MODEL SK2807

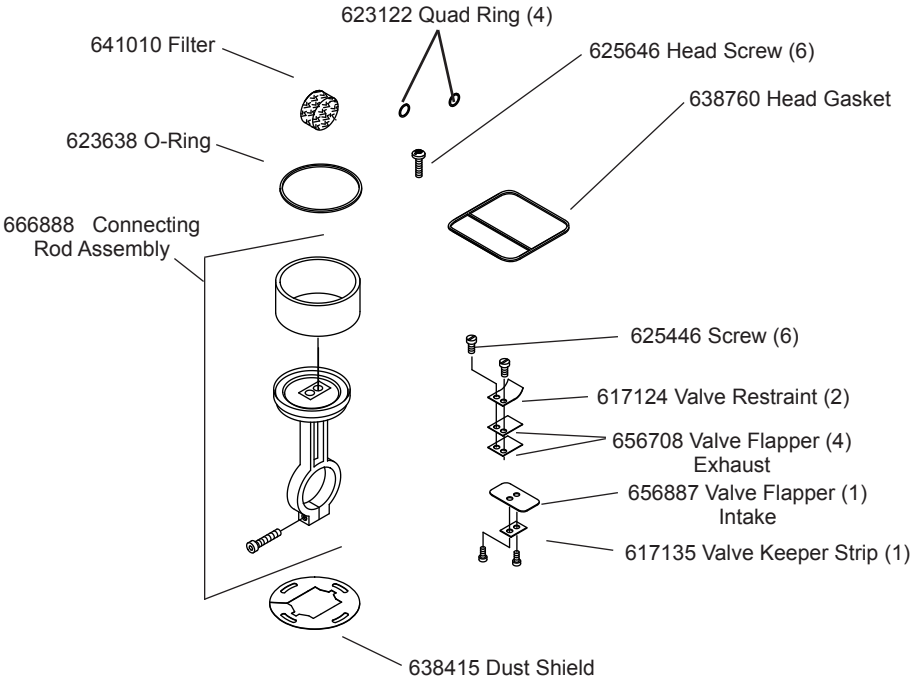
COMPRESSOR SERVICE KIT

For use on 2807 Compressor Series

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 2 sets of the following parts: To avoid confusion, service only one side of the compressor at a time.



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

- **Phillips head screwdriver attachment for torque wrench**
- **Flat blade screwdriver attachment for torque wrench**
- **Torx T-20 attachment for torque wrench**
- **Torx T-25 attachment for torque wrench (for head screws).**
- **5/32" allen wrench for eccentric set screw**
- **Clean Cloths**

Part No.642688 03/05

ASSEMBLY

1. Clean loose dirt from the outside compressor. Loosen the 6 head s and remove the head. (Fig. #1) the valve plate.

2. Remove the head gasket O-ring scard. Turn the valve plate over. Re- he valve plate O-ring and discard.

3. Carefully remove connector rom the heads and replace the 4 ngs. Reassemble to the heads.

4. (Fig. #2) Remove the 4 screws uring the plastic front cover assem- , and lift off the cover. Place cover pacitor assembly off to side leaving ected to the lead wires.

5. Remove the fan (D) by taking e screw (C) holding it to the ec- nib.

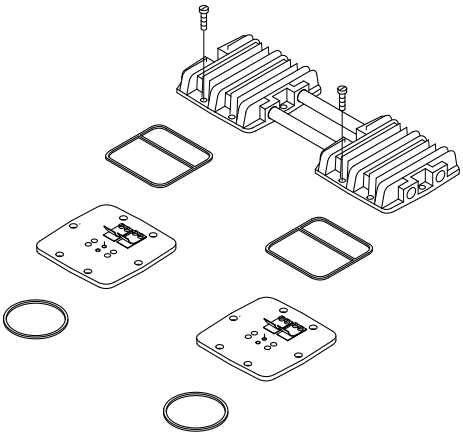
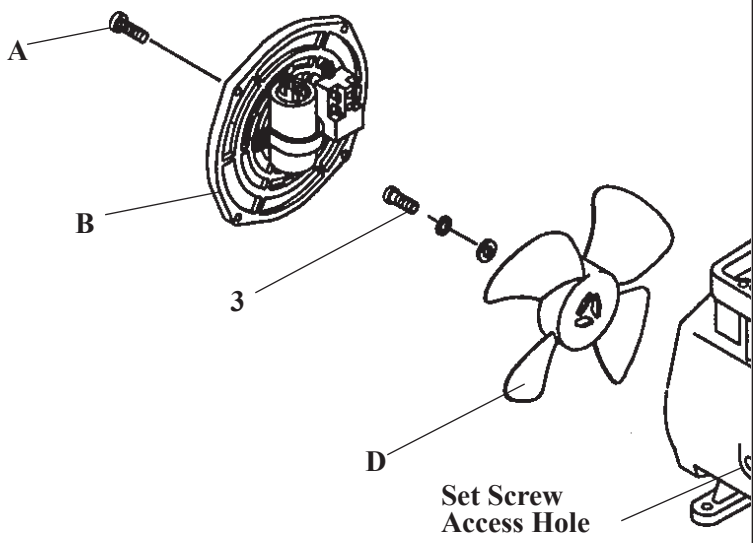


