



25 Frame Plunger Pump

Standard Model

2530

Nickel Aluminum Bronze Model

2537

FEATURES

Superior Design

- Triplex plunger design gives smoother fluid flow.
- Hi-Pressure Seals are completely lubricated and cooled by the fluid being pumped.
- Inlet and discharge valve assemblies interchange for easier maintenance.
- Lubricated Lo-Pressure Seals provide double protection against external leakage.
- Oil bath crankcase assures optimum lubrication.
- Close tolerance concentricity of the ceramic plunger maximizes seal life.

Quality Materials

- All stainless steel valves are heat treated and seats are roller burnished for a positive seal and extended valve life.
- Brass or Nickel Aluminum Bronze manifolds are strong and corrosion resistance.
- Optional Viton [FPM] and EPDM [Ethylene Propylene Diene Monomer] elastomers for fluid compatibility.
- Special concentric, high density, polished, graphite impregnated, solid ceramic plungers are abrasion resistant and result in extended seal life.
- Specially formulated, CAT PUMP exclusive, Hi-Pressure Seal offers unmatched performance and seal life.
- Die cast aluminum crankcase provides high strength, minimum weight and precision tolerance control.
- Chrome-moly crankshaft gives unmatched strength and surface hardness.
- Oversized crankshaft bearings with greater loading capacity mean longer bearing life.

Easy Maintenance

- Wet-end is easily serviced without entering crankcase, requiring less time and effort.
- Preset packings mean no packing gland adjustment is necessary, reducing maintenance costs.

SPECIFICATIONS

	U.S. Measure	Metric Measure
Volume	21 GPM	(80 L/M)
Discharge Pressure	100 to 1200 PSI	(7 to 85 BAR)
Maximum Inlet Pressure.....	Flooded to 70 PSI	(Flooded to 4.9 BAR)
RPM	914 RPM	(914 RPM)
Bore.....	1.260"	(32 mm)
Stroke.....	1.516"	(38.5 mm)
Crankcase Capacity	84 oz.	(2.5 L)
Maximum Fluid Temperature	160°F	(71°C)
Inlet Ports (2)	1-1/4" NPT	(1-1/4" NPT)
Discharge Ports (2)	3/4" NPT	(3/4" NPT)
Pulley Mounting	Either Side	(Either Side)
Shaft Diameter	1.181"	(30 mm)
Weight.....	82 lbs.	(37.1 kg)
Dimensions	19.09" x 15.04" x 7.8"	(485 x 382 x 198 mm)

HORSEPOWER REQUIREMENTS

FLOW		PRESSURE			RPM
U.S. GPM	L/M	PSI 800	PSI 1000	PSI 1200	
		BAR 55	BAR 70	BAR 85	
21	80	11.5	14.4	17.3	914
18	68	9.9	12.4	14.8	783
15	57	8.3	10.3	12.4	652

See complete Drive Packages [Incls: Pulleys, Belts, Hubs, Key] Tech Bulletin 03.

DETERMINING THE PUMP R.P.M.	$\frac{\text{Rated G.P.M.}}{\text{Rated R.P.M.}}$	=	$\frac{\text{"Desired" G.P.M.}}{\text{"Desired" R.P.M.}}$
DETERMINING THE REQUIRED H.P.	$\frac{\text{GPM x PSI}}{1460}$	=	Electric Brake H. P. Required
DETERMINING MOTOR PULLEY SIZE	$\frac{\text{Motor Pulley O.D.}}{\text{Pump R.P.M.}}$	=	$\frac{\text{Pump Pulley O.D.}}{\text{Motor R.P.M.}}$

