

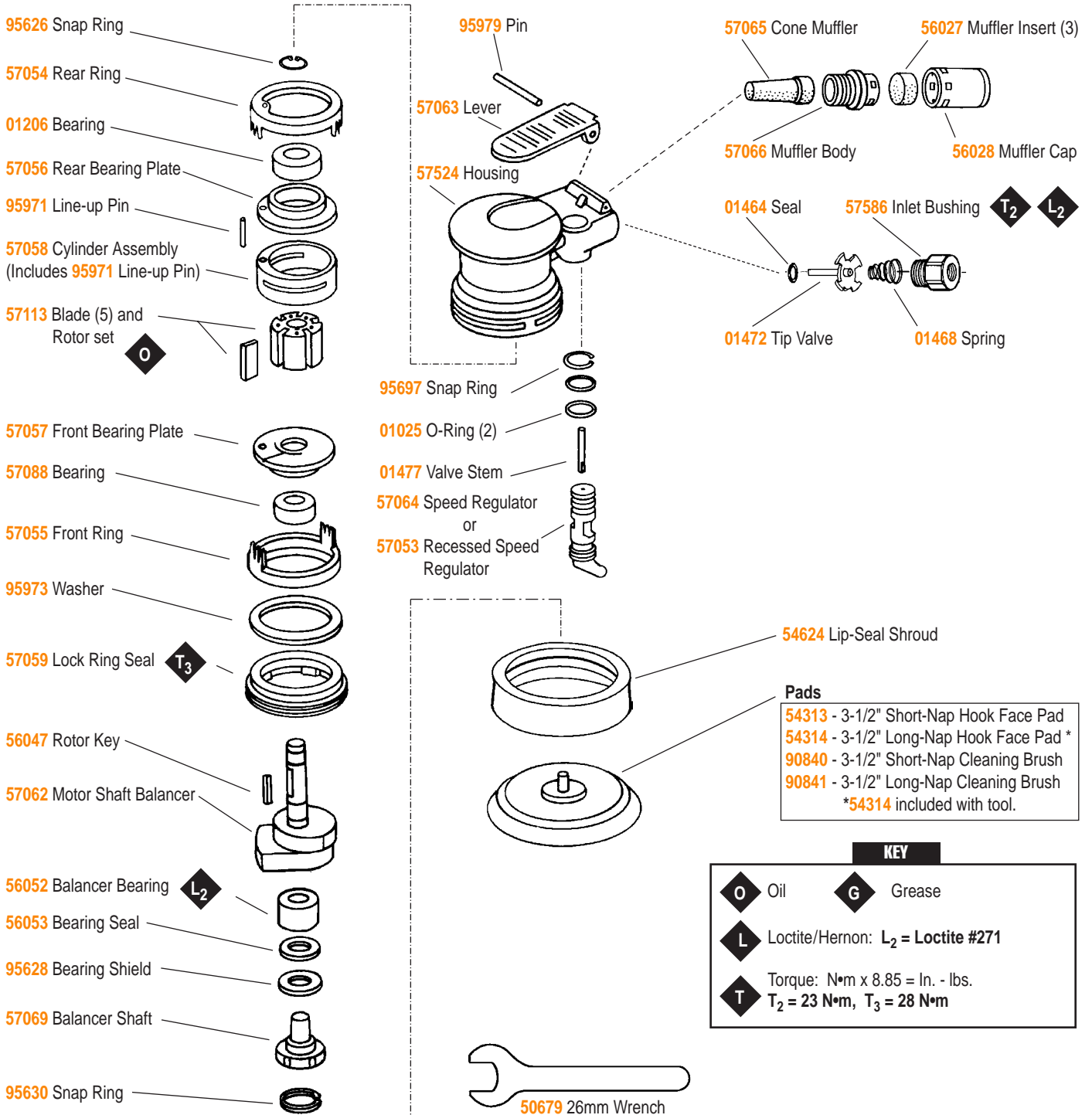
# Dynorbital® Supreme Scrubber

**Models:**  
**57530 - 3-1/2"**

*Random Orbital Scrubber, 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.



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

# 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. Install air fitting into inlet bushing of tool. **Important:** Secure inlet bushing of tool with a wrench before attempting to install the air fitting to avoid damaging valve body housing.
3. Connect power source to tool. Be careful not to depress throttle lever in the process.
4. 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:

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. 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.
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 @ 100 PSI has 3/8" NPT female ports.
5. Use only genuine Dynabrade replacement parts. To reorder replacement parts, specify the **Model #**, **Serial #**, and **RPM** of your machine.
6. A motor tune-up kit (P/N 96024) is available which includes assorted parts to help maintain motor in peak operating condition.
7. Mineral spirits are recommended when cleaning the tool and parts. Do not clean tool or parts with any solvents or oils containing acids, esters, keytones, chlorinated hydrocarbons or nitro carbons.

## Safety Instructions:

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

- **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/accessory 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.

## 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.

## 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.

Machine Number	Pad Size Inch (mm)	Length Inch (mm)	Weight Pound (kg)	Spindle Thread	Air Inlet Thread	Sound Level	Motor HP (W)	Motor RPM	Air Pressure PSI (Bars)
57530	3-1/2" (89)	5-3/4" (146)	2.2 (1.0)	5/16"-24 Female	1/4" NPT	76 dBA	.24 (179)	10,000	90 (6.2)

Additional specifications: Hose Size 3/8" (9 mm) • 90 PSI (6.2 Bars)

# Disassembly/Assembly Instructions — Dynorbital® Supreme Scrubber

**Important: Manufacturers warranty is void if tool is disassembled before warranty expires.**

Dynabrade recommends the use in of their **57098** Dynorbital Supreme Repair Kit which includes special tools for proper disassembly/assembly of tool.