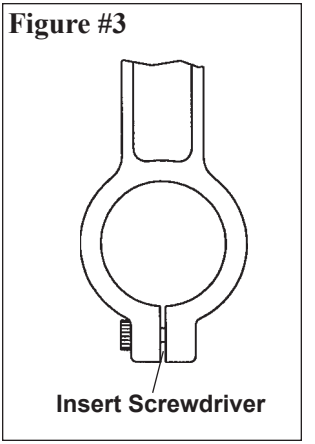
Figure #1

Figure #2



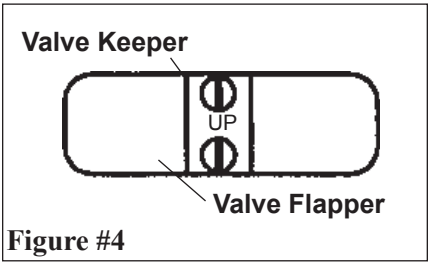
STEP 5. Insert the hex key into the hole in the right side of the compressor housing (See Fig. #2). Loosen clamping screw at the base of the connecting rod. Slide the connecting rod off the bearing, lift it out through the top of the compressor housing.

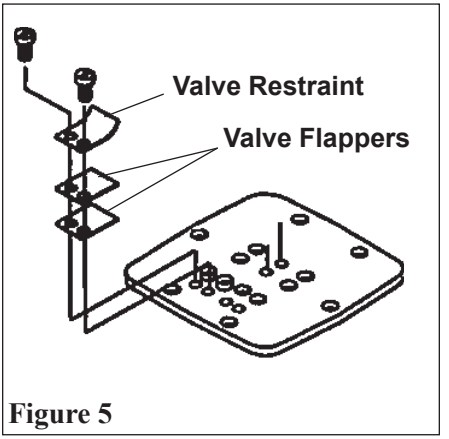
NOTE: It may be necessary to insert a flat tip screwdriver into the slot in the base of the connecting rod, and spread the base slightly, in order to break the Loctite® bond and free it from the bearing (See Fig. #3).



REBUILD VALVE PLATE ASSEMBLY

STEP 1. Remove the valve keeper and intake valve flapper from the bottom of the valve plate. Clean the bottom of the plate with a clean soft cloth. Install the new intake flapper valve. The valve keeper should be placed on top of the flapper so that the word "UP" is visible (See Fig. #4). Tighten the screws to 12 in-lbs.





STEP 2. Remove the two restraints and four exhaust flapper valves (two over each port) from the top of the valve plate. Clean the top of the plate with a clean soft cloth. Install the new flapper valves and screws as shown in Fig. #5. Tighten the screws to 12 in-lbs. Set Valve Plate Assembly aside.

REBUILD AND ASSEMBLY

NOTE Look down through the top of the housing, and spin the eccentric by hand. The eccentric should run parallel to the housing ribs. If the gap between the eccentric and housing ribs varies by more than 1/16 inch during rotation, the eccentric is misaligned. Contact the nearest Service Center. If the eccentric is misaligned do not continue installing the rebuild kit, as premature rod or sleeve failure may result.

