

#### Disassembly Instructions - 2 & 3 hp. Vertical Sanders & Grinders

**Models:** 53232, 53233, 53234, 53235, 53242, 53243, 53244, 53245, 53249, 53251, 53252, 53253, 53261, 53262, 53263

**Important:** Use these instructions along with tool parts page or manual. **Notice:** Shut off air supply and depress throttle lever to deplete remaining air.

- Disconnect tool from air supply hose.
- Remove all accessoies (abrasive product, backup disc, and flanges).

#### Motor Disassembly:



- 1. Use 10 mm socket wrench to remove 50508 Screws.
- Remove housing cover or guard.

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2. Remove 95881 O-Ring and motor from housing.

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- **3.** Fasten **55236** Nut in vise with aluminum or bronze jaws so that governor assembly is pointing up.
- Use 5 mm pin spanner wrench to remove governor assembly and it set aside<sup>1</sup>. Turn clockwise. **Left Hand Thread.**

<sup>1</sup> See Step #7. Governor Instructions. *Visit Our Website: www.dynabrade.com* 

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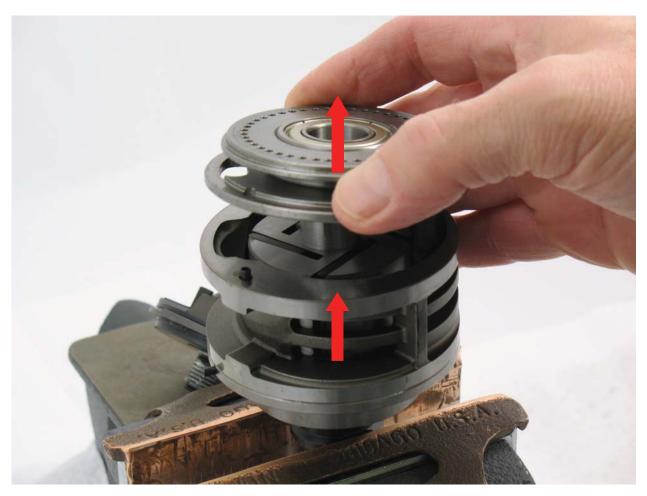
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4. Remove 55202 Rear Bearing Plate, bearing, cylinder, and vanes.

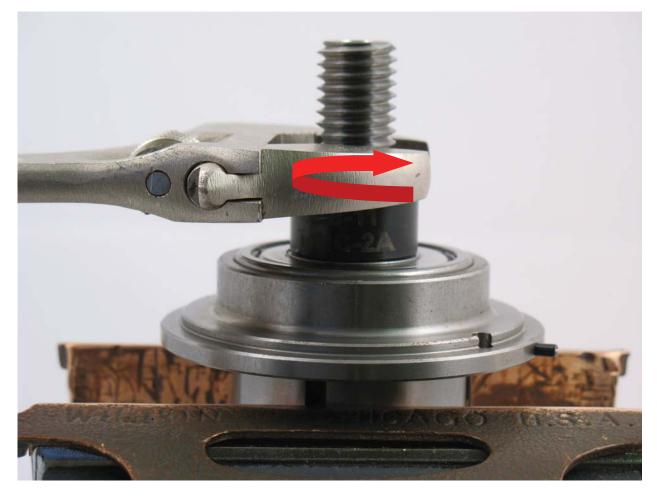
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- 5. Loosen vise, invert assembly and fasten rotor in vise with spindle pointing up.
- Use an adjustable wrench to remove **55236** Nut. Turn counterclockwise.

