



Disassembly Instructions - 4-1/2" Vac Cut-Off Wheel – 0.7 hp. / 7°

Motor Disassembly:

1. Disconnect the tool from the air supply.
2. Use the **95049** 3/16" Hex Key Wrench and the **95281** 19 mm Open-End Wrench to remove the flange and cut-off wheel. Remove the vac cut-off wheel guard.
3. Position the **52296** Repair Collar around the valve body and secure the tool in a vise with spindle pointing up.
4. Use a 1-1/2" (38 mm) or adjustable wrench to remove the **04034** Rear Exhaust Cover. Turn counterclockwise.
5. Remove the air motor.
6. Fasten the **96346** Bearing Separator (2") around the **01028** Cylinder.
7. Place the bearing separator and the motor in the **96232** Arbor Press (#2) with the rotor spindle pointing down.
7. Use a 5/16" (8 mm) diameter flat-end drive punch on the arbor press to push the rotor out of the **02649** Bearing.
8. Remove the cylinder and vanes.
9. Use the **96213** Bearing Removal Tool and the arbor press to remove the **02649** Bearing from the **01743** Rear Bearing Plate.
10. Secure the body of the rotor in a vise with aluminum or bronze jaws and remove the **01708** Rotor Nut. Turn counterclockwise.
11. Remove the **01008** Front Bearing Plate, **01007** Bearing, shims and **01010** Spacer.

Motor Disassembly Complete.

Valve and Muffler Disassembly:

1. Position the **52296** Repair Collar around the valve body and secure the tool in a vise with the **94523** Inlet Adapter and muffler pointing up.
2. Use a wrench to hold the inlet adapter stationary when removing the air fitting.
3. Remove the **94523** Inlet Adapter. Turn counterclockwise.
4. Use the exploded view of the **94520** Muffler in the tool manual for order of disassembly and part identification.
5. Use needle nose pliers to remove the **01468** Spring and the **01472** Tip Valve. Use a small screwdriver to remove the **01464** Seal.
6. Position the valve housing so that the **12132** Pin, **01462** Safety-Lock Throttle Lever, and **01449** Valve Stem can be removed.
7. Use retaining ring pliers to remove the **95558** Retaining Ring. Push the **01469** Speed Regulator Assembly out of the valve body.

Valve Disassembly Complete.

Clean and inspect all parts before assembling.

Valve Assembly:

1. Install the **01469** Speed Regulator Assembly (with o-rings) into the valve body and secure it in place with the **95558** Retaining Ring.
2. Position the **52296** Repair Collar around the valve body and secure the tool in a vise so that the **12132** Pin, **01462** Safety-Lock Throttle Lever, and **01449** Valve Stem can be installed. Install parts.
3. Position the **52296** Repair Collar around the valve body and secure the tool in a vise so that the air inlet opening is pointing up.
4. Install the **01464** Seal into the valve body so that it lays flat.

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Disassembly/Assembly Instructions

5. Use needle nose pliers to install the **01472** Tip Valve so that the metal pin passes through the hole in the **01449** Valve Stem.
6. Install the **01468** Spring so that the smaller end of the spring fits against the back of the tip valve.
7. Install the air control ring against the back of the valve body.
8. Apply a small amount of the Loctite #567 (or equivalent) to the external threads of the **94523** Inlet Adapter and install it into the valve body. (Torque to 23 N·m/200 in. lbs.)
9. Hold the inlet adapter stationary with a wrench when installing the air fitting.

Valve Assembly Complete.

Motor Assembly:

1. Secure the body of the rotor in a vise with aluminum or bronze jaws so that the threaded spindle is pointing up. Install the **01010** Spacer onto the rotor.
2. Select .003" (.08 mm) thick shim(s) from the **01121** Shim Pack and install shim(s) into the **01008** Front Bearing Plate.
3. Install the **01007** Bearing into the front bearing plate and install onto the rotor.
4. Install the **01708** Rotor Nut onto the rotor. (Torque to 17 N·m/150 in. lbs.)
5. Use a .001" (0.3 mm) thick feeler gauge to check the clearance between the bearing plate and the face of the rotor. The clearance should be .001"-.0015" (0.3-0.4 mm). Note: If the clearance needs adjustment, repeat steps 2-5. Add or remove shims as required.
6. Lubricate the **01185** Vanes with the **95842** Dynabrade Air Lube 10W/NR (or equivalent). Install vanes into the rotor.
8. Install the **01028** Cylinder so that the air inlet opening lines-up with the air inlet opening in the **01743** Rear Bearing Plate.
9. Use the RAISED OUTSIDE DIAMETER of the **96240** Bearing Press Tool and the arbor press to install the **02649** Bearing into the **01743** Rear Bearing Plate.
10. Use the RAISED CENTER DIAMETER of the **96240** Bearing Press Tool and the arbor press to install the bearing & plate onto the rotor.
11. Carefully press the bearing & plate down until it just touches the cylinder. This will establish a snug fit between the bearing plates and the cylinder.
12. Carefully slide the motor assembly into the housing.
13. Apply a small amount of Loctite #567 (or equivalent) to the threads of the rear exhaust cover and install onto the housing. (Torque to 34 N·m/250 in. lbs.)
14. Install the vac cut-off wheel guard. Use the **95049** 3/16" Hex Key Wrench and the **95281** 19 mm Open-End Wrench to install the flange and cut-off wheel.

Motor Assembly Complete.

Throttle Positioning Procedure:

IMPORTANT: Perform this procedure carefully. Do not entirely separate the **01739** Housing from the valve body. Loosen the **01461** Lock Nut just enough to make the throttle lever adjustment.

1. Place the **52296** Repair Collar around the valve body and secure it in a vise so that the **01739** Housing is pointing up.
2. Slip the **01558** Collar down onto the valve body to expose the **01461** Lock Nut.
3. With a firm hold on the **01739** Housing, use a 34 mm or adjustable wrench to turn the lock nut clockwise to loosen the **01739** Housing from the valve body.
4. Place the throttle lever in the desired position. **Note:** Allow for additional rotation of the **01739** Housing as the **01461** Lock Nut is tightened.
5. Grasp the **01739** Housing firmly to limit rotation. Use a 34 mm or an adjustable wrench to tighten the **01461** Lock Nut. (Torque to 45 N·m/400 in. lbs.)
7. Slip the **01558** Collar back over the **01461** Lock Nut.

Throttle Positioning Procedure Complete.

Tool Assembly Complete.

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