STEP 1. Clean the old adhesive from connecting rod bearing (mounted on the eccentric). Apply Loctite® #680 (supplied) or equivalent to the bearing bore of the new connecting rod. (See Fig. #2). Apply Loctite® #242 (supplied) or equivalent to the threads of the connecting rod screw, and turn the screw a few turns into the new rod. Do not tighten. Slide the dust shield onto the rod. Drop the new rod and sleeve assembly through the top of the compressor housing with the head of the rod clamping screw to the right (as viewed through the open end of the compressor housing). Slip the rod onto the bearing. Locate the dust shield by lining up the locator slots of the shield on the locator ribs of the housing. (See Fig. #6)

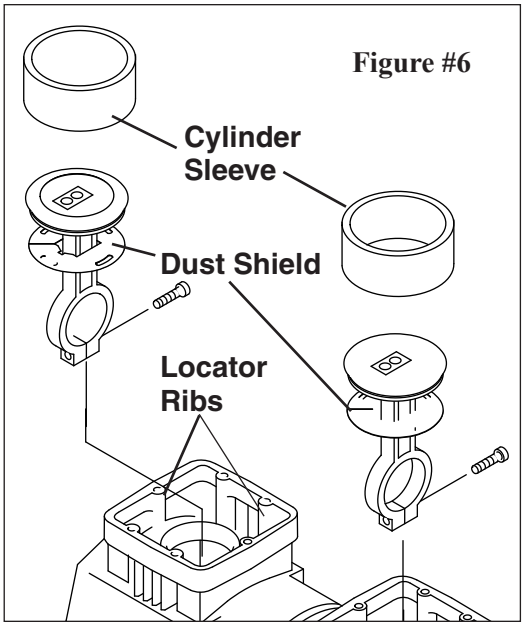


Figure #6

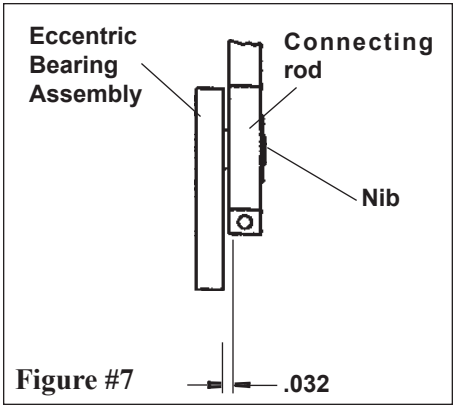


Figure #7

STEP 2. Align the front face of the connecting rod with the front face of the bearing. This will result in a clearance of about .032 inch between the rod and the eccentric (See Fig. #7). Tighten the clamping screw to 15 in. - lbs. torque. DO NOT OVERTIGHTEN, or bearing damage/connecting rod breakage may result.

STEP 3. Slide the sleeve down until it contacts the housing. The 4 locator ribs should bear against the inside surface of the sleeve and the sleeve should hold the dust shield in place.

NOTE: The purpose of the following procedure is to correctly position the connecting rod assembly on the the motor shaft before the Loctite® bond has dried.

STEP 4. Hold the sleeve down against the housing with one hand, and slowly rotate the eccentric with the other hand. As the piston travels up and down it will also rock from side to side. This is a feature of the WOB-L Piston. If it rocks from front to rear, the connecting rod is misaligned on the eccentric. If front to rear rocking is detected, loosen the connecting rod clamping screw and repeat Steps 1, 2, and 3. If the connecting rod cannot be properly aligned, contact the nearest service center.

STEP 5. Install the new O-ring into the bottom of the valve plate assembly, seating it firmly into the groove with your finger or blunt object.

STEP 6. With the sleeve located and firmly seated on the housing, replace the valve plate as shown in Fig. #8. Make sure the top edge of the cylinder sleeve locates in the O-ring groove in the bottom of the valve plate.

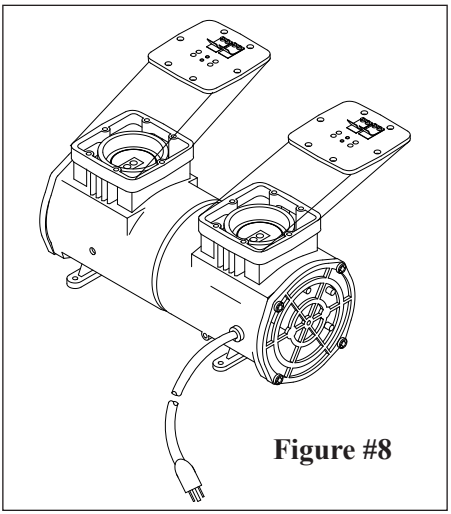
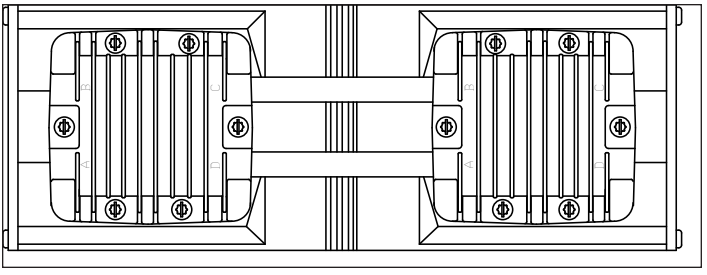


