

# THOMAS INDUSTRIES

## TA & GH SERIES

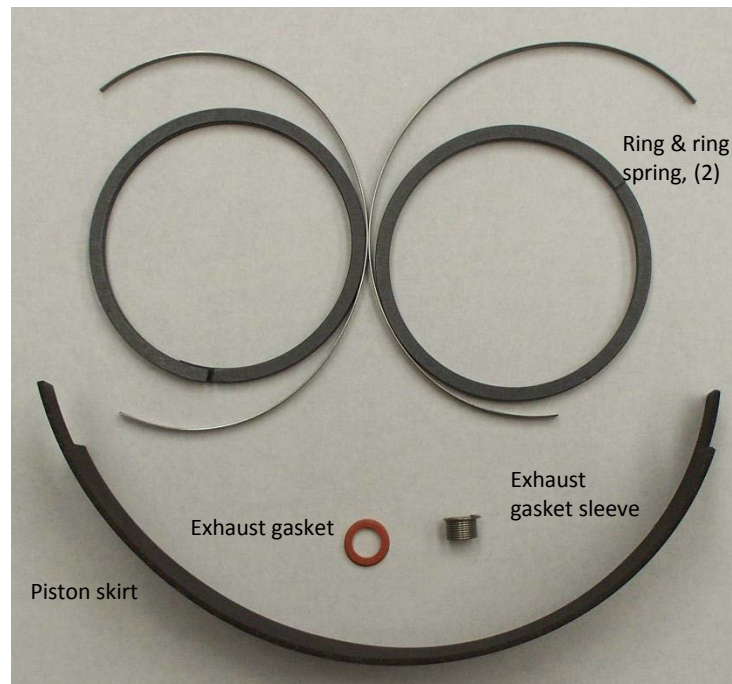
### SERVICE KIT INSTALLATION INSTRUCTIONS

Thomas industries minor service kits are easy to install with a few common tools.

- Allen wrenches
- Screw drivers
- Standard Wrenches
- Torque wrenches

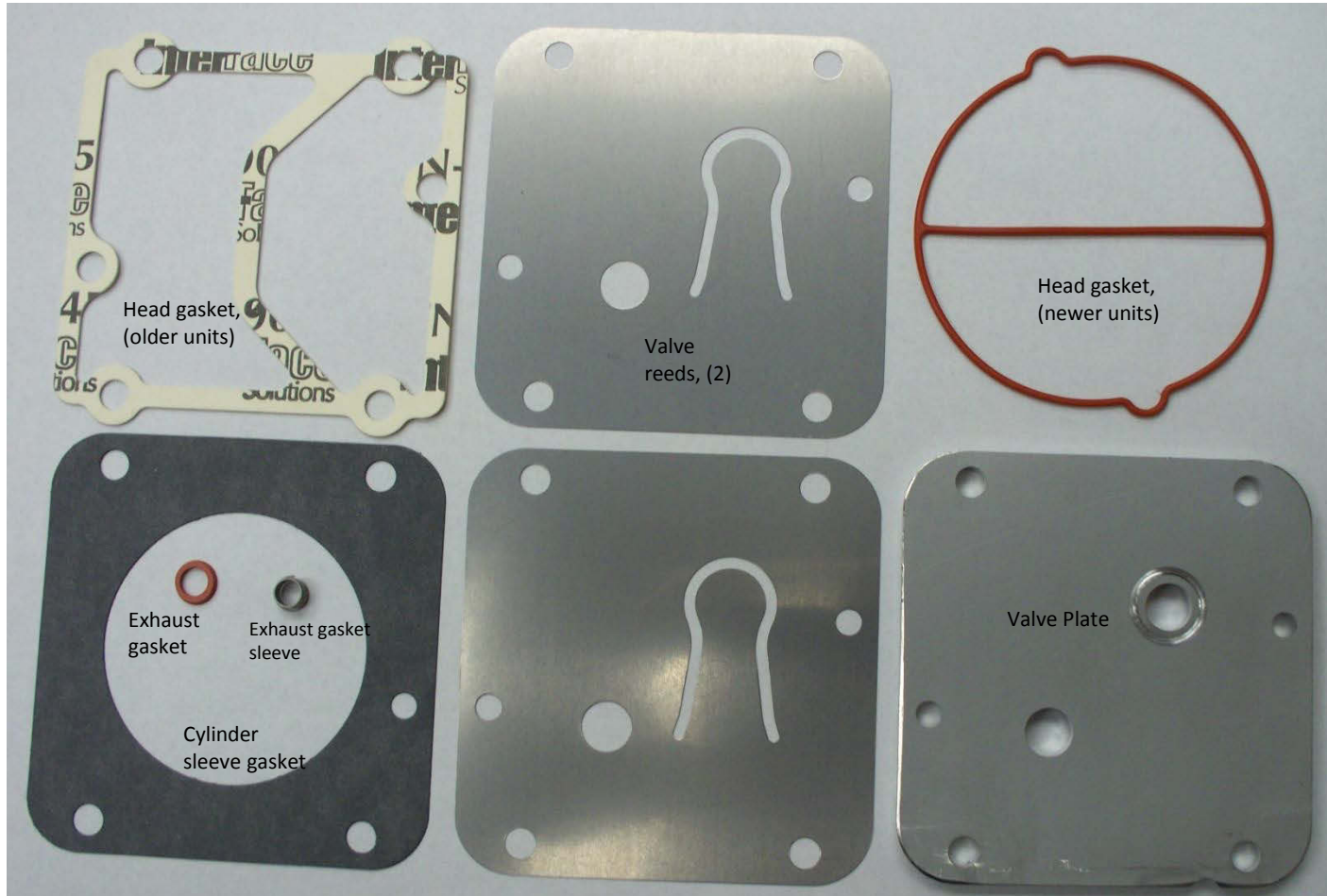
Minor kits contain ring kits & valve kits. Minor kits are needed when the compressor will not reach the rated pressure or air flow is low

