

# **.4 hp Vacuum Die Grinder**

## **Trimmable Shroud/7°/Rear Exhaust**

Parts Page Reorder No. PD09•47  
Effective October, 2009

### **Air Tool Manual – Safety, Operation and Maintenance**

**SAVE THIS DOCUMENT, EDUCATE ALL PERSONNEL**

#### **Models:**

**56723 – 25,000 RPM**  
– 1/4" & 6 mm Collet

**56727 – 5,000 RPM**  
– 1/4" & 6 mm Collet



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## **! WARNING**

Read and understand this tool manual before operating your air tool. Follow all safety rules for the protection of operating personnel as well as adjacent areas. Always operate, inspect and maintain this tool in accordance with the American National Safety Institute (ANSI) Safety Code for Portable Air Tools – B186.1. For additional safety information, refer to Safety Requirements for the Use, Care and Protection of Abrasive Wheels – ANSI B7.1, Code of Federal Regulation – CFR 29 Part 1910, European Committee for Standards (EN) Hand Held Non-Electric Power Tools – Safety Requirements and applicable State and Local Regulations.

## **SAFETY LEGEND**



### **! WARNING**

Read and understand tool manual before work starts to reduce risk of injury to operator, visitors, and tool.

### **! WARNING**

Practice safety requirements. Work alert, have proper attire, and do not operate tools under the influence of alcohol or drugs.



### **! WARNING**

Eye protection must be worn at all times, eye protection to conform to ANSI Z87.1.

### **! WARNING**

Ear protection to be worn when exposure to sound, exceeds the limits of applicable Federal, State or local statutes, ordinances and/or regulations.



### **! WARNING**

Respiratory protection to be used when exposed to contaminants that exceed the applicable threshold limit values required by law.

### **! WARNING**

Air line hazard, pressurized supply lines and flexible hoses can cause serious injury. Do not use damaged, frayed or deteriorated air hoses and fittings.



### **! WARNING**

Some dust created by sanding, grinding, drilling, and other construction activities contain chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- Lead from lead-based paints
- Crystalline silica from bricks and cement and other masonry products
- Arsenic and chromium from chemically treated lumber

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

## **SAFETY INSTRUCTIONS**

Carefully Read all instructions before operating or servicing any Dynabrade® Abrasive Power Tool. Products offered by Dynabrade are not to be modified, converted or otherwise altered from the original design without expressed written consent from Dynabrade, Inc.

**Tool Intent:** .4 hp Vacuum Die Grinder is ideal for deburring, deflashing, surface preparation, cleaning and finishing using the proper abrasive stones, abrasive mounted wheels and points, molded abrasives, and carbide burrs. An appropriate external vacuum source is required that is suitable for material being processed.

**Do Not use tool for anything other than its intended applications.**

**This power tool is not intended for use in potentially explosive atmospheres and is not insulated against contact with electrical power.**

**Training:** Proper care, maintenance, and storage of your air tools will maximize their performance.

- Employer's Responsibility – Provide .4 hp Vacuum Die Grinder operators with safety instructions and training for safe use of tools and accessories.

(continued on next page)

## SAFETY INSTRUCTIONS (Continued)

### Accessory Selection:

- Abrasive/accessory RPM (speed) rating MUST be approved for AT LEAST the tool RPM rating.
- Before mounting an accessory, visually inspect for defects. Do not use defective accessories.
- Use only accessories of the correct shaft size for the collet (example: 1/4" shaft = 1/4" collet).
- Use only recommended accessories. Reference Dynabrade catalog and this tool manual.
- Follow tool specifications before choosing size and type of accessory.
- Only use recommended fittings and air line sizes. Air supply hoses and air hose accessories must have a minimum working pressure of 150 PSIG (10 Bars) or 150 percent of the maximum pressure produced in the system, whichever is higher. (See tool Machine Specifications table.)

## OPERATING INSTRUCTIONS

**Warning:** Always wear personal protective equipment. Operator of tool is responsible for following: accepted eye, face, respiratory, hearing and body protection.

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

- Keep hand and clothing away from working end of the air tool.
- Working end of tool has a potential of cutting and severing.

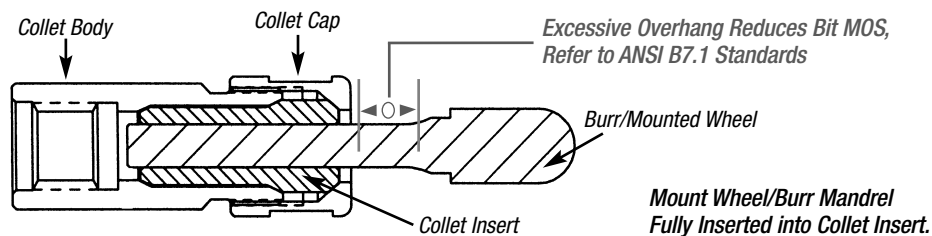
**Operation:** Be sure that any loose clothing, hair and all jewelry is properly restrained.

