



Manual

750 ACE PUMP WATER/FERTILIZER SEAL REPLACEMENT KIT JM0061312

ACE PUMPS PART NUMBER: RK-FMC-750

Rev. 2.22.2021

J&M Manufacturing Co, Inc

284 Railroad Street - P.O. Box 547 | Fort Recovery, OH 45846 | Ph: (419) 375-2376 | Fax: (419) 375-2708

www.jm-inc.com

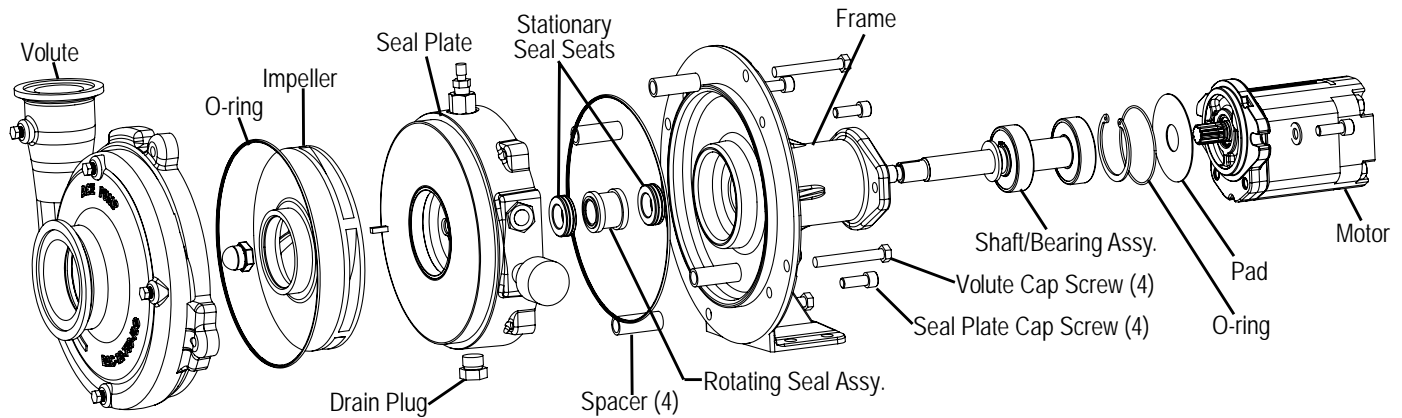
Ace Pump Breakdown and Water Seal Replacement

J&M Part Number: JM0061312

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To see a video on how to change this check out this video from Ace Pumps.

<https://www.youtube.com/watch?v=EbIVN45hvss>



DISASSEMBLY

1. Mark orientation of volute, seal plate, frame, and motor to assist in reassembly.
2. Remove (2) socket head motor screws and washers with 5/16" hex wrench.
3. Remove hydraulic motor.
Note: Tap with a non-marring hammer if necessary.
Alternate method: a) rotate motor slightly positioning flange ears in front of bolt holes b) install (2) motor screws in motor mount holes from opposite direction and tighten by hand until snug c) tighten screws with wrench using an alternating pattern of one turn each until separated.
4. Remove snap ring from behind rear pump bearing.
5. Remove cap from air fill valve and press stem to release reservoir pressure.
6. Remove hex drain plug with 7/8" wrench and drain barrier fluid into a clean pan.
Note: Recycle or dispose of used fluid the same as motor oil.
7. Remove (4) volute hex head cap screws and spacers with a 9/16" wrench.
8. Remove volute and O-ring.
9. Remove impeller acorn nut with a 1" socket.
Note: Turn counterclockwise to remove. Insert a flat file into an impeller vane to hold stationary.
10. Remove impeller and key from shaft.
11. Remove (4) socket head seal plate cap screws with 5/16" hex wrench.
Note: Two screws were used on early models.
12. Remove seal plate slowly and place shop towel over shaft end for protection. Remove O-ring.
Danger: Compression of seal spring may cause part of seal to fly off without warning.
13. Slide rotating seal assembly ((2) seal faces and (1) spring) off shaft and discard.
14. Install impeller nut on shaft end to protect threads.
15. Press or tap (non-marring hammer) shaft/bearing assembly from impeller end until clear of stationary seal face in mounting frame.
16. Use a screw driver to pry stationary seal seats from frame and seal plate.

