

Models:

- 57550 – Buffer
- 57551 – Mini Orbital Sander
- 57552 – 3-1/2" Disc Sander
- 57553 – Versatility Kit
- 57555 – 4"-5" Disc Sander

**KEY**

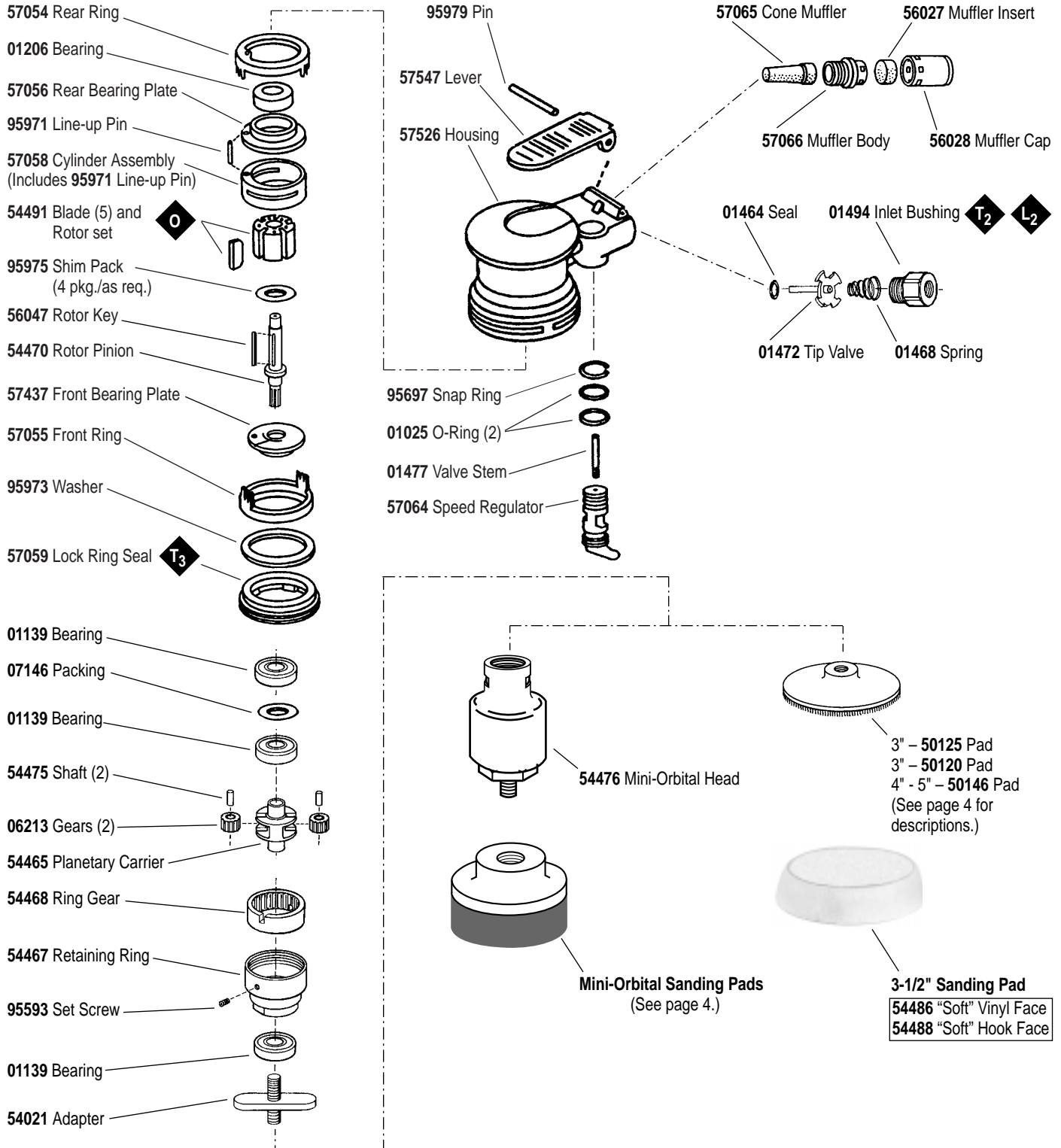
<b>O</b> Oil	<b>G</b> Grease
<b>L</b> Loctite/Heron: L <sub>2</sub> = Loctite #271	
Torque: N•m x 8.85 = In. - lbs.	
<b>T</b> T <sub>2</sub> = 22.5 N•m, T <sub>3</sub> = 28 N•m	

# Palm-Style Buffer/Sander

**Air-Powered, 2,400 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.



See inside 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/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 **96107**) 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.

