



Disassembly/Assembly Instructions

Disassembly Instructions - 0.7 hp. Dynaflex III Air Motors

Models: 15300, 15302, 15400, 15401, 15420

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

Notice: Shut off the air supply and depress throttle lever to dissipate the remaining air.

• Carefully disconnect the tool from the air supply hose. • Remove the abrasive belt and contact arm assembly. • Use the Special Repair Tools designed for the disassembly and assembly of this motor.

Motor Disassembly:



1. Use a 9/64" hex key to loosen the 95311 Screw. Remove the motor from the belt housing.

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2. Carefully hold the **01739** Housing in a vise with aluminum or bronze jaws so that the drive wheel is pointing up. **Notice: Over tightening vise will damage housing.**
 - Insert a 3/16" hex key through drive wheel and into the end of the **55025** Rotor.
 - Use groove pliers to grasp the drive wheel and remove. Turn counterclockwise.

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3. Use the **50971** Pin Wrench to remove the **15315** Exhaust Cover. Turn counterclockwise.
 - Remove the **15314** Air Control Ring and the **15322** Felt Silencer.

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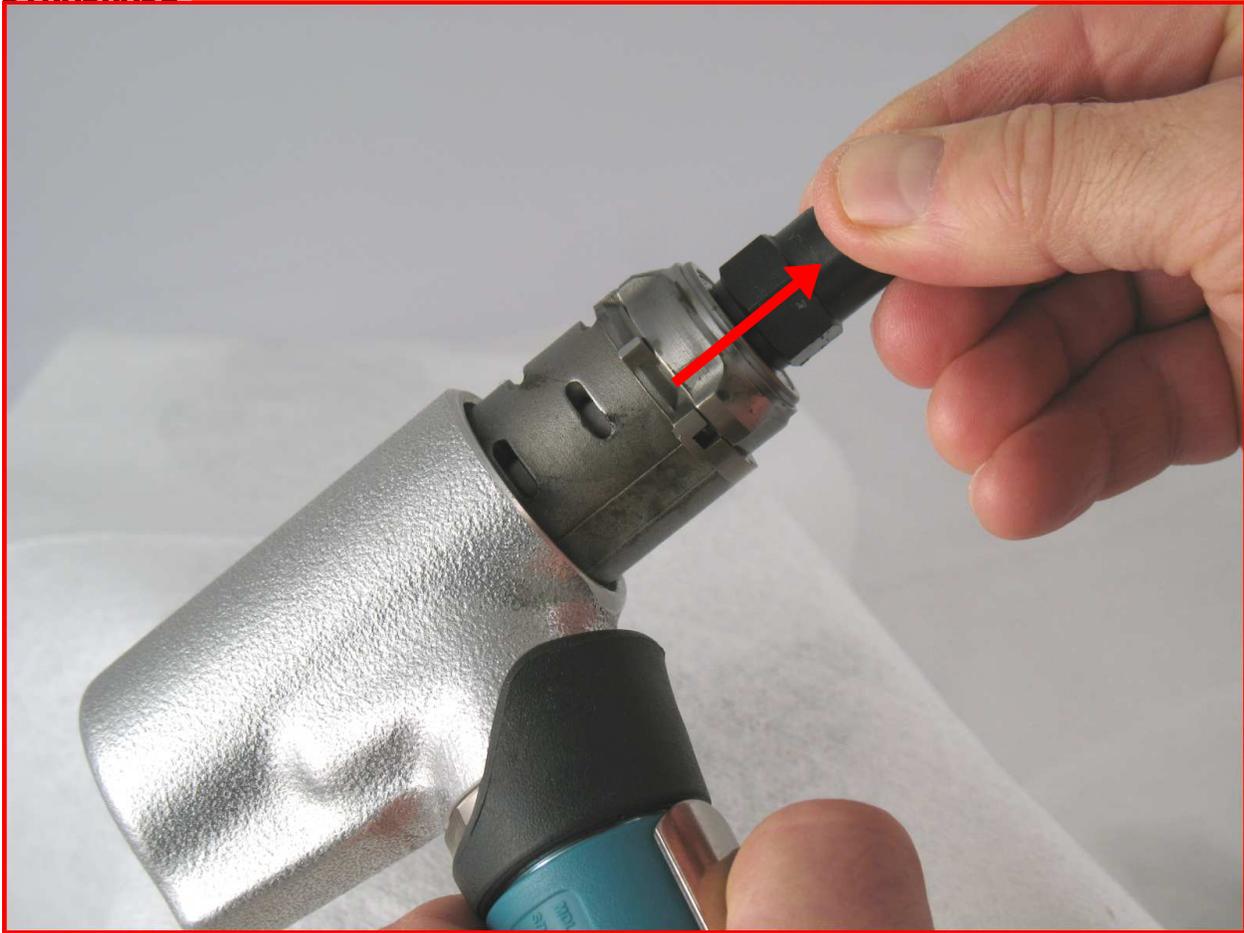
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- Pull the motor out of the housing.