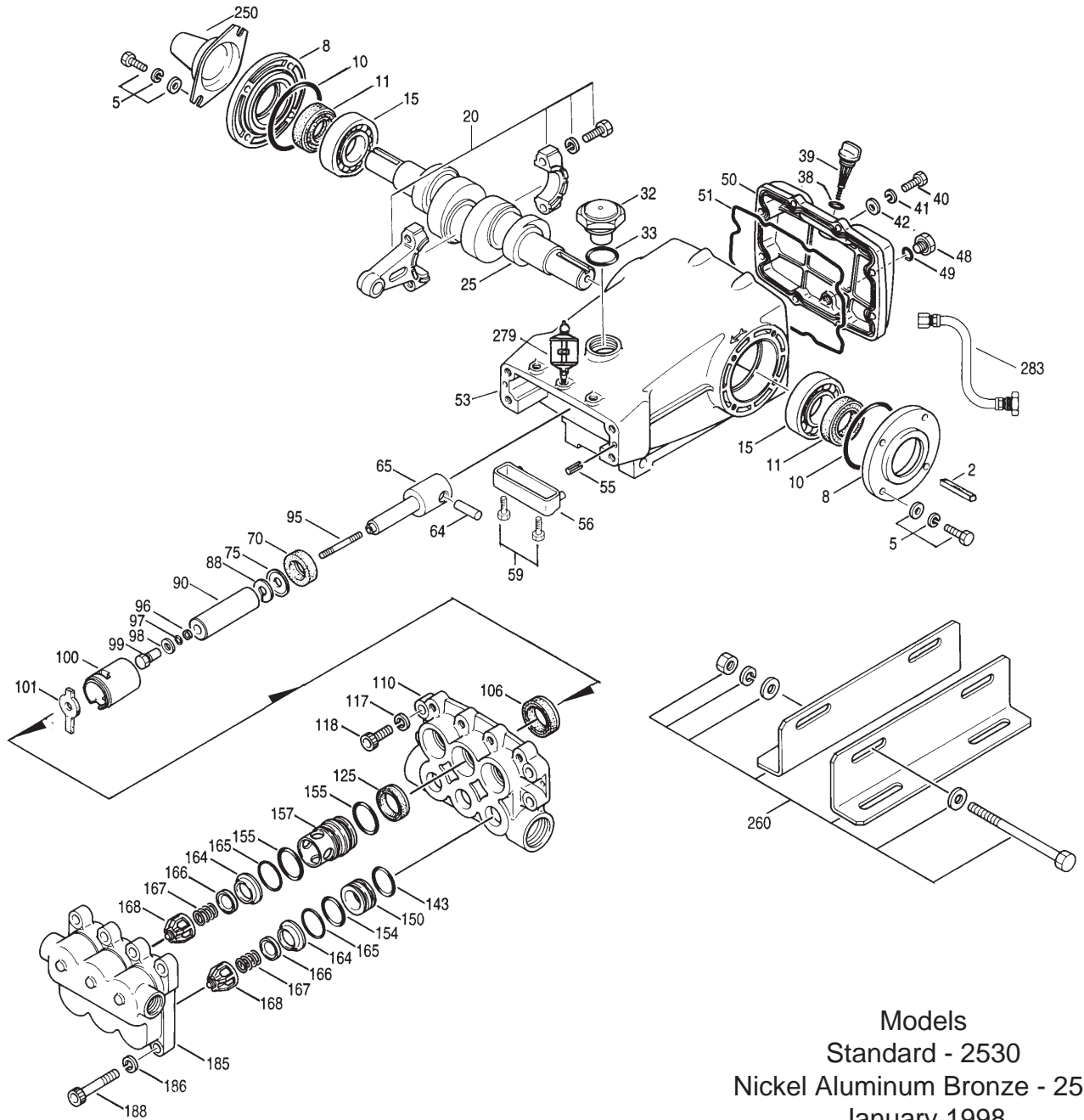
Note: Consult engine manufacturer when using gas or diesel engine. Refer to pump Service Manual for important Inlet Condition Check-List, Start-up Procedure, Tech Bulletins and Pump Maintenance information.

