

Disassembly Instructions – Dynabug Sander

Important: Use these instructions along with the tool parts page or manual.

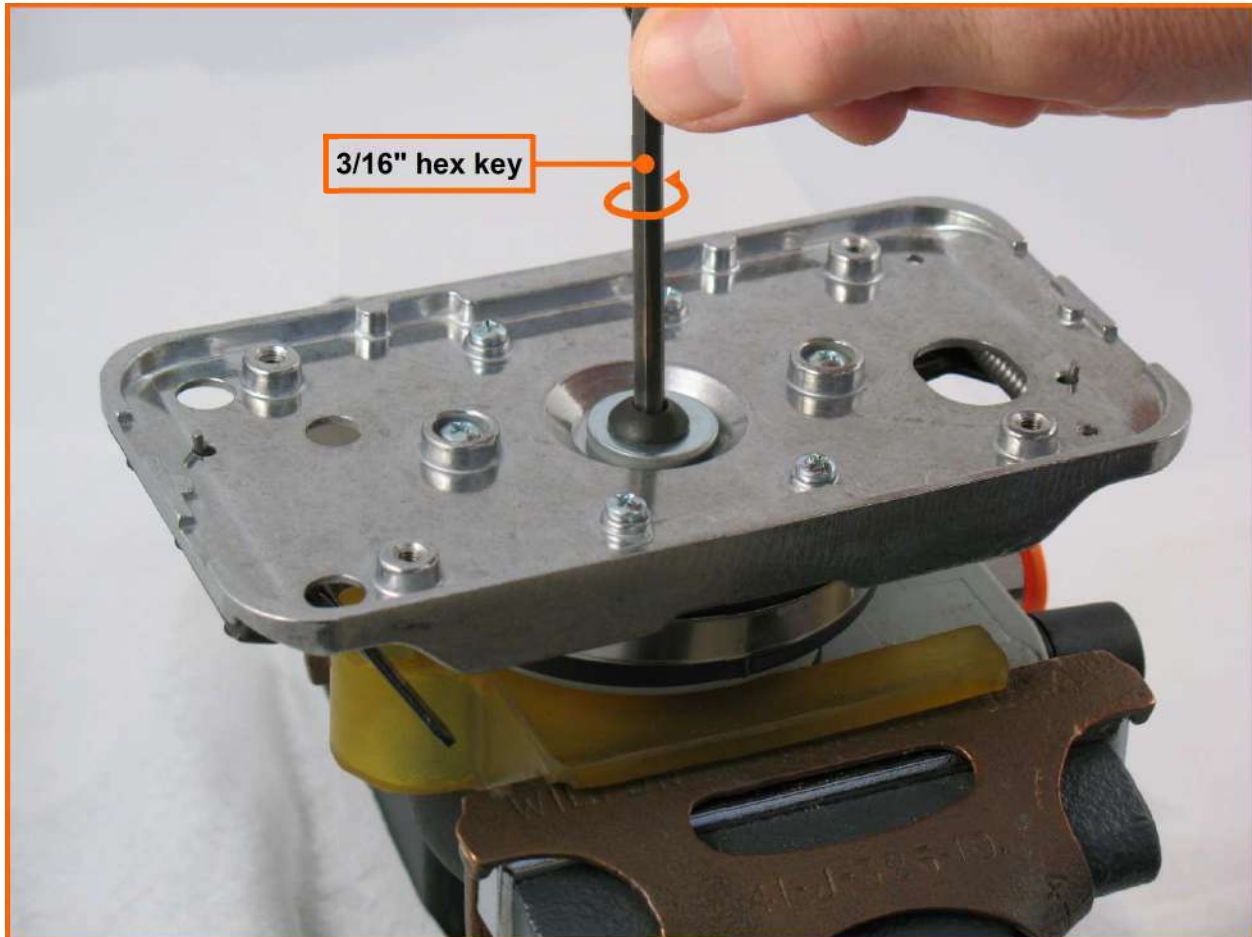
Notice: To avoid damage, use the special repair tools contained in the **57098** Motor Repair Kit.

Shut off the air supply and deplete air from the hose. Disconnect the tool from the air supply.