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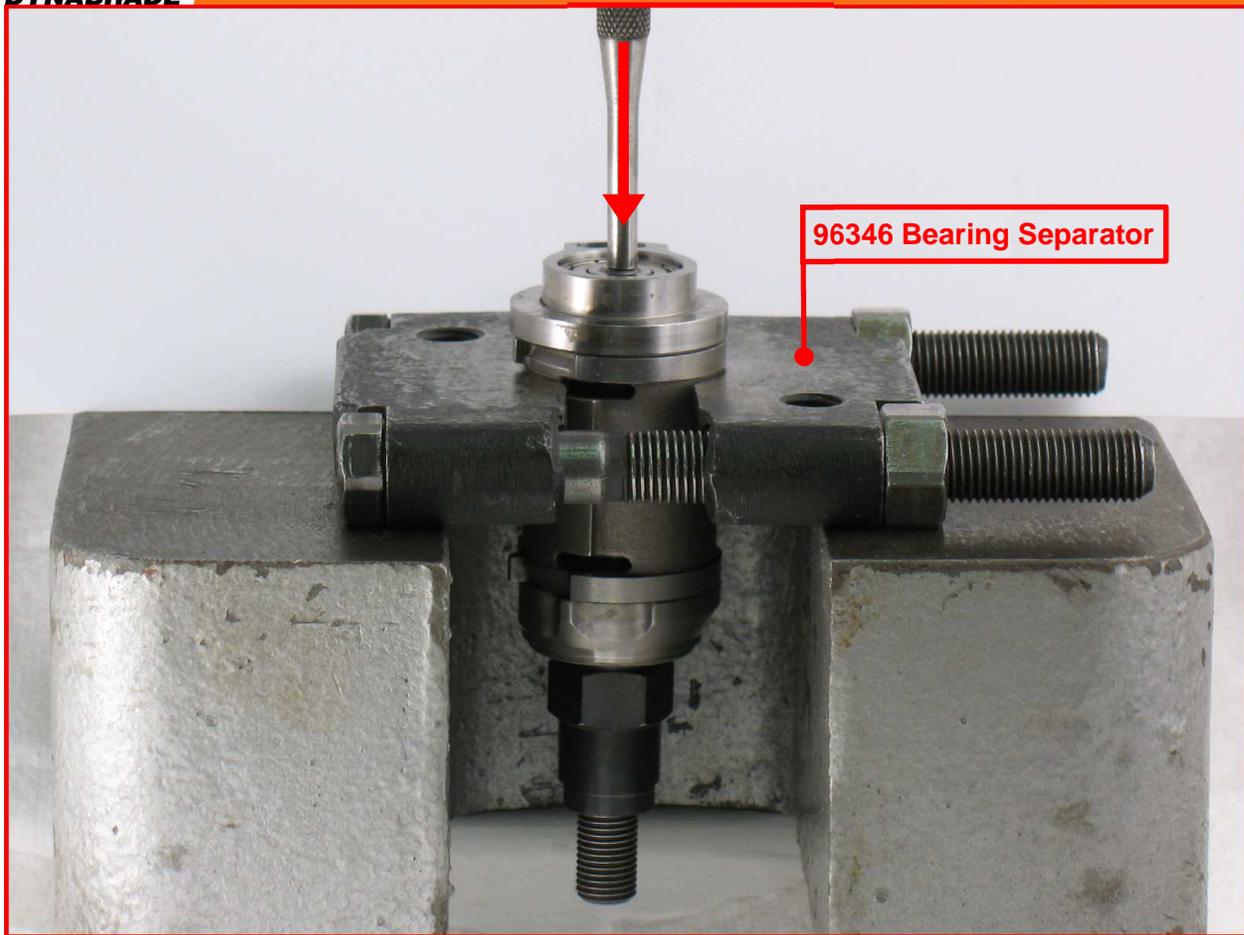
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Disassembly/Assembly Instructions



4. Fasten the **96346** Bearing Separator (2") around the **01028** Cylinder. Place the separator and the motor in the **96232** Arbor Press (#2) so that the rotor spindle is pointing down.
 - Use a 5/32" or 4 mm diameter flat end drive punch to push the rotor out of the **02649** Bearing.

