

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.

Bronze Marine Pump

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

Description

This non self-priming, low pressure, centrifugal pump is intended for liquid transfer, re-circulation, and wash down applications in marine environments where no suction lift is required. Pump is sized for saltwater (1.03 specific gravity), and features provisions for the installation of an automatic seal wash. This may extend shaft seal life by retarding salt crystallization on seal wear face. Seal wash hose not included. For use with nonflammable, non-abrasive liquids, compatible with pump component materials.

Units are equipped with a TEFC (Totally Enclosed Fan Cooled), ball bearing, splash protected, capacitor start, 4 pole motor. Thermal protection not provided. The motor has ON/OFF switch, standard plug, and six foot cord.

Performance

GPM of Water at Total Head in Feet						
1'	2'	3'	4'	6'	7'	Max. Head†
11	10	8	6	4	2	7 ft.

(†) Shutoff; to convert to psi, multiply by specific gravity and divide by 2.31.

Specifications

Suction Inlet 3/4" NPT
 Discharge Outlet 1/2" NPT
 Motor 1/8 HP
 Power Supply 115V, 60 Hz
 RPM 1700
 Liquid temp. 40° to 160° F (4° to 82° C)
 Pump construction Cast naval bronze casing, adapter and impeller.
 S.S. shaft extension and hardware

Mechanical seal
 construction Carbon/ceramic,
 Buna-N, S.S. spring and parts
 Amps (full load) 1.8
 Watts 170
 Weight 16.8 lbs

NOTE: Driver data is subject to change without notice, see label on driver for actual specifications.

Dimensions (Inches)

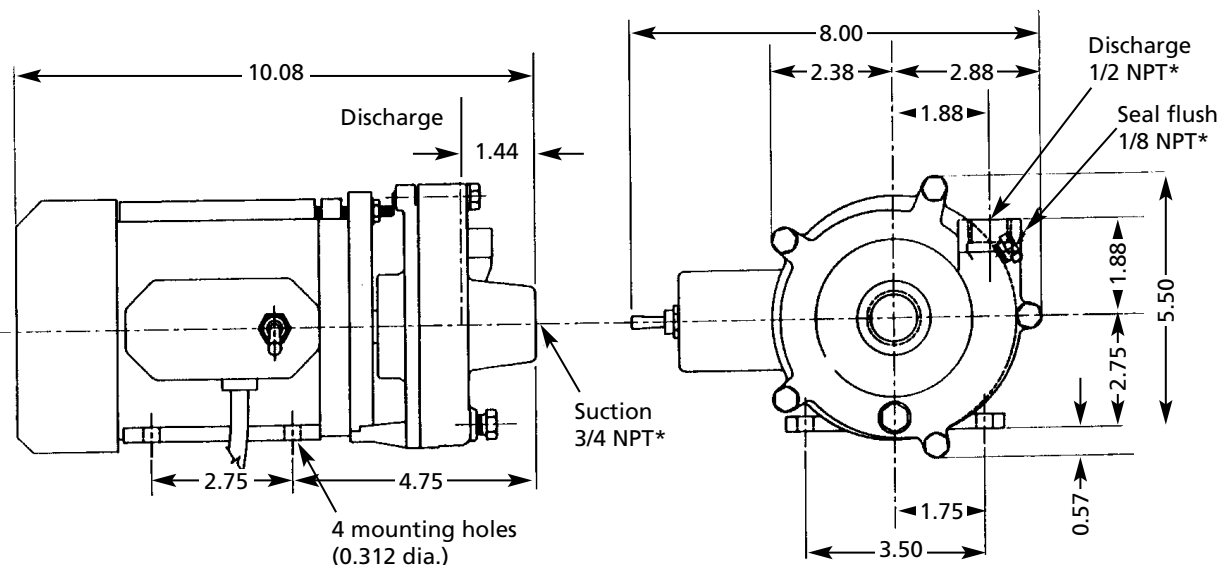


Figure 1

NOTE: All dimensions have a tolerance of $\pm 1/8"$.

(*) Standard NPT (female) pipe thread.

