

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.

2-Inch Thermoplastic Dewatering Pedestal Pump

Refer to form 1808-633-00 for General Operating and Safety Instructions.

Description

This self-priming (to 20 ft. lift) centrifugal pump includes a mechanical seal with carbon/ceramic wear faces and stainless steel spring, Buna N seals, and a built-in check valve. Clog resistant impeller is capable of handling solids up to 7/16" diameter. Pump includes molded carrying handle, rubber foot pads, and two 2" NPT pipe nipples. Handles liquids from 40° to 130° F (4° to 54° C). For use with nonflammable, non-abrasive liquids compatible with pump component materials.

Applications include pumping clear, clean water, salt water, and some liquid fertilizers and herbicides. An optional EPDM Seal/O-ring/Flapper Kit (see Repair Parts List) is available for pumping "Alachlor Herbicides" (such as Monsanto's Lasso). If the fertilizer or herbicide is not compatible with Buna-N (standard) or EPDM (optional) rubber materials, do not use these pumps.

Specifications

Suction inlet2" +
Discharge outlet2" +
(†) Standard NPT (female) pipe thread.

Dimensions

Overall12 H x 11 W x 15" L
Shaft3/4" dia
Keyway3/16 x 1 3/8"

Weight18 lbs.

Material

Pumpglass-filled polypropylene
Bearing housingcast iron

Maintenance

⚠ WARNING *Make certain that power source is disconnected before attempting to service or disassemble any components! If power disconnect is out-of-sight, lock it in open position and tag to prevent application of power.*

MECHANICAL SEAL REPLACEMENT

Refer to Figures 1, 2, and 3.

IMPORTANT: Replace seal seat, (Ref. No. 27) and seal head (Ref. No. 28) at

the same time to ensure proper mating of mechanical seal components!

1. Unthread fasteners (Ref. No. 21), nuts (Ref. No. 31) and remove casing (Ref. No. 22) and casing seal (Ref. No. 13) from adapter (Ref. No. 9). Unthread fasteners (Ref. Nos. 15 and 23) and remove volute (Ref. No. 24) and volute seal (Ref. No. 12) from adapter.
2. Unthread impeller fastener (Ref. No. 14) and remove impeller (Ref. No. 25), impeller seal (Ref. No. 10) and impeller shims (Ref. No. 32).

NOTE: To keep shaft from turning, hold impeller while unthreading impeller fastener.

3. Pry seal seat from impeller recess with a screwdriver (See Figure 1).
4. Remove adapter by unthreading adapter fasteners (Ref. Nos. 11 & 30) and fastener seals (Ref. No. 10). Press old seal head and adapter seal (Ref. No. 29) out of adapter by pushing

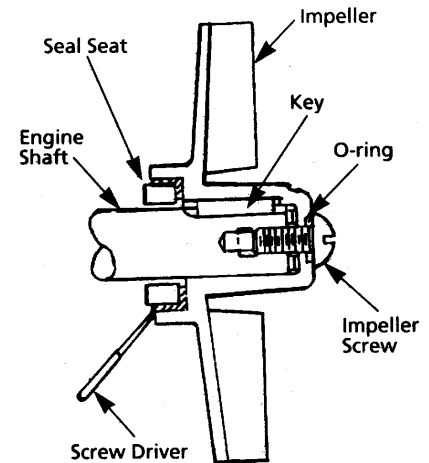


Figure 1 – Mechanical Seal Replacement

from engine side.

5. Clean adapter and impeller seal recesses before installing new pieces.
6. Carefully wipe polished surface of new seal seat with a clean cloth.
7. Wet rubber portion of seal seat with a light coating of soapy water.
8. Press seal seat squarely into recess in impeller. If seal seat does not press squarely into recess, it can be adjusted by pushing on it with a piece of pipe. Always use a piece of cardboard between pipe and seal seat to avoid scratching lapped, highly polished surface of seal seat (handle it carefully).
9. After seal seat is in place, ensure that it is clean and has not been marred.