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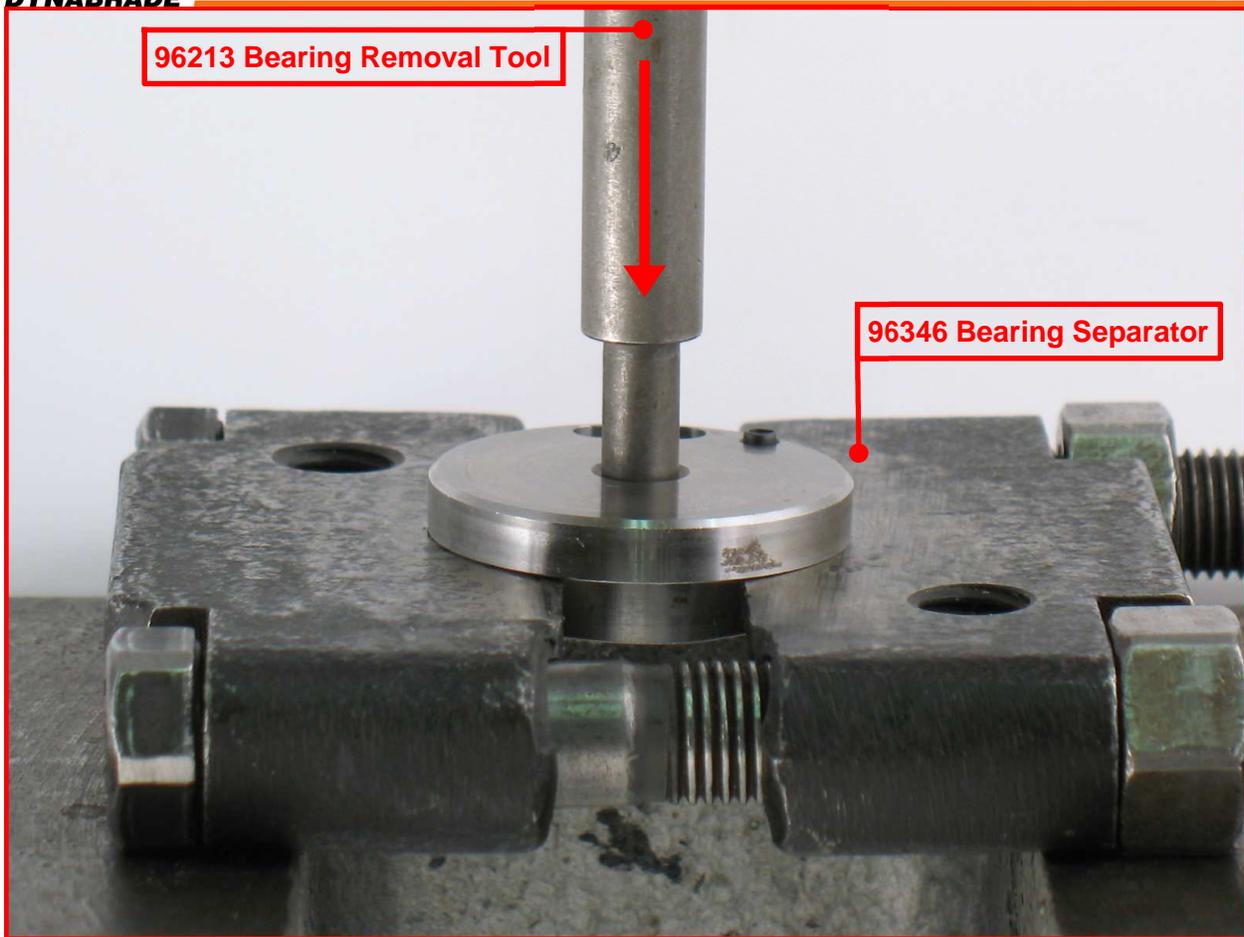
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Disassembly/Assembly Instructions