Typical ring kit below



## Typical valve kit below

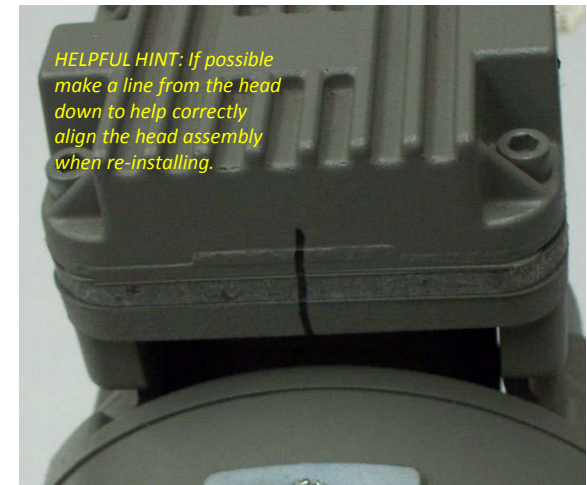
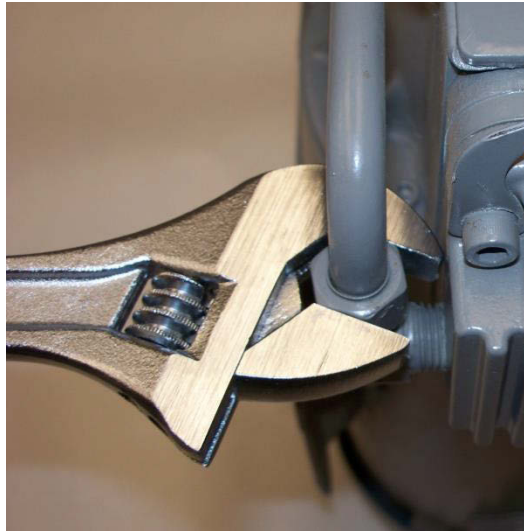
The valve kit contains replacement parts for older revision pumps and newer pumps, (expect extra parts). The exhaust gasket & exhaust gasket sleeve are not used on single head pumps



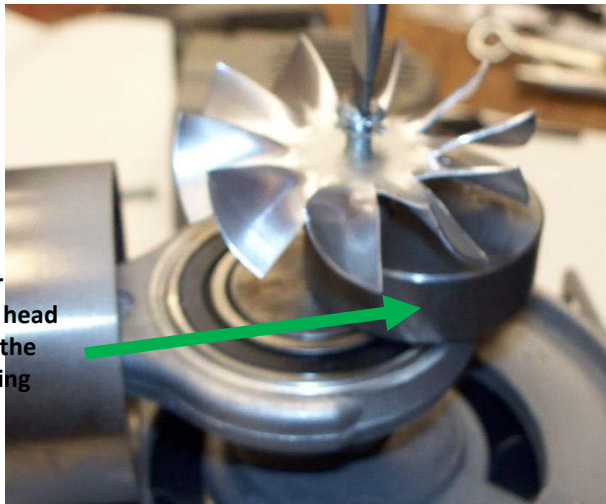
## Remove all power sources from the compressor.