Motor Disassembly:



1. Position the **57092** Repair Collar around the housing.
 - Fasten the sander in a vise with the sanding pad facing up. **Notice:** Do not over tighten the sander in the vise. Over tightening will make it difficult to remove the **57059** Lock Ring. (**SEE STEP #3**)
 - Use a 3 mm hex key to remove the pad screws (4).



- Use a 3/16" hex key to remove the **96168** Screw.



- Use a Phillips screwdriver to remove the **96114** Screws (6).
- Remove the **57825** Pad Top.



2. Use a slot-blade screwdriver to loosen the **96116** Clamp. Remove the clamp, **57822** Boot and **57823** Pad Mount.



3. Use the **56058** Lock Ring Wrench to loosen the **57059** Lock Ring. Turn counterclockwise.



4. Pry-up, under the motor shaft balancer to remove the air motor from the housing.





- Remove the **57054** Rear Ring from the inside of the housing.

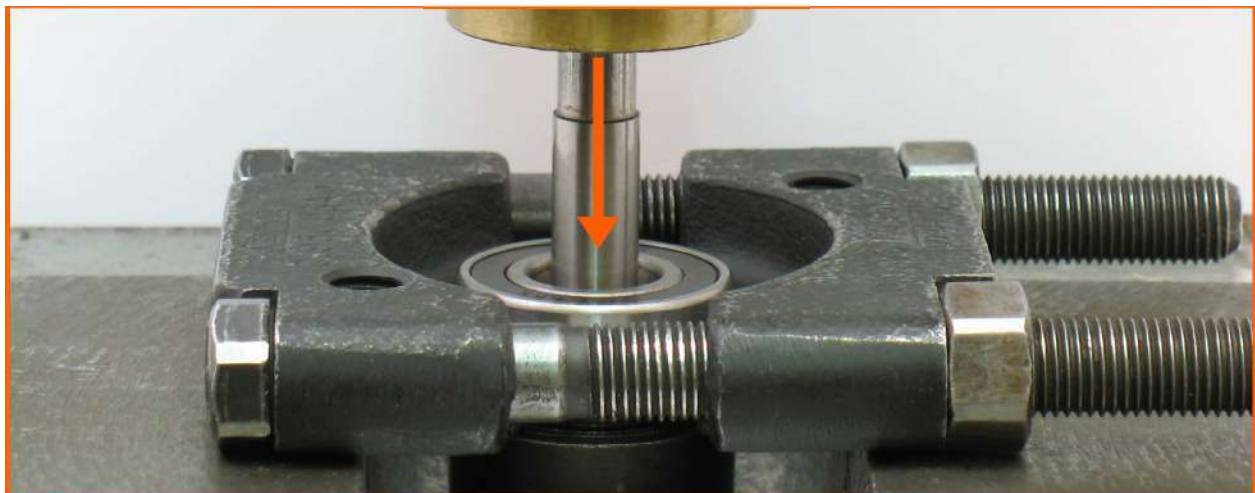


5. Use retaining ring pliers to remove the **95626** Retaining Ring.



6. Fasten the **96346** Bearing Separator (2") around the **57058** Cylinder. Place the bearing separator and motor in the **96232** Arbor Press (#2) with the counterweight pointing down.
 - Use the arbor press and a 5/16" or 8 mm diameter flat-end press tool to push the shaft out of the **01206** Bearing.

7. Remove the rotor, vanes, key, and front bearing plate.



- Use the bearing separator and the arbor press ram to remove the **57088** Bearing.



8. By hand, or with the arbor press, use the **96214** Bearing Removal Tool to remove the **01206** Bearing from the **57056** Rear Bearing Plate.

9. Balancer Bearing and Shaft Disassembly:



- a) Fasten the counterweight in a vise with aluminum or bronze jaws so that the hex of the **57069** Balancer Shaft is pointing up. Use a thin slot-blade screwdriver to pick-out the end of the **95630** Snap Ring and remove the snap ring from the motor shaft balancer.

