MODEL 1914
COMPRESSOR REBUILD KIT
T-635HD 3/4 HP SERIES

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

WARNING: Unplug the compressor and drain all air from the tank before beginning disassembly.

NOTE: Before you begin, read these instructions thoroughly. Assemble the necessary tools. In addition to the supplied hex key, you will need a flat tip and phillips head screwdriver, a T-20 and T-25 Torx driver, and an adjustable wrench.

PARTS LIST

666831 Connrod Ass'y	**Qty. 1**
621580 Valve Flapper	**Qty. 2**
623539 O-Ring	**Qty. 1**
633629 Head Gasket	**Qty. 1**

DISASSEMBLY

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

STEP 2. Remove the compression nut on the head exhaust fitting and disconnect the exhaust tube.

STEP 3. On the WT models only, loosen the four base screws and remove the compressor from the tank assembly.

STEP 4. Loosen the 6 head screws and remove the cylinder head.

STEP 5. Lift off the valve plate.

STEP 6. Remove the 4 screws securing the plastic front cover, and lift off the cover. It is not necessary to disconnect the relay and capacitor leads.

STEP 7. Remove the fan by pulling it off of the end of the motor shaft. It is held onto the shaft by a tension clip. Do not pry. If the fan blades break during disassembly, it must be replaced. This fan supplys cooling air to the motor components and is critical to correct operation.

STEP 8. Insert the 3/16" hex wrench into the hole in the right side of the compressor housing (See Fig.#1). Loosen the 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 free it from the bearing (See Fig.#2).

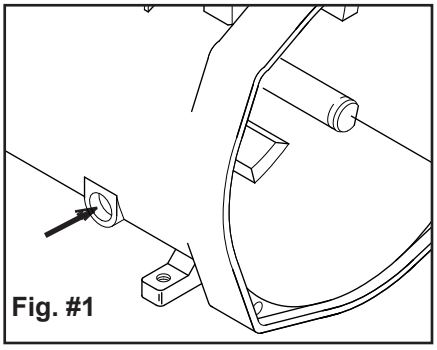


Fig. #1

Fig. #2

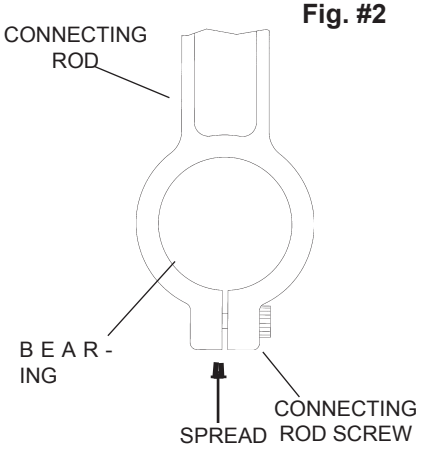
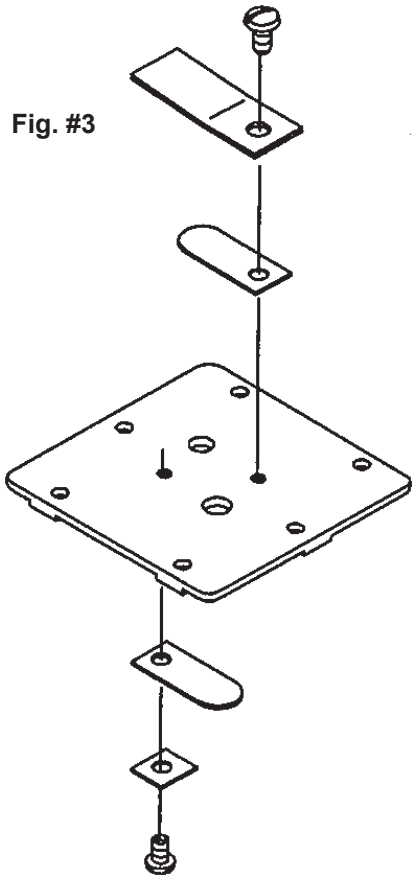


Fig. #3



REBUILD AND ASSEMBLY

STEP 1. Remove the O-ring and intake valve 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. #3). Install the new O-ring, seating it firmly into the groove with your finger or blunt object.

STEP 2. Remove the restraint and exhaust flapper valve from the top of the valve plate. Clean the top of the plate with a clean soft cloth. Install the new valves as shown in Fig. 3.

STEP 3. While looking down through the top of the housing, 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 4. Remove the clamping screw from the old connecting rod. Clean the old adhesive from the threads. Clean the old adhesive from connecting rod bearing (mounted on the eccentric).