## Motor Disassembly:

1. Disconnect tool from power source.
2. Invert machine and secure vice using **57092** Collar (supplied in **57098** Repair Kit) or padded jaws.
3. Remove sanding pad, and shroud.
4. Insert **56058** Lock Ring Tool (supplied in **57098** Repair Kit) into corresponding tabs of lock ring and unscrew. Motor may now be lifted out for service.
5. Remove lock ring, washer, front ring and rear ring from motor. Upper motor may now be disassembled.
6. Remove **95626** Snap Ring.
7. Remove the rear plate and the cylinder assembly by securing the cylinder in a bearing separator gripped on the cylinder exhaust and extra pocket area. Push the motor shaft balancer through the bearing.
8. Remove the rotor, vanes and rotor key from the motor shaft balancer. Remove the front plate by using a small (#2) arbor press. Support the edges of the front plate and press on the small end of the motor shaft balancer.
  - 7a.) If the front plate and **57088** Bearing remain together, press bearing out of the front plate by using the **57091** Bearing Press Tool (supplied in **57098** Repair Kit).
  - 7b.) If the **57088** Bearing remains on the motor shaft balancer, it can be removed with a bearing separator.
9. Remove **01206** Bearing from the rear plate by using a bearing press tool.
10. Place motor shaft balancer into a soft jaw vice. Remove **95630** Snap Ring.
11. Screw **56056** Bearing Puller (supplied in **57098** Repair Kit) into the balancer Shaft. Heat outside of the motor shaft balancer and using slider weight, pull the assembly out.

**Motor disassembly complete.**

## Motor Reassembly:

**Important: Be sure all parts are clean and in good repair before reassembling.**

1. Apply 1 drop of #271 Loctite® (or equivalent) and spread around inside diameter of **56052** Bearing and outside diameter of balancer shaft.
2. Press **56052** Bearing with sealed side toward hex of balancer shaft up to shaft step.
3. Place motor shaft balancer in soft jaw vice, with large end up.
4. Apply 1 drop of #271 Loctite® (or equivalent) and spread around outside of **56052** Bearing and slide into motor shaft balancer until **56052** Bearing is firmly seated at bottom.
5. Install **95630** Snap Ring onto balancer shaft. Install shield with convex face towards hex of balancer shaft and **56053** Seal. **Note:** Be certain seal is pressed completely over shaft step.
6. Press **57088** Bearing onto motor shaft balancer. Press front plate onto bearing and check for smooth rotation.
7. Install **56047** Rotor Key. Install vanes in rotor slots. **Note:** Vanes should be lightly lubricated with Dynabrade Air Lube P/N – **95842** (or equivalent) before installation into rotor slots.
8. Place cylinder over rotor. The “short” line-up pin faces the front plate.
9. Press **01206** Bearing into rear bearing plate. Press rear bearing plate onto motor shaft balancer.
10. Place **95626** Snap Ring in groove.
11. Install **57054** Rear Ring over the rear plate and line-up pin. Install **57055** Front Ring over the front plate making sure that the “legs and fingers” line up.
12. Spread 1 drop of pneumatic tool oil between washer and lock ring and install onto front ring.
13. Secure housing in vice using **57092** Collar or padded jaws. Spread 2-3 drops of pneumatic tool oil around housing bore and slide motor assembly into housing. **Note:** Be certain line-up pin enters the pocket in the bottom of the housing and the “legs” of the rings stay in-line.
14. Tighten lock ring with **56058** Lock Ring Tool to 28 N•m/250 in. - lbs. Attach shroud and weight-mated pad.

**Motor reassembly complete.**

## Machine Exhaust:

1. Remove muffler cap and muffler inserts (3).
2. Using 12 mm hex wrench (supplied in **57098** Repair Kit), remove muffler body and cone muffler.

## Valve and Speed Regulator Assemblies:

1. Secure housing in vice using **57092** Collar or padded jaws.
2. Remove inlet bushing, **01468** Spring, valve and spring from housing.
3. Remove **95697** Snap Ring. Press the speed regulator out of the housing. Remove the **01025** O-rings (2).
4. Place **01025** O-rings (2) on the speed regulator and place in housing. Install **95697** Snap Ring.
5. Place **01464** Seal into housing. Insert **01472** Tip Valve so pin goes through valve stem hole. Place new **01468** Spring into housing, small end first.
6. Spread 1 drop of #271 Loctite® (or equivalent) around the threads of the inlet bushing and tighten into housing to 23 N•m/200 in. - lbs.

Allow 30 minutes for adhesives to cure before operating tool.

**Note:** Motor should operate between 9,500 and 10,000 RPM at 6.2 bar (90 PSI). RPM should be checked with a reed tachometer. Before operating, we recommend that 2-3 drops of Dynabrade Air Lube P/N **95842** (or equivalent) be placed directly into the air inlet with throttle lever depressed. Operate the machine for approximately 30 seconds before application to workpiece to determine if machine is working properly and to allow lubricating oils to properly dispense through machine.

## Optional Accessories



### 96024 Tune-Up Kit:

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



### 57098 Motor Repair Kit:

Includes special tools for proper assembly/disassembly of Dynorbital Scrubbers.

## Random Orbital Scrubber Pads



54313 Medium-Density



90840 Short-Nap 3-1/2" Cleaning Brush



90841 Long-Nap 3-1/2" Cleaning Brush