### 1. On twin head units

- Remove the grill
- Remove the fan by prying up with 2 screw drivers
- Loosen the fittings on any crossover tubes and remove the nut on 1 side



Hold the counter weight on single head units to prevent the shaft from spinning



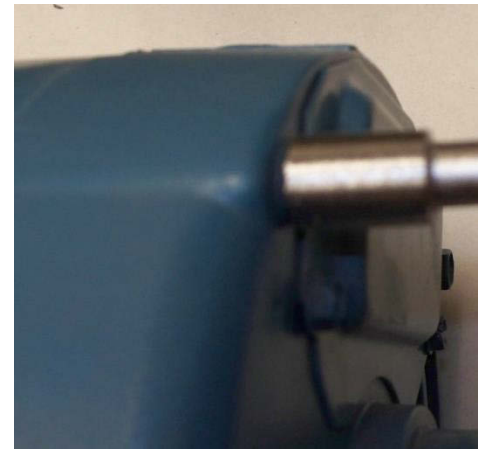
2. Loose the 4 head bolts & remove the head assembly
3. Loosen the 4 crankcase bolts & remove crankcase



Single head style, 4 crankcase bolts located on front



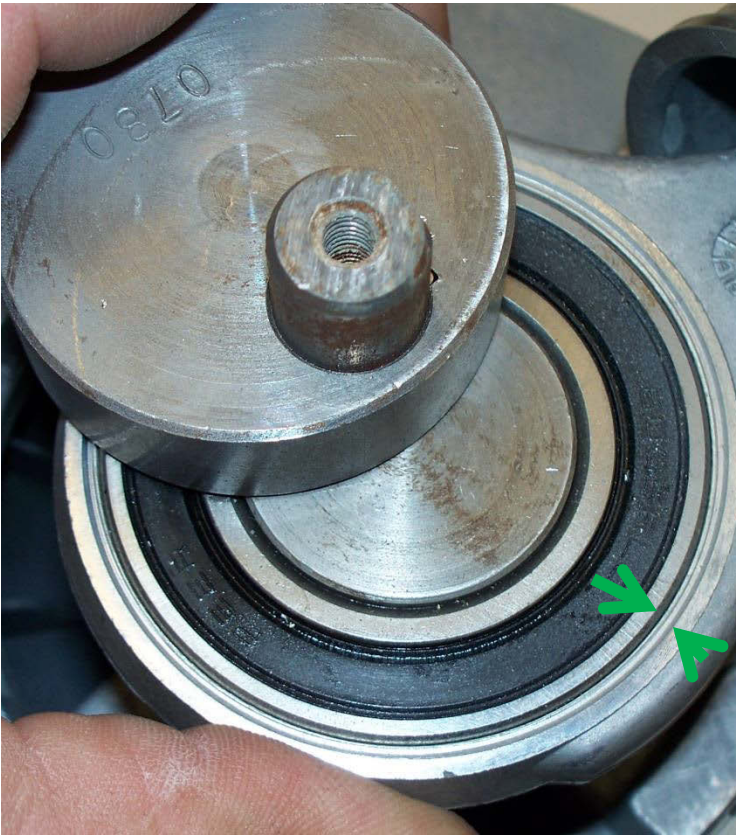
Most new dual head style, 4 crankcase bolts located on front



Older dual head style, 4 crankcase bolts located on rear of the motor, (loosen but do not remove the bolts)

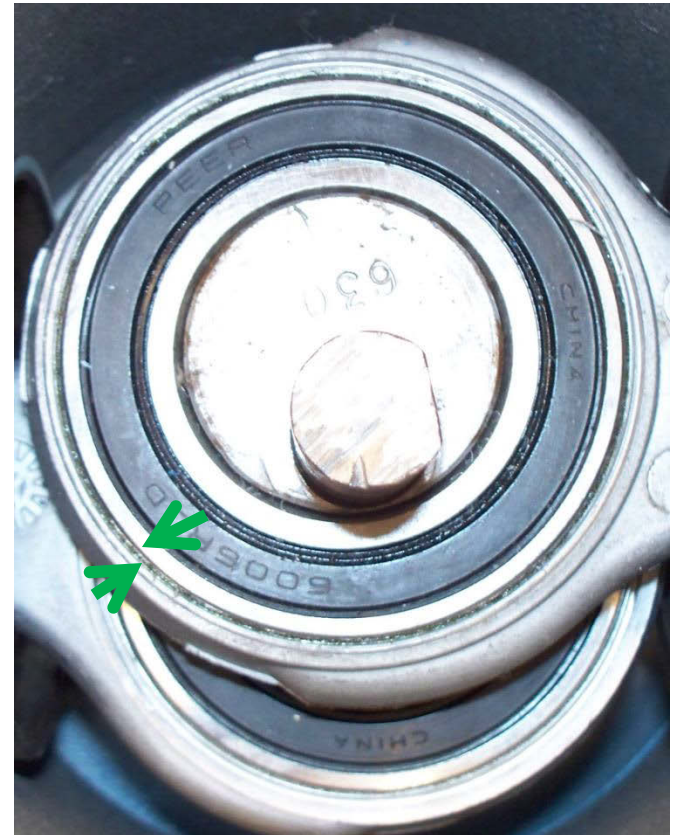
4. Inspect the bearings for
- Excessive grease purging
  - Locked or worn bearings
  - Loose fit between the bearings & connecting rod

