

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.

3-Inch Trash Pedestal Pump

Refer to pump manual 1808-635-00 for General Operating and Safety Instructions.

DESCRIPTION

This self-priming (to 20 ft. lift) trash pump is a high capacity, heavy duty unit, designed for direct coupling drive or pulley drive. Each pump is equipped with mechanical seal to reduce the likelihood of leakage and clog-resistant cast iron impeller capable of handling solids up to 1-1/2" diameter. The pump is designed to handle water containing mud, sand, sludge, solids and sewage.

MAINTENANCE

▲ WARNING

Always disconnect battery cables and spark plug wire from spark plug before performing any maintenance operation requiring disassembly of the pump.

REPAIRS & REPLACEMENTS

NOTE: First examine exploded parts illustration which shows all parts and how they are related to one another. Different degrees of dismantling can be accomplished depending on what areas of pump are to be reached. Note that entire front pump assembly can be removed by first removing (6) cap screws (Ref. No. 31). Impeller (Ref. No. 17) and cutwater/wear plate (Ref. No. 20) are subject to wear only by abrasive action of sandy or dirty fluid. If badly worn, all these parts can be replaced easily and pump thus restored to full efficiency.

IMPELLER & WEARPLATE RENEWAL

When clearance between impeller and cutwater/wearplate exceeds 1/16" at face of impeller or 1/8" on outside diameter of impeller, it may be necessary to take corrective action. Increased clearance can cause lengthened priming times and reduced pumping capacity. If both priming and capacity of your unit are satisfactory for your application, it is recommended that no corrective maintenance be performed regardless of what clearances may have developed, since increased clearances in themselves are not generally dangerous to your pump. Normally, new pump face clearances can be restored by simply shimming behind the impeller. (Add impeller shims Ref. No. 21). If diameter of impeller is badly worn or if 1/16" shim washers do not restore clearances to less than 1/16" face dimension and/or 1/8" diametral clearance, it is recommended that impeller be replaced. This is usually all that is required since only on unusually abrasive surfaces do cast iron wearplates show deterioration.

Performance Chart

Pump Speed RPM	Motor		Motor PD	Sheave		GPM at Total Head in Feet								
	HP	RPM		Pump PD	No. of Grooves	5'	10'	20'	30'	40'	50'	60'	70'	80'
1800	1 ½	1800	3.0"	3.0"	1	10,600	8,580	1,320	-	-	-	-	-	-
	1 ½	3600	2.5"	5.0"	1									
2800	5	1800	5.5"	3.5"	2	-	17,880	14,940	12,000	7,800	2700	-	-	-
	5	3600	3.5"	4.5"	2									
3600	7 ½	1800	7.0"	3.5"	2	-	-	21,360	19,080	16,620	14,160	10,200	4,500	2,100
	7 ½	3600	3.5"	3.5"	2									

3-Inch Trash Pedestal Pump

TO REMOVE FRONT WEARPLATE (REF. NO. 4)

Remove suction cleanout cover plate (Ref. No. 2) using handles as jackscrews as described under CLEANING. Front wearplate is attached to cover with three 5/16" stainless steel socket head cap screws (Ref. No. 5). Remove these screws and replace wearplate. Be sure mating surfaces are wiped clean of all dirt. When replacing socket cap screws above, it is recommended that Loctite or a similar thread locking material be applied to screws to prevent loosening in operation.

TO REMOVE CUTWATER/WEARPLATE (REF. NO. 21)

Remove front pump assembly by removing six cap screws (Ref. No. 31) that hold casing (Ref. No. 7) to adapter (Ref. No. 32). Remove impeller by unscrewing (right hand thread) it from shaft. Cutwater/wear plate can then be removed by removing socket head screws (Ref. No. 19) that hold it to adapter (Ref. No. 32). In replacing cutwater/wear plate, use of Loctite or a similar material is recommended as described for front wear plate above.