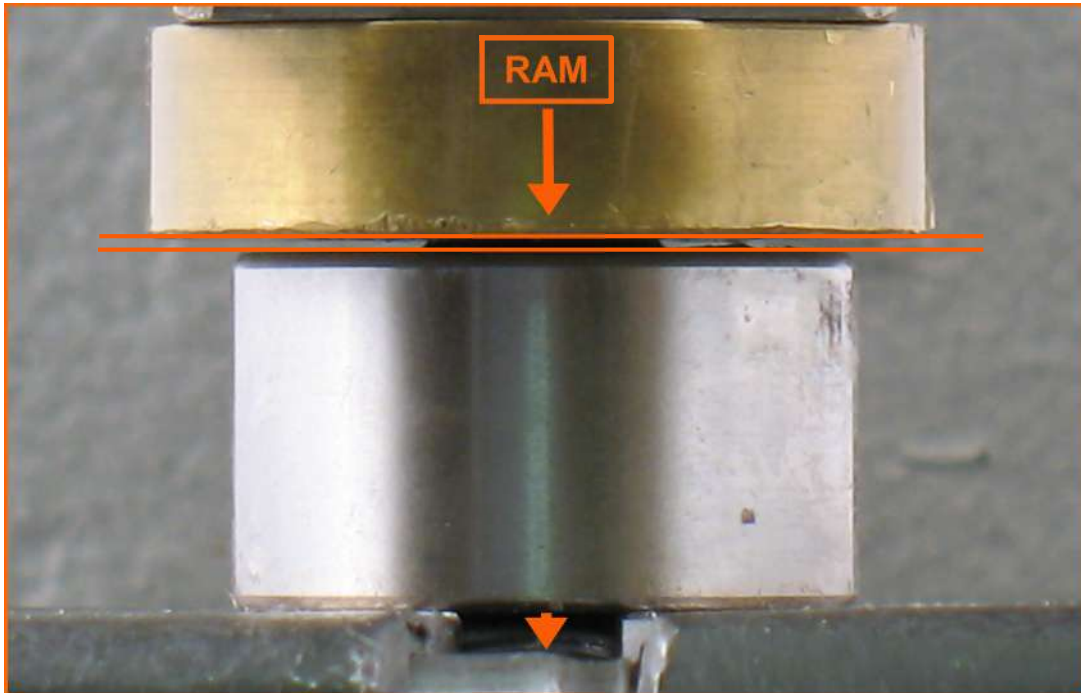




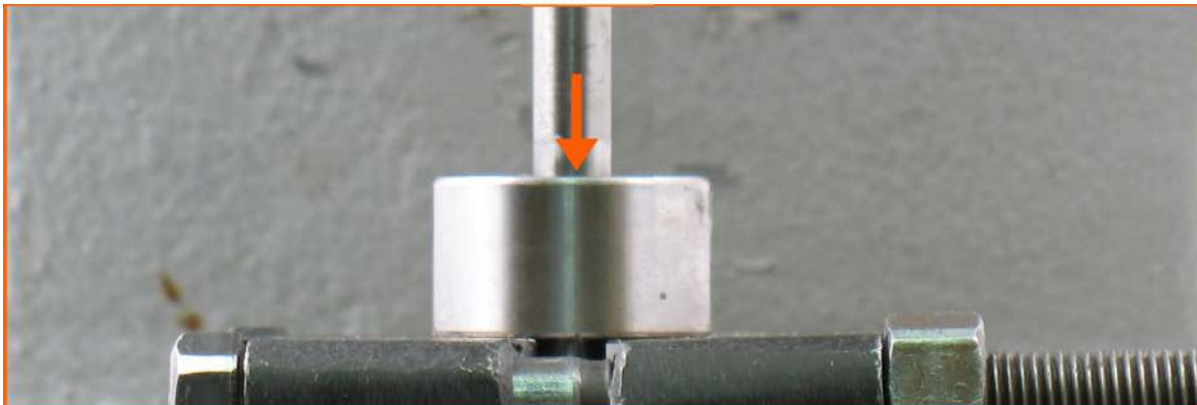
- b) To break the adhesive bond, use two flat-blade screwdrivers (large) to pry-up on the balancer shaft and bearing. **Notice:** If necessary, use a HEAT GUN to apply heat to the counterweight.



- Use the **56056** Bearing Puller to remove the balancer shaft and the **56052** Bearing.