- Secure inlet bushing on air tool with a wrench before attempting to install the air fitting to avoid damaging housing assembly.
- BEFORE MOUNTING AN ACCESSORY, after all tool repairs and whenever a .4hp Vacuum Die Grinder is issued for use, check tool RPM (speed) with tachometer with air pressure set at 90 PSIG while the tool is running. If tool is operating at a higher speed than the RPM marked on the tool housing, or operating improperly, the tool must be serviced and corrected before use.
- Before mounting an accessory regularly clean and inspect collet assembly parts for wear or damage. Do Not use worn or damaged components.

**Caution:** Tool RPM must never exceed abrasive/accessory RPM rating. Check accessory manufacturer for details on maximum operating speed or special mounting instructions. Improper mounting of an accessory may cause excessive vibration levels or damage the accessory. Make sure no one is in the unguarded plane of the accessory. Run tool for 1 minute of operating speed in a protected area.

### PROPER MOUNTING PROCEDURE

**Warning:** With Power Source Disconnected from the Tool, Remove Shroud Assembly by Loosening Clamp. Remove/Mount Correctly Rated Accessory. Replace Shroud Assembly and Tighten Clamp.



- Connect air tool to power source. Be careful NOT to depress throttle lever in the process. **Do not expose air tool to inlet pressure above 90 PSIG or (6.2 Bars).**

**Caution:** After installing the accessory, before testing or use and/or after assembling tool, the .4 hp Vacuum Die Grinder must be started at a reduced speed to check for good balance. Gradually increase tool speed. DO NOT USE if tool vibration is excessive. Correct cause, and retest to insure safe operation. Test tool at its free speed (RPM) in a protected area for at least one minute before applying the tool to the work.

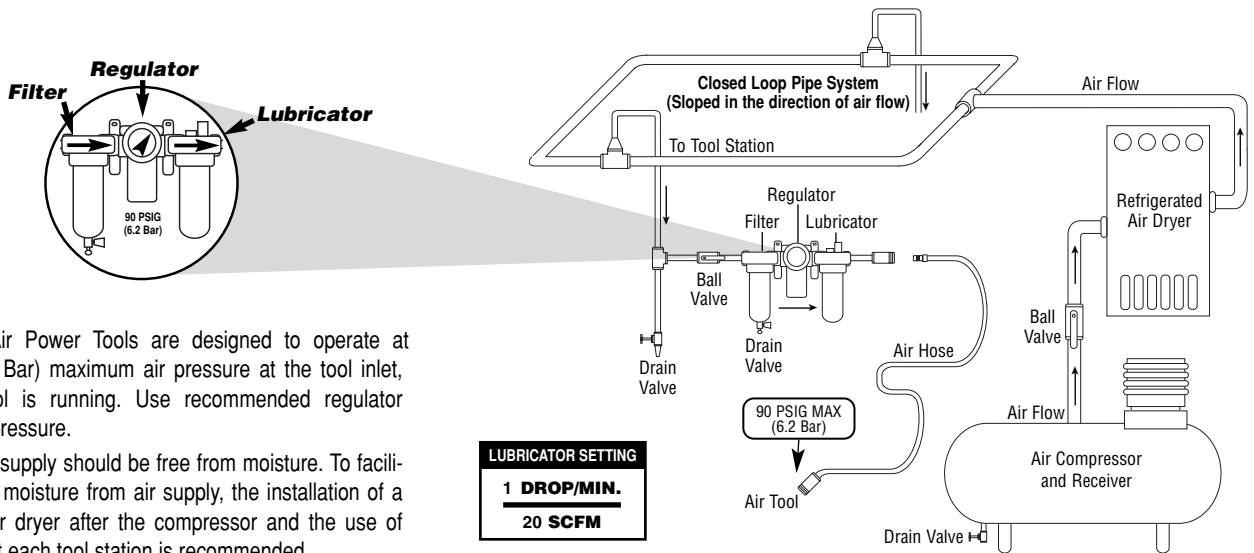
- Release throttle lever when air supply is interrupted.
- Make sure that work area is uncluttered, and visitors are at a safe range from the tools and debris.
- Air tools are not intended for use in explosive atmospheres and are not insulated for contact with electric power sources.
- Use a vise or clamping device to hold work piece firmly in place.
- Do not apply excessive force on tool or apply "rough" treatment to it.
- Always work with a firm footing, posture and proper lighting.
- Ensure that sparks and debris resulting from work does not create a hazard.
- This tool is rear exhaust. Tool exhaust may contain lubricants, vane material, bearing grease, and other materials flushed thru the tool.

**Warning:** Grinding certain materials can create explosive dust. It is the employers responsibility to notify the user of acceptable dust levels.

- Grinding can cause sparks which can cause fires or explosions. It is the users responsibility to make sure the work area is free of flammable materials.
- DO NOT USE cut-off wheels or router bits on this tool.
- Always use dust extraction or suppression systems and personal protective equipment which are suitable for the materials being processed.
- Trimming shroud: vacuum shroud sleeve maybe cut/trimmed or removed to suit application.