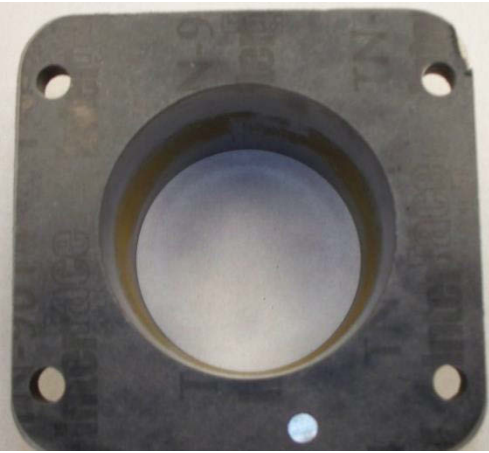
If the bearings are in good shape your compressor should only require a minor kit. If the bearings or rod assemblies are worn a major kit is required, see the major kit procedure



Look for excessive grease around the bearing seal

There should be no "play" between the rod & bearing





Remove the old rings, springs & piston sleeve and reinstall with the new ring kit.

5. Remove the old cylinder sleeve gasket



6. Install the ring springs in the ring grooves

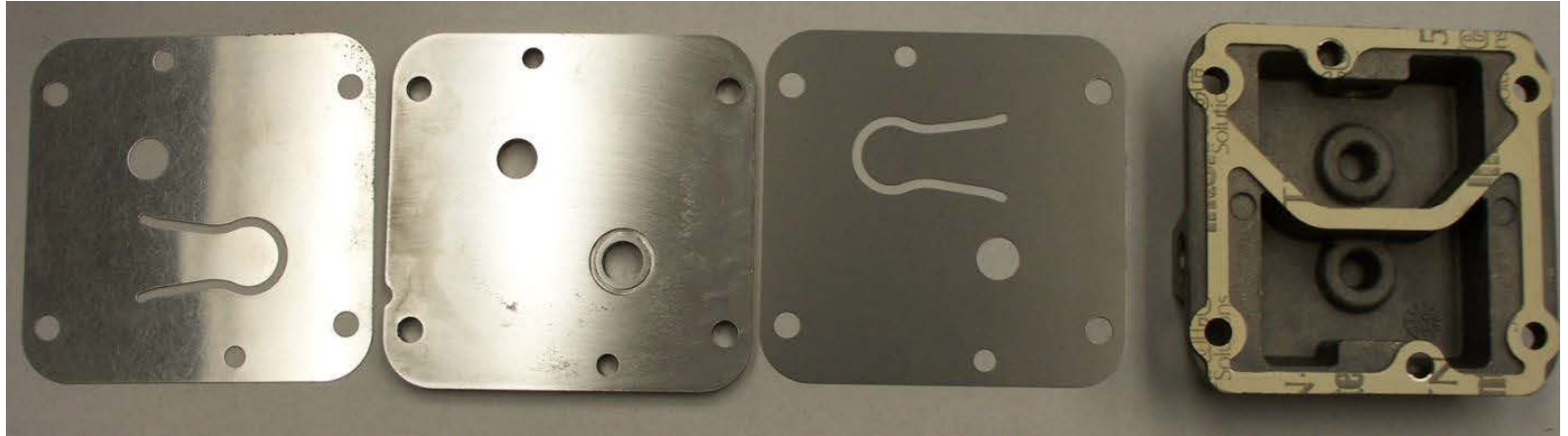
7. Install the rings over the springs and slide the cylinder sleeve over the rings