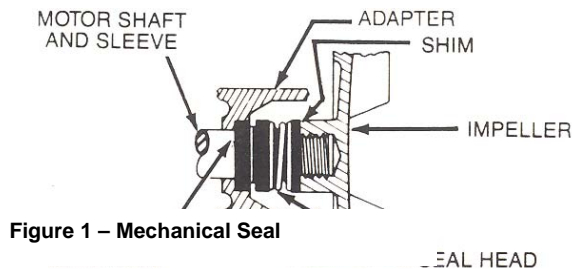


Figure 1 – Mechanical Seal

TO REMOVE SEAL:

1. Remove pump casing (Ref. No. 7) and impeller (Ref. No. 17) as described under TO REMOVE CUTWATER/WEARPLATE.
2. Remove shaft sleeve (Ref. No. 23) with seal head (Ref. No. 22) on it. Remove seal head from sleeve.
3. Unthread cap screws (Ref. No. 27) and remove adapter (Ref. No. 32) from mounting face of bearing housing (Ref. No. 26).
4. Push seal seat from adapter recess with a screwdriver.

TO REPLACE SEAL:

IMPORTANT: Always replace both seal seat and seal head to ensure proper mating of components!

1. Thoroughly clean shaft surface and all surfaces of seal seat cavity.
2. Carefully wipe polished surface of new seal seat with a clean cloth.
3. Press new seal seat squarely into cavity in adapter. If seal seat does not press squarely into cavity, it can be adjusted into place by pushing on it with a piece of pipe. Always use a piece of cardboard between pipe and seal seat to avoid scratching seal seat. (This is a lapped surface and must be handled very carefully).
4. After seal seat is in place, be sure that it is clean and has not been marred.
5. Using a clean cloth, wipe shaft and make certain that it is perfectly clean.
6. Secure adapter (Ref. No. 32) on mounting face of bearing housing (Ref. No. 26).

▲ CAUTION

Tighten cap screws (Ref. No. 27) EVENLY to avoid cocking adapter on rabbet on mounting face.

7. Apply a light coating of soapy water to inside rubber portion of seal head and slide onto shaft sleeve (Ref. No. 23). Slip shaft sleeve with seal head onto pump shaft.

IMPORTANT: Before installing new shaft sleeve, apply a bead of non-hardening, pliable sealant (such as Permatex® Form-A-Gasket® No. 2) to motor shaft shoulder.

▲ CAUTION

DO NOT touch or wipe face of polished part of seal head.

8. Replace impeller shims (Ref. No. 21).
- NOTE:** See SHIM ADJUSTMENT on following page.
9. Screw impeller back in place, tightening until it is against shaft shoulder.

▲ CAUTION

Never run seal dry for any length of time!

10. Remount pump casing (Ref. No. 7) on adapter (Ref. No. 32).

DISASSEMBLY OF BEARING HOUSING:

1. Remove front pump assembly as described under TO REMOVE CUTWATER / WEARPLATE.
2. Unscrew impeller, right hand thread (Ref. No. 17).
3. Remove shaft sleeve (Ref. No. 23) with seal head (Ref. No. 22) on it.
4. Disassemble bearing housing (Ref. No. 26) from pump adapter (Ref. No. 32) by removing four hex head cap screws (Ref. No. 27) and hex head locknuts (Ref. No. 25).
5. Remove shaft bearing (Ref. No. 28) and shaft (Ref. No. 29) as an assembly by first removing snap ring (Ref. No. 30). Push shaft bearing assembly out of bearing housing by rapping on threaded end of shaft with a rawhide mallet, or block of wood and a hammer.
6. Ball bearings (Ref. No. 28) can now be removed from shaft (Ref. No. 29).

ASSEMBLY OF BEARING HOUSING:

1. If shaft bearings have been removed from shaft, replace by sliding bearing on shaft to shoulder. Replace shaft bearing assembly by sliding assembly into housing threaded end first. Push shaft bearing assembly completely in by gently tapping on keyway end of shaft with a rawhide mallet. Replace snap ring.
2. Reverse steps 1, 2, 3 and 4 (described above) to reassemble pump.

NOTE: After pump is assembled, it is necessary to rotate pump shaft by hand to check for striking of impeller. If striking or rubbing occurs, adjust impeller shims as required (See Shim Adjustment).