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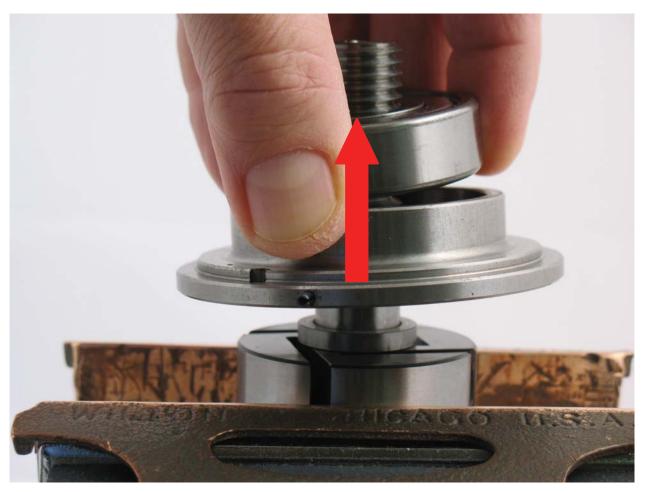
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6. Remove front bearing plate, bearing, shims and 55223 Spacer from rotor.

#### Motor disassembly completed.

#### Valve/Throttle Handle and Muffler Disassembly:

Refer to tool parts page or manual. Follow exploded view instructions to disassemble valve and muffler components.

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- 7. Governor Instructions: Inspect governor components for wear or damage.
- A. If governor components are worn or damaged, return complete air tool to factory for repair.
- **B.** If Overspeed Shut-Off Ring has been activated, reset ring according to instructions.

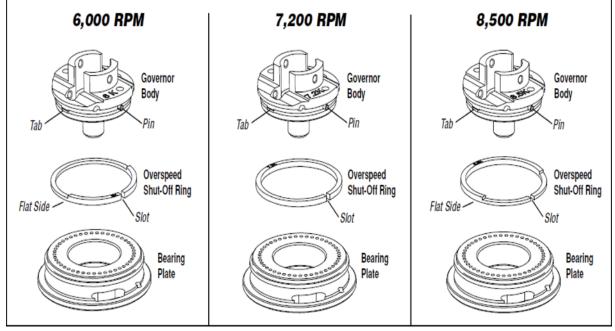
# **OVERSPEED SHUT-OFF RING**

If the tool stops suddenly or does not reach the rated tool speed, the overspeed shut-off ring may have activated, closing off the inlet air supply. The tool must be serviced to correct the problem and the overspeed shut-off ring must be properly reinstalled for safe use.

**DANGER** IMPROPER INSTALLATION OR SERVICING OF OVERSPEED SHUT-OFF RING MAY RESULT IN SERIOUS INJURY OR DEATH. BEST SERVICED BY FACTORY

### **GOVERNOR ASSEMBLY - PROPER ORIENTATION OF OVERSPEED SHUT-OFF RING**

INSTALL SHUT-OFF RING OVER BOTH TAB FEATURES ON THE GOVERNOR BODY WITH SLOT FEATURE CENTERED ON THE PIN. IMPORTANT: ORIENT FLAT SIDE OF SHUT-OFF RING TOWARD BEARING PLATE.



- **Important:** With overspeed shut-off ring reset and governor assembly properly fastened onto motor assembly, check freespeed of tool without any accessory or abrasive product attached to tool. Use a tachometer to check RPM.
- Notice: Check air line pressure with gauge. (max. 90 PSIG or 6.2 Bar operating pressure at the air inlet of the tool.)

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#### Clean and inspect parts for wear or damage before assembling.

#### Assembly Instructions - 2 & 3 hp. Vertical Sanders & Grinders

**Models:** 53232, 53233, 53234, 53235, 53242, 53243, 53244, 53245, 53249, 53251, 53252, 53253, 53261, 53262, 53263

#### Motor Assembly:



- 1. Fasten rotor in vise with aluminum or bronze jaws so that spindle is pointing up.
- Install **55223** Spacer onto rotor.

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- 2. Install 52470 Shim (.003" or ~0.08 mm, thick).
- Place shim in **55203** Front Bearing Plate.

