

MODEL SK2755/2775

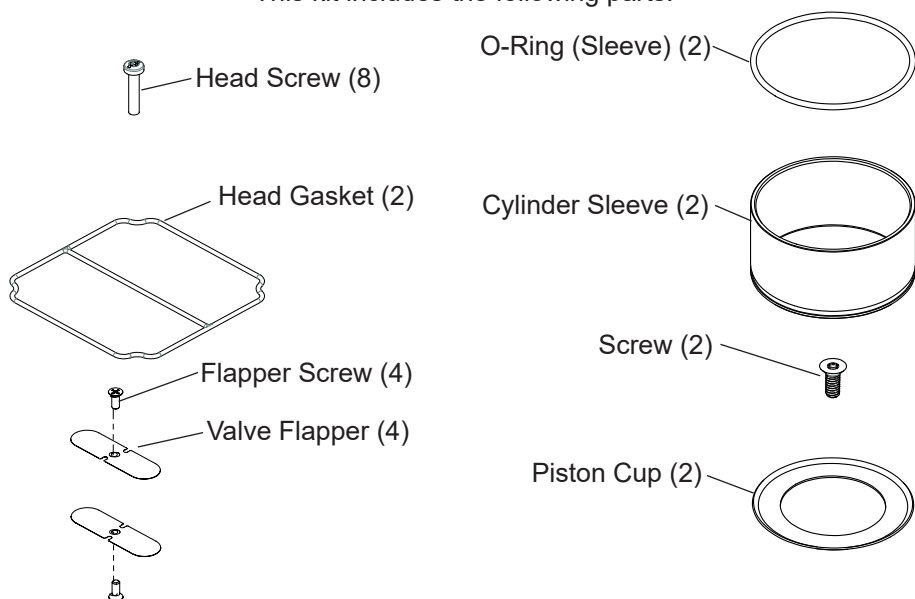
COMPRESSOR SERVICE KIT

For use on 2755/2775 Series Compressors

 **WARNING:** Unplug the compressor before beginning disassembly.

 **CAUTION:** Improper assembly or use of damaged parts may lead to premature failure. To avoid frequent repairs follow the recommended assembly procedures.

This kit includes the following parts:



NOTE: Before you begin, read these instructions thoroughly and assemble the necessary tools. You will need:

- 1/4" Hex Socket attachment for torque wrench.
- Flat blade screwdriver attachment for torque wrench.
- Torx T-27 attachment for torque wrench.
- Torx T-25 attachment for torque wrench (for head screws).
- 5/32" hex wrench for eccentric set screw.
- Clean Cloth

DISASSEMBLY / REASSEMBLY

NOTE: To avoid confusion, service one side of the compressor at a time.
1st Stage Repair (lead end of compressor)

 **WARNING:** Unplug the compressor before beginning disassembly.

STEP 1. Clean loose dirt from the outside of the compressor.

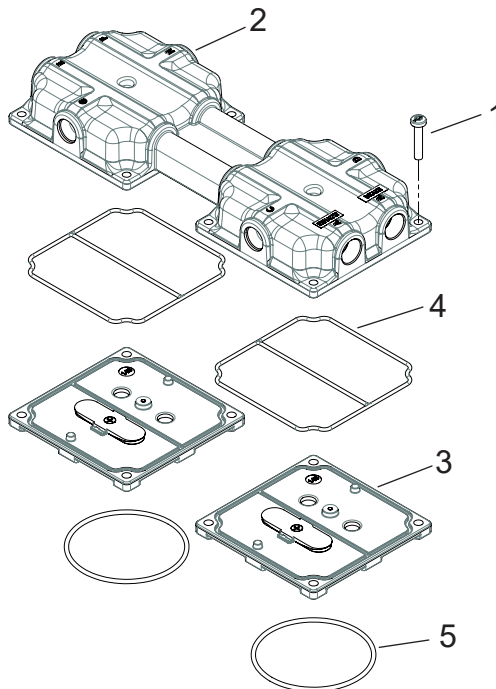
STEP 2. Loosen the 8 head screws (1) and remove the compressor head. Carefully remove the valve plates (3) from the bottom of the head.

 **Caution:** Place capacitor off to side leaving it connected to lead wires.

STEP 3. Remove the head gasket O-rings (4) and discard them.