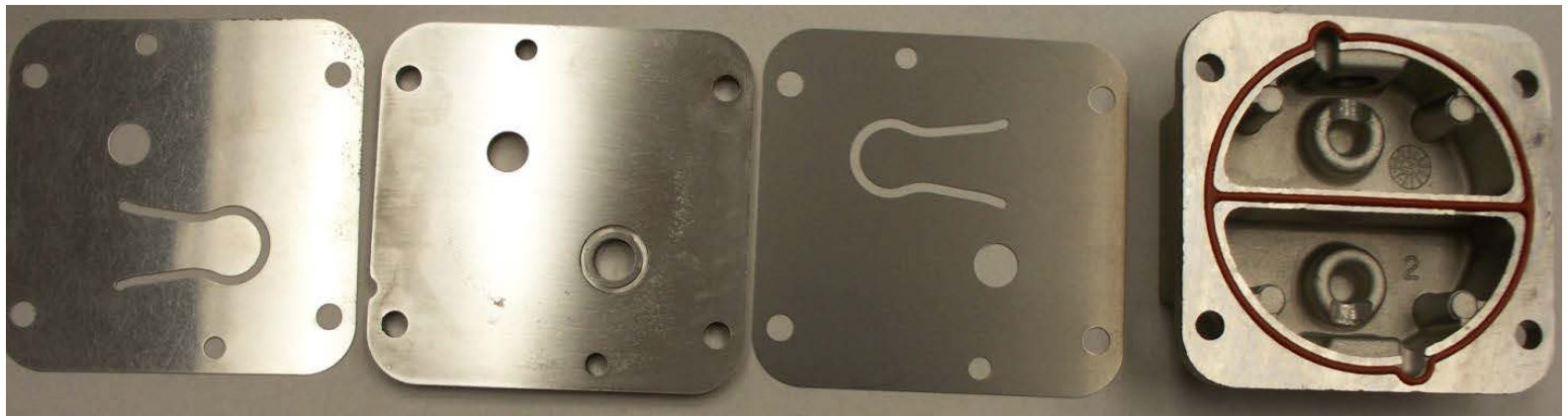
8. Install the piston skirt in the skirt groove and slide the cylinder sleeve over the skirt

9. Install the new o-ring/head gasket, valve reeds, valve plate and cylinder sleeve gasket, use the head bolts as guides. These parts **MUST** be aligned correctly