Model Number	Length Inch (mm)	Height Inch (mm)	Machine Weight	Spindle Thread	Air Flow Rate SCFM (LPM)	Sound Level	Motor HP (W)	Motor RPM	Air Pressure PSI (Bars)
All Models	5" (127)	3-1/4" (83)	1.7 lbs. (.8 kg)	1/4"-20 male	18 (510)	@80 dBA	.25 (186)	2,400	90 (6.2)

Additional specifications: Air Inlet Thread 1/4" (6 mm) NPT • Hose Size 1/4" (6 mm)

# Disassembly/Assembly Instructions - Palm-Style Buffer Sander

**Important: Manufacturer's warranty is void if tool is disassembled before warranty expires.**

**A Motor Repair Kit (96046) is available which contains special tools for disassembly/assembly. Please refer to parts breakdown for part identification.**

## Motor Disassembly:

1. Invert machine and secure in vise, using **57092** Collar (supplied in **96046** Repair Kit) or padded jaws.
2. Remove any accessories attached to **54021** Adapter.
3. Insert **56058** Lock Ring Wrench (supplied in **96046** Repair Kit) into corresponding tabs of lock ring and unscrew. Motor may now be lifted out for service.
4. Remove lock-ring, washer, front ring and rear ring from motor.
5. Remove **54021** Adapter by removing **95593** Set Screw using 5/64" allen wrench (supplied in **96046** Repair Kit). Place allen wrench into set screw hole to stop rotation of **54465** Planetary Carrier. Use a 14mm wrench to unscrew adapter (supplied in **96046** Repair Kit).
6. Remove **54467** Retaining Ring using two (2) **50679** 26mm wrenches (supplied in **96046** Repair Kit).
7. Remove **54465** Planetary Carrier by pressing out from **01139** Bearing. **06213** Gears can now be removed from planetary carrier.
8. Remove **54468** Ring Gear by tapping retaining ring on a hard surface, once the ring gear slides towards the front, it will be necessary to use your fingers to remove it the rest of the way. **Note:** If hard to remove, heat may be applied to retaining ring and pliers used to remove gear the rest of the way.
9. Press **01139** Bearing from **54467** Retaining Ring.
10. Remove **57056** Rear Plate by holding onto **57058** Cylinder (bearing puller may be placed into exhaust slots on cylinder) and pressing **54470** Rotor Pinion out of **01206** Bearing.
11. Remove **54491** Blade (5) and rotor set. Remove **56047** Rotor Key.
12. Disassemble **57437** Front Plate by pressing **54470** Rotor Pinion through front plate. **Note:** One **01139** Bearing will remain on rotor pinion. To remove, press pinion through remaining bearing.
13. Press **01206** Rear Bearing from **57056** Rear Bearing Plate.

**Motor disassembly complete.**

## To Reassemble:

**Important:** Be certain all parts are clean and in good repair before assembling.

1. Press **01139** Bearing onto rotor pinion until seated against shoulder.
2. Press bearing/rotor pinion assembly into **57437** Front Plate and check for smooth rotation.
3. Place **07146** Packing in front plate bore and press **01139** Bearing into bore onto packing.
4. Invert rotor pinion in support. Install **56047** Rotor Key and **54491** Blade and rotor set onto rotor pinion.  
**Important:** Place the correct number of shims from the **95975** Shim Pack under rotor to achieve a 0.0015" space between rotor and front plate.  
**Note:** Blades should be lightly lubricated with Dynabrade Air Lube P/N **95842** (or equivalent) before installation into rotor slots.
5. Place **57058** Cylinder Assembly over rotor. The "short" line-up pin goes toward the front plate.
6. Place **57056** Rear Plate (with **01206** Bearing pressed into place) over shaft and "long" end of line-up pin. Press fit in place.
7. Press **01139** Bearing into **54467** Retaining Ring.
8. Place **54468** Ring Gear into **54467** Retaining Ring lining up one of the notches with set screw hole.
9. Place **54465** Planetary Carrier with **06213** Gears and **54475** Shafts in place into **54467** Retaining Ring (1/4"-28 female thread, facing down).  
**Note:** Gears should be lightly greased with Dynabrade's **95542** Grease (or equivalent).
10. Align **54465** Planetary Carrier with splined end of **54470** Rotor Shaft.
11. Screw retaining ring assembly onto front plate and tighten using (2) 26mm wrenches.
12. Place 5/64" allen wrench into retaining ring set screw hole and tighten **54021** Adapter with 14mm wrench.
13. Hand tighten **95593** Set Screw in place using 5/64" allen wrench. **Note:** Be sure notch on ring gear is lined up with set screw hole.
14. Place **57054** Rear Ring over the rear plate and line-up pin. Turn motor over and install **57055** Front Ring over front plate. Make sure the "legs and fingers" on the rings line-up. Also, the small cut-outs on both rings should line-up with the square holes in the cylinder/end plate assembly.
15. Secure motor housing in vice using **57092** Collar or padded jaws. Slide motor assembly into housing. **Note:** Be certain line-up pin enters the line-up hole at bottom of housing bore and the "legs" of the rings stay in-line.
16. Place **95973** washer and **57059** Lock Ring onto the Front Ring with 1 drop of pneumatic tool oil spread between the washer and lock ring. Tighten lock ring with **56058** Lock Ring Wrench torque to 28 N•m/250 in. - lbs.
17. Attach desired accessory to adapter.