SHIM ADJUSTMENT

1. When installing a replacement impeller, it may be necessary to vary number of shims (Ref. No. 21) that will be required. This is done by adding one shim more than was removed and reassembling pump as described.
2. Be sure that the casing is snugly in place and check shaft to make sure it is turning freely. If it turns freely, check to ensure that adapter (Ref. No. 32) and casing (Ref. No. 7) are fitted metal to metal where they meet on outside. If they are not metal to metal tighten cap screws (Ref. No. 31) and recheck shaft for free turning. Tighten carefully, turning shaft while tightening. If shaft seizes before cap screws (Ref. No. 31) are completely tight, disassembly pump and remove one shim and repeat reassembly.
3. If at any time during above operation shaft does not turn free or a metal to metal strike can be heard or felt when turning shaft, follow procedure indicated above and repeat procedure.
4. Above procedure ensures that the pump will have proper running clearance between impeller and casing and perform like a new unit with new impeller or motor.

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

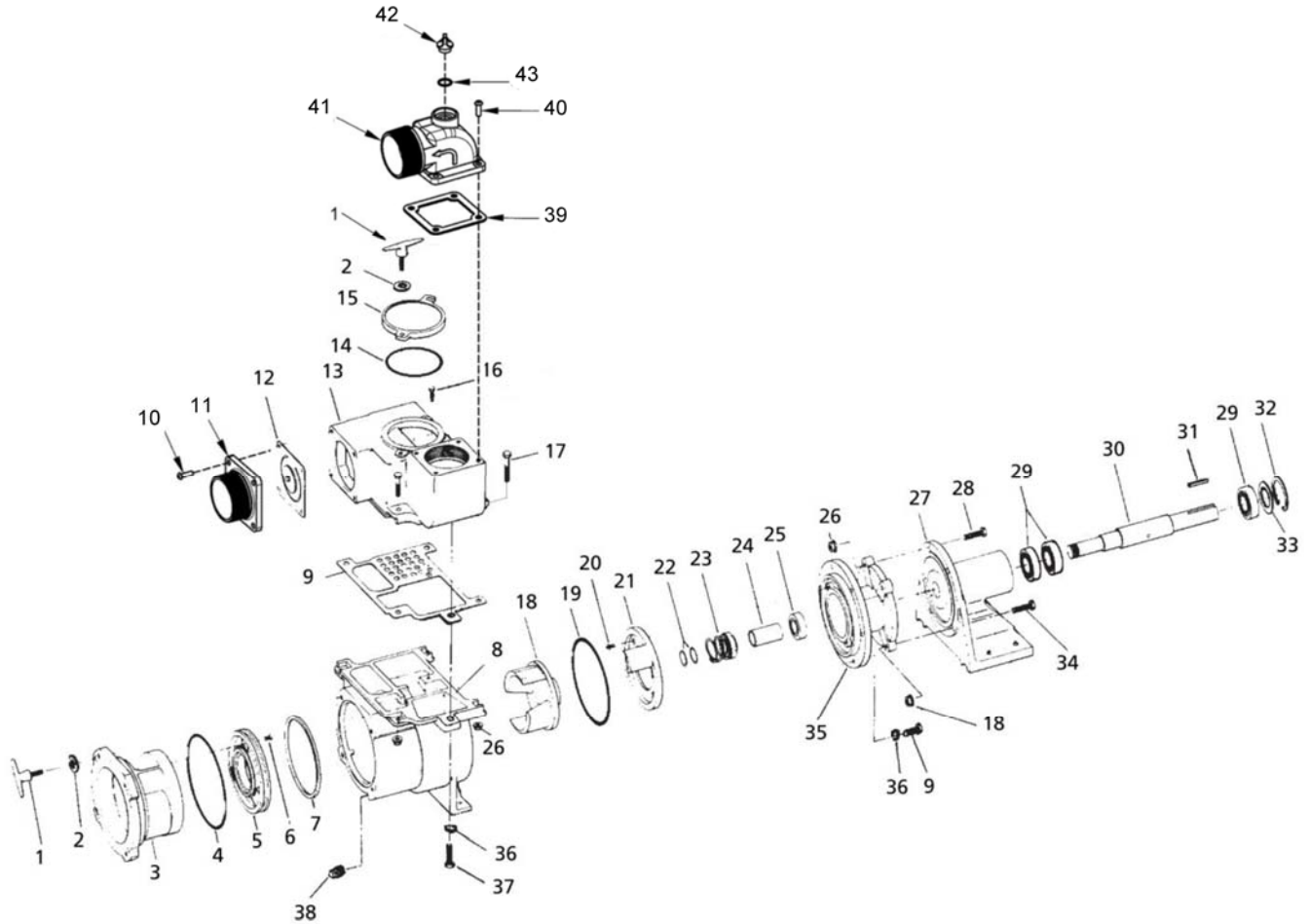


Figure 2 – Repair Parts Illustration

Repair Parts List

Ref. No.	Description	Part Number	Qty.
1	Threaded Handle (cover plate)	1601-000-00	6
2	3/8" Flat Washer	*	7
3	Suction Cleanout (cover plate)	1596-000-01	1
4	O-Ring #261 Buna N	Incl. w/Ref. KIT	1
5	Front Wear Plate	1597-000-01	1
6	5/16"-18 x 3/4" Stainless Steel Socket Head Cap Screw	1742-000-00	3
7	O-Ring #437 Buna N	Incl. w/Ref. KIT	1
