Please read and save this Repair Parts Manual. Read this manual and General Operating Instructions carefully before attempting to assemble, install, operate or maintain product described. Protect yourself and others by observing all safety information. Safety Instructions are contained in General Operating Instructions. Failure to comply with safety instructions accompanying this product could result in personal injury and/or property damage! Retain instructions for future reference.

2-Inch Dewatering Pumps

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

Description

These dewatering pumps are engine-driven, self-priming (to 20 ft. lift), portable units. Clog resistant impeller is capable of handling solids up to 3/8" diameter. Model series 422x-95 & 3424-95 employs Buna-N material for mechanical seal components; Model series 422x-V5 & 3425-95 use Viton instead of Buna-N. Viton is recommended for pumping alachlor herbicides (e.g. Monsanto Lasso®) or other compatible liquids. Handles liquids from 40° to 180° F (4° to 82° C). For use with non-flammable, non-abrasive liquids compatible with pump component materials.

Specifications

Suction inlet . . . . . .2" NPT

Discharge outlet . . . . . 2" NPT

Dimensions (overall) approx.:

3.5 & 5.0 HP . . . 16.8"H x 13.25"W x 13"L

5.5 thru 6.5 HP . . . . 18.5"H x 15"W x 15"L

Engine:

4222 . . . . . .B&S Cool Bore 3.5 HP

3424 & 3425 . . .Honda GC OHV 5.0 HP

4223 . . . . . .B&S Intek OHV 5.5 HP

4226 . . . . . .Honda GX OHV 5.5 HP

4227 . . . . . .Kohler OHV 6.0 HP

4224 . . . . . .B&S Intek I/P OHV 6.5 HP

RPM 3600

Basic Construction . . . . . Cast iron

Weight

4222 . . . . . .60 lbs.

3424 & 3425 . . . . . .65 lbs.

4223 . . . . . .65 lbs.

4226 . . . . . .65 lbs.

4227 . . . . . .75 lbs.

4224 . . . . . .69 lbs.

Maintenance

⚠WARNING ***To prevent accidental starting always remove spark plug, or disconnect and ground spark plug wire before attempting to service or remove any component.***

MECHANICAL SEAL REPLACEMENT

Refer to figures 1A, 1B, and 2.

IMPORTANT: Always replace seal assembly (Ref. No. 14), and shaft sleeve (Ref. No. 13) to ensure proper mating of mechanical seal components.

1. Unthread fasteners (Ref. No. 3) and remove casing (Ref. No. 6) from adapter (Ref. No. 4).

NOTE: Inspect gasket (Ref. No. 5). Replace if torn or damaged.

2. Unscrew impeller (Ref. No. 11) from engine shaft (Ref. No. 2) and remove impeller shims (Ref. No. 12).

NOTE: To keep shaft from turning, remove shroud from engine and hold flywheel in place. Engine has a threaded shaft. To remove impeller, turn impeller CCW (facing engine shaft).

3. Slide shaft sleeve and seal head (the part with spring) from engine shaft.
4. Unthread fasteners (Ref. No. 15) and remove adapter from engine mounting face.
5. Push seal seat from adapter recess with a screwdriver.
6. Clean adapter recess before inserting a new seal seat.

NOTE: The precision lapped faces on mechanical seal are easily damaged. Handle your replacement seal carefully.

7. Carefully wipe polished surface of new seal seat with a clean cloth.
8. Wet rubber portion of seal seat with a light coating of soapy water.
9. Press new seal seat squarely into cavity in adapter. If seal seat does not press squarely into cavity, it can be adjusted in 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.)

NOTE: Do not install a scratched, cracked or damaged seal seat; it will leak.

10. After seal seat is in place, ensure that it is clean and has not been marred.
11. Using a clean cloth, wipe shaft and make certain that it is perfectly clean.

Performance Chart

Model	GPH of Water at Total Head in Feet								Max. Head*
	10'	20'	30'	40'	50'	60'	70'	80'	
3.5 & 5.0 HP	7800	7320	6720	6000	5220	4020	2400	—	76 ft.
5.5 thru 6.5 HP	9600	9000	8280	7500	6540	5400	4080	2400	90 ft.

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

2-Inch Dewatering Pump

Maintenance (Continued)

12. Secure adapter on engine mounting face.

⚠ CAUTION ***Tighten fasteners EVENLY to avoid cocking adapter on rabbet on engine mounting face.***

13. Apply a light coating of soapy water to inside rubber portion of seal head and slide onto shaft sleeve. Slip shaft sleeve with seal cartridge onto engine shaft.

⚠ CAUTION ***Do not touch or wipe polished part of seal cartridge.***

14. Replace impeller shims.

NOTE: See Shim Adjustment, below.

