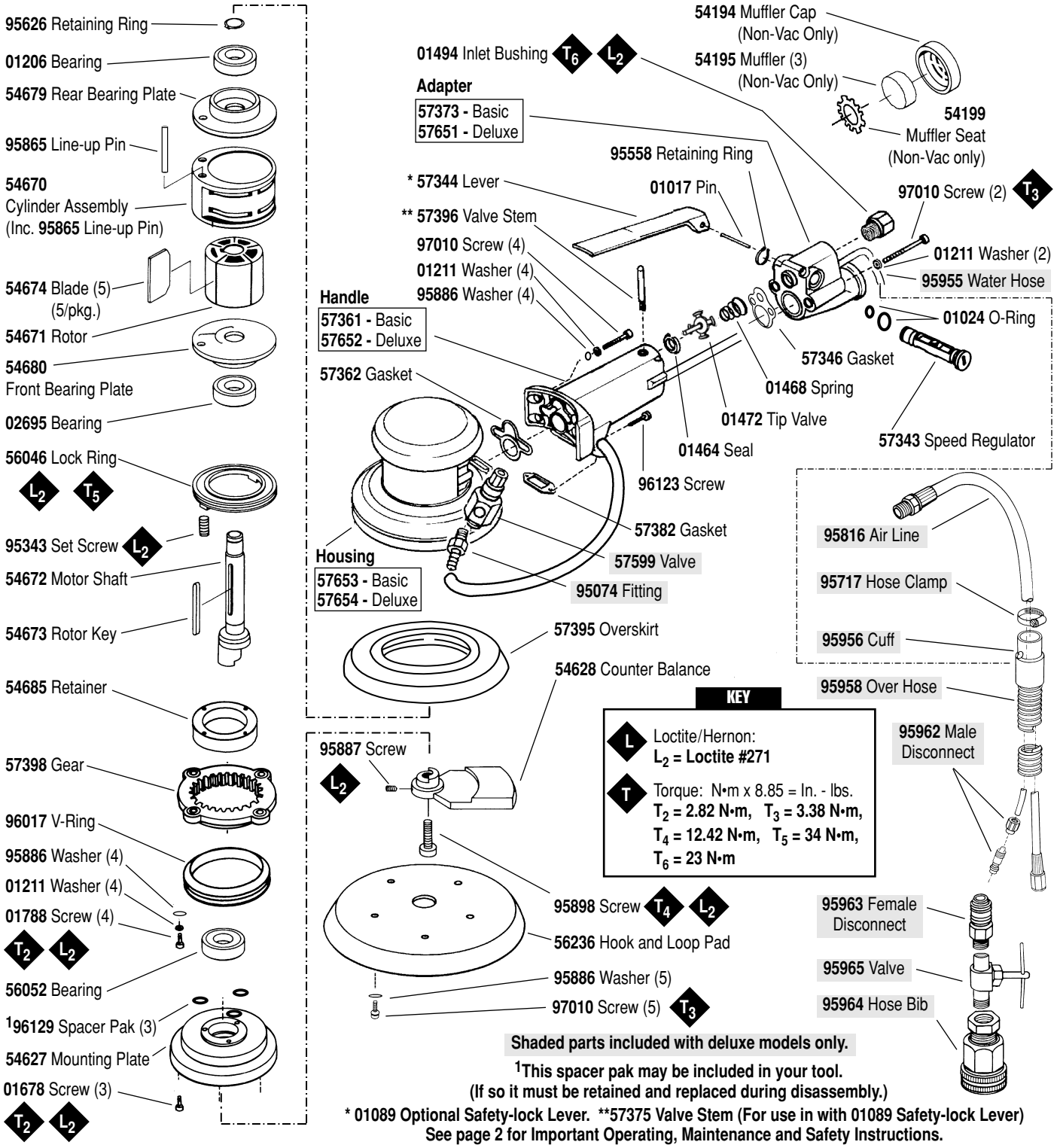
Parts Page Reorder No. PD96•86
Effective December, 1996

8" Wet Dynorbital® Random Orbital Sander

Models:
57610 – Basic Wet
57611 – Deluxe Wet

Air Powered , Random Orbital Sander, 10,000 RPM

⚠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.**



KEY

- **L** Loctite/Hernon: **L_2 = Loctite #271**
- **T** Torque: N•m x 8.85 = In. - lbs. **T_2 = 2.82 N•m, T_3 = 3.38 N•m, T_4 = 12.42 N•m, T_5 = 34 N•m, T_6 = 23 N•m**

Shaded parts included with deluxe models only.

[1]This spacer pak may be included in your tool. (If so it must be retained and replaced during disassembly.)

*** 01089 Optional Safety-lock Lever. **57375 Valve Stem (For use in with 01089 Safety-lock Lever)**

See page 2 for Important Operating, Maintenance and Safety Instructions.

