FEATURES

- Nickel-plated cast manifold manufactured like heavy-duty pump line
- · New generation seal package
- · New dust protection chamber
- · Solid ceramic plungers
- New oversized plunger guide
- · New optimized inlet and outlet valves
- New oil seal
- New oversized crankcase
- Hollow shaft, flanged for direct couple to gasoline engines (SAE J609A)



SPECIFICATIONS

Pump Model	ET1505G6	ET1506G6	ET1507G6	ET1508G6		
Maximum Volume	2.1 GPM 2.9 GPM		3.2 GPM	3.4 GPM		
Maximum Discharge Pressure	2,610 PSI					
Horsepower	5.7 GHP	7.7 GHP	8.6 GHP	9.1 GHP		
Maximum Pump Speed	3400 RPM					
Maximum Inlet Pressure	125 PSI					
Max. Inlet Vacuum	Flooded					
Plunger Bore (in / mm)	.591 in./15 mm					
Plunger Stroke (in / mm)	.197 in./5 mm .256 in./6.5 mm .2		.283 in./7.2 mm	.315 in./8 mm		
Oil Capacity	8.5 oz.					
Maximum Fluid Temperature	165° F					
Inlet Port Thread	1/2"-14 BSP-F					
Discharge Port Thread	3/8"-19 BSP-F					
Shaft Diameter	Hollow, 3/4"/19.05 mm					
Weight	11.0 lbs.					
Dimensions - Nominal	7.4" x 7.7" x 3.3"					







Instructions and Recommendations for the Installation of

ET Series Pumps

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

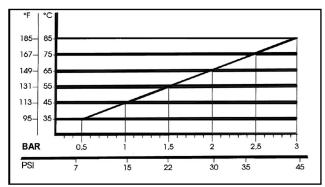
In order to obtain maximum performance in terms of duration of seals and valves, it is necessary to respect a few simple rules, as follows:

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

The higher the inlet pressure, the longer the life of the wet end of the pump.

When working at 165°F (73°C), the minimum feed pressure - measured directly in the inlet port of the pump when it is working - is 45 psi (3 bar).

The minimum feed pressure according to the different temperatures are:



Naturally, if the application allows for feeding the pump with 45 psi (3 bar) even at low temperatures (for example: 115°F/45°C the life of the wet end of the pump will be even longer.

- 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/mi)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.

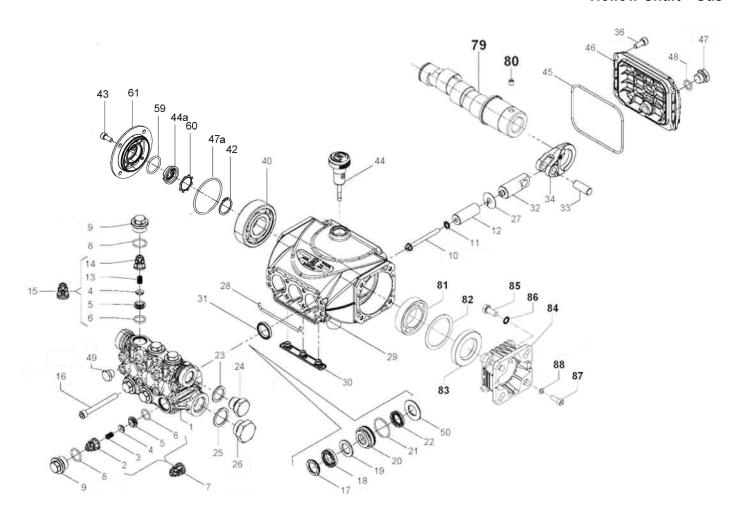
Please note: If the pump works in conditions with high humidity and with sharp temperature changes, it is possible that condensation will appear inside the crankcase, which mixing with the oil can change its properties. This is easy to see because the oil changes to a white, milky color.

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 SAE15W40						
General Pump	Series 100					
BP	VISCO 2000					
CASTROL	CWX					
MOBIL	SUPER					
SHELL	HELIX SUPER					
TOTAL	QUARTZ 4000-5000					