- c) Fasten the bearing separator between the **56052** Bearing and the hex end of the **57069** Balancer Shaft.
- Place the bearing separator and the balancer shaft in the arbor press with the hex end pointing down. Use the arbor press ram to break the adhesive bond.



- Use a 5/16" or 8 mm diameter flat-end drive punch as a press tool to push the balancer shaft out of the **56052** Bearing.
 - Remove the **59084** V-Seal.
- Motor Disassembly Completed.**

Clean and inspect all parts before assembling.

Assembly Instructions – Dynabug Sander

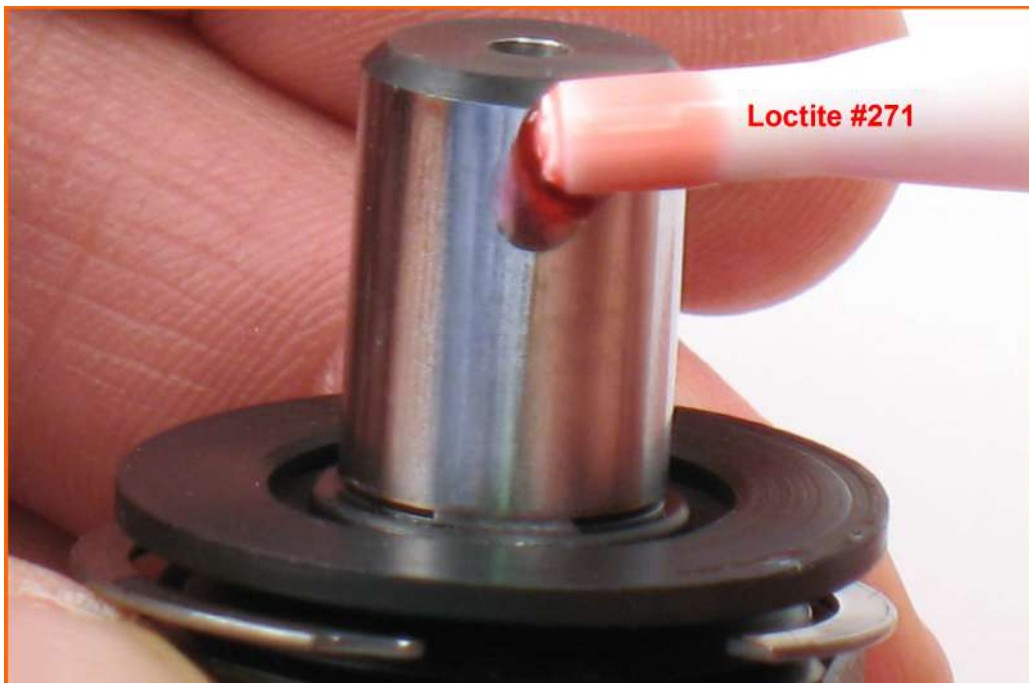
Motor Assembly:



1. Balancer Bearing and Shaft Assembly:



a) Install the **95630** Snap Ring around the **59084** V-Seal.



b) Install the **59084** V-Seal along with the **95630** Snap Ring onto the **57069** Balancer Shaft. Place the flexible lip of the seal toward the hex end of the balancer shaft so that the flat side is toward the **56052** Bearing.

c) Apply a small amount of Loctite #271 or equivalent to the outside diameter of the **57069** Balancer Shaft.