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/sanding pad 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.
4. To avoid the danger of contaminating the workpiece from the lubricating oils permeating the air or sanding dust, it is recommended that this machine be hooked up to a central vacuum system or one of our unique vacuum systems that gather all such contaminants in a paper or cloth dust bag. This self contained vacuum system is highly efficient and convenient to use since it does not need to be attached to a separate vacuum system and is as mobile as the machine itself.

Maintenance Instructions:

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

1. All Dynabrade air motors should be lubricated. Dynabrade recommends one drop of air lube per minute for each 10 SCFM (example : if the tool specification state 40 SCFM, set the drip rate of your filter-lubricator at 4 drops per minute). Dynabrade Air Lube (P/N **95842**: 1pt. 473ml.) is recommended.
2. 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 positive-drip lubrication of pneumatic components. Operates 28 CFM @ 90 PSI has 3/8" NPT female ports.
3. Frequent drainage of water traps in air lines is recommended.
4. Some silencers on air tools may clog with use. Clean and replace as required.
5. A motor tune-up kit (P/N **96200**) is available which includes assorted parts to help maintain motor in tip-top shape.

Safety Instructions:

1. **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.
2. **Important:** User of tool is responsible for following accepted safety codes such as those published by the American National Standards Institute
3. Tool RPM must never exceed abrasive/sanding pad RPM rating, regardless of tool capacity.
4. Operate machine for 30 seconds before application to workpiece to determine if machine is working properly and safely before work begins.
5. Always disconnect power supply before changing abrasive or making machine adjustments.
6. Inspect abrasives and sanding pads for damage or defects prior to and during operation of tool.
7. Please refer to Dynabrade's Warning/Safety Operating Instructions Tag (Reorder No. **95903**) for more complete safety information.
8. **Warning:** Hand, wrist and arm injury may result from repetitive work, motion and overexposure to vibration.

Notice

All Dynabrade motors use the highest quality parts and metals available and are machined to exacting tolerances. The failure of quality pneumatic motors can most often be traced to an unclean air supply or the lack of lubrication. Air pressure easily forces dirt or water contained in the air supply into motor bearings causing early failure. It often scores the cylinder walls and the rotor blades resulting in limited efficiency and power. Our warranty obligation is contingent upon proper use of our tools and cannot apply to equipment which has been subjected to misuse such as unclean air, wet air or a lack of lubrication during the use of this tool.

Note: To order replacement parts specify the model and serial number of your machine.

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, contact wheels, rotor blades, etc., are not covered under this warranty.

Motor Disassembly/Assembly Instructions

Important: Manufacturers warranty is void if tool is disassembled before warranty expires.
A complete tune-up kit, part number **96200,** is available which includes assorted parts to help maintain motor in tip-top shape. These instructions are for use in conjunction with Part Number **57325** Repair Kit, which includes special tools for proper disassembly/assembly of tool.

To Disassemble:

1. Disconnect tool from power source.
2. Invert machine and secure in soft jaw vise.
3. Remove sanding pad with 3mm hex wrench (supplied in **57325** Repair Kit).
4. Remove counterbalance:
   - **a.)** Loosen **95887** Screw with 2mm hex wrench.
   - **b.)** Remove **95898** Screw with 5mm hex wrench.
     Note: To prevent counter balance rotation with motor shaft install 3mm hex wrench in any **01678** Screw along side of counter balance for leverage.
   - **c.)** Remove counterbalance.
5. Pull out mounting plate sub-assembly.
6. Disassemble mounting plate sub-assembly:
   - **a.)** Remove **01678** Screws (3) from underside of mounting plate with a 3mm hex wrench.
   - **b.)** Press out **56052** Bearing from mounting plate by using **57091** Bearing Press Tool (supplied in **57325** Repair Kit).
   - **c.)** Press out **56052** Bearing from **54685** Retainer.
7. Using a 2mm hex key loosen the **95343** Set Screw.
8. Insert **56058** Lock Ring Wrench (supplied in **57325** Repair Kit) into corresponding tabs of lock ring and unscrew. Motor may now be lifted out for service.
9. Remove **95626** Retaining Ring. Upper motor may now be disassembled.
10. The **54679** Rear Bearing Plate contains a "press fit" bearing. Remove the rear plate assembly by securing the **54670** Cylinder in a standard 2 inch bearing separator or use a standard bearing puller gripped on the cylinder inlet and exhaust area. Push the **54672** Motor Shaft through the bearing.
11. Remove cylinder, rotor, blades and key.
12. Remove **54680** Front Plate and **02695** Front Motor Bearing, using a small (#2) arbor press. Support inside edge of the bearing cavity wall on the front plate while pressing on the small end of the **54672** Motor Shaft.
13. Remove **01206** Bearing from rear bearing plate with utility press pin.
14. Press **02695** Bearing from **54672** Motor Shaft.

To Reassemble:

Important: Be certain parts are clean and in good repair before reassembling.