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

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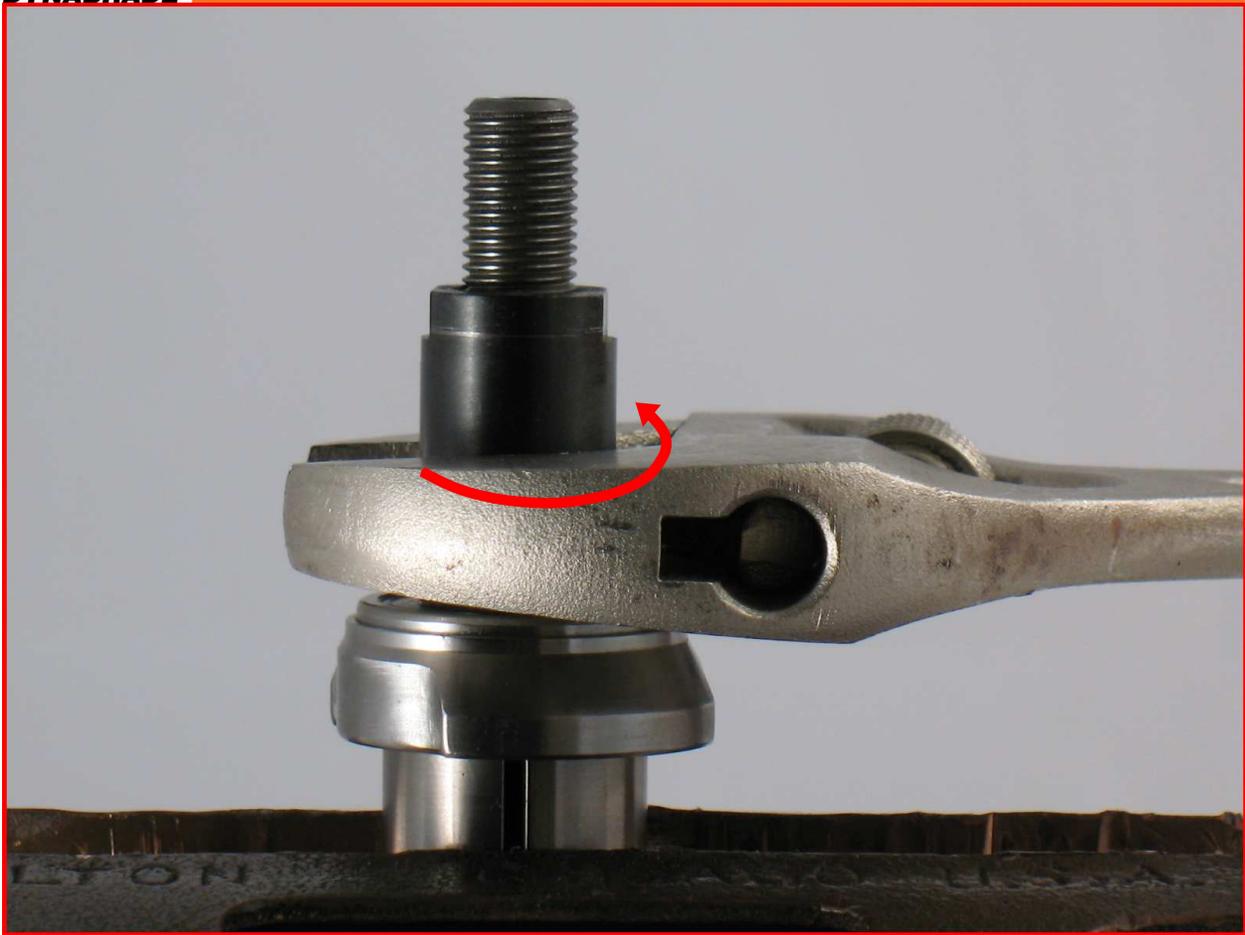
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6. Fasten the **55025** Rotor in the vise with aluminum or bronze jaws and use an adjustable wrench to remove the **01708** Rotor Nut. Turn counterclockwise.
 - Remove the **01007** Bearing, **01008** Bearing Plate, shims, and **01010** Spacer.**Motor Disassembly Completed.**

Clean and inspect parts before assembling.

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Assembly Instructions - 0.7 hp. Dynafire III Air Motors

Motor Assembly:



1. Install the **01010** Spacer onto the rotor.
 - Install .003" (~0.80 mm) shim thickness into the **01008** Front Bearing Plate.
 - Install the **01007** Bearing into the front bearing plate.
 - Install the bearing and plate onto the rotor.