"Customer confidence is our greatest asset"

PARTS LIST

ITEM	PART NUMBER		DESCRIPTION		QTY
	2530 MATL	2537 MATL			
● 2	50146 STL	50146 STL		Key (M7x7x40)	1 ●
5	92508 STZP	—		Screw, Sems HHC (M8x25)	
5	—	89277 SS		Screw, HH (M8x25)	8
6	—	15846 S		Lockwasher, Split (M8)	8
7	—	13534 SS		Washer (M8)	8
8	27773 AL	27773 AL		Cover, Bearing	2
10	27772 NBR	27772 NBR		O-Ring, Oil Seal Case	2
11	27771 NBR	27771 NBR		Seal, Oil, Crankshaft	2
15	26512 STL	26512 STL		Bearing, Ball	2
20	27776 ZZ	27776 ZZ		Rod, Connecting	3
25	27770 FCM	27770 FCM		Crankshaft - Dual End	1
32	43211	43211		Cap, Oil Filler	1
33	14177 NBR	14177 NBR		O-Ring, Oil Filler Cap -70	1
38	11338 NBR	11338 NBR		O-Ring, Dipstick	1
39	27769	27769		Dipstick	1
40	92508 STZP	—		Screw, Sems HHC (M8x25)	8
40	—	89277 SS		Screw, HH (M8x25)	8
41	—	15846 S		Lockwasher, Split (M8)	8
42	—	13534 SS		Washer (M8)	8
48	25625 BBCP	25625 BBCP		Plug, Drain (1/4"x11)	1
49	23170 NBR	23170 NBR		O-Ring, Drain Plug	1
50	27768 AL	27768 AL		Cover, Crankcase	1
51	27767 NBR	27767 NBR		O-Ring, Crankcase Cover	1
● 53	27762 AL	27762 AL		Crankcase w/Guide Pins	1 ●
55	27488 S	27488 S		Pin, Guide	2
56	27790 POP	27790 POP		Pan, Oil	1
59	92519 STZP	92538 SS		Screw, Sems HHC (M6x16)	2
64	27784 S	27784 S		Pin, Rist	3
65	45828 SSZZ	45828 SSZZ		Rod, Plunger	3
70	27785 NBR	27785 NBR		Seal, Crankcase Oil	3
75	110669 S	110669 S		Slinger, Barrier	3
88	110670 S	110670 S		Washer, Keyhole	3
90	45749 CC	45749 CC		Plunger	3
95	89835 SS	89835 SS		Stud, Retainer (M7x71)	3
96	20184 PTFE	20184 PTFE		Back-up-Ring, Plunger Retainer	3
97	14190 NBR	14190 NBR		O-Ring, Plunger Retainer	3
	14161 FPM	14161 FPM		O-Ring, Plunger Retainer	3
	◆ 48239 EPDM	◆ 48239 EPDM		O-Ring, Plunger Retainer	3
98	44069 SS	44069 SS		Gasket, Plunger Retainer	3
99	43946 BB	44068 SS		Retainer, Plunger	3
100	110672 NY	110672 NY		Retainer, Seal	3
101	110677	110677		Wick, Long Tab	3
106	44098 NBR	44098 NBR		LPS w/SS-Spg	3
	44827 FPM	44827 FPM		LPS w/SS-Spg	3
	◆ 48244 EPDM	◆ 48244 EPDM		LPS w/SS-Spg	3
● 110	45750 BB	45830 NAB		Manifold, Inlet	1 ●
117	30908 STZP	19085 S		Lockwasher, Split	4
118	89822 STZP	88398 SS		Screw, HSH (M12x40)	4
125	45832 NBR	45832 NBR		HPS w/SS	3
	48220 PTFE	48220 PTFE		HPS w/SS	3
	◆ 48220 EPDM	◆ 48220 EPDM		HPS w/SS	3
143	14203 NBR	14203 NBR		O-Ring, I.V. Adapter-Rear	3
	11731 FPM	11731 FPM		O-Ring, I.V. Adapter-Rear	3
	◆ 48241 EPDM	◆ 48241 EPDM		O-Ring, I.V. Adapter-Rear	3
150	45752 BB	45835 SS		Adapter, Inlet Valve	3
154	18690 NBR	18690 NBR		O-Ring, I.V. Adapter-Front	3
	11744 FPM	11744 FPM		O-Ring, I.V. Adapter-Front	3
	◆ 48242 EPDM	◆ 48242 EPDM		O-Ring, I.V. Adapter-Front	3
155	14520 NBR	14520 NBR		O-Ring, D.V. Spacer	6
	11745 FPM	11745 FPM		O-Ring, D.V. Spacer	6
	◆ 28240 EPDM	◆ 28240 EPDM		O-Ring, D.V. Spacer	6
157	45751 BB	45834 SS		Spacer, Discharge Valve	3
164	▼ 46857 SS	▼ 46857 SS		Seat	6
165	14014 NBR	14014 NBR		O-Ring, Seat	6
	48238 FPM	48238 FPM		O-Ring, Seat	6
	◆ 48243 EPDM	◆ 48243 EPDM		O-Ring, Seat	6
166	45839 SS	45839 SS		Valve	6
167	45840 SS	45840 SS		Spring	6
168	110682 PVDF	110682 PVDF		Retainer, Spring	6
● 185	45753 BBCP	45836 NAB		Manifold, Discharge	1 ●
186	30908 STZP	19085 S		Lockwasher, Split	8
188	89573 STZP	89628 SS		Screw, HSH (M12x65)	8