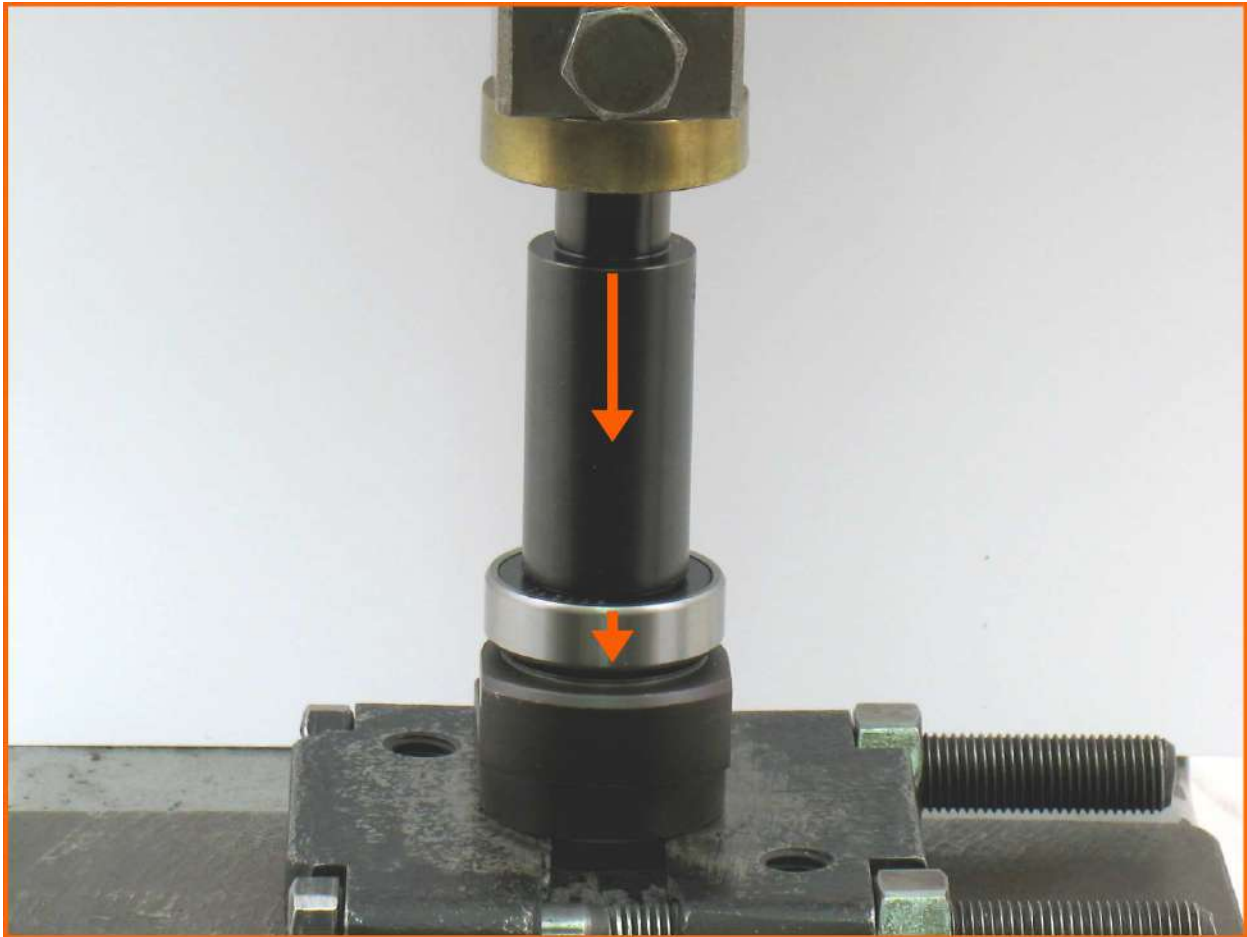
- d) Use the small diameter end of the **57091** Bearing Press Tool, and the **96232** Arbor Press (#2) to install the **56052** Bearing (seal side toward hex). Press the bearing all the way onto the balancer shaft until the bearing is tight against the step on the shaft.



2. Apply a small amount of Loctite #271 or equivalent to the outside diameter of the **56052** Bearing. Install the balancer shaft with bearing into the bore of the motor shaft balancer.