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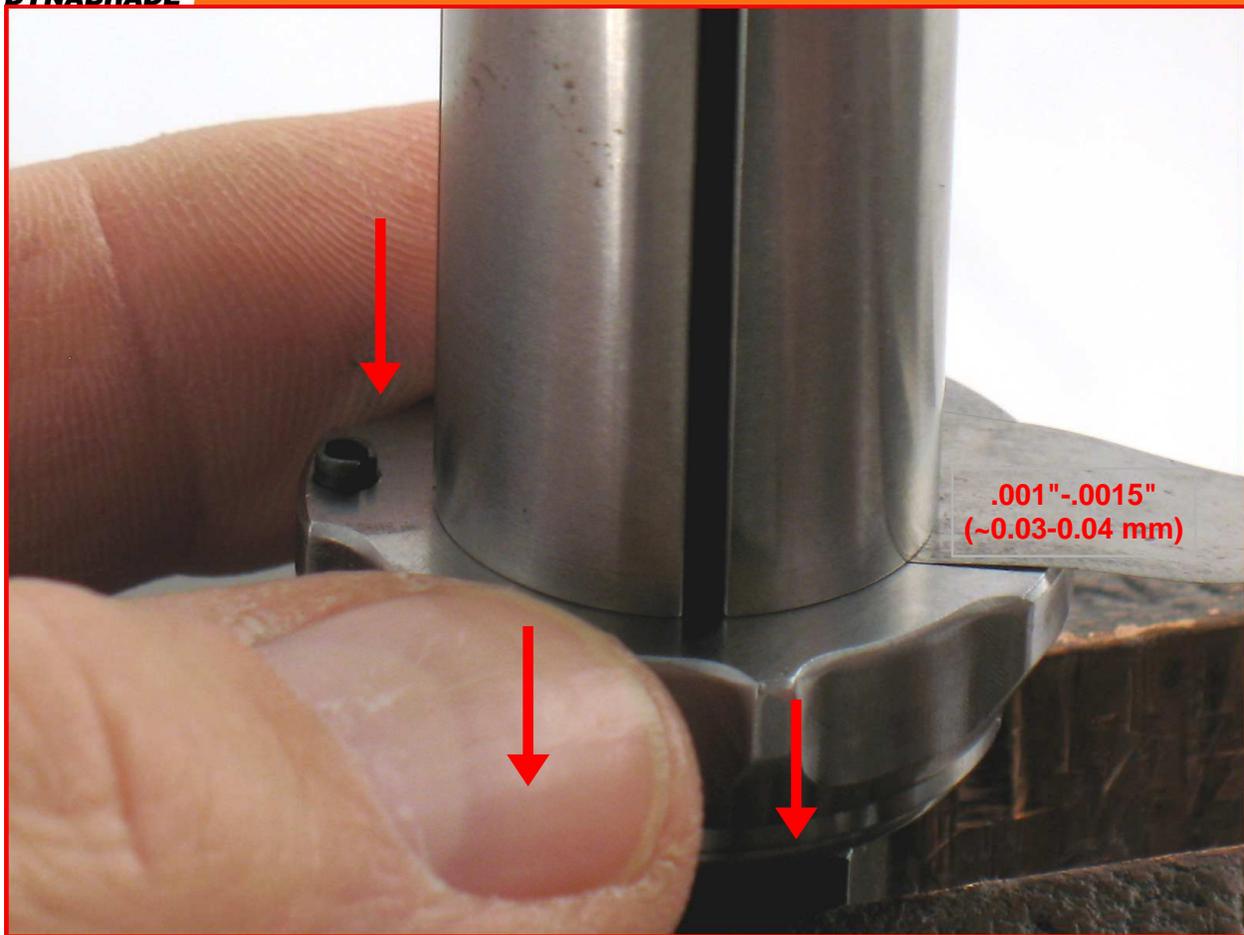
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2. By hand, install the **01708** Rotor Nut. Pull the front bearing plate forward to take movement out of the bearing. Check the clearance between the rotor and plate.
 - Use a .001" (~0.03 mm) thick feeler gauge. **Notice:** The clearance should be .001"-.0015" (~0.03-0.04 mm). If the rotor/plate clearance needs adjustment, repeat steps 1 and 2. Remove or add shims as required.



3. Use a 19 mm crowfoot and a torque wrench to tighten the **01708 Rotor Nut**.
(T to 17 N•m/~150 in. lbs.)

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4. Apply the **95842** Dynabrade Air Lube, 10W/NR or equivalent to the **01185** Vanes and install them into the rotor.