**Report to your supervisor any condition of the tool, accessories, or operation you consider unsafe.**

# Air System



- Dynabrade Air Power Tools are designed to operate at 90 PSIG (6.2 Bar) maximum air pressure at the tool inlet, when the tool is running. Use recommended regulator to control air pressure.
- Ideally the air supply should be free from moisture. To facilitate removing moisture from air supply, the installation of a refrigerated air dryer after the compressor and the use of drain valves at each tool station is recommended.

## Maintenance Instructions

**Important:** To keep tool safe a Preventative Maintenance Program is recommended whenever portable power tools are used. The program should include inspection of air supply lines, air line pressure, proper lubrication and repair of tools. Refer to ANSI B186.1 for additional maintenance information.

- Use only genuine Dynabrade replacement parts to ensure quality. To order replacement parts, specify **Model#**, **Serial#** and **RPM** of your air tool.
- It is strongly recommended that all Dynabrade rotary vane air tools be used with a Filter-Regulator-Lubricator to minimize the possibility of misuse due to unclean air, wet air or insufficient lubrication. Dynabrade recommends the following: **10681** Air Line Filter-Regulator-Lubricator — Provides accurate air pressure regulation, two-stage filtration of water contaminants and micro-mist lubrication of pneumatic components. Delivers up to 55 SCFM/1,558 LPM @ 145 PSIG/9.7 Bar (Max. Air Temperature of 140°F/60° C) **Note:** Two (2) 3/8" NPT Reducer Bushings are included.
- Dynabrade recommends one drop of air lube per minute for each 20 SCFM (example: if the tool specification states 40 SCFM, set the drip rate on the filter-lubricator to 2 drops per minute). Dynabrade Air Lube (P/N **95842**: 1 pt 473 ml) is recommended.
- Lubricate the planetary gears through the grease fitting located in the gear/planetary cover. Apply 2-3 plunges\* for every 50 hours of use, to achieve maximum gear life. (\*order **95542** Grease and **95541** Gun)

### Routine Preventative Maintenance:

- Check free speed of tool regularly using a tachometer without the abrasive accessory mounted. After all tool repairs and whenever a .4 hp Vacuum Die Grinder is issued for use, check tool RPM (speed) with tachometer with air pressure set at 90 PSIG while the tool is running. If tool is operating at a higher speed than the RPM marked on the tool housing, operating improperly or demonstrates unusual vibration, the tool must be serviced and corrected before use.
- Inspect accessories before mounting. Do not mount accessories that are damaged or nicked.
- Check accessory - speed rating. Rating on accessory must be greater than the tool speed marked on the housing.
- If accessory breakage occurs, investigate to determine the cause and correct before issuing tool for work.
- Mineral spirits are recommended when cleaning the tool and parts. Do not clean tool or parts with any solvents or oils containing acids, esters, ketones, chlorinated hydrocarbons or nitro carbons.
- DO NOT clean or maintain tools with chemicals that have a low flash point (example: WD-40®).
- Motor Tune-Up Kits (P/N **96174**, **96049**, see back page) are available, they includes high wear and medium wear motor parts.
- Air tool markings must be kept legible at all times, if not, reorder housing and replace. User is responsible for maintaining specification information i.e.: Model #, S/N, and RPM. (See Assembly Breakdown)
- Blow air supply hose out prior to initial use.
- Visually inspect air hoses and fittings for frays, visible damage and signs of deterioration. Replace damaged or worn components.
- Refer to Dynabrade's Warning/Safety Operating Instructions Tag (Reorder No. **95903**) for safety information.

After maintenance is performed on tool, add a few drops of Dynabrade Air Lube (P/N **95842**) to the air line and start the tool a few times to lubricate air motor. Check for tool vibration before mounting abrasive wheel accessory.