3. Compress the **95630** Snap Ring into the groove in the motor shaft balancer.



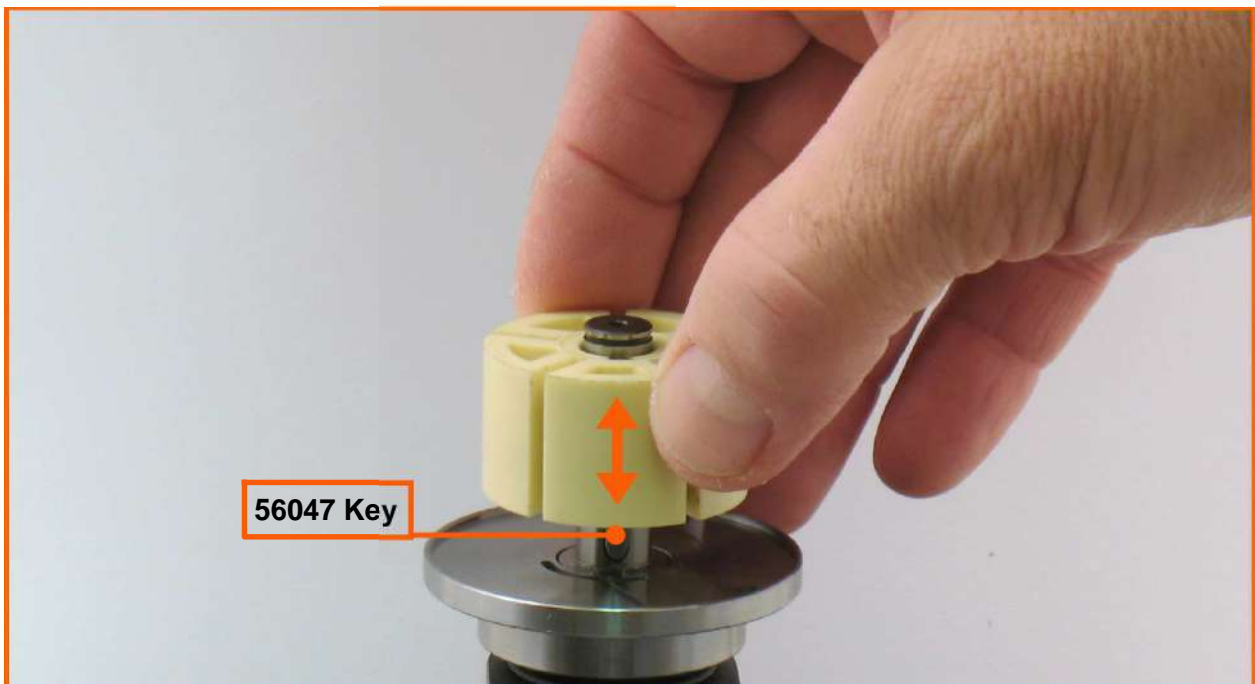
4. Use the large diameter end of the **57091** Bearing Press Tool and the arbor press to install the **57088** Bearing onto the motor shaft balancer.



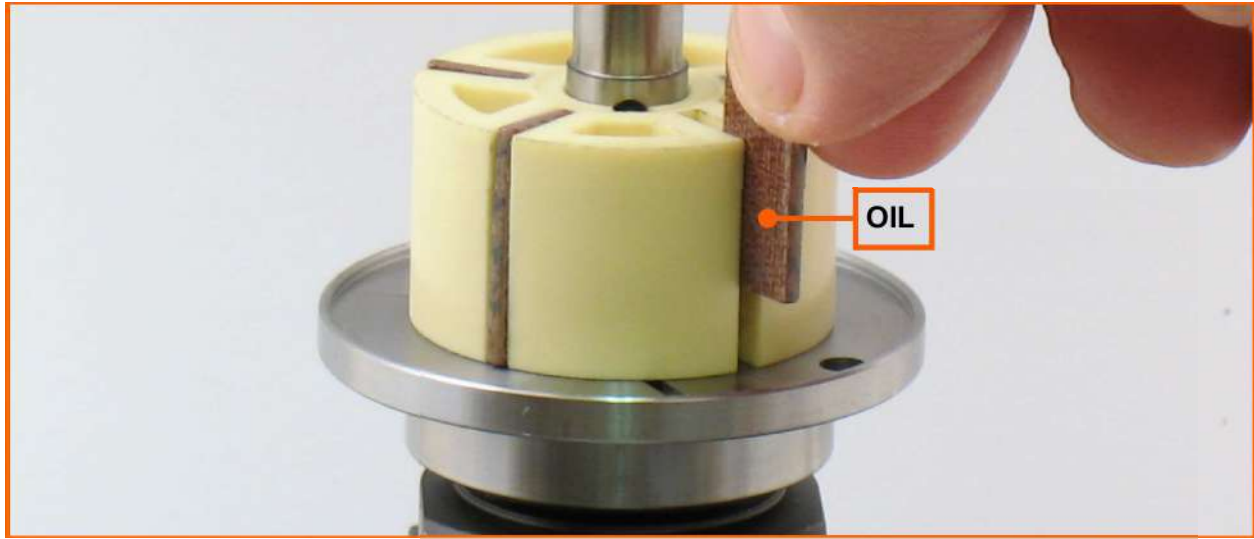
IMPORTANT: For all models install the **57059** Lock Ring, **95973** Washer and **57055** Front Ring onto the motor shaft balancer at this point.



