

Triplex Plunger Pump, Solid Shaft, SS, 1750 RPM

FEATURES

- 316 SS fluid end for superior corrosion resistance
- New Generation seal package
- Dust protection chamber
- Solid ceramic plungers
- Oversized plunger guide
- Optimized inlet and outlet valves
- Oversized crankcase



SPECIFICATIONS

Pump Model	ET1506S17SS(L)	ET1509S17SS(L)	ET1511S17SS(L)	ET1810S17SS(L)	ET1812S17SS(L)
Max Volume	1.6 GPM	2.4 GPM	2.9 GPM	3.4 GPM	4.0 GPM
Max Discharge Pressure	2,175 PSI				
Horsepower	2.4 EBHP	3.6 EBHP	4.3 EBHP	5.0 EBHP	6.0 EBHP
Max Pump Speed	1750 RPM				
Inlet Pressure	Flooded to 70 PSI				
Plunger Bore	.591 in./15 mm	.591 in./15 mm	.591 in./15 mm	.708 in./18 mm	.708 in./18 mm
Plunger Stroke	.236 in./6.0 mm	.354 in./9.0 mm	.452 in./11.5 mm	.393 in./10 mm	.472 in./12 mm
Oil Capacity	8.5 oz.				
Max Fluid Temperature	165° F				
Inlet Port Thread	1/2"-14 BSP-F				
Discharge Port Thread	3/8"-19 BSP-F				
Shaft Diameter	.945 in./24 mm				
Weight	11.0 lbs.				
Dimensions	8" x 7.4" x 4.7"				



General Pump
is a member of
the Interpump Group



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Instructions and Recommendations for the Installation of *ET Series Pumps*

Maximum temperature of the water through the pump is 165°F (73°C).

In order to obtain maximum performance in terms of duration of seals and valves, it is necessary to respect a few simple rules, as follows:

- 1) **In order to avoid damage caused by cavitation, the pump must be pressure fed.**

Note: Contact General Pump's technical sales department for guidance when operating the pump outside of the related inlet specs.

- 2) **The plumbing which feeds the pump must be of a diameter at least equal to the inlet port.**

Also, follow the suggestions below:

- a) Make the plumbing as short and straight as possible, preferably in an upward direction to facilitate the expulsion of eventual air bubbles naturally if compatible with the requirements of the system.
- b) It is always useful to put a filter at the inlet with capacity of 4 to 5 times the flow of the pump, for example for a 4 gpm (15 l/min) pump, put a filter from 16 to 20 gpm (60-75 l/min). The mesh size suitable for this application is 0.016" (.4 mm).
- c) It is extremely important to put a pressure switch on the suction port of the pump, and in any case downstream from the filter, so that it can stop the pump should the feed pressure drop by 20% due to the filter clogging or failure of the feed pump, etc.

3) Change of oil

We recommend the **first oil change after the first 50 hours**, with the **pump stopped** and the **oil still warm**.