Figure #8

STEP 7. Clean the inside of the head with a soft clean cloth. Install the new gasket, seating it firmly in the groove with your finger or blunt object.

STEP 8. Place the head assembly on the top of the valve plates. The exhaust port should be facing the rear of the compressor, and the smaller cavity inside the head will be over the curved valve restraints on the top of the valve plate. Install the 12 head screws and tighten to 45 in-lbs. in a criss-cross pattern.

Figure #9



STEP 9. Install the fan onto the eccentric nib. Align the slot marked '1007' with the notch on the eccentric nib. Insert the screw and washer into the threaded hole in the nib. Tighten to 30 in-lbs. DO NOT OVERTIGHTEN. When properly assembled the fan will remain centered in the housing when rotated by hand. NOTE: it may be helpful to insert the hex key through the hole in the housing, and into the set screw hole in the eccentric. This will prevent the eccentric from rotating while tightening the fan screw.

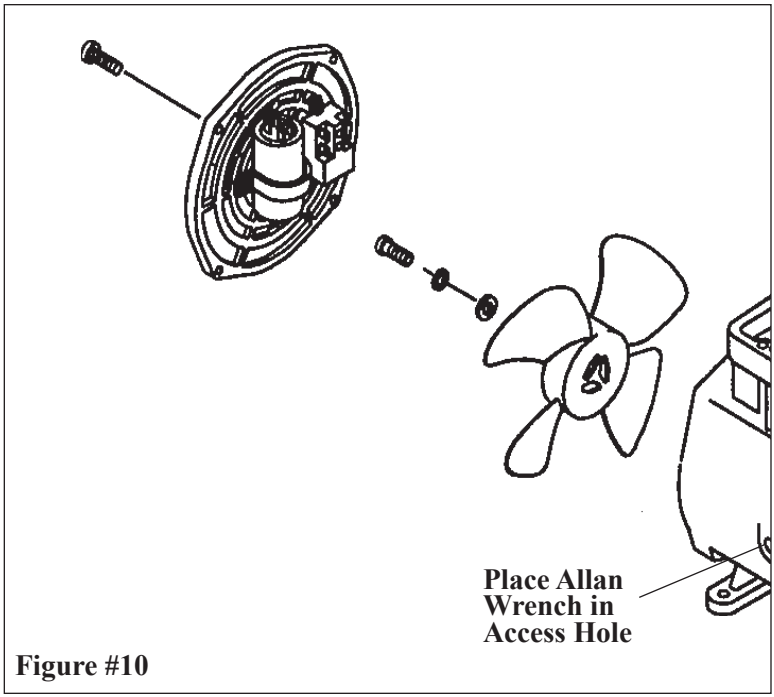


Figure #10

⚠ 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 10. Make sure the lead wires are attached as shown in Fig. #11. Assemble the front cover to the housing so that the capacitor is vertical with the leads on top. Make sure that the wires are clear of the fan. Tighten the front cover screws to 18 in-lbs.

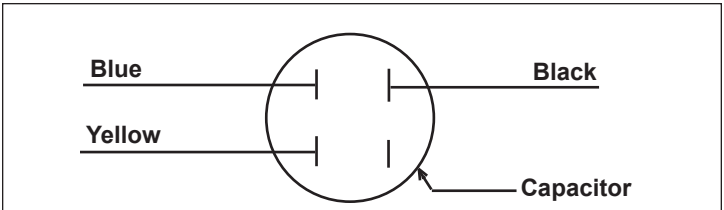


Figure #11

STEP 11. Remove the filter cap from the filter assemlby. Remove and discard old filter. Replace new filter in the filter holder and snap filter cap back into place.

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