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

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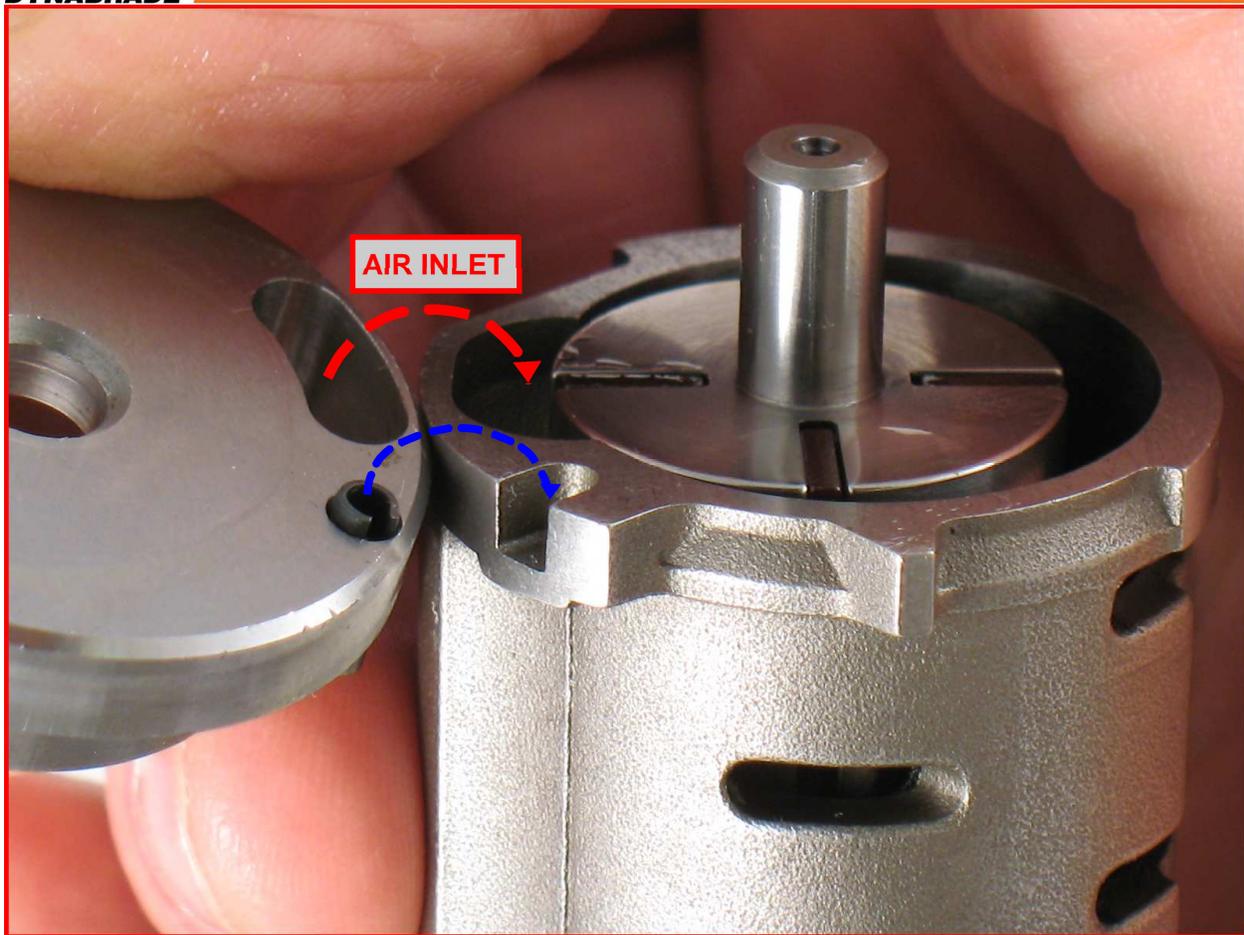
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6. Install the cylinder and rear bearing plate so that the air inlet openings line-up with each other.

