

APPLICATIONS

This pump is designed to be a replacement engine cooling pump for the Sherwood G-5 model pump that is used on most current Chrysler gasoline engines.

It may be adapted for other engine cooling applications where the installer utilizes the appropriate mounting hardware and drive pulley.

INSTALLATION AND OPERATION

The pump may be mounted in any position. The direction of rotation of the pump determines the location of the intake and discharge ports (refer to dimensional drawings). Before installing, rotate the pump shaft in the direction of the normal operating rotation of the engine that the pump will be mounted on. The mounting bracket used to support the pump must be designed to enable adjustment of the pump position for proper drive belt tension.

Attach the pump to the mounting bracket using two 5/16" x 18 hex heads screws. The pump mounting holes are tapped to this thread size.

DESIGN FEATURES

- Body: **Bronze**
- Bearing Housing: **Bronze**
- Impeller: **Jabasco Neoprene Compound**
- Shaft: **Stainless Steel**
- Shaft Seal: **Carbon-Ceramic Face Type**
- Bearings: **Sealed Ball Bearing**
- Ports: **1/4" ID Hose**
- Shipping Weight:

Put pulley drive belt over both the drive pulley and the pump pulley. An "A" section pulley belt should be sufficient to drive the 18940-0000 pump. Position the pump to allow 1/2" deflection of the drive belt midway between the engine and pump pulleys. Secure the pump mounting brackets. Attach 1-1/4" I.D. hose to the ports and clamp using two stainless steel band clamps per port (be sure to attach the water intake line to the proper pump port).

Be sure that all suction lines are air tight so that the pump will self prime. Start the engine and run at low speed. This pump depends on the water for lubrication. **DO NOT RUN DRY** for more than 30 seconds. Lack of water will damage the impeller. This pump is designed for liquids between 45° and 180°F. Pumping colder water will shorten impeller life.

Cooling systems should be designed so the cooling pump operates with a maximum of 15 psi output pressure.

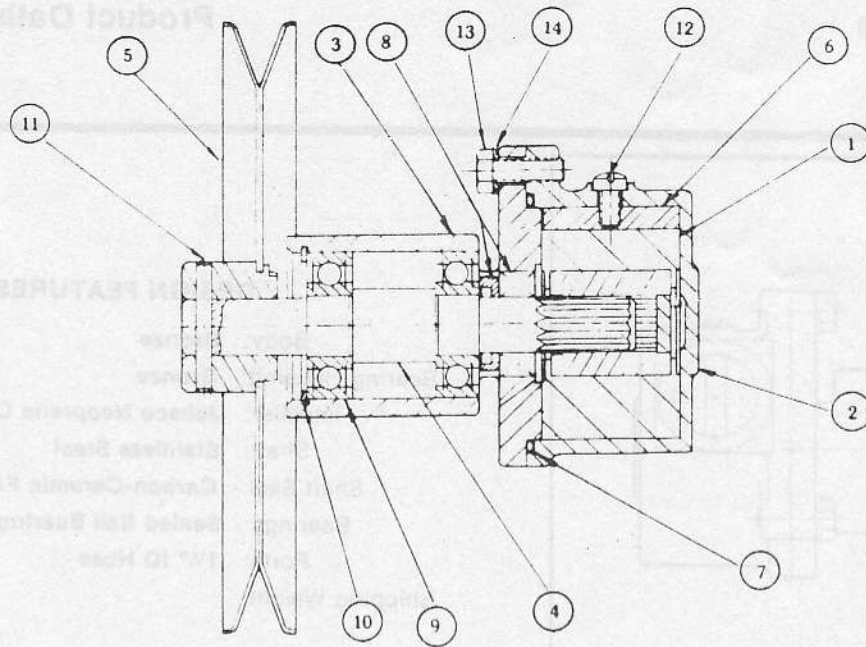
WINTERIZING

Drain the pump by loosening the impeller housing bolts and loosening the housing. Flush cooling system with an ethylene glycol base antifreeze. **Do not use a petroleum based rust inhibitor in the pump.**