EXPLODED VIEW

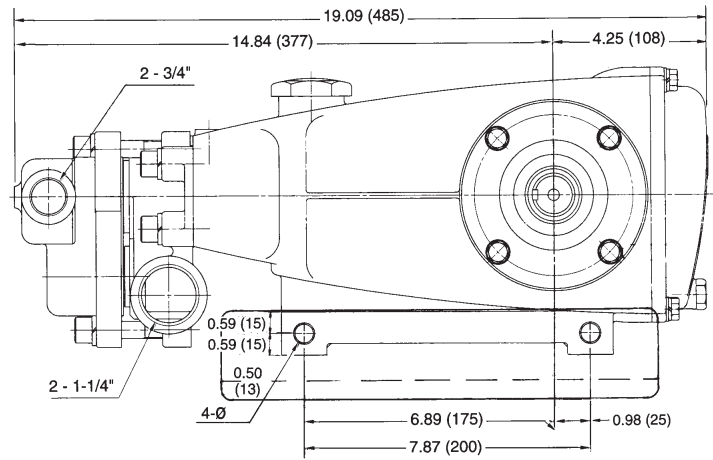
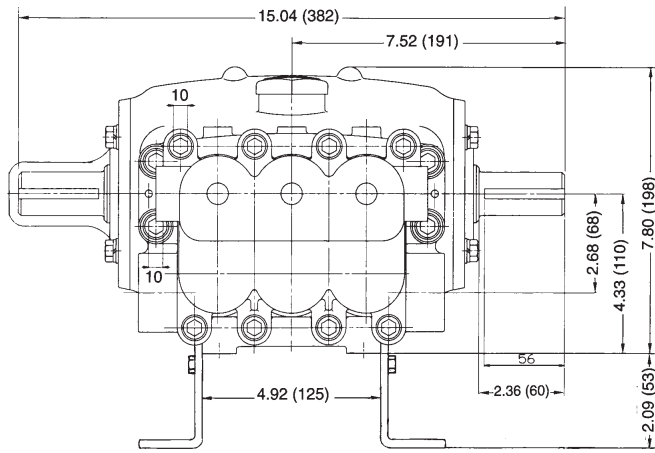