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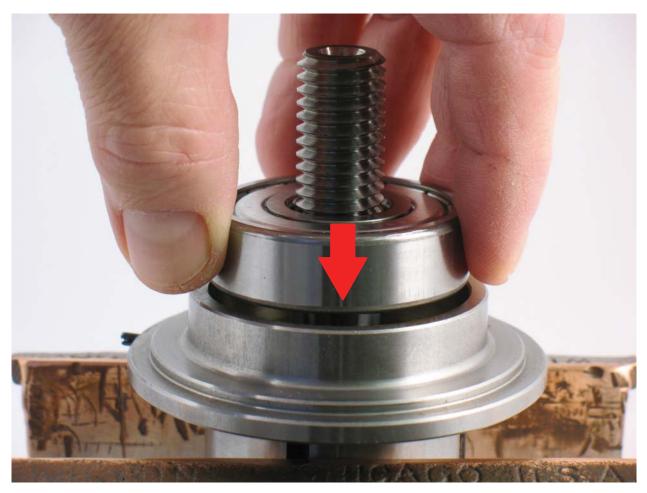
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- 3. Install front bearing and plate onto rotor.
- Install 55236 Nut.
- Remove assembly from vise.

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- **4.** Place end rotor spindle on a flat surface. Push down on bearing plate, and <u>use a</u> <u>.001" (~0.03 mm) thick feeler gauge</u> to check clearance between front bearing plate and rotor.
- Notice: The amount of <u>clearance should be .001"-.0015" (~0.03-0.04 mm)</u>.
- If necessary, repeat steps 2 4 and use shims as required to set clearance.

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- 5. Fasten rotor in vise with spindle pointing up.
- Remove 55236 Nut, and apply a small amount of Loctite #271, or equivalent to rotor threads for nut.

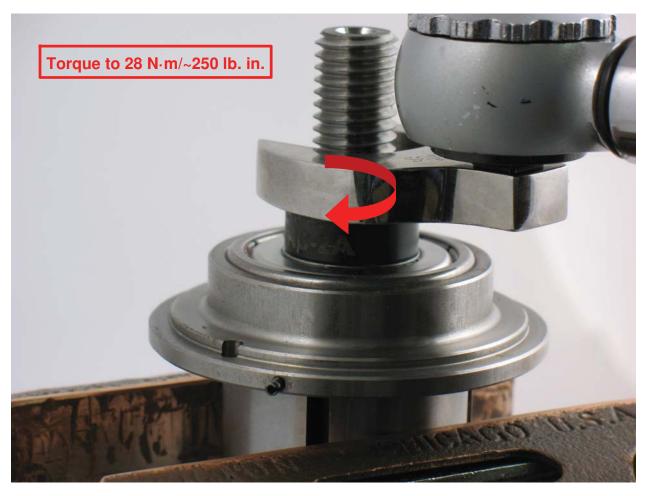
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6. Use a 24 mm crowfoot and torque wrench to fasten 55236 Nut onto rotor. Torque to 28  $N \cdot m/\sim 250$  lb. in.

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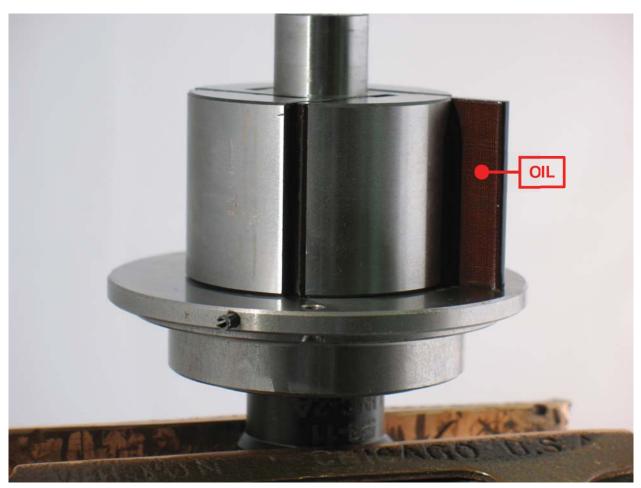
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- 7. Remove assembly from vise, invert, and fasten flats of 55236 Nut in vise.
- Oil vanes with **95842** Dynabrade Air Lube, or equivalent.
- Install vanes in rotor.

