

Please read and save this Repair Parts Manual. Read this manual and the General Operating Instructions carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. The Safety Instructions are contained in the General Operating Instructions. Failure to comply with the safety instructions accompanying this product could result in personal injury and/or property damage! Retain instructions for future reference. AMT reserves the right to discontinue any model or change specifications at any time without incurring any obligation.

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Periodic maintenance and inspection is required on all pumps to ensure proper operation. Unit must be clear of debris and sediment. Inspect for leaks and loose bolts. Failure to do so voids warranty.

# 1-inch Self Priming

Refer to pump manual 1808-634-00 for General Operating and Safety Instructions.



## DESCRIPTION

This self-priming centrifugal pump is designed to handle many water transfer services such as storm draining, light irrigation, emergency water supply, swimming pool and spa tub draining, etc. Pump can self-prime to 6 feet suction lift (with casing full of water), handling clear to sediment laden liquids containing solids up to 1/8" in diameter. Handles liquids from 40° F to 180° F (4° to 82° C). Pump is supplied with two 1" NPT x 3/4" garden hose adapters. For use with nonflammable, non-abrasive liquids compatible with pump component materials.

## SPECIFICATIONS

Suction Inlet.....	1" NPT
Discharge Outlet.....	1" NPT
Power Supply.....	115V, 60 Hz
Motor.....	1/2 HP, 3450 RPM NEMA 56J Frame, 1.0 S.F.
Basic Construction.....	Cast Aluminum
Seals.....	Carbon, Ceramic, SS w/ Buna-N Seals

9. After the seal seat is in place, ensure that it is clean and has not been marred.
10. Using a clean cloth, wipe the shaft and make certain that it is perfectly clean.
11. Secure the adapter on the motor mounting face. Reuse any shims or spacers which may have been removed. Carefully guide motor shaft through the seal seat.
12. Apply a light coating of soapy water to the inside rubber portion of seal head and slide onto the shaft (with the sealing face first) so that the rubber portion is just over the shaft shoulder.

## MAINTENANCE

### ▲ WARNING

**Make certain that unit is disconnected from power source before attempting to service or remove any components!**

## MECHANICAL SEAL REPLACEMENT

Refer to Figures 1 and 2

**IMPORTANT:** Always replace both the seal seat and the seal head to insure proper mating of mechanical seal components!

1. Unthread cap screws (Ref. No. 12) and remove pump casing (Ref. No. 10) and O-ring (Ref. No. 5) from adapter (Ref. No. 3).
2. Unscrew impeller (Ref. No. 9) from the motor shaft.

**NOTE:** Some motors use an open end 7/16" wrench across the flats on the rear of the motor shaft (remove bearing cap for access) to prevent shaft from turning. Other motor shafts have a screwdriver slot instead of the flats.

3. Unthread cap screws (Ref. No. 4) and remove the adapter from the motor mounting face. The seal head (Ref. No. 7) and the impeller shims (Ref. No. 8) will come loose at this time.
4. Push seal seat (Ref. No. 6) from the adapter recess with a screwdriver.
5. Clean the adapter recess before inserting a new seal seat.
6. Carefully wipe the ceramic surface of the new seal seat with a clean cloth.
7. Wet the rubber portion of the seal seat with a light coating of soapy water.
8. Press the new seal seat squarely into the cavity in the adapter. If the seal seat does not press squarely into the cavity, it can be adjusted in place by pushing on it with a piece of pipe. Always use a piece of cardboard between the pipe and the seal seat to avoid scratching the seal seat (this is a lapped surface and must be handled very carefully).

### ▲ CAUTION

**Do not touch or wipe the face of the carbon (black) part of the seal head.**

13. Replace any shim washers which may have been removed in disassembly.
14. Screw the impeller back in place, tightening until it is against the shaft shoulder.
15. Remount O-ring and casing on the adapter.

**IMPORTANT:** Always inspect casing O-ring gasket (Ref. No. 5) whenever the unit is disassembled. Replace when cracked or worn.

# 1-inch Self Priming Utility Pump

## SHIM ADJUSTMENT

When installing a replacement impeller (Ref. No. 9) or motor (Ref. No. 1), it may be necessary to vary the number of shims (Ref. No. 8) to insure proper running clearance between impeller and casing (Ref. No. 10).

Proceed as follows:

**NOTE:** A proper running clearance is less than 0.010.

1. For impeller replacement, add one 0.010" shim in addition to those removed originally.
2. For motor replacement, add two 0.010" shims removed during assembly.
3. Reassemble pump using MECHANICAL SEAL REPLACEMENT for reference.