STEP 4. Turn the valve plates over. Remove the valve plate O-rings (5) and discard. Use a blunt object to aid this removal. Any scratch or dent in this area can cause an air leak.

Figure 1



STEP 5. Remove the exhaust valve flapper and valve restraint from the bottom of the valve plate (discard valve flapper and screw). Clean the bottom of the plate with a clean, soft cloth. Install the new exhaust valve flapper and restraint.

NOTE: Torque flapper screw to 12 in-lbs.

STEP 6. Install the new O-ring, seating it firmly into the groove with your finger or blunt object. See figure 2.

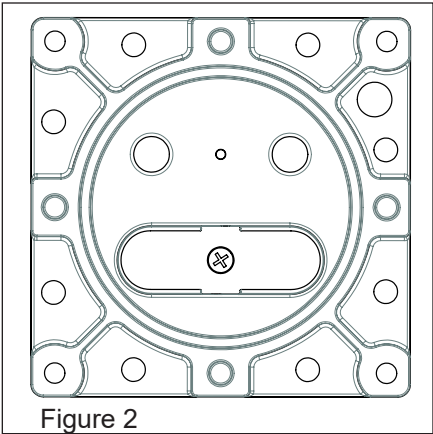


Figure 2

STEP 7. Remove the intake valve flapper and valve restraint from the top of the valve plate (discard valve flapper and screw). Clean the top of the plate with a clean, soft cloth. Install the new intake valve flapper and restraint.

NOTE: Torque flapper screw to 12 in-lbs.

STEP 8. Install the new head gasket, seating it firmly into the groove with your finger or blunt object. See figure 3. Set aside.

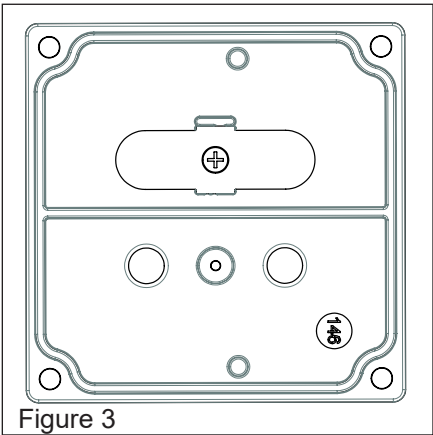


Figure 3

STEP 9. Remove the fan guard by unscrewing the 2 screws holding it to the housing. See figure 4.

STEP 10. Remove the fan by releasing the pressure from the clip holding it to the shaft. Note position of fan for reassembly. (Hub facing in? Hub facing out?)

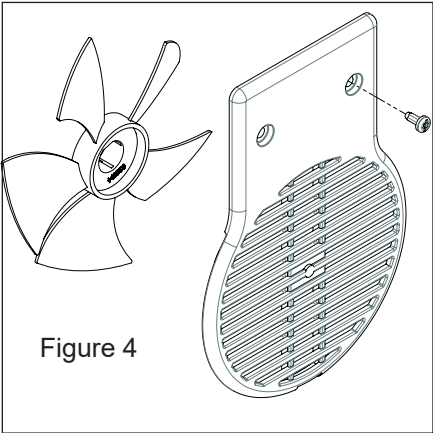
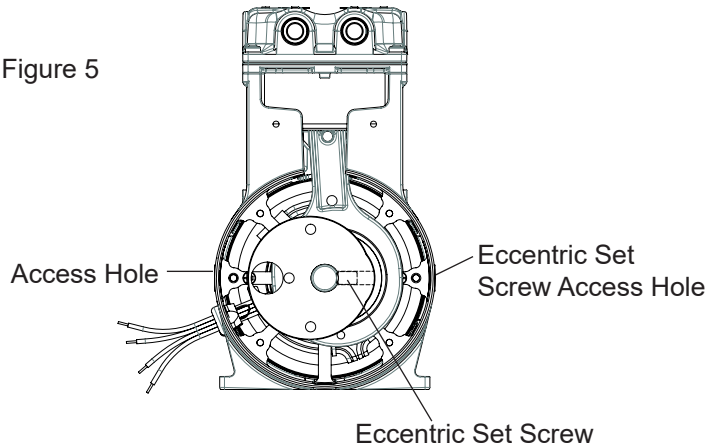


Figure 4

STEP 11. Insert the 5/32" hex wrench into the access hole on the side of the compressor housing. Loosen the set screw 1/4 turn. Rotate connecting rod to top dead center (180°) and slide the connecting rod/eccentric assembly off the shaft and through the opening in the housing.

