

P450-5100 PUMP PARTS LIST

<u>ITEM</u>	<u>PART</u>	<u>DESCRIPTION</u>	<u>QTY.</u>	<u>ITEM</u>	<u>PART</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	08377	Crankcase	1	16D	08097	Tensioning Screwing	3
2	08378	Oil Fill Plug with Gasket	1	16E	07023	O-Ring	3
3	06479	Crankcase cover	1	16F	07203	Backup Ring	3
3A	07186	Oil Sight Glass w/ Gasket	1	16G	07161-0100	Copper Washer	3
4	08380	O-Ring	1	17	06790	Crosshead Pin	3
5	12137	Oil Drain Plug	1	19	08366	Oil Seal	3
5A	07182	Gasket for Oil Drain Plug	1	20	06802	Seal Case	3
5B	08092	Plug with Gasket	1	20A	06803	Gear Seal Adapter, S.S.	3
6	08093	Screw	4	21	07266	O-Ring	3
6A	08094	Spring Washer	4	22	08059	O-Ring	3
7	08471	Bearing Cover Open	1	23	08477	V-Sleeve, 18mm	6
8	08472	Bearing Cover Closed	1	24	07929	Pressure Ring	3
8A	06245	Shim	1	25	06804	Weep Return Ring	3
8B	06330	Shim (May not be present)	1	26	06805	Manifold	1
9	01016	O-Ring	2	27A	08407-0100	Valve Assembly	6
10	08095	Screw with Washer	8	27	06806	Valve Seat	6
11	07459	Radial Shaft Seal	1	28	07491-0100	Valve Plate	6
12	08473	Bearing	1	29	07906	Valve Spring	6
12A	08474	Bearing	1	30	07907	Valve Spring Retainer	6
13	08482	Crankshaft	1	31	07770	O-Ring	6
14	08091	Fitting Key	1	32	06493	Plug	6
15	08390	Connecting Rod Assembly	3	33	07489	O-Ring	6
15A	07311	Screw with Washer	6	34	06612	Cap Screw	8
16	06801	Plunger Assy.,18mm	3	36	12250	Plug, 1/2" BSP	1
		Items 16A-16G		36A	06807	Steel Ring	1
16A	08096	Plunger Base	3	36B	13150	Plug, 3/4", S.S.	1
16B	08397	Plunger Pipe, 18mm	3	36C	06808	Steel Seal Ring	1
16C	07256	Centering Sleeve	3				

Specifications

Model P450-5100

Volume	Up to 5.5 GPM
Discharge Pressure	Up to 5000 PSI
Inlet Pressure	Up to 90 PSI
Stroke	20mm
RPM	Up to 1450 RPM
Plunger Diameter	18mm
Temperature of Pumped Fluids	Up to 160 °F
Inlet Ports	(2) 1/2" BSP
Discharge Ports	(2) 1/2" BSP
Shaft Rotation	Top of pulley towards manifold
Crankshaft Diameter	28mm
Key Width	8mm
Shaft Mounting	Either side ¹
Weight	36lbs. 11oz.
Crankcase capacity	30fl.oz.
Volumetric Efficiency @ 1450	0.92
Mechanical Efficiency @ 1450	0.86

Consult the factory for special requirements that must be met if the pump is to operate beyond one or more of the limits specified above.

NOTES:

In order to drive the pump from the side opposite the present shaft extension, simply remove the valve casing from the crankcase and rotate the pumps 180 degrees to the desired position. Be certain to rotate the seal case (item #20) as well, so that the weep holes are down at the six o'clock position. Exchange the oil fill and the oil drain plugs, also. Refer to the repair instructions as necessary for the proper assembly sequence.

P450-5100 HORSEPOWER CHART					
RPM	GPM	2000 PSI	3000 PSI	4000 PSI	5000 PSI
800	3.0	4.2	6.3	8.4	10.5
933	3.5	4.9	7.3	9.8	12.2
1066	4.0	5.6	8.4	11.1	13.9
1200	4.5	6.3	9.4	12.5	15.7
1450	5.5	7.6	11.4	15.2	18.9

HORSEPOWER RATINGS:

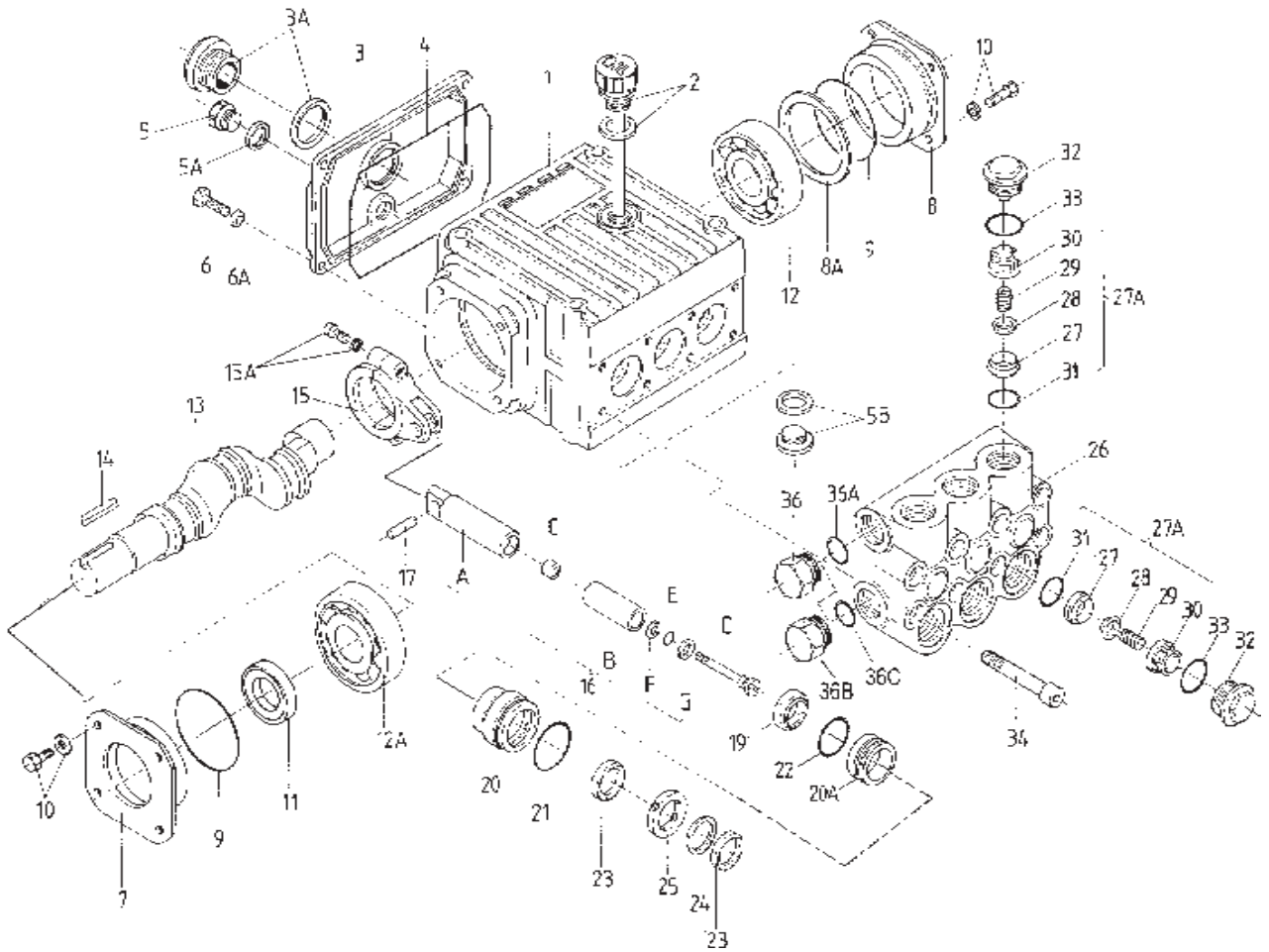
The rating shown are the power requirements for the pump. Gas engine power outputs must be approximately twice the pump power requirements shown above.

We recommend a 1.15 service factor be specified when selecting an electric motor as the power source. To compute specific pump horse power requirements, use the following formula:

$$HP = (GPM \times PSI) / 1450$$

SPECIAL NOTE:
 The theoretical gallons per revolution (gal/rev) is 0.00379.
 To find specific outputs at various RPM, use the formula: GPM = 0.00379 x RPM

Exploded View - P450-5100 Pump



P450-5100 PUMP REPAIR KITS

Plunger Packing Kit

09141

Item	Part #	Description	Qty.
21	07266	O-Ring	3
22	08059	O-Ring	3
23	08477	V-Sleeve	6
24	07929	Pressure Ring	3

Oil Seal Kit

09306

Item	Part #	Description	Qty.
19	08366	Oil Seal	3

Valve Assembly Kit

09540

Item	Part #	Description	Qty.
27A	08407-0100	Valve Assembly, Complete	6
33	06493	O-Ring	6