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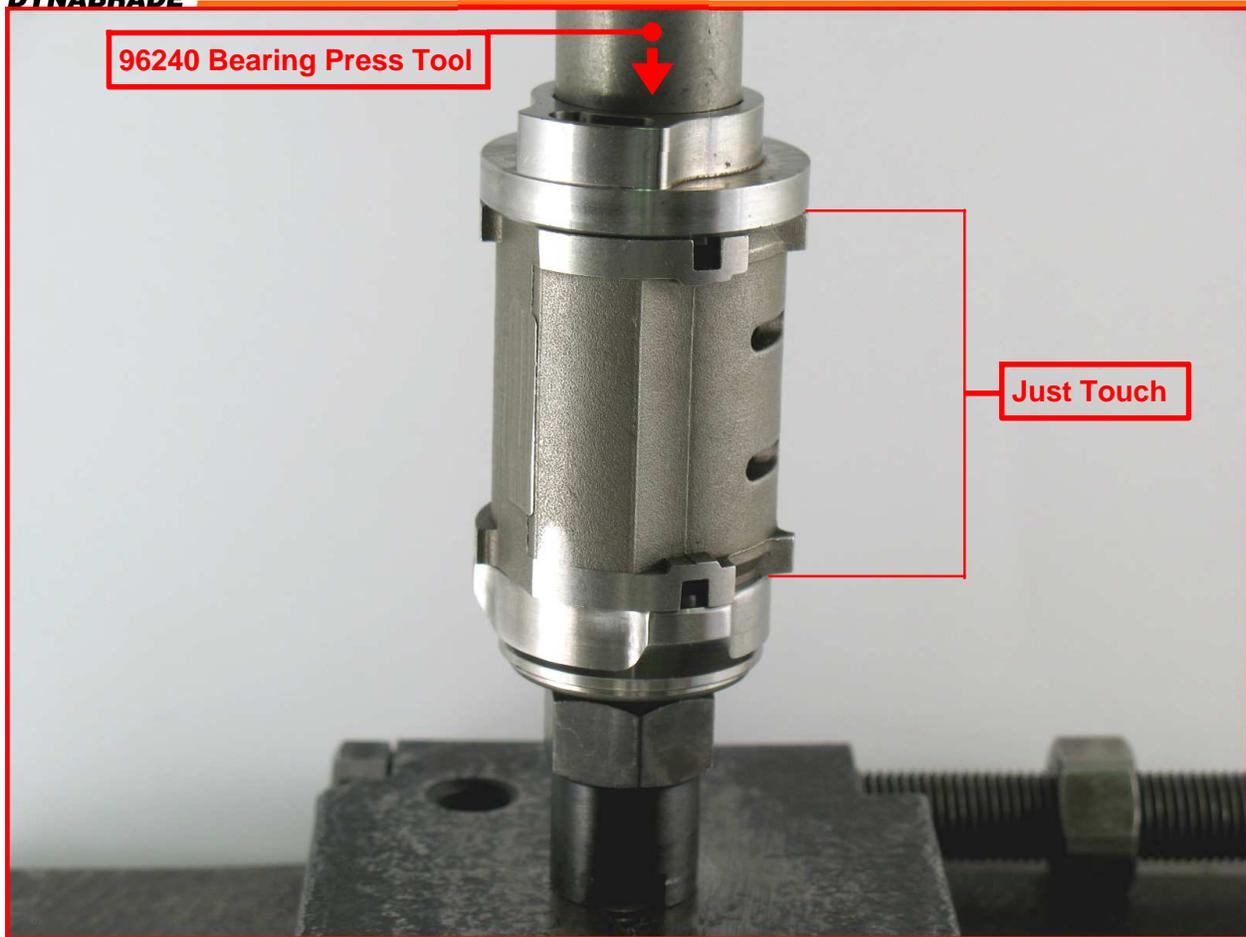
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Disassembly/Assembly Instructions



7. Use the **RAISED INSIDE DIAMETER** of the **96240** Bearing Press Tool and the arbor press to install the bearing and plate.

Important: Press the bearing and plate down until the rear bearing plate just touches the 01028 Cylinder. Doing so, will produce a close fit between the bearing plates and the cylinder.