HEAD CAPACITY TABLE

TOTAL HEAD		500 RPM		1160 RPM		1750 RPM		2100 RPM		2450 RPM		3000 RPM	
Head in feet (Meters)	lbs. per Sq. Inch (Kg./sqcm)	GPM (Liter/Min)	HP	GPM (Liter/Min)	HP	GPM (Liter/Min)	HP	GPM (Liter/Min)	HP	GPM (Liter/Min)	HP	GPM (Liter/Min)	HP
10 (3.0)	4.3 (3.)	5 (18.9)	.06	13.5 (51.1)	.24	19.3 (73.1)	.42	22.5 (85.2)	.48	26.0 (98.4)	.61	28.7 (108.6)	.85
20 (6.1)	8.7 (.6)	4 (15.1)	.08	12.5 (47.3)	.37	18.5 (70.0)	.44	21.5 (81.4)	.52	25.0 (94.6)	.65	28.2 (106.7)	.89
30 (9.1)	13.0 (.9)	3 (11.4)	.10	11.5 (43.5)	.40	17.3 (65.5)	.45	20.0 (75.7)	.55	23.5 (88.9)	.68	27.2 (102.9)	.95
40 (12.2)	17.3 (1.2)	2 (7.6)	.12	9.7 (36.7)	.42	15.7 (59.4)	.48	18.5 (70.0)	.60	21.7 (82.1)	.73	25.7 (97.3)	1.0
50 (15.2)	21.6 (1.5)	1 (3.8)	.14	8.0 (30.3)	.45	13.8 (52.2)	.51	16.5 (62.5)	.65	19.6 (74.2)	.77	23.8 (90.1)	1.1

MODEL 18940-0000



SERVICE INSTRUCTIONS

Disassembly

- 1) Remove the three impeller housing screws (key 13).
- 2) Slide impeller housing (key 2) off the impeller (key 1) and shaft (key 4).
- 3) Slide impeller off of the shaft.
- 4) Remove cam screw (key 12) from the impeller housing. Slide the cam (key 6) out of the impeller housing.
- 5) Remove the O'Ring (key 7) from the impeller housing groove.
TO REMOVE SEAL ASSEMBLY, THE SHAFT AND BEARING ASSEMBLY MUST BE REMOVED FROM THE BEARING HOUSING (KEY 3).
- 6) Solidly support pulley and pump. Drive dowel pin (key 11) out of the pulley and shaft sub-assembly.
- 7) Using a wheel puller tool, pull the pulley (key 5) off the pump shaft (key 4).
- 8) Remove the retaining ring (key 10) out of the bearing housing (key 3).
- 9) Lightly tap the spline end of the shaft. Shaft and ball bearings (key 9) should slide out of the bearing housing. **BE CAREFUL NOT TO DAMAGE SPLINE END OF SHAFT.**
- 10) Ceramic portion of the seal (key 8) assembly normally will stay on the shaft. **THE BRASS/CARBON PORTION OF THE SEAL SHOULD HAVE REMAINED IN THE BEARING HOUSING.** Lightly press this portion from the pulley end of the bearing housing toward the impeller end of the bearing housing.
- 12) Press ball bearings (key 9) off the shaft by supporting each bearing on its inner race to prevent damage.

Assembly

- 1) Clean and inspect all components for wear or damage. Replace all components where needed.
- 2) Lightly lubricate pump shaft (key 4) and press bearings (key 9) into shaft by applying force to inner race of the bearing. **DO NOT APPLY FORCE TO OUTER RACE OF BEARING.**
- 3) Slide ceramic (white) portion of seal (key 8) onto spline end of shaft with large white face toward spline end.
- 4) Lightly press the brass/carbon portion of the seal into the bearing housing (key 3); be careful not to damage the carbon face of the seal. Brass face should face toward impeller end of pump

PARTS LIST

KEY	DESCRIPTION	PART NUMBER	QTY
1	Impeller and Spline Seal	11979-0001	1
2	Impeller Housing	18944-1000	1
3	Bearing Housing	18943-1000	1
4	Shaft	18836-1000	1
5	Pulley	18753-0006	1
6	Cam	10182-0000	1
7	O-Ring	18753-0005	1
8	Seal	96080-0080	1
9	Ball Bearing	92600-0120	2
10	Retaining Ring	18753-0004	1
11	Dowel Pin	18753-0003	1
12	Screw-cam	91004-0090	1
13	Screw	18753-0001	3
14	Split Washer	91602-0060	3

- 5) Lightly press shaft, bearing and shaft seal (ceramic portion) subassembly into bearing housing; be careful not to damage shaft end or seal components during this assembly.
- 6) Replace bearing retaining ring (key 10) into bearing housing.
- 7) Support shaft and bearing housing. Press pulley (key 5) onto the shaft. Make sure that dowel pin hole in shaft lines up with hole in pulley.
- 8) Drive dowel pin (key 11) into pulley and shaft.
- 9) Lightly Permatex convex side of cam (key 6) and fasten to impeller housing with cam screw (key 12).
- 10) Slide impeller (key 1) onto shaft spline and place spline seal in impeller bore.
- 11) Place O'Ring (key 7) into groove in impeller housing and cam subassembly. Lubricate impeller bore. With a twisting motion, slide the impeller housing over the impeller. **Be sure the direction the impeller blades are bent matches the direction of normal engine and pump rotation.**
- 12) Fasten impeller housing to bearing housing with the three machine screws and washers (key 13 and 14).
- 13) **TEST** pump following instructions under **Installations and Operation** section above.

DEMINSIONAL DRAWING

"A" BELT PULLEY GROOVE