### Handling and Storage:

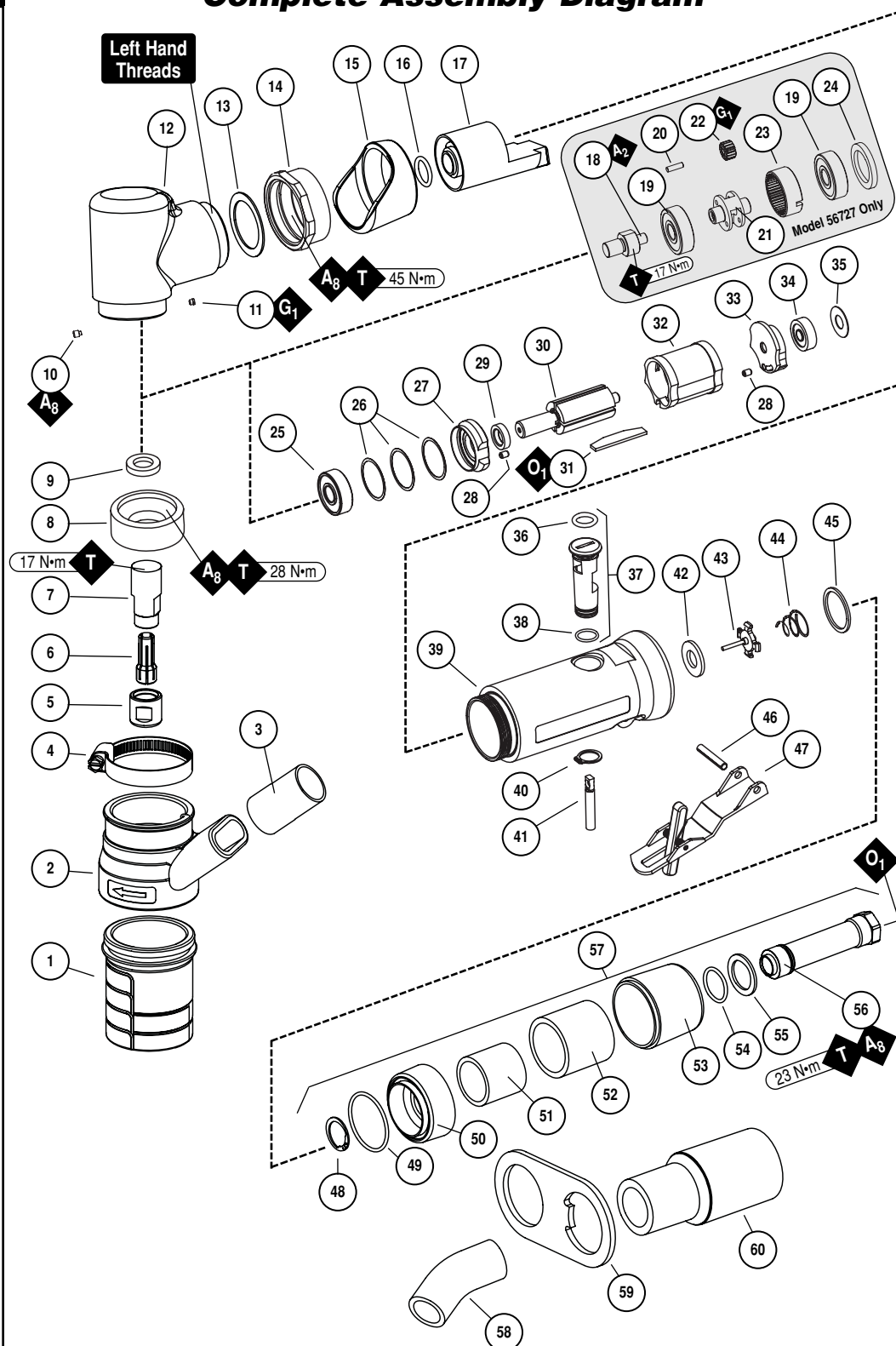
- Use of tool rests, hangers and/or balancers is recommended.
- Protect tool inlet from debris (see Notice on Page 6).
- DO NOT carry tool by air hose or near the tool throttle lever.
- Protect tool from exposure to water, solvents, high humidity, freezing temperature and extreme temperature changes.
- DO NOT USE accessories that have been dropped or show signs of cracks, nicks or other defects.
- Store accessories in protective racks or compartments to prevent damage.

# Index Key

No. Part # Description

- 1 Vacuum Shroud Sleeve  
02288 Model - 56727  
02286 Model - 56723
- 2 Vacuum Shroud Base  
02289 Model - 56727  
02285 Model - 56723
- 3 Hose Cuff  
97180
- 4 Hose Clamp  
97029 Model - 56727  
97326 Model - 56723
- 5 Collet Cap  
01484 Model - 56723  
50012 Model - 56727
- 6 Collet Insert  
01485 Model - 56723  
50013 Model - 56727
- 7 Collet Body  
01435 Model - 56723  
50011 Model - 56727
- 8 Rear Exhaust Cover  
01560 Model - 56723  
50781 Model - 56727
- 9 Felt Silencer  
(Model - 56723, Only)  
01580
- 10 50784 Set Screw  
(Model - 56723, Only)
- 11 01041 Grease Fitting  
(Model - 56723, Only)
- 12 Housing  
01546 Model - 56723  
50776 Model - 56727
- 13 01548 Gasket
- 14 01461 Lock Nut
- 15 01558 Collar
- 16 95523 O-Ring
- 17 01470 Insert
- 18 50782 Adapter
- 19 54552 Bearing (2)
- 20 54472 Pin (2)
- 21 50787 Planetary Carrier
- 22 06213 Gear (2)
- 23 54468 Ring Gear
- 24 50778 Spacer
- 25 02649 Bearing
- 26 54529 Shim Pack (3/pkg.)
- 27 01478 Front Bearing Plate
- 28 50767 Pin (2)
- 29 01479 Rotor Spacer
- 30 Rotor  
01475 Model - 56723  
54553 Model - 56727
- 31 01480 Vane (4/pkg.)
- 32 01476 Cylinder
- 33 02673 Rear Bearing Plate
- 34 02696 Bearing
- 35 02679 Shield
- 36 01024 O-Ring
- 37 01469 Speed Reg. Assembly
- 38 95730 O-Ring
- 39 Housing  
06039 Model - 56723  
06040 Model - 56724
- 40 95558 Retaining Ring
- 41 01449 Valve Stem
- 42 01464 Seal
- 43 01472 Tip Valve
- 44 01468 Spring
- 45 Air Control Ring  
01564 Model - 56727  
01642 Model - 56723
- 46 12132 Pin
- 47 01462 Safety Throttle Lever
- 48 95711 Retaining Ring
- 49 95438 O-Ring
- 50 94521 Muffler Base
- 51 94524 Sintered Muffler  
(Model - 56723, Only)
- 52 Felt Muffler  
94528 Model - 56727  
94525 Model - 56723
- 53 94522 Muffler Cap
- 54 95375 O-Ring
- 55 94526 Spacer
- 56 94523 Inlet Adapter
- 57 Muffler Assembly  
94519 Model - 56727  
94520 Model - 56723
- 58 31941 Hose
- 59 97161 Vacuum Hose Retainer
- 60 31907 Swivel Cuff - 1-1/4" I.D.