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Installation

Because of crystallization and erosive material on shaft seal (Ref. No. 11), installation of a seal wash is recommended to avoid premature leaks. Two types may be used, a re-circulated liquid type or a clean liquid type. Sometimes a periodic seal cleaning is unavoidable.

Use pipe or hose to connect drain port on front of casing (Ref. No. 15) to seal flush port on side of adapter (Ref. No. 9). Whenever pump is running, this re-circulation line will flush seal.

Or, connect a line supplying clean liquid to seal flush port on adapter. Always use an in-line check valve on this line. Flush as required.

Maintenance

⚠ WARNING *Disconnect from power source before servicing or inspecting the pump for any reason. Failure to do so could result in fatal electrical shock!*

MECHANICAL SEAL REPLACEMENT

Refer to Figures 2, 3, and 4.

IMPORTANT: Always replace both the seal seat and the seal head (Ref. No. 11) to insure proper matching of components!

1. Unthread cap screws (Ref. No. 2) and remove casing (Ref. No. 15) and o-ring (Ref. No. 14).
2. Unscrew impeller (Ref. No. 13) from shaft (Ref. No. 7). To keep the shaft from turning, remove three screws holding the motor fan guard and remove the guard. Loosen the screw clamping the fan to the motor shaft and remove the fan. When the fan is removed, the shaft can be held using vise grip pliers or other suitable means.
3. Remove the three hex nuts (Ref. No. 8) and remove the adapter (Ref. No. 9).

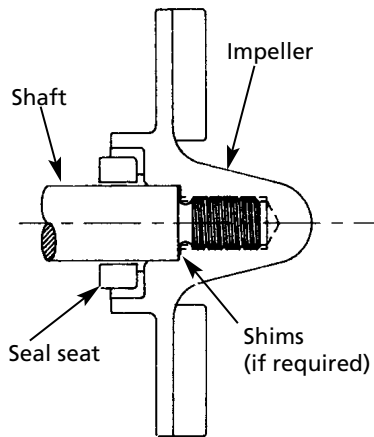


Figure 2

4. Lay the adapter face down on a flat stable surface and press the seal cartridge from the adapter.
5. Pry the seal seat from the rear of the impeller with a screwdriver or other suitable means.
6. Clean the recess in the adapter for the seal cartridge and the recess in the impeller for the seal seat before inserting any new parts.
7. Inspect the ceramic face of the seal seat and carbon face of the cartridge to insure they are clean and not marred.

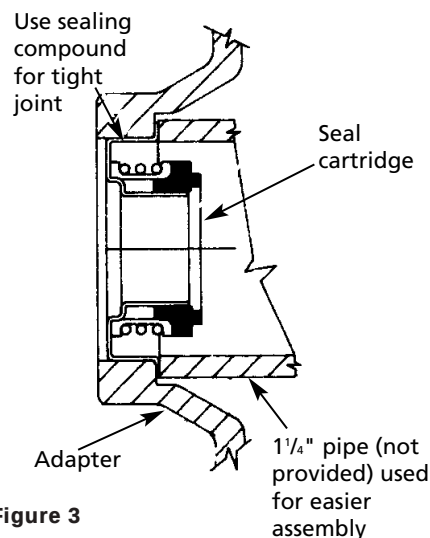


Figure 3

8. Press the new cartridge into the recess in the adapter. A sealing compound (such as silicon or Permatex) may be used to assure a water tight fit on the outside of the cartridge.
9. Wet the rubber portion of the ceramic seat with a light coating of soapy water.
10. Press the seal seat squarely into the cavity in the impeller. 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 face of the seal seat. This is a lapped surface and must be handled very carefully.
11. After the seal seat is in place, check that it is clean and has not been scratched or cracked.
12. Mount the adapter on the motor mounting face making sure the seal flush part is approximately in the 1 o'clock position when facing the pump.
13. Replace the impeller and tighten, make certain any shims (Ref. No. 12) previously used are in place.
14. Place the o-ring seal on the adapter and replace the casing. Replace and tighten the cap screws.
15. Before proceeding to replace the fan and fan guard, turn the shaft to make certain the impeller turns free and is not rubbing the casing.
16. If the shaft turns free replace the fan and fan guard. If it rubs the casing follow steps 1 and 2. Remove any shims from the shaft, and reassemble following steps 13 thru 16.