8	Casing	1587-000-01	1
9	Manifold Gasket	Incl. w/Ref. KIT	1
10	Button Head Screw	*	4
11	Suction Plate Kit (includes Ref. Nos. 10 and 11)	3S5X-050-95	1
12	Flapper Valve Assembly w/ Weight	1A31-304-90 Incl. w/Ref. KIT	1
13	Manifold Kit (includes Ref. Nos. 1, 2, 13, 14,15,16, 17, 26, 36, and 37)	3100-080-96	1
14	O-Ring #243 Buna N	Incl. w/Ref. KIT	1
15	Manifold Cleanout Cover Plate	1602-001-01	1
16	3/8"-16 x 1-1/4" Hex Head Cap Screw	*	1
17	3/8"-16 x 2-1/4"Hex Head Cap Screw	*	4
18	Impeller	1594-000-01	1
19	O-Ring #260 Buna N	Incl. w/Ref. KIT	1
20	5/16"-18 x 1/2" Stainless Steel Flat Socket Head Screw	1741-000-00	4
21	Cutwater/Wear Plate	1595-000-01	1
22	Impeller Shim Kit	1656-000-90	1
23 & 25	Shaft Sleeve Assembly - Viton & Silicon Carbide	1640-167-90	1
24	Shaft Sleeve	1555-140-03	1
26	3/8"-16 Lock Nut	*	4
27	Bearing Housing	1695-054-01	1
28	3/8"-16 x 1-3/4" Hex Head Cap Screw	*	4
29	Ball Bearing	1695-056-00	3
30	Pump Shaft Assembly	1695-060-00	1
31	Shaft Key	1695-039-00	1
32	Snap Ring	1695-057-00	1
33	Bearing Shim Kit	1695-020-90	1
34	3/8"-16 x 1" Hex Head Cap Screw	*	6
35	Adapter	1588-000-01	1
36	3/8" Lock Nut	*	7
37	3/8"-16 x 1-1/2" Hex Head Cap Screw	*	4
38	3/8" Pipe Drain Plug	*	1
39	Discharge Manifold Gasket EPDM	Incl. w/Ref. KIT	1
40	Button Head Screw	*	4
41	Discharge Manifold Kit (includes Ref. Nos. 40 and 41)	3S5X-080-95	1
42	Plug with O-Ring Kit (includes Ref. No. 43)	3SXB-170-90	1
43	O-Ring #117 Buna N	Incl. w/Ref. KIT	1
KIT	Gasket Kit (Male Flange Type) (includes Ref. Nos. 4, 7, 9, 12, 14, 19, 39, 42, and 43)	3100-301-92	1
(*)	Standard Hardware Item, Available Locally		