Performance Chart

Power Req.	GPH of Water at Total Head in Feet									Max. Head*
	10'	20'	30'	40'	50'	60'	70'	80'	90'	
3HP @3600RPM	8460	7680	6840	6000	5100	4140	3180	2100	840	94 ft.

(*) Shut-off; to convert to psi, divide by 2.31

2-Inch Thermoplastic Dewatering Pedestal Pumps

Maintenance (Continued)

10. Using a clean cloth, wipe shaft and make certain that it is completely clean.
11. Place adapter seal (o-ring) onto seal head behind flange and press assembly into adapter as shown in Figure 2.

CAUTION *Do not touch or wipe polished face of seal head.*

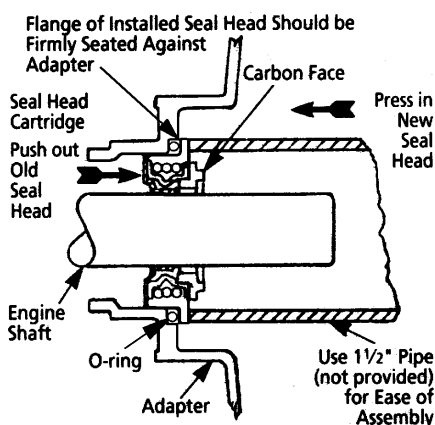


Figure 2 – Mechanical Seal Replacement

12. Secure adapter on pedestal mounting face, using fasteners and fastener seals. Be sure to replace gasket (Ref. No. 8) between pedestal and adapter, if removed during disassembly.

CAUTION *Tighten adapter fasteners evenly to avoid cocking or damaging adapter.*

13. Replace impeller and shims, ensuring that key (Ref. No. 26) is in place and lock impeller to shaft with fastener and impeller seal on fastener.

14. Replace volute seal and volute with fasteners, ensure that check valve (Ref. No. 16) is in place then remount casing seal and pump casing with fasteners and nuts.

IMPORTANT: Always inspect all seals when unit is disassembled. Replace when rubber is hard, cracked, or worn.

When reassembling parts with o-ring seals or gaskets, it is sometimes helpful to apply a small amount of soapy water on o-ring so that parts slide over o-ring without pinching or shaving it.

BEARING HOUSING SERVICE

1. Remove front pump assembly as described under "Mechanical Seal Replacement"
2. Remove shaft bearing (Ref. No. 3) and shaft (Ref. No. 4) as an assembly by first removing snap ring (Ref. No. 1). Push shaft bearing assembly out of pedestal (Ref. No. 6) by rapping on threaded end of shaft with a rawhide mallet, or block of wood and a hammer.
3. Ball bearings can now be removed from shaft.
4. 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.
5. Reassemble pump as described in "Mechanical Seal Replacement".

SHIM ADJUSTMENT

When installing a replacement impeller (Ref. No. 25) or mechanical seal (Ref. Nos. 27 & 28), it may be necessary to vary the number of shims (Ref. No. 32) that will be required. This is easily done by adding one 0.010" shim more than was removed, and reassembling pump as described.

Ensure that volute (Ref. No. 15) 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. 9) and volute are fitted tight together. If they are not, tighten fasteners (Ref. Nos. 15 & 23) and recheck shaft for free turning. Tighten carefully, turning shaft while tightening. If shaft seizes before fasteners are completely tight, disassemble pump and remove one shim and repeat reassembly.

If any time during above operation shaft does not turn free, follow procedure indicated above and repeat procedure.

Above procedure ensures that pump will have proper running clearance (less than 0.010") 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

