

## Disassembly Instructions - 0.7 hp. Air Motor (Steel Housing)

## Model: 53781

Notice: Use these instructions along with the tool manual.

**Important:** Disconnect tool from the air supply.

- To avoid damage, use appropriate service tools designed for disassembly and assembly.
- Remove accessories from collet assembly.

## Motor Disassembly:



1. Fasten flats of housing in a soft jaw vise.

Use hot-air gun to warm 02376 Extension Adapter.

- Use an adjustable wrench to loosen the adapter to separate from motor housing.
- Turn counterclockwise.





2. Remove extension assembly from motor. Pull motor from housing.





**Quality Industrial Abrasive Power Tools** 



 Fasten 96346 Bearing Separator (2") around 01028 Cylinder. Place separator and motor in 96232 Arbor Press (#2) with motor spindle pointing down. Use a flat-end drive punch to push rotor out of 02649 Bearing.



**Quality Industrial Abrasive Power Tools** 



- 4. Fasten rotor in vise with aluminum or bronze jaws. Use an adjustable wrench to remove the **02377** Adapter. Turn counterclockwise.
  - Remove **01007** Bearing, bearing plate, shims, and **01010** Spacer.





5. Use **96213** Bearing Removal Tool and arbor press to remove **02649** Bearing from the rear bearing plate.

Motor disassembly completed.

Clean and inspect parts before assembling.



Assembly Instructions - 0.7 hp. Air Motor

Motor Assembly:



- 1. Install 01010 Spacer onto rotor.
  - Install .003" (~0.80 mm) shim thickness into front bearing plate. Install **01007** Bearing into the front bearing plate. ٠
  - •





- 2. By hand, install the **02377** Adapter. Push the front bearing plate away from the rotor. Check clearance between the rotor and plate.
  - Use a .001" (~0.03 mm) thick feeler gauge.
  - Notice: The clearance should be .001"-.0015" (~0.03-0.04 mm).

If rotor/plate clearance requires further adjustment, repeat steps 1 and 2. As required remove or add shims.



**Quality Industrial Abrasive Power Tools** 



- 3. Use a torque wrench to tighten the **02377** Adapter.
  - (Torque to 17 N•m/~150 lbs. in.)

Apply a small amount of Loctite #243 to the threads of **02377** Adapter and install **51969** Coupling Nut on adapter.

• (Torque to 17 N•m/~150 lbs. in.)





4. Apply 95842 Dynabrade Air Lube 10W/NR or equivalent to 01185 Vanes and install.





5. Use the **RAISED OUTSIDE DIAMETER** of **96240** Bearing Press Tool and arbor press to install **02649** Bearing. **Notice:** Press bearing all the way into plate.





6. Install **01028** Cylinder and rear plate so that air inlet openings line up.





- 7. Use the **RAISED INSIDE DIAMETER** of **96240** Bearing Press Tool and the arbor press to install rear bearing and plate.
  - **Important:** Press bearing and plate down until the plate just touches **01028** Cylinder. This will produce a close fit between both bearing plates and the cylinder.





- 8. Important: Line-up 50767 Pin with slot on the inside of motor housing.Install the motor assembly.





- 9. Install 04069 Retaining Plate and 50902 Coupler.
  - Apply Loctite #7649 Primer and #243 Adhesive to the threads of **02376** Extension Adapter.
  - Carefully install extension assembly onto motor assembly. Notice: Make sure **50902** Coupler aligns with the **51969** Coupling Nut.





- 10. Use a 41 mm (~1-5/8") crowfoot or adjustable wrench to tighten extension handle to the motor assembly.
  - Torque to 34 N·m/~300 lbs. in.

Motor assembly completed.