## .4hp Vacuum Die Grinder Complete Assembly Diagram



96076 - 12mm open-end  
95262 - 14mm open-end  
95281 - 19mm open-end

KEY	
<b>O</b>	Oil: O <sub>1</sub> = Air Lube
<b>A</b>	Adhesive: A <sub>2</sub> = Loctite #271 A <sub>8</sub> = Loctite #567
<b>T</b>	Torque: N·m x 8.85 = In. - lbs.
<b>G</b>	Grease: G <sub>1</sub> = Lubriplate 630AA

## **Disassembly/Assembly Instructions - 0.4 hp/7°/Vacuum Die Grinders**

**Important:** The Dynabrade Pneumatic Power Tool Lifetime Warranty Policy does NOT cover normally wearable parts and products. Before servicing this tool please contact Dynabrade Inc. or a Dynabrade Subsidiary for information regarding the Dynabrade Pneumatic Power Tool Lifetime Warranty Policy. **Notice:** Special repair tooling referred to in these instructions can be ordered from Dynabrade. (See Page 8)

**Disconnect the die grinder from the air supply.**

### **Motor Disassembly:**

1. Position the **52296** Repair Collar around the valve housing and secure the tool in a vise with the collet pointing up.
2. Loosen the clamp and remove the shroud.
3. Loosen the collet cap and remove the insert tool, cap and insert.
4. Use the **50971** Lock Ring Tool to remove the rear exhaust cover. Turn it counterclockwise.
5. **Model 56723:** Remove the air motor.
6. **Model 56727:** Use a 5/64" hex key to remove the **50784** Set Screw. Remove the planetary gear assembly, **50778** Spacer and air motor.
7. Fasten the **96346** Bearing Separator (2") around the portion of the **01476** Cylinder that is closest to the **02673** Rear Bearing Plate. Place the bearing separator and the motor in the **96232** Arbor Press (#2) with the rotor shaft pointing down.
8. Use a 5/32" dia. flat end drive punch as a press tool to push the rotor out of the **02696** Bearing.
9. Remove the cylinder and vanes.
10. Use the **96210** Bearing Removal Tool and the arbor press to remove the **02696** Bearing from the **02673** Bearing Plate.
11. **Model 56723:** Secure the body of the rotor in a vise with aluminum or bronze jaws and remove the **01435** Collet Body. Turn it counterclockwise.
12. Remove the **01478** Front Bearing Plate, **02649** Bearing, shims, **01479** Spacer.
13. **Model 56727:** Position the **54553** Rotor in the arbor press with the pinion gear pointing up. Push the rotor out of the **02649** Bearing.
14. Remove the **01478** Front Bearing Plate, **02649** Bearing, shims, **01479** Spacer.

**Motor Disassembly Complete.**

### **Model 56727: Planetary Gear Disassembly**

1. **IMPORTANT:** Position the **96346** Bearing Separator (2") with the FLAT SIDE facing the RING GEAR and the BEVELED SIDE toward the REAR **54552** Bearing. Place the bearing separator and the planetary gear assembly in the **96232** Arbor Press (#2) with the **50782** Adapter pointing down.
2. Use a 5/16" flat end drive punch as a press tool to push the planetary carrier out of the rear **54552** Bearing.
3. Remove the ring gear, shafts, and planet gears.
4. Carefully secure the planetary carrier in a vise with aluminum or bronze jaws with the **50782** Adapter pointing up.
5. Use an adjustable wrench to remove the adapter from the planetary carrier. Turn it counterclockwise.
6. Use the arbor press and a 5/16" flat end drive punch as a press tool to push the planetary carrier out of the **54552** Bearing.