Ace Pump Breakdown and Water Seal Replacement

ASSEMBLY

1. Clean and inspect seal bores on mounting frame and seal plate. Bore damage or gouges may prevent proper sealing.

2. Install stationary seal seats:

Important: Avoid touching seal faces by covering with a soft, clean cloth.

Lubrication: Lightly oil O-ring with clean barrier fluid to aid installation.

- a. Push a seal seat by hand into mounting frame seal bore with grooved side towards bore.
- b. Push a seal seat into seal plate seal bore by hand with grooved side towards bore.

3. Press or tap shaft/bearing assembly into mounting frame from rear motor flange.

Note: Use a non-marring hammer and soft wood block to prevent shaft or spline damage.

4. Install rear snap ring into mounting frame bearing bore.

5. Stand mounting frame/shaft assembly on motor mount flange with shaft pointing up.

6. Install rotating seal faces:

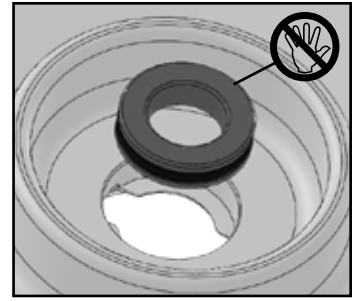
Important: Avoid touching seal faces.

Lubrication: Lightly oil rotating assembly bellows and shaft with barrier fluid to aid installation.

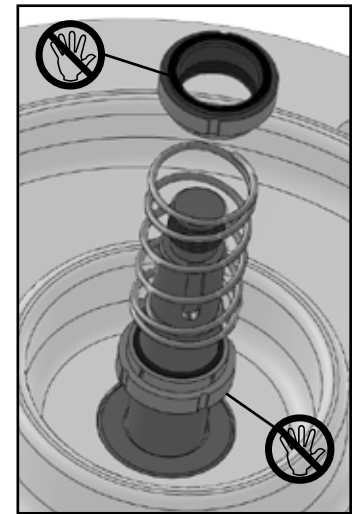
- a. Push first rotating seal assembly over shaft by hand until black polished face seats against stationary face in mounting frame.
 - b. Place spring on shaft above first rotating seal assembly.
 - c. Push second rotating seal assembly over shaft by hand until metal seal cup seats against spring. Polished black seal face should be up towards impeller.
7. Install seal plate O-ring over boss on mounting frame. Stretch O-ring over boss – do not roll.
 8. Install seal plate and tighten (2) or (4) socket head cap screws to 20 ft-lb (27 N-m).
 9. Insert key in keyway and apply anti-seize compound to impeller seat area and key.
 10. Install impeller on shaft and apply nut lock to threaded shaft end.
 11. Install acorn nut and tighten to 70 ft-lb (95 N-m).
 12. Install volute seal O-ring over boss on seal plate. Stretch O-ring over boss – do not roll.
 13. Install volute
 14. Apply nut lock to (4) volute cap screws, install, and tighten to 20 ft-lb (27 N-m). Allow nut lock to cure for a minimum of 10 minutes before filling pump.

Note: Place a flat washer under volute cap screw at pump discharge port.

15. Apply high speed coupling grease to internal splines of pump shaft.
16. Install O-ring on motor flange boss and position pad over shaft.
17. Install motor aligning shaft splines with pump shaft.
18. Install motor socket head cap screws with washers and tighten to 20 ft-lb (27 N-m).
19. Place pump on a level surface.
20. Remove fill plug on top of seal reservoir.
21. Add supplied barrier fluid until level is at top edge of site window.
Caution: Do not overfill.
22. Replace fill plug.
23. Add air until gauge reads 25 to 30 psi. An air supply or tank regulated to 30 psi is best.
Caution: Do not overpressurize. Relieve excess air pressure if necessary.
24. Replace air valve cap.



Step 2



Step 6