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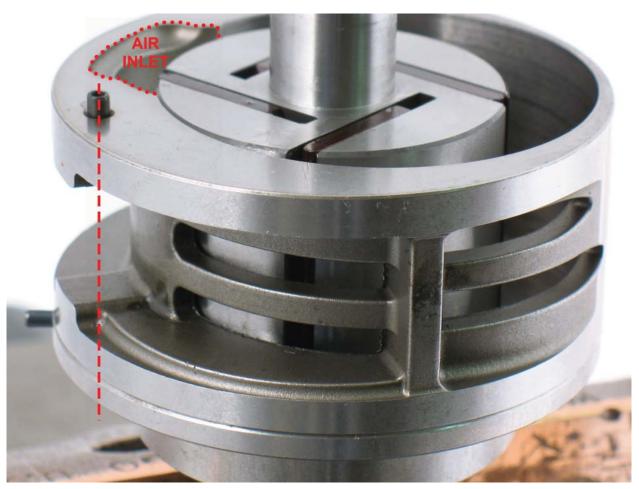
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8. Install cylinder over rotor so that air inlet of cylinder lines-up with air inlet opening in **55202** Rear Bearing Plate.

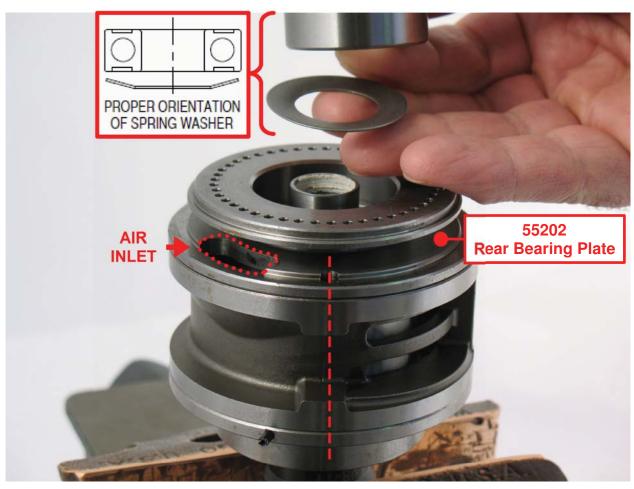
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- 9. Install 55202 Rear Bearing Plate.
- Install **55216** Washer with cupped-side facing up.
- Install 02552 Bearing.

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10. Apply a small amount of Loctite #567, or equivalent to threads of governor.

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- 11. Install governor. Turn counterclockwise. Left Hand Thread.
- Use 5 mm pin spanner wrench to fasten governor. Torque to 25 N·m/~220 lb. in.

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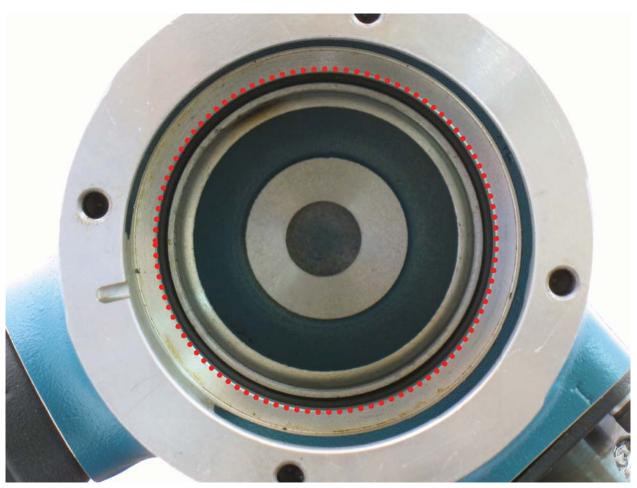
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12. Install 95880 O-Ring in housing.

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**13.** Carefully install motor in housing.

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14. Install 95881 O-Ring against front bearing plate.

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15. Install housing cover or guard. Fasten with 50508 Screws and 95757 Washers. Torque to 17 N $\cdot$ m/~150 lb. in.

#### Important:

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

#### Motor assembly completed. Install proper backup disc, and/or flanges.

#### Valve/Throttle Handle and Muffler Assembly:

Refer to tool parts page or manual. Follow exploded view instructions to assemble valve and muffler components. Email: customer.service@dynabrade.com

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