**Planetary Gear Disassembly Complete.**

### **Valve and Muffler Disassembly:**

1. Position the **52296** Repair Collar around the valve housing and secure the tool in a vise so that the **94523** Inlet Adapter is pointing up.
2. Use a wrench to hold the inlet adapter stationary when removing the air fitting.
3. Remove the **94523** Inlet Adapter. Turn it counterclockwise.
4. Use the exploded view of the **94519/94520** Muffler in this tool manual for the order of disassembly and part number identification. Be careful; do not lose the air control ring.
5. Use needle nose pliers to remove the **01468** Spring and the **01472** Tip Valve. Use a small screwdriver to remove the **01464** Seal.
6. Position the valve housing so that the **12132** Pin, **01462** Safety Throttle Lever, and **01449** Valve Stem can be removed.
7. Use retaining ring pliers to remove the **95558** Retaining Ring and then push the **01469** Speed Regulator Assembly out of the valve housing.

**Valve Disassembly Complete.**

**Clean and inspect all parts before assembling.**

### **Valve Assembly:**

1. Install the **01469** Speed Regulator Assembly (with o-rings) into the valve housing and secure it in place with the **95558** Retaining Ring.
2. Position the **52296** Repair Collar around the valve housing and secure the tool in a vise so that the **12132** Pin, **01462** Safety Throttle Lever, and **01449** Valve Stem can be installed. Install these parts.
3. Position the **52296** Repair Collar around the valve housing and secure the tool in a vise so that the air inlet opening is pointing up.
4. Install the **01464** Seal into the valve housing so that it is laying flat.
5. Use needle nose pliers to install the **01472** Tip Valve so that the metal pin passes through the hole in the **01449** Valve Stem.
6. Install the **01468** Spring so that the smaller end of the spring fits against the back of the tip valve.
7. Install the air control ring against the back of the valve housing.
8. Apply a small amount of the Loctite #567 (or equivalent) to the external threads of the **94523** Inlet Adapter and install it into the valve housing. (Torque to 23 N•m/200 in. lbs.)
9. Hold the inlet adapter stationary with a wrench when installing the air fitting.

**Valve Assembly Complete.**

### **Model 56727: Planetary Gear Assembly**

1. Use the RAISED CENTER of the **96239** Bearing Press Tool and the arbor press to install the **54552** Bearing onto the front of the **50787** Planetary Carrier.
2. Apply a small amount of Loctite #271 (or equivalent) to the threads of the **50782** Adapter that connect to the planetary carrier. Install the adapter into the planetary carrier. (Torque to 17 N•m/150 in. lbs.)
3. Apply the **95542** Grease to the bearings in the **06213** Planetary Gears (2). Install the planetary gears into the carrier and install the **54472** Pins (2). Install the **54468** Ring Gear so that the notches will align with the lubricant and set screw access holes in the **50776** Housing.
4. Use the RAISED CENTER of the **96239** Bearing Press Tool and the arbor press to install the REAR **54552** Bearing onto the **50787** Planetary Carrier. **IMPORTANT:** Carefully press the bearing down until it just touches the ring gear. This will establish a snug fit between the bearings and the ring gear.

**Planetary Gear Assembly Complete.**

### **Motor Assembly:**

1. Secure the body of the rotor in a vise with aluminum or bronze jaws and install the **01479** Spacer onto the rotor.
2. Select .003" (.08 mm) shim thickness from the **54529** Shim Pack and install these into the **01478** Front Bearing Plate.

(continued on next page.)

3. **Model 56723:** Install the **02649** Bearing into the front bearing plate and install these onto the rotor.
4. Install the **01435** Collet Body onto the **01475** Rotor. (Torque to 17 N•m/150 in. lbs.)
5. **Model 56727:** Position the **54553** Rotor with the **01479** Spacer in the arbor press with the pinion gear pointing up.
6. Use the raised center of the **96240** Bearing Press Tool and arbor press to install the **02649** Bearing, shims and **01478** Front Bearing Plate.
7. Use a .001" (0.3 mm) thick feeler gauge to check the clearance between the bearing plate and the face of the rotor.
8. Clearance should be .001"-.0015" (0.3-0.4 mm). Note: If the clearance needs adjustment, repeat steps 2-6. Add or remove shims as required.
9. Lubricate the **01480** Vanes with the **95842** Dynabrade Air Lube 10W/NR (or equivalent). Install vanes into the rotor.
10. Install the **01476** Cylinder so that the air inlet opening will align with the air inlet opening in the **02673** Rear Bearing Plate.
11. Use the RAISED OUTSIDE DIAMETER of the **96242** Bearing Press Tool and the arbor press to install the **02696** Bearing into the **02696** Rear Bearing Plate.
12. Use the RAISED CENTER of the **96242** Bearing Press Tool and the arbor press to install the bearing/plate onto the rotor.
13. Carefully press the bearing/plate down until it just touches the cylinder. This will establish a snug fit between the bearing plates and the cylinder.
14. Apply a small amount of white grease to the seal of the **02696** Bearing, and stick the **02679** Shield against the bearing. Carefully slide the motor assembly into the housing.
15. **Model 56723:** Install the **01580** Felt Silencer onto the front of the air motor.
16. **Model 56727:** Install the flat side of the **50778** Spacer against the **02649** Bearing. Install the planetary gear assembly into the **50776** Housing, aligning the lubricant and set screw access holes with the notched openings in the ring gear. Apply a small amount of Loctite #567 (or equivalent) to the threads of the **50784** Set Screw and install with a 5/64" hex key.
17. Apply a small amount of Loctite #567 (or equivalent) to the threads of the rear exhaust cover and install it onto the housing. (Torque to 28 N•m/250 in. lbs.)
18. **Model 56727:** Install the **50011** Collet Body.
19. Install the shroud and secure it with the clamp.