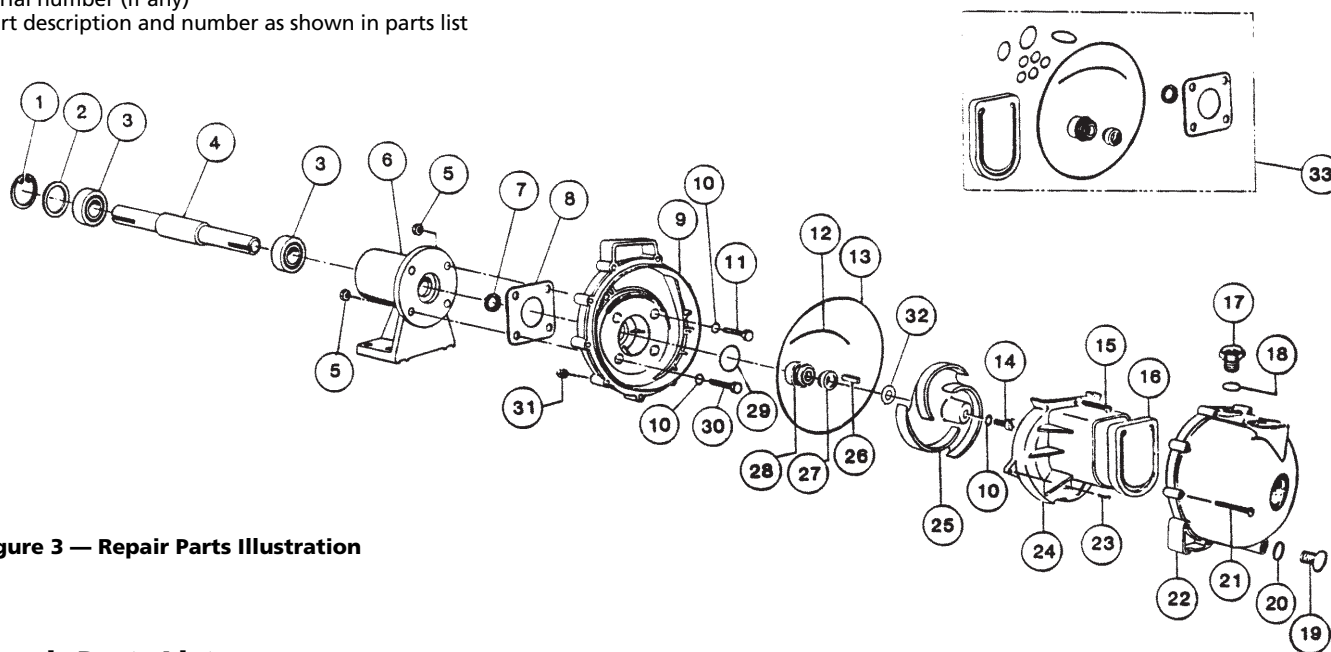


Figure 3 — Repair Parts Illustration

Repair Parts List

Ref. No.	Description	Part Number	Qty.
1	Snap ring	1695-034-00	1
2	Bearing shim set (0.005", 0.010", 0.020", one each)	1696-008-90	1
3	Bearing	1695-031-00	2
4	Pump shaft	1695-002-00	1
5	Fastener	1778-002-00	4
6	Pedestal	1695-030-01	1
7	Slinger washer	2102-000-00	1
8	Gasket	2102-002-00	1
9	Adapter	3827-033-00	1
10	O-ring -Buna N	2102-004-00	5
11	Fastener	1751-001-00	2
12	O-ring segment	2102-006-00	1
13	Casing seal	2102-007-00	1
14	Impeller fastener	1753-001-00	1
15	Fastener	1707-003-00	1
16	Flapper valve	3827-070-00	1
17	Fill plug	3827-177-00	1
18	O-ring -Buna N	2102-010-00	1
19	Drain plug	3827-176-00	1
20	O-ring -Buna N	2102-012-00	1
21	Fastener	1734-000-00	10
22	Casing	3827-004-00	1
23	Fastener	1707-002-00	2
24	Volute	3827-151-00	1
25	Impeller	3827-012-00	1
26	Key	1517-000-00	1
27 & 28	Shaft seal assembly -Buna N	1640-162-95	1
29	O-ring -Buna N	2102-017-00	1
30	Fastener	1751-002-00	2
31	Fastener	1774-000-00	10
32	Impeller shim set (0.005", 0.015", 0.030", one each)	3827-172-90	1
33	† Seal kit -Buna N (standard)	3827-300-91	1
	† Seal kit -EPDM (optional)	3827-301-91	1

(*) Standard hardware item, available locally.

(†) Includes all required seals, Ref. Nos. 7, 8, 10, 13, 18, 20, 27, 28, 29.

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