Old style  
head  
assembly

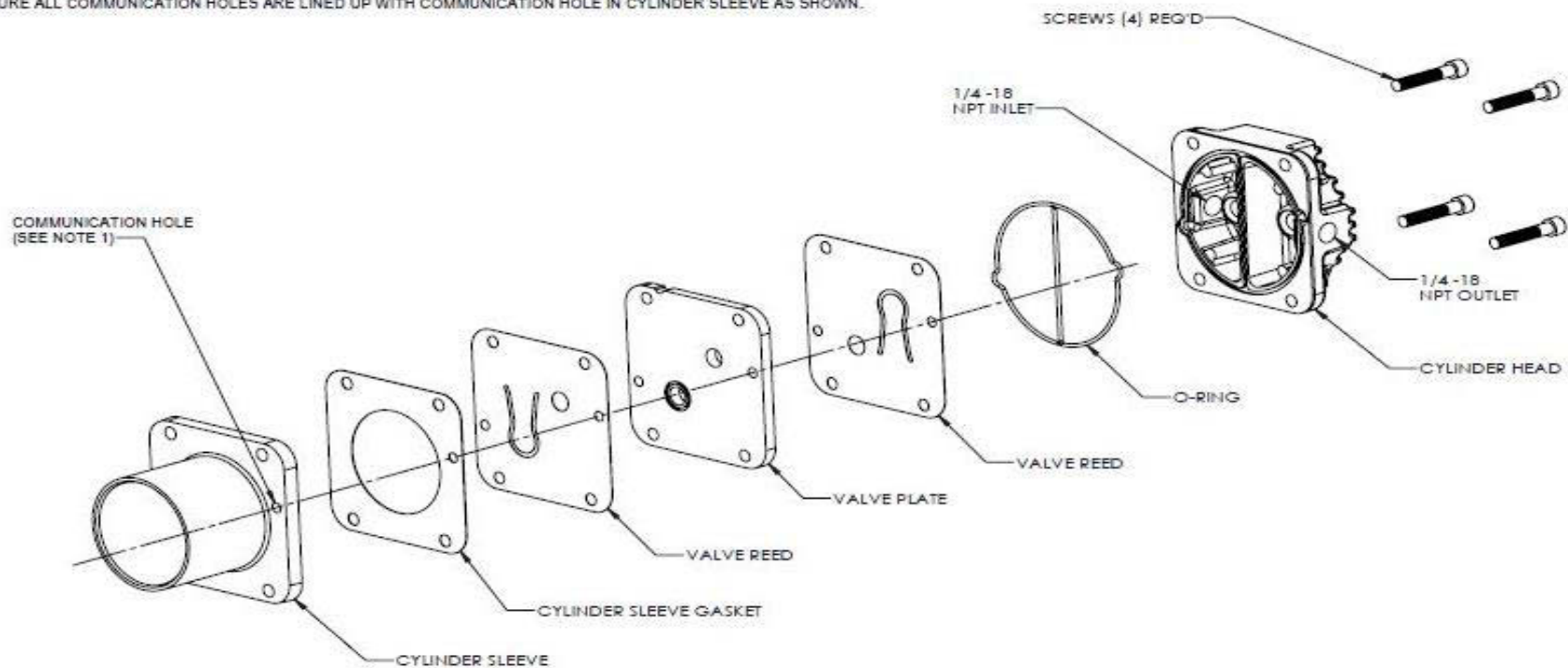


New style  
head  
assembly



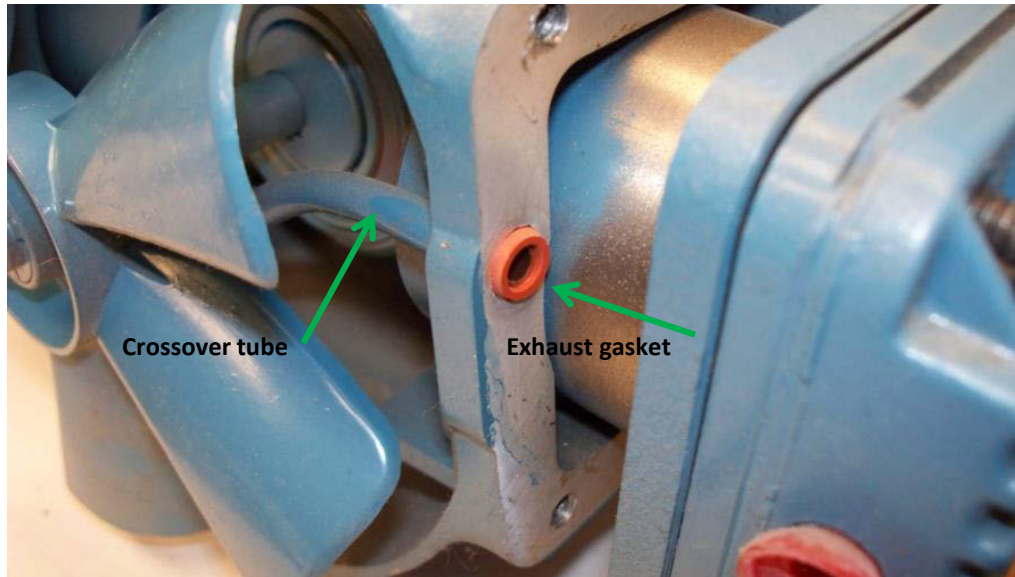
NOTES:

- 1) ENSURE ALL COMMUNICATION HOLES ARE LINED UP WITH COMMUNICATION HOLE IN CYLINDER SLEEVE AS SHOWN.

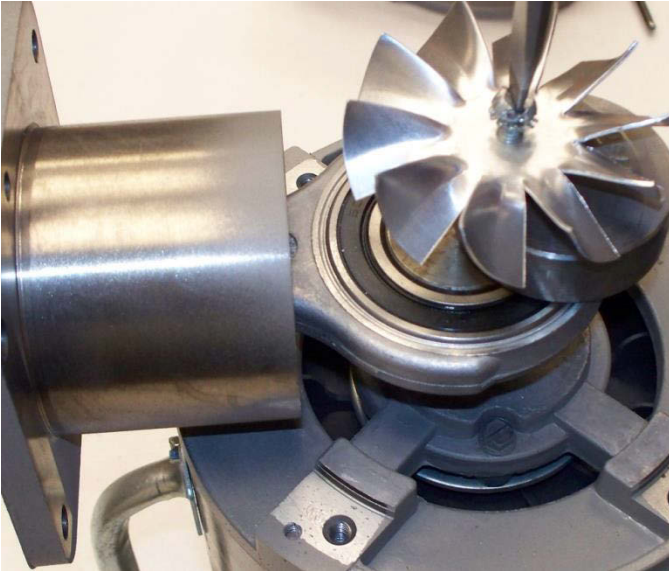


10. Dual head compressors with internal crossover tubes will use the exhaust gasket between the cylinder sleeve and the crankcase, around the crossover tube.

Chambered crankcases have no crossover tube and will use the exhaust gasket installed around the gasket retainer in the same location



11. Reinstall the cooling fan
12. Install the crankcase over the cylinder sleeve and tighten the mounting bolts to 50 In. Lbs.
13. Install the head assembly over the crankcase and tighten the bolts in a star like pattern to 150 In. Lbs