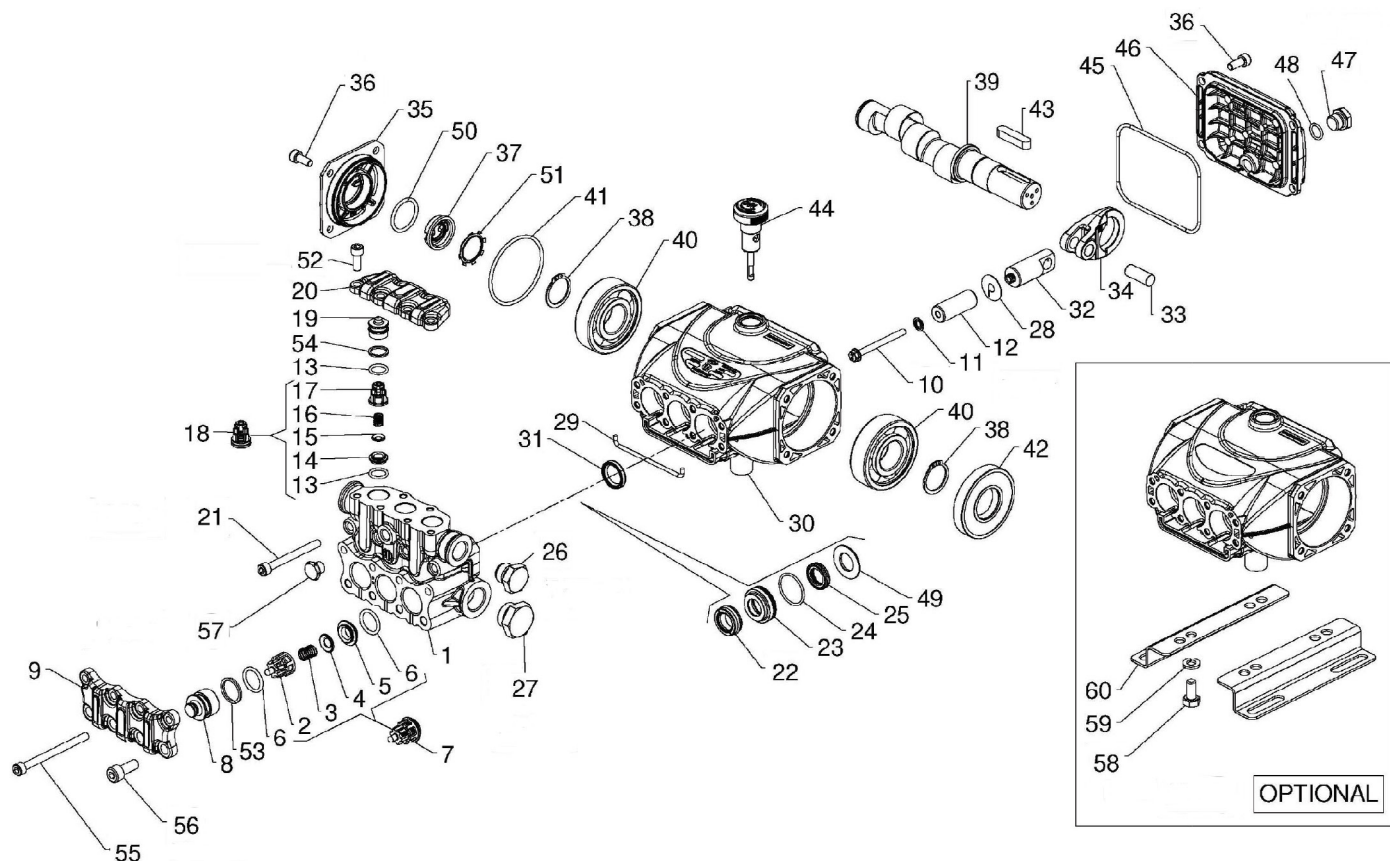
This change is not recommended because the oil has lost its properties, but rather to eliminate the impurities that have gotten into the oil during the running-in phase. If these impurities are not removed, but are allowed to remain in the oil, they *may cause premature wear* to the moving parts and the oil seals. **After this initial change, the oil can then be changed every three months or 300 hours of operation thereafter.**

Please note: If the pump works in conditions with high humidity and with sharp temperature changes, it is possible that condensation will appear inside the crankcase, which mixing with the oil can change its properties. This is easy to see because the oil changes to a white, milky color.

If the pump does not have excessive water leaking from the packings, and the oil becomes milky, the oil has to be changed more frequently. The percentage of water in the oil must not exceed 20%.

Use oil per the following chart:

CHART OF COMPATIBLE OILS	
General Pump	Series 100
BP	VISCO 2000
CASTROL	CWX
MOBIL	SUPER
SHELL	HELIX SUPER
TOTAL	QUARTZ 4000-5000