ET Series Hollow Shaft - Gas



PAF	RTS LIS	T									
ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1.	53120015	Manifold, Ø 15	1	22.	90260800	Packing, Ø 15, LP	3	49.	98196800	Plug, 1/8"x8	1
2.	36211951	Inlet Valve Guide	3	23.	93738000	Washer, Ø17.5x23x1.5	5 1	50.	53210670	Support Ring, Ø 15	1
3.	94732600	Spring, Ø 6x12	3	24.	98210050	Plug, 3/8"x13	1	59.	90385900	O-ring Ø 25.07x2.62	1
4.	36211272	Valve, Spherical	6	25.	96751400	Washer, Ø	1	60.	90067100	Stop Ring	1
5.	36211366	Valve Seat	6	26.	98218700	Plug, 1/2" BSPx10	1	61.	58150122	Side Cover	1
6.	701014	O-ring, Ø12.42x1	6	27.	96699000	Gasket, Ø 7.5x23x0.5	3	79.	60026865	Crankshaft, 5 mm	1
7.	36722401	Valve Assembly	3	28.	53210382	Gasket, Ø3x85	1			(ET1505G6)	
8.	701016	O-ring, Ø15.6x1.78	6	29.	53010022	Crankcase	1		60027165	Crankshaft, 6.5 mm	1
9.	98213750	Valve Cap, M18x1.5x10	6	30.	58210451	Drip Cover	<u> </u>			(ET1506G6)	
10.	99169000	Plunger Bolt, M5x55	3	31.	90159300	Oil Seal, Ø 18x24x4.4	3		60027365	Crankshaft, 7.2 mm	1
11.	96690500	Washer, Ø 5x11.5x0.4	3	32.	53050066	Piston Guide	3			(ET1507G6)	
12.	53040009	Plunger, Ø 15x38.5	3	33.	97733800	Piston Pin, Ø 10x26.5	3		60027565	Crankshaft, 8 mm	1
	63040509	Plunger, Ø 18x38x8.5	3	34.	53030022	Connecting Rod	3			(ET1508G6)	
13.	94733300	Spring, Ø 6.2x10.4	3	42	90063500	Stop Ring	1	80.	99179000	Screw, M6x6	1
14.	36211151	Outlet Valve Cage Guide	3	43.	99183700	Screw M6x14	8	81.	91846400	Premium Bearing	2
15.	36719301	Complete Outlet Valve	3	44.	98210800	Oil Dipstick	1	82.	60210189	Spacer	1
16.	99199000	Screw, M6x60	8	44a	53210851	Oil Level Indicator	1	83.	90167500	Oil Seal, Ø 35x62x10	1
17.	63101051	Head Ring, Ø 15	3	45.	30391700	O-ring, Ø 88.57X2.62	1	84.	10065222	Flange for Gas Engine	1
18.	90261100	Packing, Ø 15, HP	3	46.	58160022	Rear Cover	1	85.	99273000	Screw, 5/16", 24x3/4	4
19.	90508990	Anti-ext. Ring, Ø 15	3	47.	98204250	Plug, 1/4"x9	1	86.	96701400	Washer, Ø 8.4x13x0.7	4
20.	53210170	Support Ring, Ø 15	3	47a.	90389800	O-ring Ø 56.82x2.62	1	87.	99186700	Screw, M6x18	4
21.	90360400	O-ring, 25.12x1.78	3	48.	701013	O-ring, Ø 10.82x1.78	1	88.	203510	Washer, Ø 6.4x10x0.7	4
		•				•	* 53150001	Oil Le	vel Indicator A	Assembled W/O Screws an	d O-ring

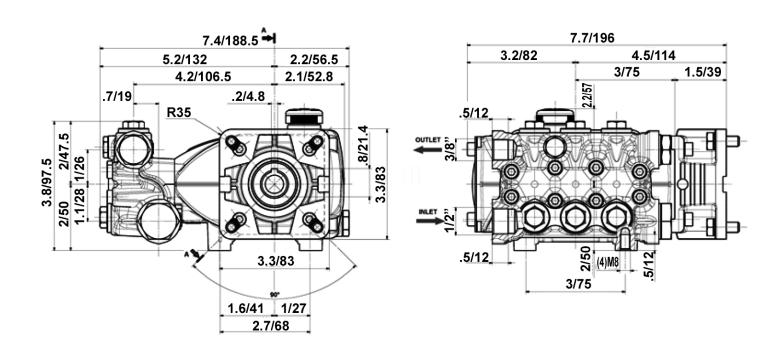
REPAIR KITS	TORQUE SPECS*

KIT NO.	K309	K310	K311	Ø 15		
i iii iio.	No. 1 No. 1 No. 1	Noti	K312	K313		
ITEM NO'S INCLUDED IN KIT	2, 3, 4, 5, 6, 13, 14, (7), (15)	8, 9,	31	17, 18, 19, 21, 22	17, 18, 19, 20, 21, 22, 50	
NUMBER OF ASSY'S IN KIT	6	6	3	3	1	
NO. OF CYLINDERS KIT SERVICES	3	3	3	3	1	

Position	FtLbs.	Nm.
9	44.3	60
10	4.4	6
16	8.9	12
24	30	40
26	30	40
36	7.4	10
47	14.8	20
49	9.6	13
87	7.4	10

^{*}Decrease torque by 20% if threads are lubricated.

DIMENSIONS



Ref 300968 Rev. C 10-17



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^{**}Use Loctite 542 Red