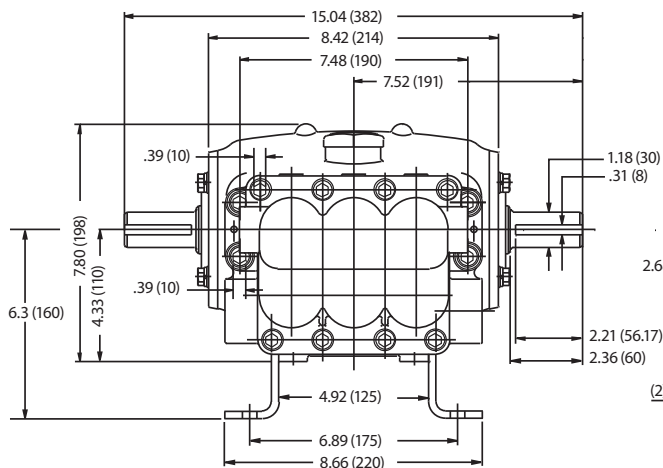
Bold print part numbers are unique to a particular pump model. Italics are optional items. [] Date of latest production change.

◆ Silicone oil/grease required. † Production parts are different than repair parts. R Components comply with RoHS Directive.

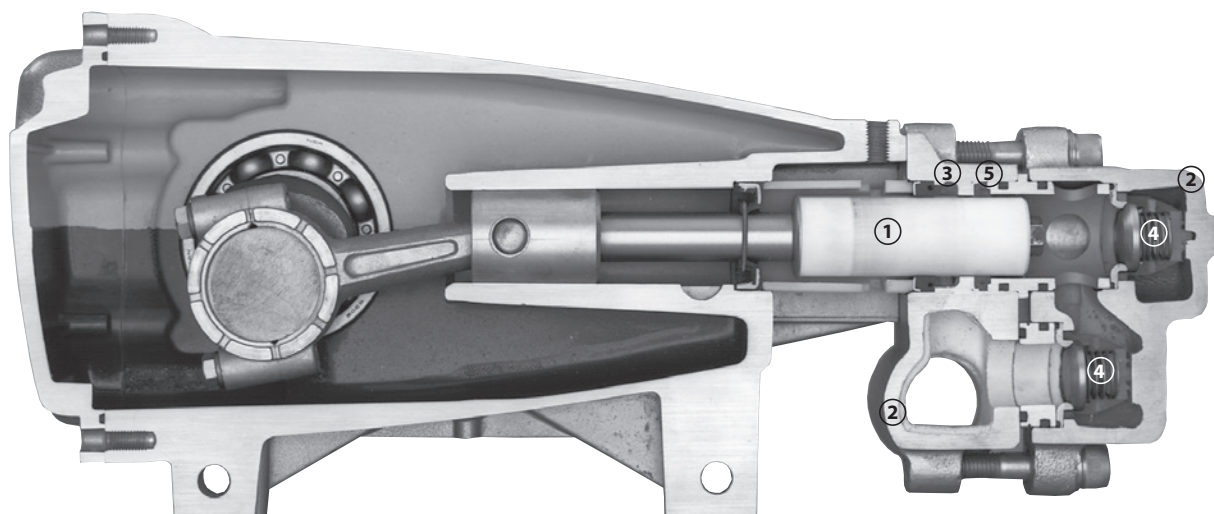
*Review individual parts in each kit for material code identification.

View Tech Bulletins 002, 003, 024, 036, 043, 053, 074, 076, 081, 083, 085 and 095 for additional information. MATERIAL CODES (Not Part of Part Number):

ABS=ABS Plastic AL=Aluminum ALE=Aluminum Epoxy BB=Brass CC=Ceramic CFBB=Chrome Forged Brass CM=Chrome-moly EPDM=Ethylene Propylene Diene Monomer
F=Cast Iron FCM=Forged Chrome-moly FPM=Fluorocarbon HT=High Temp (EPDM Alternative) NAB=Nickel Aluminum Bronze NBR=Medium Nitrile (Buna-N) NY=Nylon
PE=Polyethylene POP=Polypropylene PTFE=Pure Polytetrafluoroethylene PVDF=Polyvinylidene Fluoride S=304SS SS=316SS SNG=Special Blend (Buna) ST2=Special PTFE2
STL=Steel SSHS=316SS/High Strength STCP=Steel/Chrome Plated STZP=Steel/Zinc Plated TNM=Special High Strength



Models 2530, 2530E, 2531, 2537



1. Special concentric, high-density, polished, solid ceramic plungers provide a true wear surface and extended seal life.
2. Manifolds are a high tensile strength brass, 316 stainless steel or nickel aluminum bronze for long term, continuous duty.
3. 100% wet seal design adds to service life by allowing pumped liquids to cool and lubricate on both sides.

4. Stainless steel valves, seats and springs provide corrosion-resistance, ultimate seating and extended life.
5. Specially formulated, Cat Pump exclusive, Hi-Pressure Seals offer unmatched performance and seal life.

⚠ 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.



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The Pumps with Nine Lives