**Motor Assembly Complete.**

### Throttle Positioning Procedure:

**IMPORTANT:** Perform this procedure carefully. Do not entirely separate the **01546** or **50776** Housing from the valve housing. Loosen the **01461** Lock Nut only enough to make the throttle lever adjustment.

1. Place the **52296** Repair Collar around the valve housing and secure it in a vise so that the **01546** or **50776** Housing is pointing up.
2. Slip the **01558** Collar down onto the valve housing to expose the **01461** Lock Nut.
3. With a firm hold on the **01546** or **50776** Housing, use a 34 mm or an adjustable wrench to turn the lock nut clockwise to loosen the **01546** or **50776** Housing from the valve housing.
4. Place the throttle lever in the desired position. **Note:** Allow for additional rotation of the **01546** or **50776** Housing as the **01461** Lock Nut is tightened.
5. Grasp the **01546** or **50776** Housing firmly to limit rotation. Use a 34 mm or an adjustable wrench to tighten the **01461** Lock Nut. (Torque to 45 N•m/400 in. lbs.)
6. Slip the **01558** Collar back over the **01461** Lock Nut.

**Throttle Positioning Procedure Complete. Tool Assembly Complete.**

**Important:** Motor should now be tested for proper operation at 90 PSIG. 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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### Lifetime Warranty

All Dynabrade portable pneumatic power tools are rigorously inspected and performance tested in our factory before shipping to our customers. If a Dynabrade tool develops a performance problem and an inherent defect is found during normal use and service, Dynabrade will warrant this tool against defects in workmanship and materials for the lifetime of the tool. Upon examination and review at our factory, Dynabrade shall confirm that the tool qualifies for warranty status, and will repair or replace the tool at no charge to the customer. Normally wearable parts and products are NOT covered under this warranty. Uncovered items include bearings, contact wheels, rotor blades, regulators, valve stems, levers, shrouds, guards, O-rings, seals, gaskets and other wearable parts. Dynabrade's warranty policy is contingent upon proper use of our tools in accordance with factory recommendations, instructions and safety practices. It shall not apply to equipment that has been subjected to misuse, negligence, accident or tampering in any way so as to affect its normal performance. To activate lifetime warranty, customer must register each tool at [www.dynabrade.com](http://www.dynabrade.com). Dynabrade will not honor lifetime warranty on unregistered tools. A one-year warranty will be honored on all unregistered portable pneumatic power tools. Lifetime warranty applies only to portable pneumatic tools manufactured by Dynabrade, Inc. in the USA. Lifetime warranty applies only to the original tool owner; warranty is non-transferable.

### 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.

## Machine Specifications

Model Number	Motor hp (W)	Motor RPM	Sound Level	Maximum Air Flow SCFM (LPM)	Collet Insert Size	Air Pressure PSIG (Bars)	Weight Pound (kg)	Length Inch (mm)	Height Inch (mm)
<b>56723</b>	.4 (298)	25,000	77 dB(A)	24 (680)	1/4" & 6 mm	90 (6.2)	1.6 (.7)	9.7 (247)	5.9 (150)
<b>56727</b>	.4 (298)	5,000	80 dB(A)	25 (708)	1/4" & 6 mm	90 (6.2)	2.3 (1.0)	10 (254)	8.3 (212)

Additional Specifications: Air Inlet Thread 1/4" NPT • Hose Size 1/4" or 6 mm

Sound Level is the pressure measurement according to the method outlined in ISO regulation ISO-15744.

# Preventative Maintenance Schedule

For All .4hp Vacuum Die Grinders

This service chart is published as a guide to expectant life of component parts. The replacement levels are based on average tool usage over one year. Dynabrade Inc. considers one year usage to be 1,000 hours.

## Parts Common to all Models:

LEGEND	
<b>T</b>	Part included in Tune-Up Kit
<b>X</b>	Type of wear, no other comments apply.
<b>L</b>	Easily lost. Care during assembly/disassembly.
<b>D</b>	Easily damaged during assembly/disassembly.
<b>R1</b>	Replace each time tool is disassembled.