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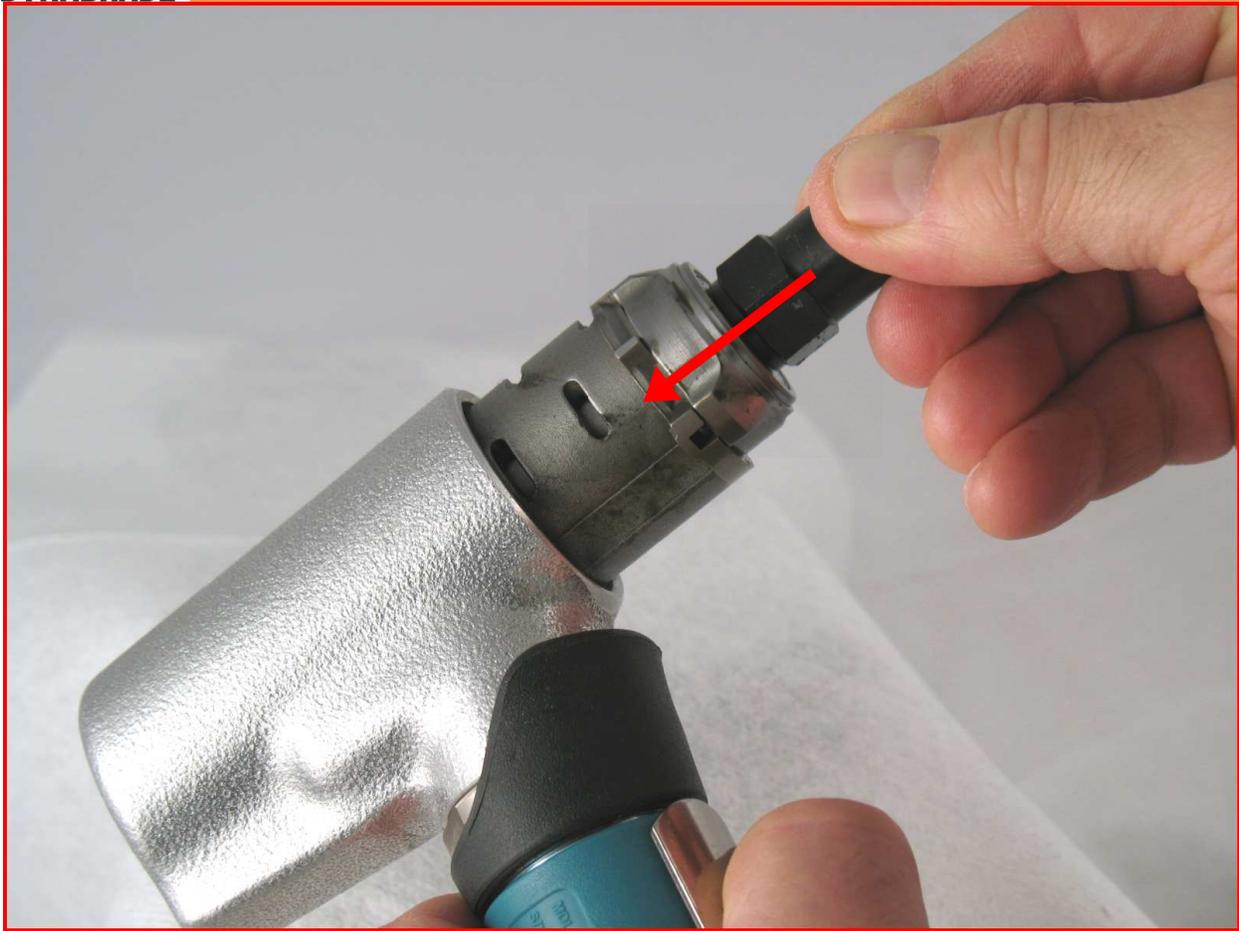
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8. Install the motor assembly.

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Disassembly/Assembly Instructions



9. Carefully fasten the **01739** Housing in the vise with aluminum or bronze jaws so that the rotor spindle is pointing up. **Notice: Over tightening vise will damage housing.**
- Install the **15322** Felt Silencer around the **15314** Air Control Ring and install these into the **15315** Exhaust Cover.
 - Apply Loctite #7649 Primer or equivalent to the thread of the **15315** Exhaust Cover.
 - Apply a small amount of Loctite #567 or equivalent the exhaust cover.
 - Use the **50971** Lock Ring Tool and a torque wrench to install the exhaust cover.
 - T to 34 N·m/~300 in. lbs.

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Disassembly/Assembly Instructions



10. Insert a 3/16" hex key through the drive wheel and into the end of the **55025** Rotor to hold it stationary.
 - Use groove pliers to tighten the drive wheel.

IMPORTANT: Use a tachometer to check motor speed and to verify proper operation.

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Disassembly/Assembly Instructions



11. Insert the air motor into the housing.

- Use a 9/64" hex key to fasten the motor with the **95311** Screw and **40029** Cam Lock.

Motor Assembly Completed.

Notice: For belt housing, contact arm and valve assemblies, refer to the exploded view and the additional instructions contained in the tool parts page or manual.

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