

Model:

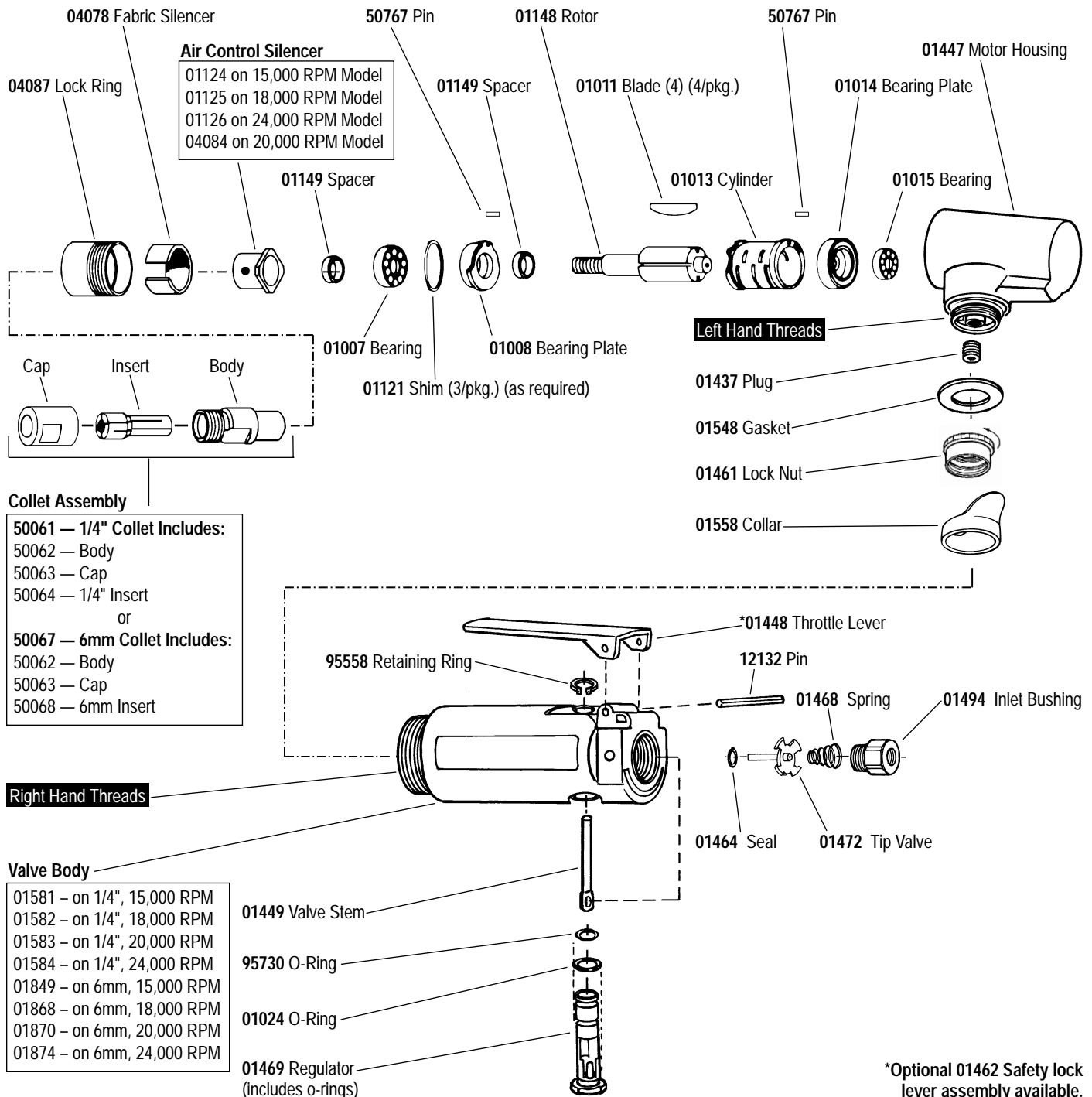
52210 – 1/4", 15,000 RPM
 52211 – 1/4", 18,000 RPM
 52212 – 1/4", 20,000 RPM
 52213 – 1/4", 24,000 RPM
 52260 – 6mm, 15,000 RPM
 52261 – 6mm, 18,000 RPM
 52262 – 6mm, 20,000 RPM
 52263 – 6mm, 24,000 RPM

1/2 Hp/Standard Duty/Short Shank Die Grinder

Air Motor and Machine Parts

WARNING

Always operate, inspect and maintain this tool in accordance with the Safety Code for portable air tools (ANSI B186.1) and any other applicable safety codes and regulations. Please refer to Dynabrade's Warning/Safety Operating Instructions for more complete safety information.