**IMPORTANT:** Be sure that casing is in place and check shaft to make sure it is turning freely (use screwdriver slot or two flats at rear of motor to turn shaft). If it turns freely, check to ensure that casing cover and casing are fitted metal-to-metal where they meet on outside. If they are not metal-to-metal, tighten hex nuts (Ref. No. 12) and recheck shaft for free turning. Tighten carefully turning shaft while tightening so that motor bearings are not damaged in the event that too many shims were installed. If shaft seizes before fasteners are completely tight, disassemble pump and remove one shim and repeat reassembly.

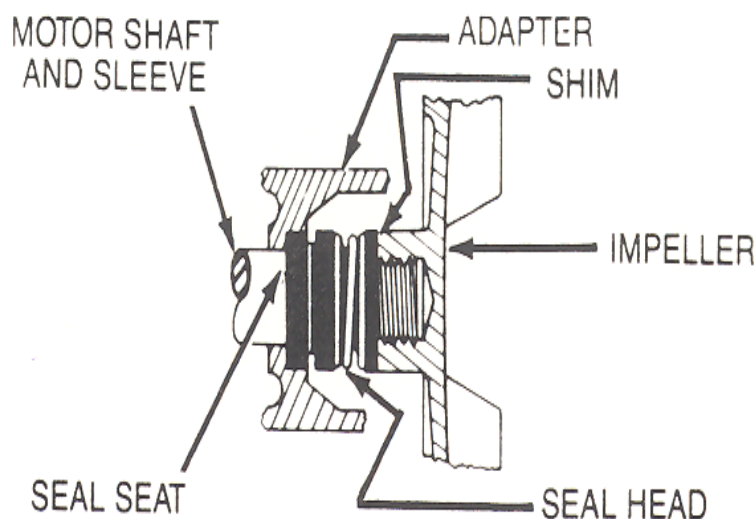


Figure 1 - Mechanical Seal Replacement

# 1-inch Self Priming Utility Pump

**For Repair Parts contact dealer where pump was purchased.**

Please provide following information:

- Model Number
- Serial Number (if any)

Part description and number as shown in parts list

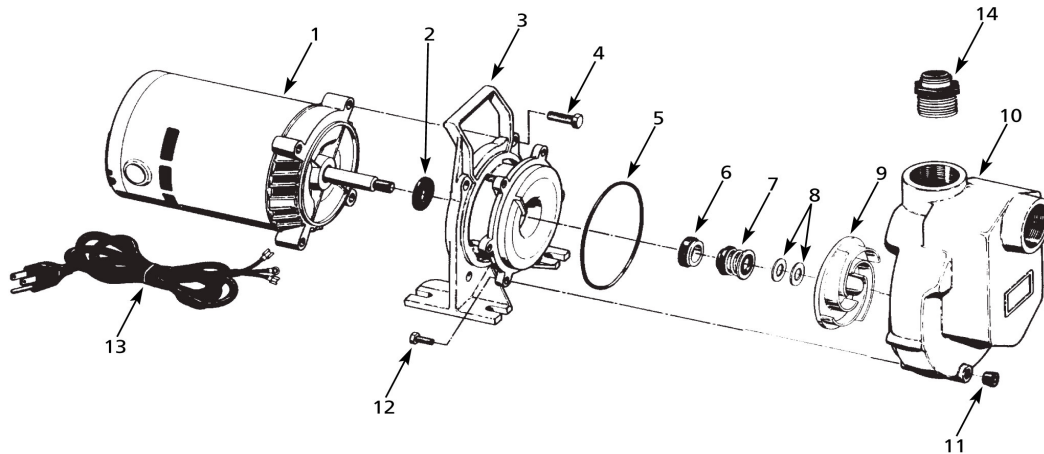


Figure 2 - Repair Parts Illustrations

## Repair Parts List

Ref No.	Description	Part Number for model: 4292-96	Qty
1	Motor, includes Cord	1626-009-00	1
2	Seal Kit - Buna-N (standard)	4292-300-90	1
	Seal Kit - Viton (optional)	4292-301-90	1
	(includes Ref. Nos. 5, 6, and 7)		
3	Adapter	2218-004-01	1
4	Hex Head Cap Screw	*	4
5	O-Ring Gasket - Buna-N (standard)	2104-004-00	1
	O-Ring Gasket - Viton (optional)	2105-023-00	1
6&7	Shaft Seal Assembly - Buna-N (standard)	1640-161-90	1
	Shaft Seal Assembly - Viton (optional)	1640-161-91	1
8	Impeller Shim Package	1657-000-90	1
9	Impeller	2104-024-09	1
10	Casing	2218-005-01	1
11	Drain Plug	*	1
12	Hex Head Cap Screw	*	6
13	Cord Set	1639-077-00	1
14	1" NPT x 3/4" Garden Hose Adapter	1696-073-00	1

(\*) Standard hardware item, available locally.