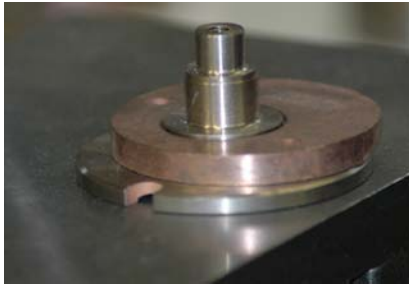
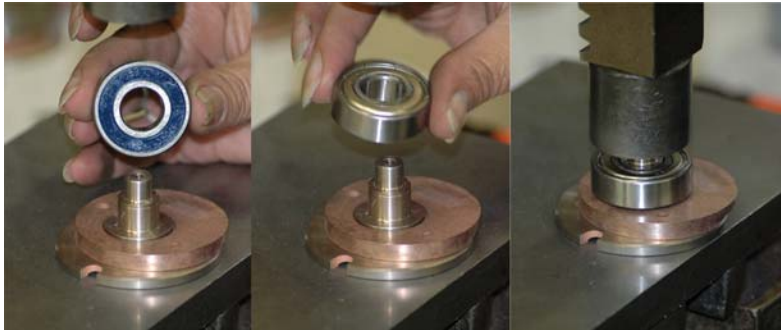


## ASSEMBLING 4500 & (4560)

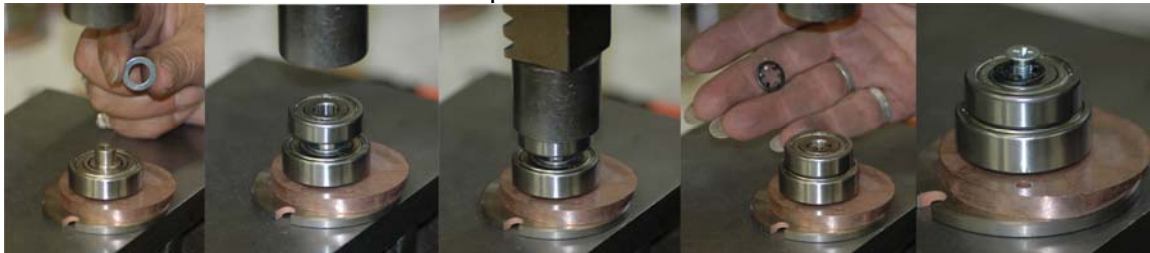


1. Place part # 1314 (1314-2) on top of part # 1344.



2. Place part # 1712 plastic seal side down, metal side up on top of part # 1344 – press down.

3. Add part # 1342 washer onto spindle top and then place part # 1810 and press down. Finish with washer and screw part # 1846.



4. Place part # 1319-1 (1319-2) rod down in press. Place finished spindle in press and push down until tight.

5. Rotate spindle assembly to match edge of counterweight to top edge of hub, leaving a gap here will cause the tool to bounce around on work surface. Secure with part # 1303S screws.



Right

Wrong



6. Press part # 1810 into 1821C bearing cup (one is used later to close motor). Place bearing cup and bearing up.



7. Place hub assembly rod in finished cup part # 1821C – press down.

8. Place part # 1821CW on rod. Place key # 1820 into keyway. Use a small hammer and gently top till evenly in slot. Place clip # 1822 on key.



9. Place rotor part # 1324(1324-2) on rod while holding key. You can use a screw driver to prevent it from sliding out when pressed down. Press down  $\frac{3}{4}$  of the way. Slide steel shim in, then press down tightly.



10. Place part # 1828-1 down into screw top hole. Use part # 1828 screw to secure rotor. Tap keyway to push down key. Lightly tap hub to release steel shim. The small spaces created will alleviate rotor drag.



11. Place vanes in rotor slots. Larger piece on bottom, smaller piece on top. When looking straight at tool, you should see the flat side of large vane on right and recessed side on left when tool turns.



12. Place cylinder part # 1325 over rotor and bearing cup with pin on the bottom. Squirt oil on top of rotor and place part # 1821CW down, top with part # 1821C. Press down firmly with press, you can use an old counterweight to get the bearing plate all the way. Place washer 1847 down, then 1807, down, then tighten with screw part # 1703A. Your motor is now finished



13. Slide into housing part # 1315-4, attach shroud part # 1345. Add cap part # 1328.

### **COMMON PROBLEMS**

1. Non-oiling & overheated compressors cause shalok in motor or rust, wearing out vanes.
2. Unbalanced pads wear out the part #'s 1712 & 1810 bearing.
3. Muffler part # 1352 will clog.
4. O-Rings on air valves can be oiled to extend life.