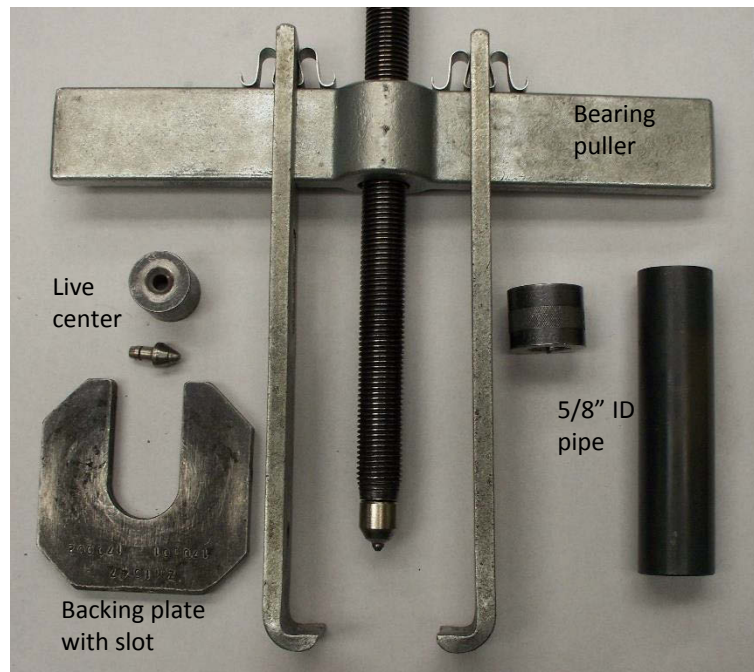


# Major service kit replacement procedure

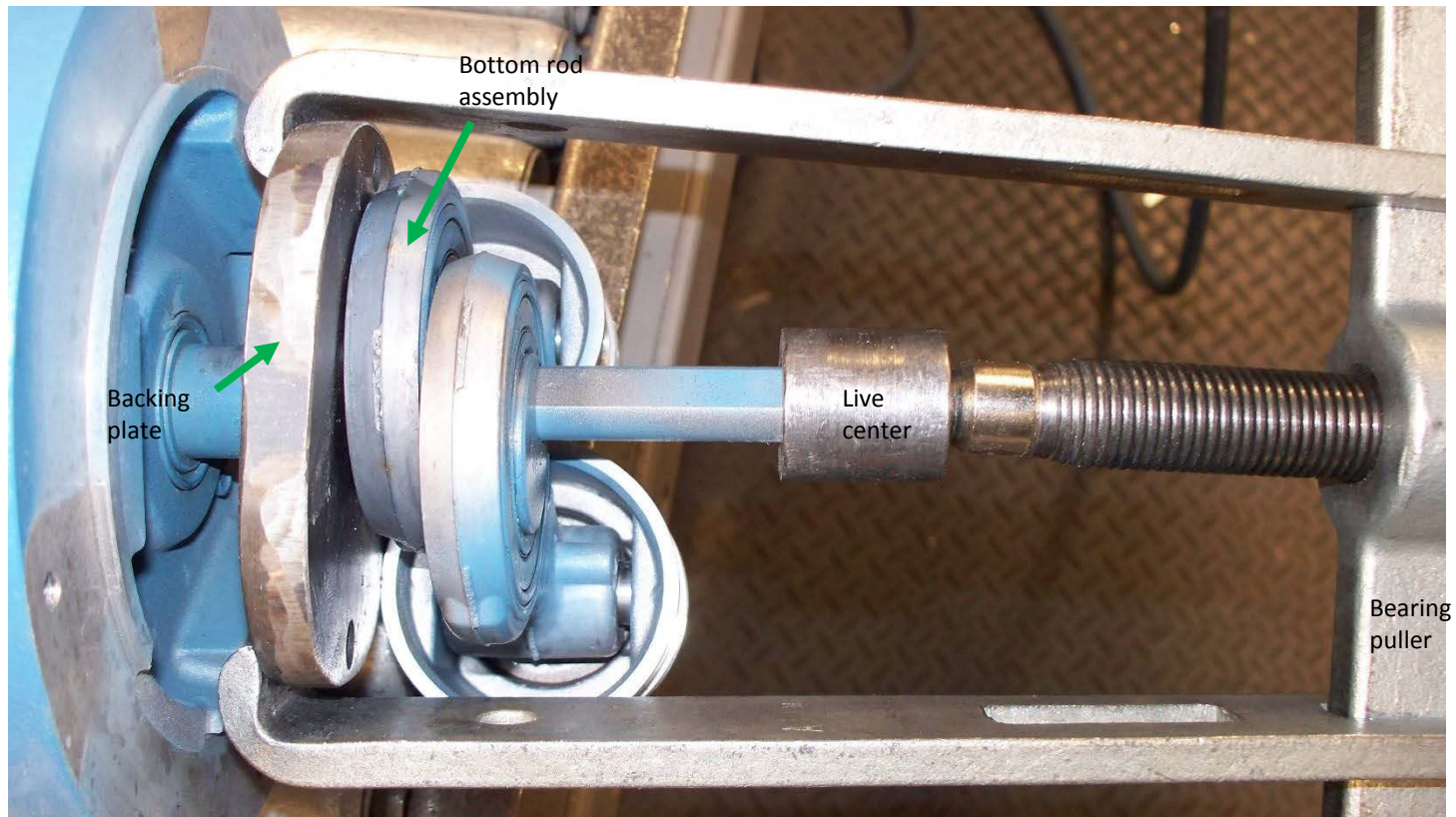
Worn rod bearings, broken rods or pistons require Major service kits. Major service kits contain a complete piston & rod assembly and a minor kit.