PARTS LIST

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1.	53123836	Manifold, Ø 15	1	23.	53211656	Support Gasket, Ø 15	3	39.	53020135	Crankshaft, 12.0 mm	1
	53123936	Manifold, Ø 18	1		53211456	Support Gasket, Ø 18	3		(ET1511S17SS, ET1812S17SS)		
2.	36202551	Inlet Valve Guide	3	24.	90260900	Packing, Ø 15, LP	3	40.	91832800	Premium Bearing	2
3.	94737300	Spring, Ø 9.4x14.8	3		90265050	Packing, Ø 18, LP	3	41.	90389800	O-ring, Ø56.82x2.62	1
4.	36200176	Valve, Spherical	3	25.	90360400	O-ring, 25.12x1.78	3	42.	90164100	Oil Seal, Ø25x62x10	1
5.	36203666	Valve Seat	3	26.	98210066	Plug, G3/8"x13	1	43.	91489200	Crankshaft Key	1
6.	701115	O-ring, Ø17.13x2.62	3	27.	98218000	Plug, G1/2"x13	1	44.	98210800	Oil Dipstick	1
7.	36713001	Valve Assembly	3	28.	96699000	Washer, Ø7.5x23x.5	3	45.	90391700	O-ring, Ø88.57X2.62	1
8.	53212556	Inlet/Outlet Valve Cap	3	29.	53210382	Gasket, Ø3x85	1	46.	53160022	Rear Cover	1
9.	53212336	Valve Plate	3	30.	53010022	Crankcase	1	47.	98204000	Plug, G1/4x9	1
10.	99169000	Plunger Bolt, M5x55	3	31.	90159300	Oil Seal, Ø18x24x4	3	48.	701013	O-ring, Ø10.82x1.78	1
11.	96690500	Washer, Ø 5x11.5x0.4	3	32.	53050166	Plunger Guide	3	49.	53211756	Support Ring Ø15	3
12.	53040009	Plunger, Ø 15x38.5	3	33.	97733800	Pin, Ø10x26.5	3		53211556	Support Ring Ø18	3
	63040509	Plunger, Ø 18x38.5	3	34.	53030022	Connecting Rod	3	50.	90385900	O-ring, Ø25.07x2.62	1
13.	90367400	O-ring, Ø 12x2	6	35.	53150022	Side Cover	1	51.	90067100	Stop Ring	1
14.	53211166	Valve Seat	3	36.	99183800	Screw, M6x14	8	52.	99186800	Screw, M6x18	6
15.	36211276	Valve, Spherical	3	37.	53210851	Oil Sight Glass	1	53.	90514650	Ring, Ø22.4x18.3x1.5	3
16.	94733300	Spring, Ø6.7x10.8	3	38.	90063500	Stop Ring	2	54.	90509300	Ring, Ø16.4x13.2x1.3	3
17.	36211151	Outlet Valve Cage Guide	3	39.	60020765	Crankshaft, 7.2 mm	1	55.	99199830	Screw, M6x75	4
18.	36724501	Complete Outlet Valve	3		(ET1506S17SS)			56.	99305800	Screw, M8x25	4
19.	36217851	Inlet/Outlet Valve Cap	3		60028335	Crankshaft, 10.0 mm	1	57.	98197200	Plug, G1/8x8	1
20.	53212436	Valve Plate	3		(ET1509S17SS, ET1810S17SS)			58.	99303700	Screw, M8x16	4
21.	99199200	Screw, M6x60	8					59.	96701600	Washer, Ø.4x14.4x2.0	4
22.	90216000	Packing, Ø 15, HP	3					60.	50200074	Pump Feet	2

TORQUE SPECS*

Position	Ft.-Lbs.	Nm.
10	4.4	6
21	8.9	12
26	29.5	40
27	29.5	40
36	7.4	10
47	14.8	20
52	8.9	12
55	8.9	12
56	41.3	30
57	9.6	13
58	14.8	20

****Use Loctite 542 Red**

Technical drawing of the 2000 series pump assembly, showing four views: front, top, side, and rear. Dimensions are provided in both inches and millimeters.

Front View (Top):

- Overall width: 7.66 in / 194.5 mm
- Overall height: 4.94 / 125.5
- Mounting flange dimensions: 2.83 / 72, 1.97 / 50, 1.10 / 28, 1.02 / 26, 0.75 / 19, 2.24 / 57, 2.22 / 56.5, 4.12 / 106.5, 2.08 / 52.8, 0.47 / 12, 0.37 / 9.5, 1.18 / 30, 1.57 / 40, 1.02 / 26, 1.18 / 30, 0.37 / 9.5, 2.68 / 68, 1.61 / 41, 1.06 / 27, 0.47 / 12, n°4 fori M8.

Top View (Bottom):

- Overall width: 2.83 / 72
- Overall height: 2.83 / 72
- Mounting flange dimensions: 2.83 / 72, 1.06 / 27, 0.47 / 12, 0.37 / 9.5, 1.18 / 30, 1.57 / 40, 1.02 / 26, 1.18 / 30, 0.37 / 9.5, 2.68 / 68, 1.61 / 41, 1.06 / 27, 0.47 / 12, n°4 fori M8.

Side View (Right):

- Overall width: 8.15 in / 207 mm
- Overall height: 4.94 / 125.5
- Mounting flange dimensions: 3.31 / 84, 0.47 / 12, 4.84 / 123, 0.47 / 12, 2.95 / 75, 0.35 / 9, 4.92 / 125, 0.59 / 15, 0.14 / 3.5, M6, 1.38 / 35, 0.12 / 3, Ø 2.95 / 75, Ø 90^{+0.000}_{-0.004}, Ø 24^{+0.000}_{-0.004}, 1.57 / 40, 1.89 / 48, 0.31 / 8.

Rear View (Left):

- Overall width: 7.66 in / 194.5 mm
- Overall height: 4.94 / 125.5
- Mounting flange dimensions: 2.83 / 72, 1.97 / 50, 1.10 / 28, 1.02 / 26, 0.75 / 19, 2.24 / 57, 2.22 / 56.5, 4.12 / 106.5, 2.08 / 52.8, 0.47 / 12, 0.37 / 9.5, 1.18 / 30, 1.57 / 40, 1.02 / 26, 1.18 / 30, 0.37 / 9.5, 2.68 / 68, 1.61 / 41, 1.06 / 27, 0.47 / 12, n°4 fori M8.



GENERAL PUMP