5. Use the large diameter end of the **57091** Bearing Press Tool, and the arbor press to install the **57057** Front Bearing Plate.



6. Install the **56047** Key and rotor onto the motor shaft balancer. The rotor should slide up and down easily on the motor shaft.



7. Apply the **95842** Dynabrade Air Lube 10W/NR or equivalent to the vanes and install them into the rotor.



8. If necessary, use the **RAISED OUTSIDE DIAMETER** of the **96244** Bearing Press Tool and the arbor press to install the **01206** Bearing into the **57056** Rear Bearing Plate.



9. Install the **57058** Cylinder so that the short line-up pin fits into the front bearing plate.
- Use the arbor press ram to align and start the **01206** Bearing and rear bearing plate onto the motor shaft.



10. Use the small diameter end of the **57091** Bearing Press Tool and the arbor press to install the bearing/plate onto the motor shaft balancer. **Notice:** Carefully press the bearing and plate down until it **just touches the cylinder**. This will establish a close fit between the bearing plates and the cylinder.



11. Use retaining ring pliers to install the **95626** Retaining Ring.
- Push the arch of the retaining ring into the groove.



12. Install the **57054** Rear Ring.




13. Apply air motor oil to the rubber rings.



14. Sight the cylinder line-up pin with the notch on the inside of the housing. Also, sight the line-up guide on the housing and install the motor.