STEP 5. 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.

Part No. 642567B 03/04

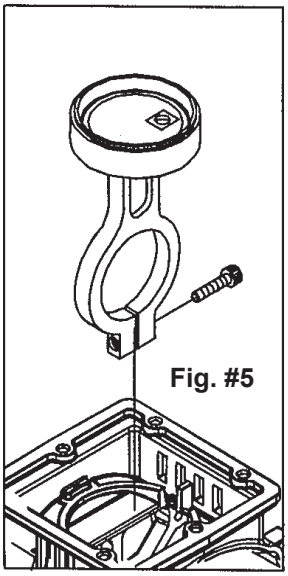


Fig. #5

STEP 6. Drop the new rod and sleeve assembly through the top of the compressor housing. With the head of the clamping screw to the right (as viewed through the open end of the compressor housing), slip the rod onto the rod bearing. 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.#6).
Tighten the clamping screw to 15 in. - lbs. torque. DO NOT OVERTIGHTEN, or bearing damage/connecting rod breakage may result.

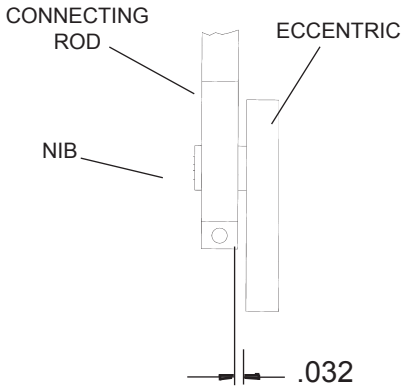


Fig. #6

STEP 7. Slide the sleeve down until it contacts the housing.

STEP 8. 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. However, 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 6, 7 and 8. If the connecting rod cannot be properly aligned contact the nearest service center.

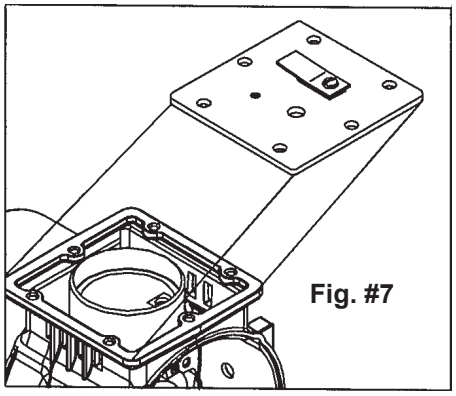


Fig. #7

STEP 9. With the sleeve located and firmly seated on the housing, replace the valve plate. Make sure the top edge of the sleeve is located in the O-ring groove in the bottom of the valve plate.

STEP 10. Remove the old gasket from the head, and clean the inside of the head with a clean soft cloth. Install the new head gasket, seating the gasket firmly in the groove with your finger or other blunt object.

STEP 11. Place the head on the top of the valve plate. The exhaust fitting should be facing the rear of the compressor, and the smaller cavity inside the head will be over the valve restraint on the top of the valve plate. Install the 6 head screws. NOTE: The handle should extend over the exhaust fitting to provide proper balance.

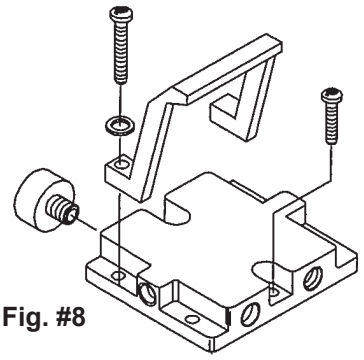
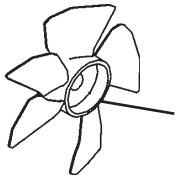


Fig. #8

STEP 12. Install the fan with the hub side toward the compressor. Push the fan onto the shaft until the end of the shaft is flush with the external hub.



External Hub
Fig. #9

STEP 13. Make sure the lead wires are attached as shown in Fig. #10.

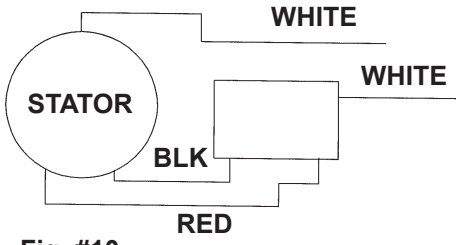


Fig. #10

STEP 14. Replace compressor onto tank (if it was necessary to remove it), and tighten the four mounting screws.

STEP 15. Reconnect the exhaust tube.