**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. Before operating, place 2-3 drops of Dynabrade Air Lube (P/N **95842**) directly into air inlet with throttle lever depressed. Operate tool for 30 seconds to determine if tool is operating properly and to allow lubricating oils to properly penetrate motor  
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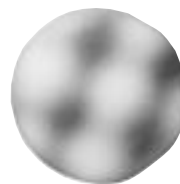
# Optional Accessories



Terry Cloth



Synthetic Wool



Foam Waffle

- Scrim back.
- Mount to **50120** or **50125** Hook Face Pads.

## Polishing/Buffering Pads (Hook Face Backing)

Diameter	Part	Description
3"	<b>90027</b>	Terry Cloth
3"	<b>90028</b>	Synthetic Wool
3"	<b>90030</b>	Foam Waffle
3"	<b>90038</b>	Foam Flat Face
3-1/2"	<b>90034</b>	Natural Wool



Finesse Sanding Creme



Dynabrade Glaze

### Finesse Sanding Creme

- A sanding compound for metal, fiberglass and composites. Use with fine-grade sanding discs.
- 95723:** 4 oz. (118 ml).
- 95724:** 1 qt. (946 ml).
- 95725:** 1 gal. (3.8 l)

### Dynabrade Glaze

- For use with slow-speed tools to achieve a high gloss after compounding.
- 95727:** 4 oz. (118 ml). **95728:** 1 qt. (946 ml).

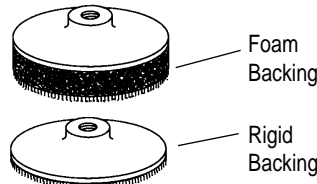


### 96107 Motor Tune-Up Kit:

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

### 96046 Motor Repair Kit:

- Contains special tools for disassembly/assembly of machine.



### 3" Diameter Hook Face Pads

**50120:** Foam Backing

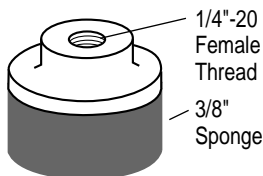
**50125:** Rigid Backing

### 4" - 5" Diameter Hook Face Pads

**50146:** Rigid Backing

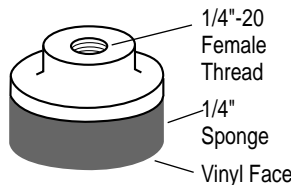
- Accepts reattachable abrasive discs as well as polishing buff pads.
- 6,000 RPM maximum.
- 1/4"-20 female thread.

### "Very Soft" Density



1/4"-20 Female Thread  
3/8" Sponge

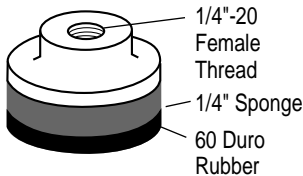
### "Soft" Density



1/4"-20 Female Thread  
1/4" Sponge  
Vinyl Face

### "Medium" Dual-Density

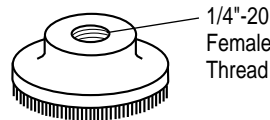
Order vinyl face pads **54091** or **54092** for wet sanding operations.



1/4"-20 Female Thread  
1/4" Sponge  
60 Duro Rubber

### "Hook 'n Loop"

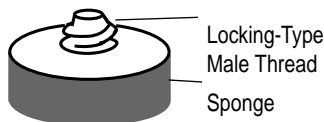
For use with abrasive impregnated non-woven nylon discs.



1/4"-20 Female Thread

### "Soft" Locking-Type

For optional **54029**, **54030** or **54035** Sanding Head.



Locking-Type Male Thread  
Sponge

All pads are 5,000 RPM maximum.

Part No.	Pad Dia.	Description/Face	Thread Type	Comments
<b>54017</b>	3/4"	Medium/Rubber	1/4"-20 Female	For PSA Discs
<b>54018</b>	1-1/4"	Medium/Rubber	1/4"-20 Female	For PSA Discs
<b>54031</b>	1-1/4"	Soft	Locking-Type	For PSA Discs
<b>54085</b>	3/4"	Very Soft	1/4"-20 Female	For PSA Discs
<b>54086</b>	1-1/4"	Very Soft	1/4"-20 Female	For PSA Discs
<b>54087</b>	3/4"	Soft/Vinyl	1/4"-20 Female	For PSA Discs
<b>54088</b>	1-1/4"	Soft/Vinyl	1/4"-20 Female	For PSA Discs
<b>54089</b>	3/4"	Hook 'n Loop	1/4"-20 Female	Non-Woven Nylon Discs
<b>54090</b>	1-1/4"	Hook 'n Loop	1/4"-20 Female	Non-Woven Nylon Discs
<b>54091</b>	3/4"	Medium/Vinyl	1/4"-20 Female	For PSA Discs
<b>54092</b>	1-1/4"	Medium/Vinyl	1/4"-20 Female	For PSA Discs



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