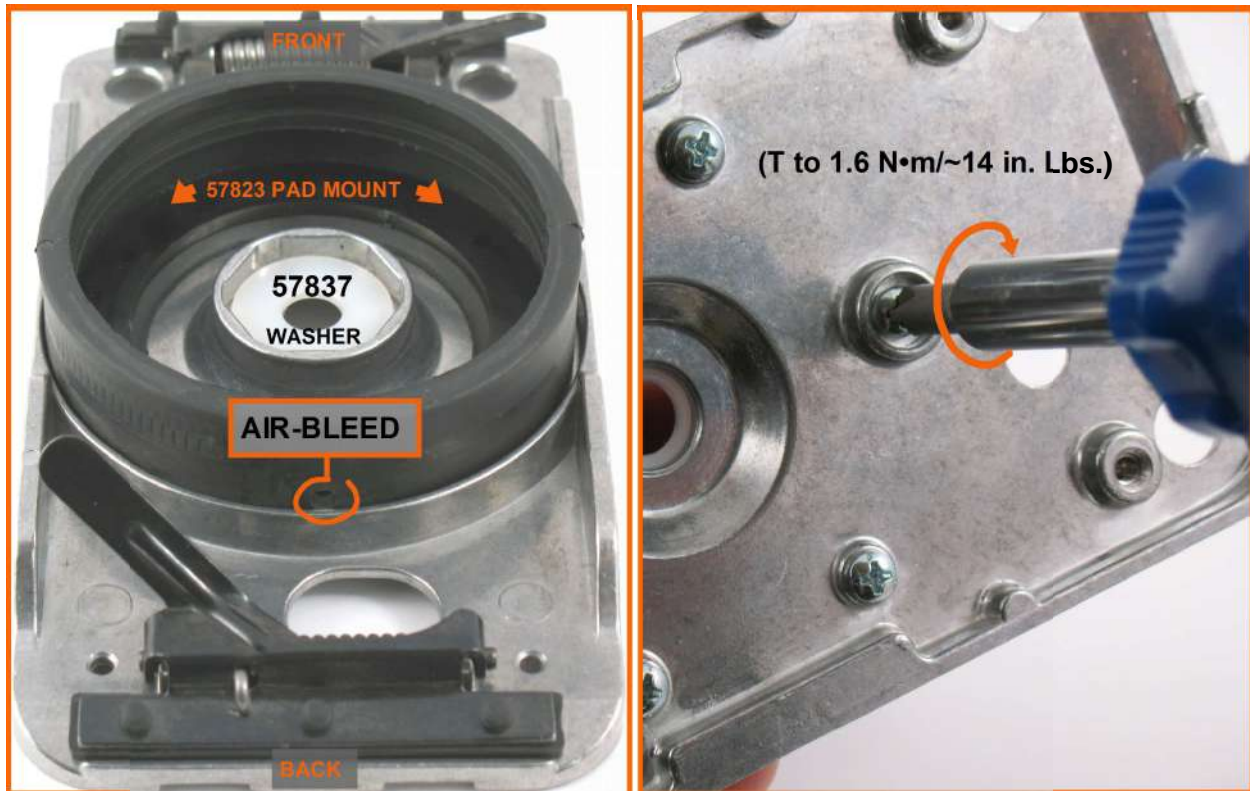


15. By hand, use the **56058** Lock Ring Wrench to locate thread and fasten motor in housing.

- Turn **56058** counterclockwise until you  hear **CLICK**.
- Turn **56058** clockwise to fasten motor in housing.



16. Position the **57092** Repair Collar around the housing. Fasten the sander in a vise with the counterweight pointing up. **Notice:** Do not over tighten the sander in the vise or it will be difficult to install the **57059** Lock Ring.
- Use the **56058** Lock Ring Wrench and torque wrench to tighten the lock ring.
 - Turn clockwise. (T to 28 N•m/~250 in. lbs.)

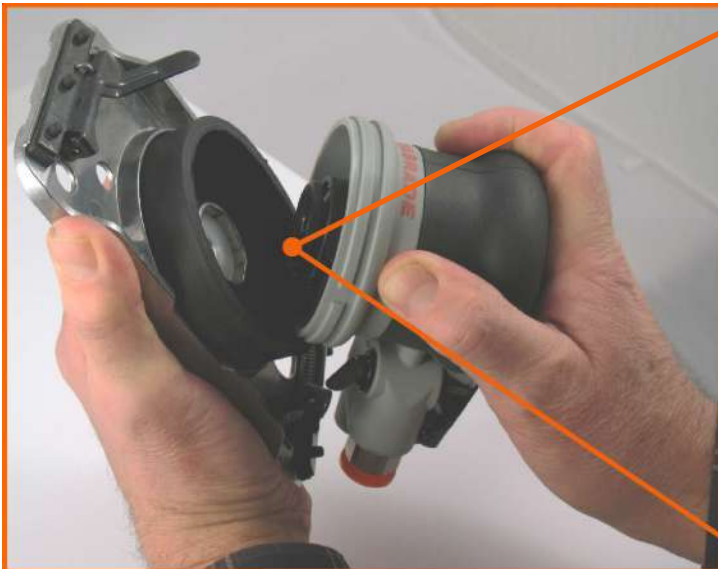


17. Install the **57823** Pad Mount into the **57822** Boot and position the boot onto the **57825** Pad Top with the air-bleed hole facing back. Fasten the pad mount and boot to the pad top with the **96114** Screws (6). (T to 1.6 N•m/~14 in. Lbs.)
- Install the **57837** Washer into pad top.

Disassembly/Assembly Instructions



18. Align the balancer shaft with matching hex socket and install.





19. Install 96116 Clamp over the housing and around the 57822 Boot.

- Position the top edge of the clamp even with the top of the boot.
- The clamp tightening screw must clear the path of the vacuum opening, and the abrasive clip mechanism.
- Tighten clamp screw. (T to 0.7 N•m/~6 in. lbs.)



20. Position the 57092 Repair Collar around the housing.

- Fasten the sander in a vise with the pad top facing up. **Notice:** Do not over tighten the sander in the vise.
- Install the **57838** and **95183** Washers. Install the **96168** Screw. Turn clockwise.
- Use a 3/16" hex key to tighten the **96168** Screw. (T to 11 N•m/~100 in. lbs.)
- Install back-up pad. Use a 3 mm hex key to fasten the pad.

Motor Assembly Completed.

Valve, Exhaust and Vacuum Assembly:

For the parts list and the order of assembly, refer to the exploded view found in the parts page or tool manual.