Models
 Standard - 2530
 Nickel Aluminum Bronze - 2537
 January 1998

250	26516	STCP	26516	STCP	Protector, Shaft	1
260	30614	STZP	30614	STZP	Rail, Angle Assy (Incls: 27808, 30902, 30930, 30908, 30911)	1
● 269	30206	F	30206	F	Pulley (9.75") [See complete Drive Packages, Tech Bulletin 03]	1 ●
● 270	30207	STL	30207	STL	Hub, "H", M30 (Keyway M7) [See complete Drive Packages, Tech Bulletin 03]	1 ●
● 279	30278	STZP	30278	STZP	Oilers (1 oz.)	3 ●
281	30967		30967		Glass, Oiler	1
282	10069		10069		Gasket, Oiler	1
● 283	34334		34334		Kit, Oil Drain	1 ●
290	—		6108		Gasket, Liquid (1.5 oz.)	1
● 299	—		816538		Head, Complete	1 ●
300	30952	NBR	30952	NBR	Kit, Seal (Incls: 97,106,125,143,154,155)	1
	33607	FPM	33607	FPM	Kit, Seal and O-Ring (Incls: 97,106,125,143,154,155,165)	1
	◆ 33608	EPDM	◆ 33608	EPDM	Kit, Seal and O-Ring (Incls: 97,106,125,143,154,155,165)	1
310	▼ 33952		▼ 33952		Kit, Valve (Incls: 143,154,164,166,167,168,165) [Prior to 11/95 all 6 Req.]	2
—	6565.2		6565.2		Video	1

● Industrial discount. **Bold print part numbers are unique to a particular pump model.** *Italics are optional items.* ◆ Silicone oil/grease required. See Tech Bulletins 03, 24, 36, 43, 53, 74, ▼76 and 77 for additional information.

MATERIAL CODES (Not Part of Part Number): AL=Aluminum BB=Brass BBCP=Brass/Chrome Plated
 EPDM=Ethylene Propylene Diene Monomer F=Cast Iron FCM=Forged Chrome-moly FPM=Fluorocarbon (Viton)
 NAB=Nickel Aluminum Bronze NBR=Medium Nitrile (Buna-N) NY=Nylon POP=Polypropylene PTFE=Polytetrafluoroethylene (Teflon)
 PVDF=Fluoroplastic (High Strength) S=304SS SS=316SS STCP=Steel/Chrome Plated STL=Steel STZP=Steel/Zinc Plated SSZZ=316SS/Zamak ZZ=Zamak



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|---|---|---|
| <p>1 Die cast aluminum crankcase means high strength, light weight, and excellent tolerance control.</p> <p>2 Oversized crankshaft bearings provide extended bearing life and pump performance.</p> <p>3 Chrome-moly crankshaft provides unmatched strength and surface hardness for long life.</p> <p>4 Matched oversized connecting rods are made of Zamak, a material noted for strength and superior bearing quality.</p> <p>5 The plunger rods are high tensile strength stainless steel with Zamak crossheads.</p> | <p>6 The stainless steel slinger provides back-up protection for the crankcase seal, keeping pumped fluids out of the crankcase.</p> <p>7 Special concentric, high density, polished, graphite impregnated, solid ceramic plungers are abrasion resistant and result in extended seal life.</p> <p>8 The close tolerance concentricity of the ceramic plunger maximizes seal life.</p> <p>9 Manifolds are a high tensile strength brass or nickel aluminum bronze for long term, continuous duty.</p> | <p>10 100% wet seal design adds to service life by allowing pumped fluids to cool and lubricate on both sides.</p> <p>11 Stainless steel valves, seats and springs provide corrosion-resistance, positive seating and long life.</p> <p>12 Specially formulated, CAT PUMP exclusive, Hi-Pressure Seals offer unmatched performance and seal life.</p> <p>13 Crosshead is 360° supported for uncompromising alignment.</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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