15. Screw impeller back in place, tightening until it is against shaft shoulder.

16. Remount pump casing on adapter.

SHIM ADJUSTMENT

When installing a replacement impeller, it may be necessary to vary number of shims (Ref. No. 12) that will be required. This is done by adding 0.010" shim more than was removed and reassembling pump as follows:

IMPORTANT: When clearance between impeller and casing exceeds 1/16" at face of impeller or 1/8" on outside diameter of impeller, it may be necessary to take corrective action.

1. Ensure that 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. 4) and casing (Ref. No. 6) are seated firmly, compressing gasket (Ref. No. 5) where they meet. If they are not seated, tighten fasteners (Ref. No. 3) and recheck shaft for free turning. Tighten carefully, turning shaft while tightening. If shaft seizes before fasteners are completely tight, disassemble pump, remove one shim and repeat reassembly.
2. If, at any time during shim adjustment, shaft does not turn free, or a metal to metal rubbing can be heard or felt when turning shaft, repeat SHIM ADJUSTMENT procedure.

NOTE: Impeller must be as close as possible to casing in order to perform properly and retain suction capabilities.

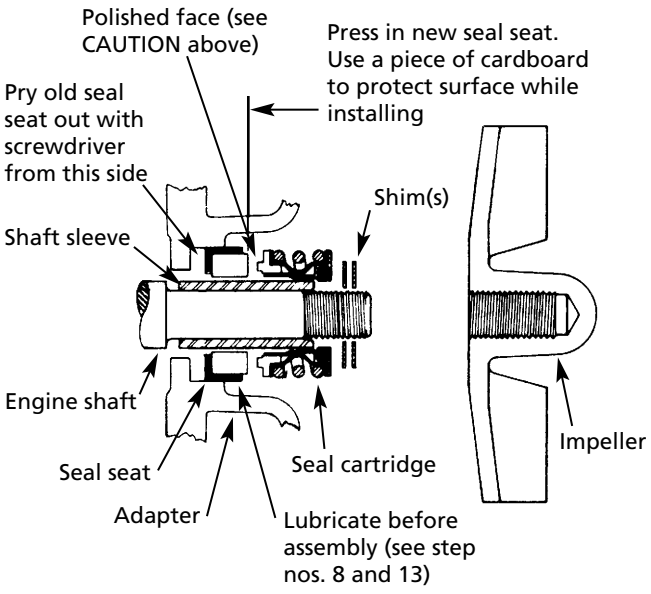

Figure 1A – Mechanical Seal Replacement

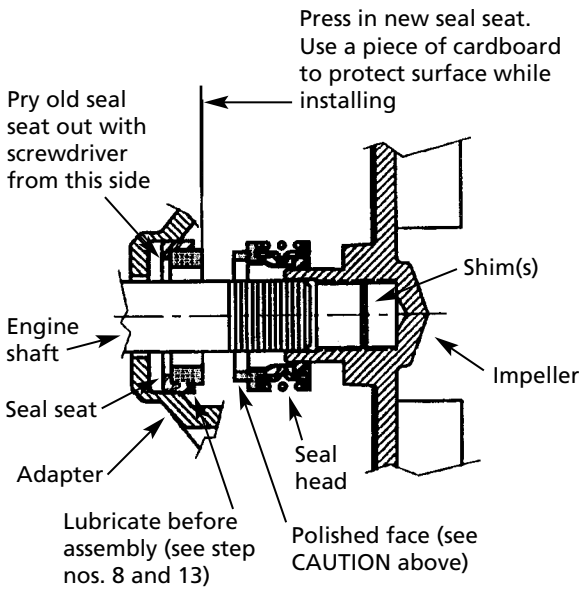

Figure 1B – Mechanical Seal Replacement

For Replacement 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

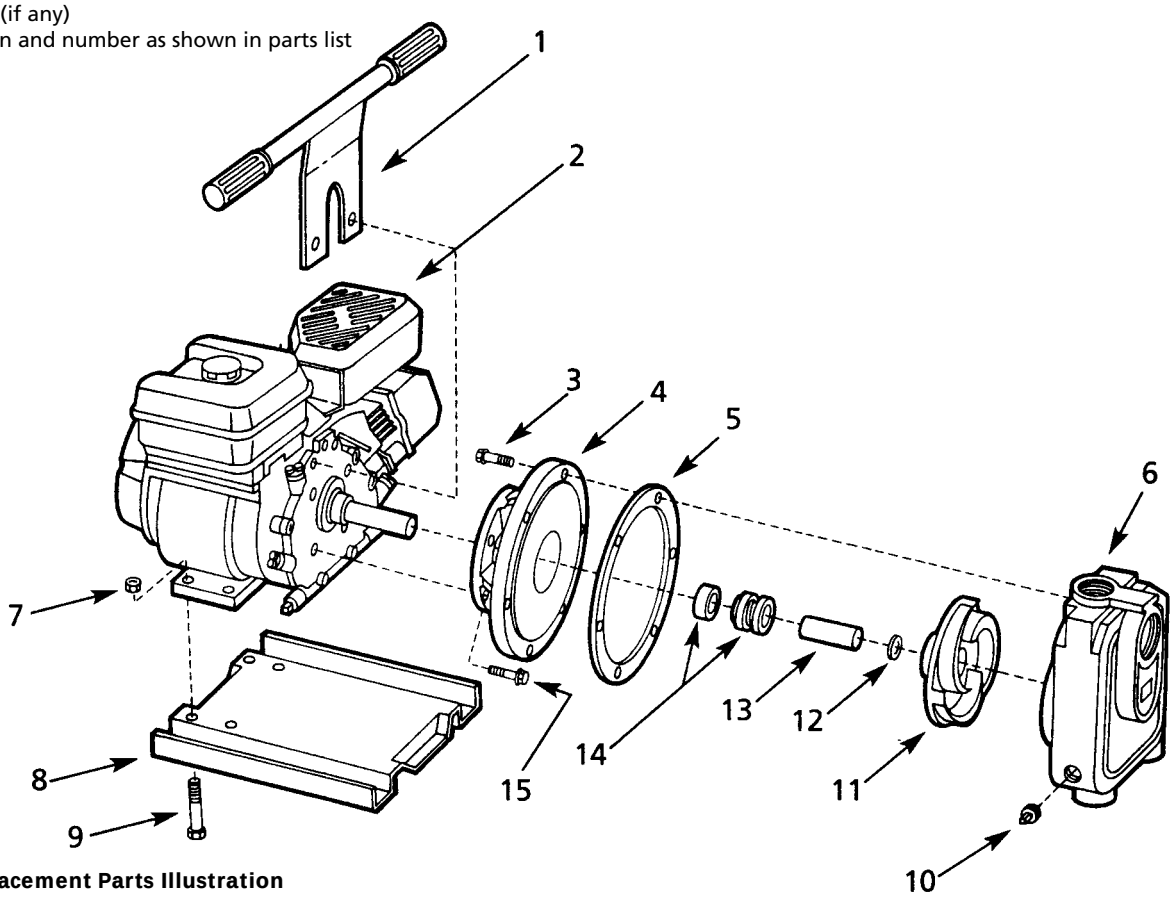

Figure 2 - Replacement Parts Illustration