See reverse side for Accessories and Important Operating, Maintenance and Safety Instructions.

Disassembly/Assembly Instructions-.5 Hp/7°/Front Exhaust

Important: Manufactures warranty is void if tool is disassembled before warranty expires.

Please refer to parts breakdown for part identification.

To Disassemble:

1. Secure air tool in vise using or padded jaws.
2. Remove collet cap and insert.
3. With an adjustable pin wrench, remove **04087** Lock Ring by turning counter-clockwise. Remove air control silencer and fabric silencer.
4. Pull motor assembly from housing.
5. Reposition motor housing in vise so inlet bushing is facing upwards.
6. Unscrew **01494** Inlet Bushing turning counter-clockwise.
7. Using needle nose pliers, remove **01468** Spring, **01472** Tip Valve and **01464** Seal.
8. Resecure housing in vise so throttle lever and **12132** Pin are accessible.
9. Using a 2.5 mm diameter drift pin and a hammer, tap **12132** Pin out from housing and remove throttle lever.
10. Remove **95558** Retaining Ring and push **01469** Speed Regulator from Housing.

Optional: To disassemble valve body from motor housing, peel back **01558** Collar to expose **01462** Lock Nut. Unscrew lock nut/valve body from housing (left hand threads).

Motor Disassembly:

1. Remove **50062** Collet Body from rotor shaft by inserting 3/16" hex wrench through collet body and into rotor shaft. Twist collet body from shaft.
2. Remove **01008** Front Bearing Plate, cylinder, blades (4) and **01149** Spacer from rotor.
Note: **01007** Bearing, **01008** Front Bearing Plate and **01149** Spacer are a slip fit onto rotor.
3. Press rotor from **01014** Rear Bearing Plate. Press **01015** Bearing from bearing plate.

Motor disassembly is complete.

Motor Reassembly

Important: Be sure parts are clean and in good repair before reassembly

1. Place rotor in padded vise with a threaded spindle facing upwards.
2. Slip **01149** Spacer onto rotor.
3. Place a .002" shim into **01008** Front Bearing Plate as an initial spacing (**Note:** **01121** Shim Pak contains .001" and .002" shims) and slip **01007** Bearing into plate.
4. Install Bearing/Bearing Plate assembly onto rotor.
5. Tighten **50062** Collet Body onto rotor (torque to 150 in. - lbs.).
6. Check clearance between rotor and bearing plate by using a .001" feeler gauge. Clearance should be at .001" to .0015". Adjust clearance by repeating steps 1-5 with different shim if necessary.
7. Once proper rotor/gap clearance is achieved, install well lubricated **01011** Blades (4) into rotor slots. Dynabrade air lube P/N **95842** is recommended for lubrication.
8. Install cylinder over rotor. Be sure air inlet holes of cylinder face away from bearing plate.
9. Press **01015** Rear Bearing into **01014** Rear Bearing Plate. Press bearing/bearing plate assembly onto rotor. Be sure that pin and air inlet holes line-up with pin slot and air inlet holes in cylinder.
Important: Fit must be snug between bearing plates and cylinder. If too tight, rotor will not turn freely. Rotor must then be lightly tapped at press fit end so it will turn freely while still maintaining a snug fit. A loose fit will not achieve the proper preload of motor bearings.
10. Secure motor housing in padded vise so motor cavity faces upwards.
11. Install motor assembly into housing. Be sure motor drops all the way into housing.
12. Insert air control silencer and fabric silencer into **04087** Lock Ring and install onto motor housing (torque 150 in. - lbs.).
13. Motor adjustment must now be checked. With motor housing still mounted in vise, pull end of rotor and twist (10-15 lbs. force), rotor should turn freely without drag. If drag or rub is felt, then increase preload or remove shim. Also, push end of rotor and twist (10-15 lbs. force), rotor should turn freely without drag. If drag or rub is felt, then deload or add shim.