## DISASSEMBLING 4500 (4560)

1. Remove handle if there is one on tool. If no pad release pin is present insert a Phillips screwdriver in small tube on shroud. Turn pad until tool or pin catches in pre-made slot. Remove pad. Remove trigger, cap and shroud. You will need an allen wrench to remove the shroud screws. The motor should slide out of the motor housing, if not you will need to tap the housing with a phenolic hammer until it slides out of housing number 1315-4



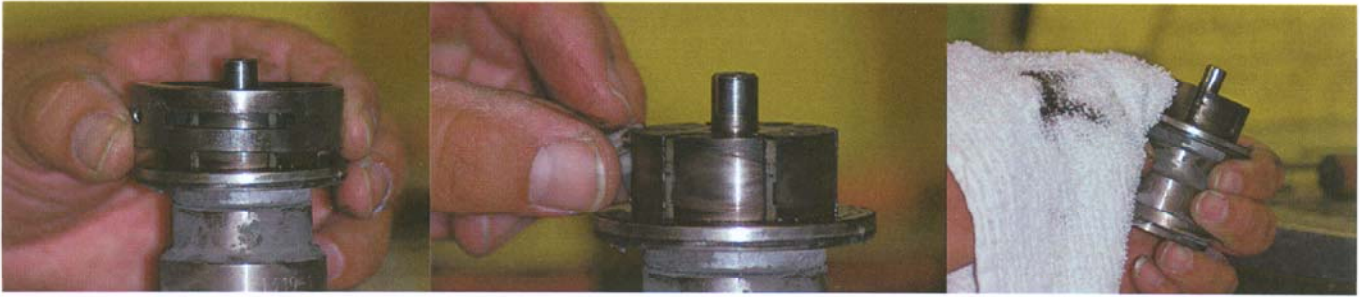
2. Remove the top screw (1803A). Gently unscrew inside screw 1828.



3. Wipe excess dirt from 1821C and lock on tool 12025A/B with 1/4" hex wrench. Place tool onto arbor press inside tool 12025C, three sided clearance bracket. Hold 12025E bearing pusher. Press down.



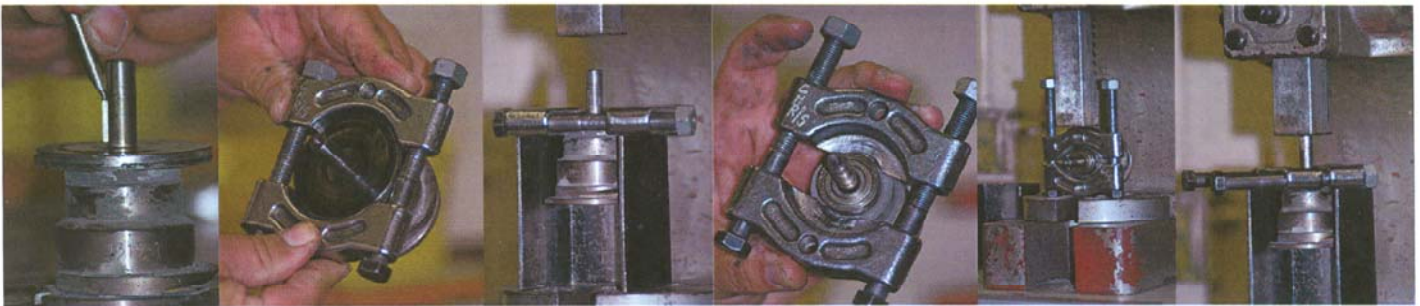
4. With bearing cup 1821C & 1821-CW off, lift off 1325 cylinder and remove 1323S motor vanes. Wipe down 1324 rotor (1324-2)



5. Use 12025 A/B and tighten on rotor with hex wrench 12025N, 1/4" allen wrench. Place in three sided bracket (12025E) on top and press down with arbor press. Rotor can be released from 12025 A/B now.



6. Gently knock key (1820) from shaft. Notice 1828-1 ball bearing will now slide out of 1319-1 (1319-2) top hole. Some old style hubs from 15 plus years ago will not have the ball bearing. These hubs need to be updated to the locked rotor style. Use 12025D (lower bearing remover) to remove bottom 1821-C. Clamp it down and place on three sided bracket. Press down with arbor press. A 1803 screw can be used to push it all the way through. This can also be used to remove the bearing if it separates from the 1821C.





7. Line up holes on the bottom of the 1344 drive head. Using the 12025L (5/64") allen wrench remove these two screws. Thread the 12025F slide hammer into the bottom of the 1344 spindle. Grasp the 1319-1 hub and use the slide hammer to separate both parts.



8. Hold 1344 spindle in a folded rag to avoid cutting your fingers when unscrewing the 1846 screws. Place the 1344 spindle drive head on 12025G, 1344 bearing remover. Line up holes and place on press. Use bearing pusher and pull down with arbor press. Your tool is now unassembled.



#### Possible problems

1324(1324-2) is loose on 1319-1(1319-2) shaft.

1323S vanes are worn

Bearings are rough.

“O” rings on air valve are broken or worn.