Replacement Parts List

Ref No.	Description	Part Number for Models: 3424-95 & 3425-95 5.0HP Honda	4222-95 & 4222-V5 3.5HP B&S	4223-95 & 4223-V5 5.5HP Intek	4224-95 & 4224-V5 6.5HP Intek	4226-95 & 4226-V5 5.5HP Honda	4227-95 & 4227-V5 6HP Kohler	Qty.
1	Carrying Handle	1549-007-90	1549-007-90	1549-007-90	1549-007-90	1549-007-90	1549-007-90	1
2	Engine	1639-042-00	1630-003-00	1639-019-00	1630-018-00	1639-036-00	1639-035-00	1
3	Fastener	*	*	*	*	*	*	6
4	Adapter	1474-000-02	1474-000-01	1474-000-01	1474-000-01	1474-000-01	1474-000-01	1
5	Gasket	1478-000-00	1478-000-00	1478-000-00	1478-000-00	1478-000-00	1478-000-00	1
6	Casing	2214-000-01	2214-000-01	2214-000-01	2214-000-01	2214-000-01	2214-000-01	1
7	Fastener	*	*	*	*	*	*	4
8	Base	4220-100-90	4220-100-90	4220-100-90	4220-100-90	4220-100-90	4220-100-90	1
9	Fastener	*	*	*	*	*	*	4
10	Pipe Plug	*	*	*	*	*	*	2
11	Impeller	1493-012-02	1493-000-01	1496-002-01	1496-002-01	1496-002-01	1496-002-01	1
12	Impeller Shim Set, (Contains:(1) each of 0.010", 0.020", 0.030")	3827-172-90	1658-000-90	1658-000-90	1658-000-90	1658-000-90	1658-000-90	1 Pkg
13	Shaft Sleeve	N/A	1483-000-00	1483-000-00	1483-000-00	1483-000-00	1483-000-00	1
14	Seal Assembly - Buna N	1641-163-70	1640-162-90	1640-162-90	1640-162-90	1640-162-90	1640-162-90	1
	Seal Assembly - Viton	1641-164-70	1640-162-91	1640-162-91	1640-162-91	1640-162-91	1640-162-91	1
15	Fastener	*	*	*	*	*	*	4

(*) Standard hardware item, available locally.

NOTE: Pipe nipples included with pump (not shown), Part Number 1696-044-00

Notes