Tools required,

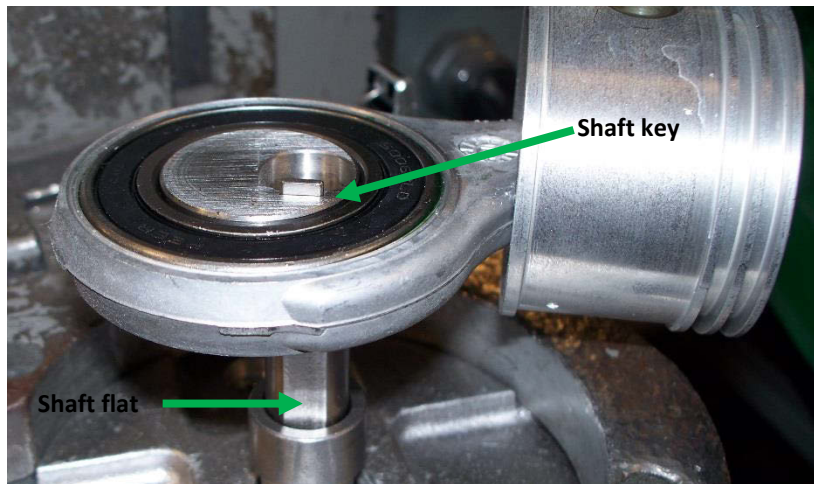
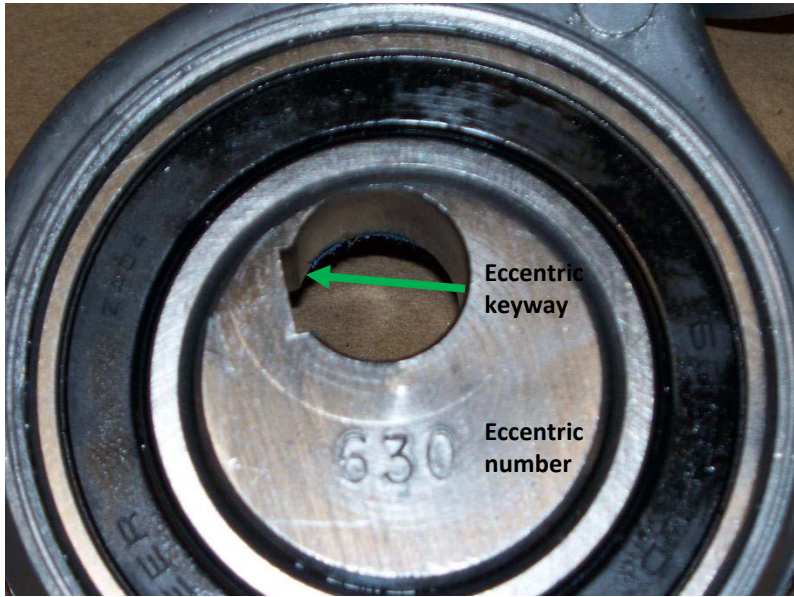
- Wheel or bearing puller
- Large arbor or hydraulic press
- Center point on press base
- Backing plate, 3/8" thick approx. with slot
- Live center
- 5/8 ID pipe, (length varies due to pump model)
- Wrenches/impact wrench



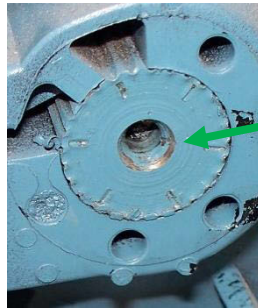
1. Remove the head assembly, crankcase and fan shaft extension, (if installed)
2. Place the backing plate behind the bottom rod assembly
3. Place a live center on the motor shaft and attach the bearing/wheel puller
4. Use an impact wrench to remove the old rod assemblies



5. Start the new rod assemblies on the motor shaft
  - On single head units the number on the eccentric is facing up
  - On dual head units the bottom rod assembly eccentric is number down, & number up on the top rod assembly
6. Align the eccentric keyway with the flat on the motor shaft and install the shaft key



7. Support the rear motor shaft, (preferable with a center point) on the press. Do not press against the rear motor endbell, fan or fan shroud
8. Place the 5/8 pipe over the motor shaft. The pipe should only contact the eccentric not the rod
9. Apply pressure to the pipe until the bottom eccentric has made contact with the motor spacer
  - **WARNING: DO NOT ALLOW THE PRESS TO CONTACT THE MOTOR SHAFT**
10. Reassemble the crankcase, ring kit & valve kit



Press center point to  
rear motor shaft