Note: Before cup removal, check direction of piston cup edge for proper reassembling (Does it curve up or down?), See Figures 6A & 6B on Page 4.

STEP 12. Secure the rod assembly in a fixture. Remove the sleeve (1 - discard) from the connecting rod. Remove the screw (2 - discard) from the cup retainer (3-retain for reassembly). Remove the piston cup (4 - discard) and wipe debris from the top of the connecting rod and retainer with a clean damp cloth.



STEP 13A. (Pressure rod assembly) Carefully place new sleeve (1) over the connecting rod top. Place new cup (4) in center of connecting rod top with the curve of the cup facing up. Do not damage the cup. Place retainer (3) on top of cup (counterbore up), making sure that the cup inside diameter is seated properly over retaining boss.

Note: The retainer (3) should be flat, fully contacting the rod top.

Drive new retainer screw to 100 inch-pounds. Carefully push the sleeve up forming the cup. Stop pushing the sleeve up when the piston cup is positioned midway inside the sleeve.

STEP 13B. (Vacuum rod assembly) Place new cup (4) in center of connecting rod top with the curve of the cup facing down. Do not damage the cup. Place retainer (3) on top of cup (counterbore up), making sure that the cup inside diameter is seated properly over retaining boss.

Note: The retainer (3) should be flat, fully contacting the rod top.

Drive new retainer screw to 100 inch-pounds. Carefully push sleeve (1) over the top of the rod assembly forming the cup. Stop pushing the cylinder sleeve down when the piston cup is positioned midway inside the sleeve.

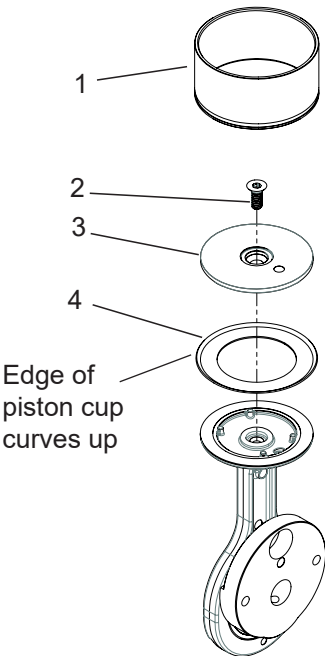


Figure 6A- Pressure Rod

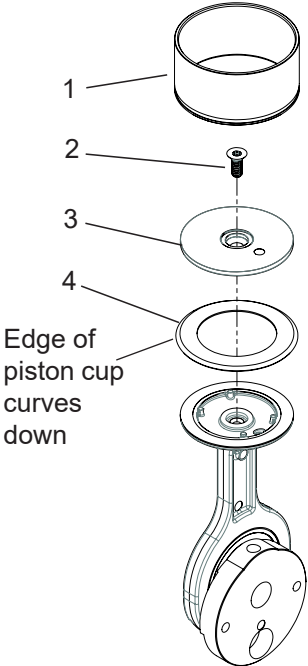
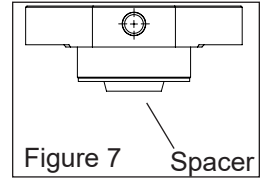


Figure 6B - Vacuum Rod

STEP 14. Rotate the rotor shaft so that flat faces up (12:00) Position piston cup at bottom dead center of cylinder sleeve.

STEP 15. Follow this step if eccentric does not have the built on Spacer. See figure 7.

Insert the 0.04" spacer tool though the slot in the side of the housing. Slide connecting rod assembly onto the shaft until it meets spacer. Skip Step 16.



STEP 16. Follow this step if eccentric has the built on Spacer. See figure 6A. Slide connecting rod assembly onto the shaft until the spacer meets the shaft bearing.

STEP 17. Align the eccentric setscrew with the flat of the shaft. Rotate the eccentric and shaft 90 degrees so the setscrew is visible through the access hole in the housing. Seat the Hex wrench into the setscrew. See Figure 5.