96049 – Model 56723

96174 – Model 56727

Index #	Part Number	Description	Number Required	High Wear 100%	Medium Wear 70%	Low Wear 30%	Non-Wear 10%
1	See Note	Vacuum Shroud Sleeve	1		X		
2	See Note	Vacuum Shroud Base	1		X		
3	97180	Hose Cuff	1		X		
4	See Note	Hose Clamp	1			X	
5	See Note	Collet Cap	1			X	
6	See Note	Collet Insert	1			X	
7	See Note	Collet Body	1			X	
8	See Note	Rear Exhaust Cover	1				X
9	50778	Felt Seal	1		T		
10	50784	Set Screw	1				X
11	01041	Grease Fitting	1		T		
12	See Note	Housing	1				X
13	01548	Gasket	1		T		
14	01461	Lock Ring	1				X
15	01558	Collar	1				X
16	95523	O-Ring	1		T		
17	01470	Insert	1				X
18	50782	Adapter	1				X
19	54552	Bearing	2			X	
20	54472	Pin	2				X
21	50787	Planetary Carrier	1				X
22	06213	Gear	2			X	
23	54468	Ring Gear	1			X	
24	01580	Felt Seal	1		T		
25	02649	Bearing	1	T			
26	54529	Shim Pack (3/pkg.)	1	T			
27	01478	Front Bearing Plate	1				X
28	50767	Pin	2				X
29	01479	Rotor Spacer	1			T	X
30	See Note	Rotor	1				X
31	01480	Vane (4/pkg.)	1	T			
32	01476	Cylinder	1			X	
33	02673	Rear Bearing Plate	1				X
34	02696	Bearing	1	T			
35	02679	Shield	1	T			
36	01024	O-Ring	1				X
37	01469	Speed Reg. Assembly	1			T	
38	95730	O-Ring	1				X
39	See Note	Housing	1				X
40	95558	Retaining Ring	1		T		
41	01449	Valve Stem	1		T		
42	01464	Seal	1			T	
43	01472	Tip Valve	1		T		
44	01468	Spring	1		T		
45	See Note	Air Control Ring	1				X
46	12132	Pin	1		T		
47	01462	Safety Throttle Lever	1				X
48	95711	Retaining Ring	1			T	
50	95438	O-Ring	1			T	
51	94521	Muffler Base	1				X
52	94524	Sintered Muffler	1	T			
53	See Note	Felt Muffler	1	T			
54	94522	Muffler Cap	1				X
55	95375	O-Ring	1			T	
56	94526	Spacer	1				X
57	94523	Inlet Adapter	1				X
58	31941	Hose	1				X
59	97161	Vacuum Hose Retainer	1				X
60	31907	Swivel Cuff - 1-1/4" I.D.	1				X

**Note:** Please refer to page 4 of tool manual for specific part number.



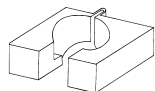
## Optional Accessories

FIND THE MOST CURRENT OFFERING OF SUPPORT DOCUMENTS AND ACCESSORIES AT [WWW.DYNABRADE.COM](http://WWW.DYNABRADE.COM)



### Composite Dynaswivel®

- Swivels 360° AT TWO PIVOT POINTS allowing the air hose to drop directly to the floor while providing superb tool handling.
- 94300 – 1/4" NPT.



### 52296 Repair Collar

- Specially designed collar for use in vise to prevent damage to valve body of tool during disassembly/assembly.



### Dynabrade Air Lube

- Formulated for pneumatic equipment.
- Absorbs up to 10% of its weight in water.
- Prevents rust and formation of sludge.
- Keeps pneumatic tools operating longer with greater power and less down time.

95821: 4 oz. (108 ml)

95842: 1 pt. (473 ml)

95843: 1 gal. (3.8 L)



### 95675 Male Plug

- Provides up to twice the air flow compared to standard plug design.
- Plug has "ported" design to prevent "starving" of the air tool.



### 95542 Grease 10 oz.

- Workable range 0°F to 300°F.
- High film strength; excellent resistance to water, steam, etc.



### 95541 Push-type Grease Gun

- One-hand operation.



### 96049 Tune-Up Kit - Model 56723

### 96174 Tune-Up Kit - Model 56727

- Includes assorted parts to help maintain and repair motor.

### 01390 Drop-In Motor - Model 56723

### 53409 Drop-In Motor - Model 56727

- Allows quick and easy replacement. No motor adjustments needed.



### Carbide Burr Kits

- Includes 12 burs for grinding, deburring and finishing metal.

93351 – 1/8" Kit

93350 – 1/4" Kit

93380 – 6mm Kit



### Collet Inserts - Model 56723

- 50065 – 1/8"
- 50013 – 1/4"
- 50014 – 3/8"
- 50016 – 6 mm
- 50039 – 8 mm

### Collet Inserts - Model 56727

- 01495 – 1/8"
- 01485 – 1/4"
- 01497 – 6 mm
- 01496 – 3 mm



### Portable Vacuum Systems

- Dynabrade offers a wide assortment of vacuuming options to choose from. To help make your selection please request the most current portable vacuum systems literature form your local representative or by searching our web site.

## Reference Contact Information

### 1. American National Standards Institute – ANSI

25 West 43rd Street  
Forth Floor  
New York, NY 10036  
Tel: 1 (212) 642-4900  
Fax: 1 (212) 398-0023

### 2. Government Printing Office – GPO

Superintendent of Documents  
Attn. New Orders  
P.O. Box 371954  
Pittsburgh, PA 15250-7954  
Tel: 1 (202) 512-1803

### 3. European Committee for Standardization

Rue de Stassart 36  
B - 1050 Brussels, Belgium

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