Valve Stem/Body Reassembly:

1. Insert **01469** Speed Regulator Assembly into valve body. Secure with **95558** Retaining Ring.
2. Secure valve body in vise using padded jaws with air inlet facing upwards and throttle lever accessible.
3. Insert **01464** Seal into housing.
4. Line-up the hole in the **01449** Valve Stem with the hole in the housing (looking past brass bushing). Using needle nose pliers, insert **01472** Tip Valve so that the metal pin passes through the hole in the valve stem.
5. Install **01468** Spring (small end towards the tip valve).
6. Apply 1 drop of #271 Loctite (or equivalent) to threads of **01494** Inlet Bushing and install into valve body (torque 34.0 N·m 200 lbs. in.).
7. Install throttle lever and **12132** Pin. Remove valve body from vise.

Tool Assembly is complete. Please allow 30 minutes for adhesives to cure before operating tool.

Important: Motor should now be tested for proper operation at 90 PSI. If motor does not operate properly or operates at a higher RPM than marked on the tool, the tool should be serviced to correct the cause before use.

Note: Throttle lever is preset at the factory at an 11:00 o'clock position.

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Optional Accessories



53032 — 1/4" Drill Chuck
Includes: **53052** Mated Chuck Key



Collet Inserts

- **50065** — 1/8"
- **50039** — 8mm



Dynaswivel®

Swivels 360° at two locations which allows an air hose to drop straight to the floor, no matter how the tool is held.

- **95460** 1/4" NPT

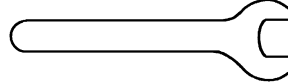
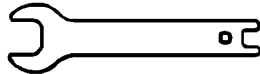


96039 Motor Tune-Up Kit:

- Includes assorted parts to help maintain motor in tip-top shape.

Wrenches

95281 – 19 mm open-end



95262 – 14 mm open-end

Important Operating, Maintenance and Safety Instructions

Carefully read all instructions before operating or servicing any Dynabrade® Abrasive Power Tool.

Warning: Hand, wrist and arm injury may result from repetitive work motion and overexposure to vibration.

Important: All Dynabrade air tools must be used with a Filter-Regulator-Lubricator to maintain all warranties.

Operating Instructions:

Warning: Eye, face and body protection must be worn while operating power tools. Failure to do so may result in serious injury or death. Follow safety procedures posted in workplace.

1. With power source disconnected from tool, securely fasten abrasive/accessory on tool.
2. Connect power source to tool. Be careful **not** to depress throttle lever in the process.
3. Check tool speed with tachometer. If tool is operating at a higher speed than the RPM marked on the tool or operating improperly, the tool should be serviced to correct the cause before use.

Maintenance Instructions:

Products offered by Dynabrade should not be converted or otherwise altered from original design without expressed written consent from Dynabrade, Inc.

1. Check tool speed regularly with a tachometer. If tool is operating at a higher speed than the RPM marked on the tool, the tool should be serviced to correct the cause before use.
2. Some silencers on air tools may clog with use. Clean and replace as required.
3. All Dynabrade air motors should be lubricated with two drops of Dynabrade Air Lube (P/N 95842: 1pt. 473ml.) every four hours of use.
4. An air line filter-regulator-lubricator must be used with this air tool to maintain all warranties. Dynabrade recommends the following: **11289** Air Line Filter-Regulator-Lubricator — Provides accurate air pressure regulation, two-stage filtration of water contaminants and micro-mist lubrication of pneumatic components. Operates 40 CFM @ 90 PSI has 3/8" NPT female ports.

Safety Instructions:

- **Important:** User of tool is responsible for following accepted safety codes such as those published by the American National Standards Institute (ANSI).
- Operate machine for one minute before application to workpiece to determine if machine is working properly and safely before work begins.
- Always disconnect power supply before changing abrasive or making machine adjustments.
- Inspect abrasives/accessories for damage or defects prior to installation on tools.
- Please refer to Dynabrade's Warning/Safety Operating Instructions Tag (Reorder No. 95903) for more complete safety information.
- **Warning:** Hand, wrist and arm injury may result from repetitive work, motion and overexposure to vibration.

Full One Year Warranty

Following the reasonable assumption that any inherent defect which might prevail in a product will become apparent to the user within one year from the date of purchase, all equipment of our manufacture is warranted against defects in workmanship and materials under normal use and service. We shall repair or replace at our factory, any equipment or part thereof which shall, within one year after delivery to the original purchaser, indicate upon our examination to have been defective. Our obligation is contingent upon proper use of Dynabrade tools in accordance with factory recommendations, instructions and safety practices. It shall not apply to equipment which has been subject to misuse, negligence, accident or tampering in any way so as to affect its normal performance. Normally wearable parts such as bearings, sanding pads, rotor blades, etc., are not covered under this warranty.



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