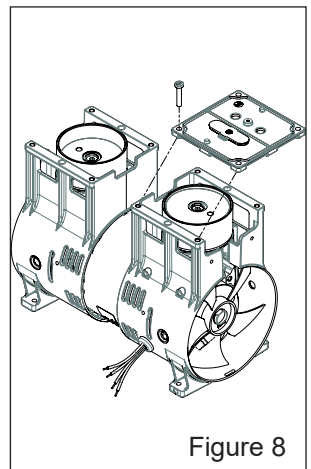
STEP 18. Temporarily place the valve plate assembly on the compressor housing so the lip of the cylinder sleeve fits into the O-ring on the bottom of the valve plate assembly. Position the valve plate so the mounting holes line up with the threaded holes in the housing. Temporarily insert two head screws into the mounting holes to secure the valve plate assembly. See figure 8.

NOTE: The purpose of this procedure is to correctly position the connecting rod assembly on the motor shaft before tightening the set screw.

STEP 19. Use a torque wrench to tighten the eccentric setscrew to 125 in-lbs. Remove the valve assembly and head screws.

STEP 20. Align the flat on the fan with the flat on the motor shaft and slide the fan back onto the motor shaft, making sure you position the fan clip in the same orientation as it was before you removed it. Incorrect orientation of the fan will not provide adequate cooling of the compressor.

REPEAT FOR SIDE TWO



STEP 21. With the sleeves firmly seated on the housing, replace the valve plates in same manner as they were removed. See figure 8. Make sure the top edge of the sleeve locates in the O-ring groove in the bottom of the valve plate. See figure 9.

 **Caution:** Make sure gasket is not twisted when seated in groove.

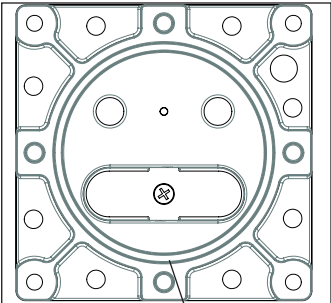
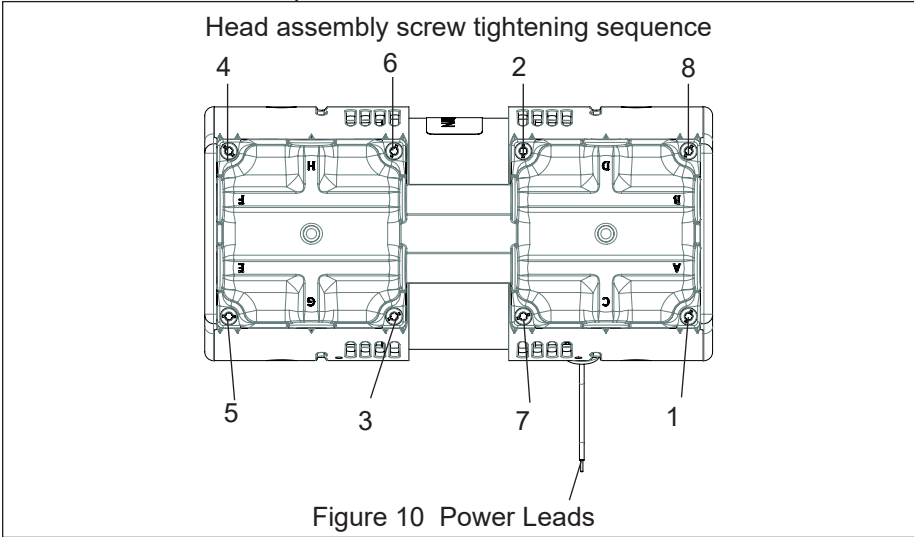


Figure 9 O-Ring Groove

CHECK OPERATION

Hold the sleeve down against the housing with one hand, and slowly rotate the fan with the other hand to ensure all components are lined up properly. As the piston travels up and down it will also rock from side to side. This is a feature of the WOB-L Piston.

STEP 22. Place the head on the valve plates. Torque the head screws to 40 inch-lbs. in a criss-cross pattern.



 **Caution:** To avoid property damage or personal injury, always try rotating the fan by HAND prior to connecting the unit to the power source. Check for suction at the air inlet port by placing your finger over the port as you turn the fan. You should feel a slight suction with each rotation of the fan. If you don't feel suction, or if you feel or hear a thump as you turn the fan, DO NOT CONNECT THE UNIT TO A POWER SOURCE; review the assembly procedure for possible error.

STEP 23. Reassemble the fan guards to the compressor. Tighten screws to 10 in-lbs.



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