SHIM ADJUSTMENT

When installing a replacement impeller (Ref. No. 13) or motor (Ref. No. 1), it

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

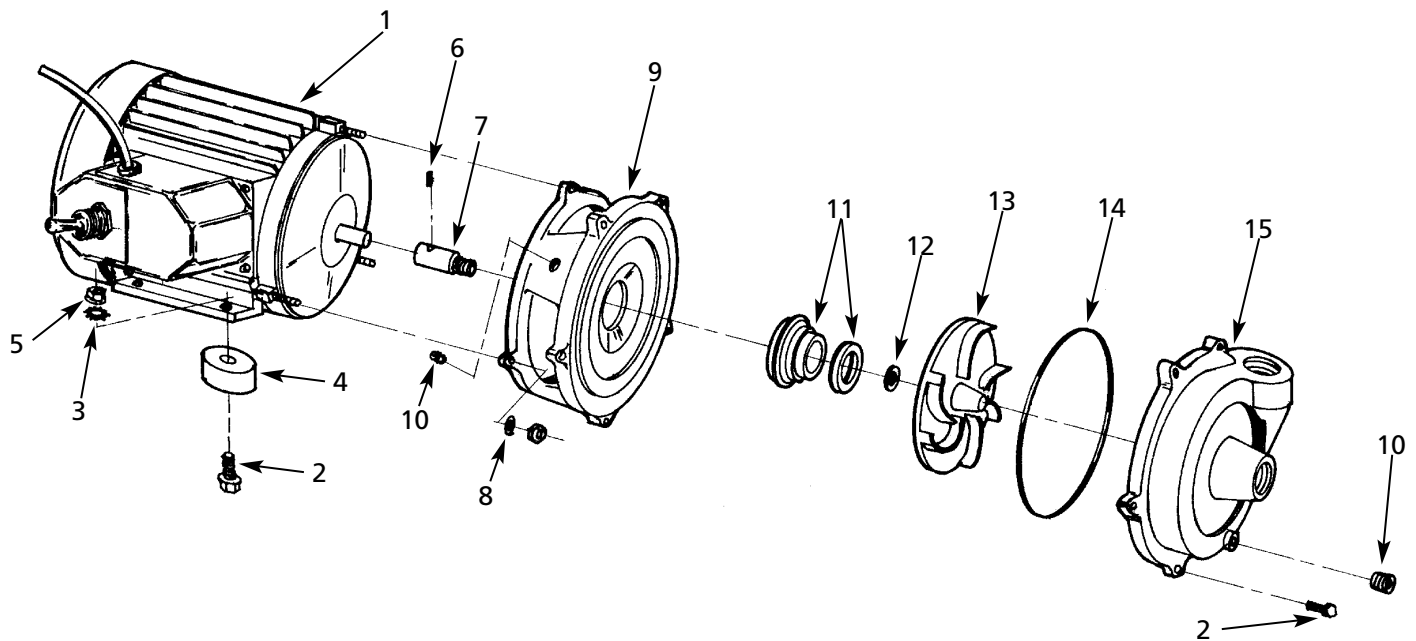


Figure 4 — Repair Parts Illustration

Repair Parts List

Reference Number	Description	Part Number	Quantity
1	Motor	1626-017-70	1
2	1/4-20 x 1 Hex head cap screw S.S.	1726-000-00	9
3	1/4 Lock washer S.S.	1788-000-00	4
4	Rubber foot	1508-000-00	4
5	1/4-20 Hex nut S.S.	1774-000-00	4
6	1/4-28 x 1/4 Socket head set screw S.S.	1736-005-00	2
7	Stub shaft	3670-140-00	1
8	#10-24 Hex nut S.S.	1772-012-00	3
9	Adapter	3670-033-09	1
10	1/8 NPT Pipe plug S.S.	1768-002-00	2
11	Seal Cartridge and Seat, Buna-N	1640-161-92	1
12	Shim set (.005, .020, .030 one each)	1806-044-90	1
13	Impeller	3670-012-09	1
14	O-Ring, Buna-N	1582-000-00	1
15	Casing	3680-004-09	1

