

#### Disassembly Instructions - 0.4 hp. Router

Model: 51862

**Notice:** Use these instructions along with the tool manual. **Important:** Disconnect tool from the air supply.

• To avoid damage, use the Service Tools (**ST**) designed for disassembly and assembly.

#### Motor Disassembly:



1. Fasten **01494** Air Inlet Adapter in a vise with aluminum or bronze jaws.





- 2. Loosen 95920 Thumb Screw.
  - Turn **51851** Nose Assembly counterclockwise to remove.





**3.** Disassemble collet.





4. Collet cap and insert removed.





5. Use an adjustable wrench to remove **51865** Front Exhaust Cover. Turn counterclockwise.





- 6. Notice: 01494 Air Inlet Adaper may loosen from housing before the 51868 Front Exhaust Cover.
  - If **51868** Front Exhaust Cover loosens before air inlet adapter, remove exhaust cover. See **STEP #11** next.





7. Inspect air inlet. Remove **45310** Seal from housing.





8. Use a hook-style pick to remove **45310** Seal.





- 9. Use 96399 Service Tool (ST) to hold housing in vise.
  - Notice: Notched area fits around 97045 Pin.





- 10. Insert 96399 (ST) into air inlet of housing. Fasten (ST) in vise with collet body pointing up.
  - Use an adjustable wrench to remove **51868** Front Exhaust Cover.
  - Turn counterclockwise.





**11.** Pull motor from housing.





- **12.** Fasten flats of collet body in vise with governor pointing up.
  - Use a slot blade screwdriver to remove governor.
  - Turn clockwise. Left Hand Thread





- **13.** Fasten **96346** Bearing Separator (2") around **01476** Cylinder with collet body pointing down. Place in **96232** Arbor Press (#2).
  - Notice: Use Ø 3/32" flat-end drive punch to remove **02649** Bearing and rear bearing plate from rotor.





**14.** Remove motor parts from arbor press.





**15.** Use Ø 3/32" flat-end drive punch to push **02696** Bearing from **02676** Rear Bearing plate. **Notice: 02696** Bearing is a "slip fit" with plate.





**16.** Fasten **45290** Rotor in vise. Use an adjustable wrench to remove **50006** Collet Boby. Turn counterclockwise.





17. Remove 01478 Front Bearing plate with 02649 Bearing and shims. Remove 01479 Spacer.

Motor diassembly completed.

Clean and inspect parts for wear or damage before assembing.



#### Assembly Instructions - 0.4 hp. Router

Motor Assembly:



- 1. Select .003" (~0.08 mm) shim thickness and place in **01478** Front Plate.
  - Install **02649** Bearing in front plate.





2. Fasten 45290 Rotor in vise and install 01479 Spacer onto rotor.





- **3.** Install front bearing plate with shims and bearing.
  - Use 12 mm socket and torque wrench to tighten 50006 Collet body on rotor. (Torque to 17 N•m/~150 lbs. in.)





- **4.** By hand, push front plate away from rotor and check the amount of clearance between rotor and front plate.
  - Notice: Clearance should be .001"-.0015" (~0.03-0.04 mm).
  - Use a .001" (~0.03 mm) thick feeler gauge. If rotor/plate clearance needs further adjustment, repeat steps 1 4. Remove or add shims as required.





5. Oil vanes with 95842 Dynabrade Air Lube 10W/NR or equivalent and install.





6. Install 01476 Cylinder and 02676 Rear Plate so that air inlet openings line up.





- 7. Use *RAISED INSIDE DIAMETER* of 96242 Bearing Press Tool and arbor press to install 02696 Bearing and rear plate.
  - **Important:** Press bearing and plate down until the rear plate **just touches the cylinder**. This will produce a close fit between the bearing plates and cylinder.





8. Apply a small amount of Loctite #243 to threads of **45272** Governor Assembly.





- **9.** Use a torque driver to install the governor assembly.
  - Turn counterclockwise. (Torque to 0.7 N•m/~6 in. lbs.)





10. Line up 45320 Governor Chamber "pin", with the hole inside of 45305 Housing.





11. 45305 Housing with 45320 Governor Chamber installed.





**12.** Line-up rear bearing plate with governor chamber and install motor.





**13.** View showing motor properly installed.





- **14.** Install felt silencers, baffle and air control ring. See tool manual for the correct order of placement.
  - Apply a small amount of Loctite #567 to threads of housing.





**15.** Use **96460** (**ST**) Crowfoot 34 mm and torque wrench to install **51868** Front Exhaust Cover. (Torque to 28 N•m/~250 lbs. in.)





**16.** Install collet insert and cap.





- 17. Install 51867 Felt Silencer and 51851 Nose Assembly.
  - Fasten nose assembly with **95920** Thumb Screw.





#### Motor assembly completed.

#### Final Assembly:

Notice: To assemble valve components, see exploded view found in tool manual.

- Important: Without an accessory installed, check spindle speed of tool with max.
  90 PSIG or 6.2 Bar operating air pressure at air inlet of tool.
  - Use a tachometer to check RPM. **Notice:** Unless otherwise stated, the no-load speed should not exceed the maximum rated speed.

Final assembly completed.