1. Press **02695** Bearing onto **54672** Motor Shaft down to shoulder.
2. Assemble **54680** Front Bearing Plate onto shaft and press plate on outer race of **02695** Bearing.
3. Place rotor key, rotor, and blades onto shaft.
   Note: Be certain rotor "floats" easily on the shaft. Because the design of this motor uses a "floating rotor", there is no need to set or adjust gap between the rotor and end plates.
4. Place **54670** Cylinder over rotor. The "short" line-up pin goes toward the front plate.
5. Place rear bearing plate (with **01206** Rear Bearing pressed into place) over shaft and "long" end of line-up pin and press fit in place.
6. Install **95626** Retaining Ring, concave side toward motor.
   Note: Be certain retaining ring is completely pressed down into its groove on the shaft.
7 Grease the rubber seals inside the housing using a small amount if multi-purpose grease or petroleum jelly.
   Note: Be certain that rubber seals in housing have not pulled out of their seat during disassembly. If this has happened re-seat the seals by pushing them until they are flush with inside diameter.
8. Secure motor housing in vise using padded jaws or **57092** Collar (supplied in **57325** Repair Kit). Slide motor assembly into secured housing.
   Note: Be certain line-up pin enters pin hole in the bottom of the housing.
9. Apply a bead of #271 Loctite® (or equivalent) onto outer edge of **56046** Lock Ring and tighten with **56058** Lock Ring Wrench to 34 N•m /300 in. - lbs.
   - **a.)** Apply 1 drop of #271 Loctite® (or equivalent) to the threads of **95343** Screw and reinstall into the **56046** Lock Ring.
     Note: Do not over tighten.
10. Mounting plate sub-assembly:
    - **a.)** Press **56052** Bearing into **54685** Retainer. Position bearing so that retainer side of bearing enters bearing retainer.
    - **b.)** Assemble mounting plate with above bearing/retainer sub-assembly. Sealed side of bearing is pressed in mounting plate. Align screw holes before press.
    - **c.)** Apply 1 drop of #271 Loctite® (or equivalent) on **01678** Screws (3).
    - **d.)** Replace **96129** Spacer Pak (if equipped) and torque screws to 2.82 N•m/25 in.-lbs. into retainer.

    Note: All screws should be hand tight before torque is applied.
11. Assemble mounting plate sub-assembly onto motor shaft machine assembly.
12. Assemble Counterbalance to motor shaft. Be sure to engage key of counterbalance with motor shaft.
13. Replace **95898** Screw to secure counterbalance.
14. Apply 1 drop of #271 Loctite® (or equivalent) to threads and torque screws with 5mm hex wrench to 12.42 N•m (110 lbs.-in.).
    Note: To prevent counterbalance rotation with motor, use a 3mm hex wrench in **01678** Screw along side of counterbalance. Tighten the **95887** Screw with a 2mm hex wrench.
15. Attach sanding pad. Torque the **97010** Screws (5) to 3.38 N•m/30 in.-lbs. in alternating pattern.

(continued on next page)

Motor Disassembly/Assembly Instructions (continued)

To Disassemble Valve And Speed Regulator Assemblies:

1. Invert tool and place in soft jaw vise or use **57092** Repair Collar.
2. Loosen and remove **97010** Screws (2) and **01211** Lock Washers (2) from **57373** Adapter.
3. Carefully remove **57373** adapter making sure no parts fall to the ground. On non-vacuum models, pry off **54194** Muffler Cap and remove **54195** Muffler (3).
4. Remove **57343** Speed Regulator by detaching **95558** Retaining Ring with a pair of snap ring pliers. Remove **01024** O-rings with a small screwdriver or razor.
5. Remove tip valve assembly from housing.

To Reassemble Valve And Speed Regulator Assemblies:

1. Lightly lubricate **01024** O-rings and slide them on **57343** Speed Regulator. Install through regulator hole on **57373** Adapter. Place **95558** Retaining Ring on groove of speed regulator using a pair of retaining ring pliers.
2. Line-up hole valve stem with inlet hole in handle. Place **01464** Seal into handle . Insert **01472** Tip Valve so that the metal pin goes through the hole in the valve stem. Place **01468** Spring into the housing, small end first.
3. Gently line-up **57373** Adapter onto handle so no parts shift when tightening. Replace and tighten **97010** Screws (2) and **01211** Lock Washers (2).

Disc Pad Change:

1. Use a 3mm hex wrench to remove **95885** Screw (5) and **95886** Washers from mounting plate.
2. Remove old pad and replace with new pad. Replace screws and washers and tighten with 3 mm hex wrench.

Note: No need to remove shroud.

Motor assembly is complete. Please allow 30 minutes for adhesives to cure before operating tool.

Important: Motor should operate at 10,000 RPM at 6.2 bar (90 PSI). RPM should be checked with a tachometer. Before operating, we recommend that 3-4 drops of pneumatic tool oil be placed directly into the air inlet with throttle lever depressed. Operate tool for 30 seconds to determine if machine is operating properly and to allow lubricating oils to properly dispense through machine.

Loctite® is a registered trademark of the Loctite Corp.

Service Kits



96200 Motor Tune-Up Kit:

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



57325 Motor Repair Kit:

• Contains special tools for Disassembly/Assembly of machine.

DYNABRADE®

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