

.4 Hp/7°/Rear Exhaust 2" Depressed Center Wheel Grinder

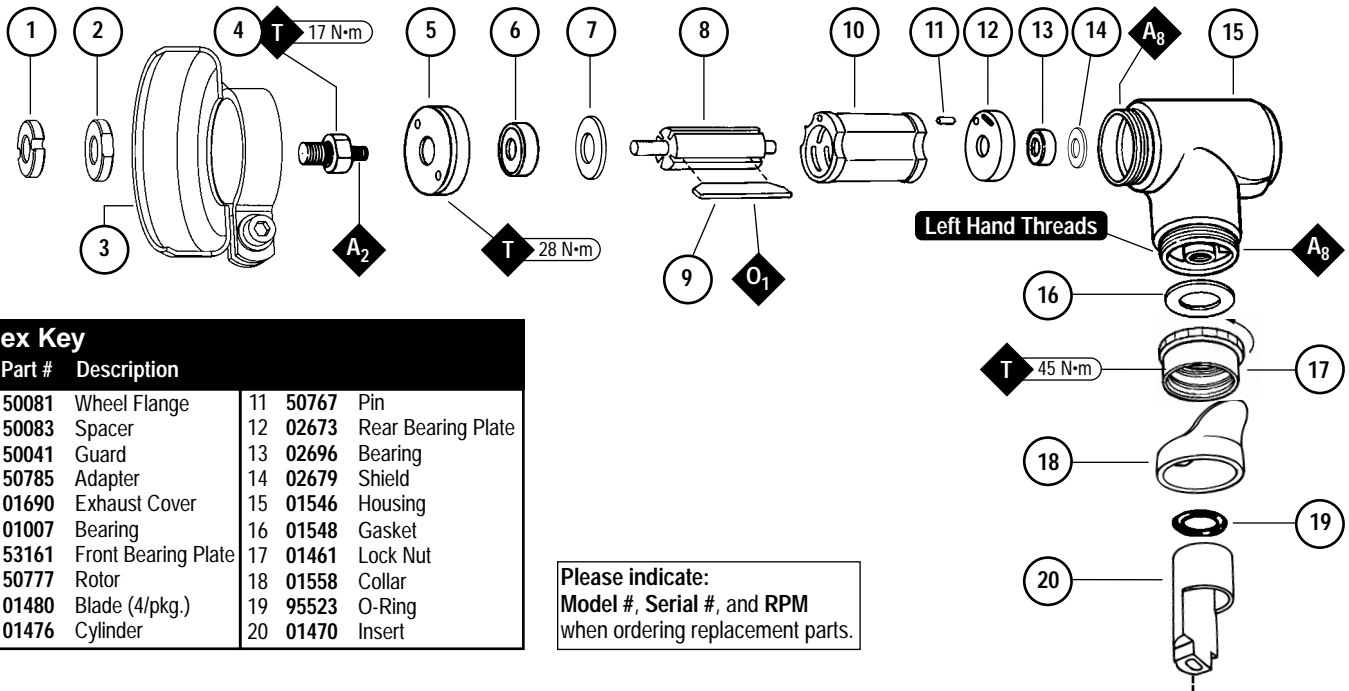
Models:

50343 — 25,000 RPM

Air Motor and Machine Parts

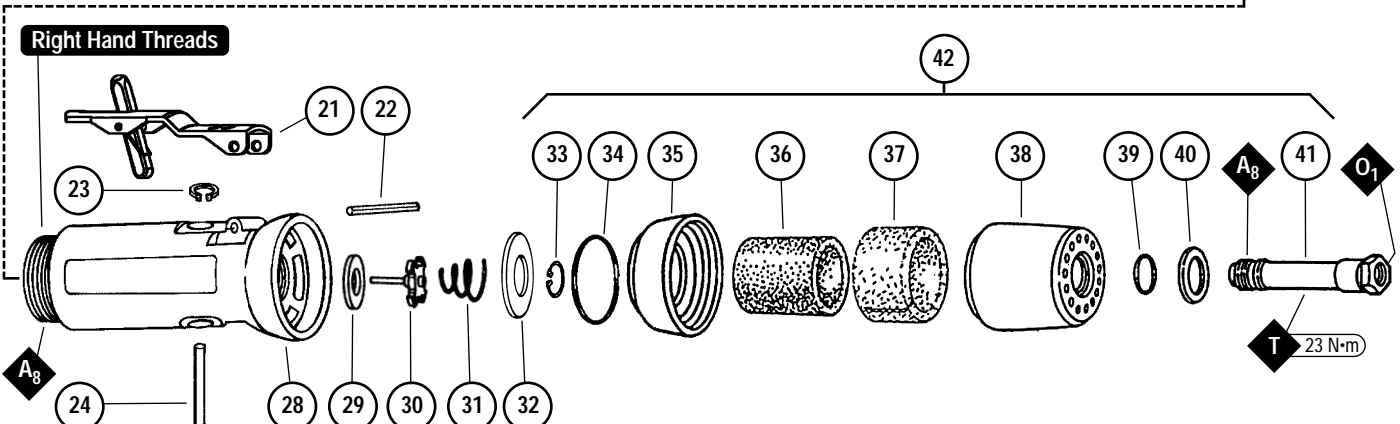
⚠ WARNING

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.



Index Key		
No.	Part #	Description
1	50081	Wheel Flange
2	50083	Spacer
3	50041	Guard
4	50785	Adapter
5	01690	Exhaust Cover
6	01007	Bearing
7	53161	Front Bearing Plate
8	50777	Rotor
9	01480	Blade (4/pkg.)
10	01476	Cylinder
11	50767	Pin
12	02673	Rear Bearing Plate
13	02696	Bearing
14	02679	Shield
15	01546	Housing
16	01548	Gasket
17	01461	Lock Nut
18	01558	Collar
19	95523	O-Ring
20	01470	Insert

Please indicate:
 Model #, Serial #, and RPM
 when ordering replacement parts.



Index Key		
No.	Part #	Description
21	01462	Safety Lever
22	12132	Pin
23	95558	Retaining Ring
24	01449	Valve Stem
25	95730	O-Ring
26	01024	O-Ring
27	01469	Regulator Assy.
28	02149	Housing
29	01464	Seal
30	01472	Tip Valve
31	01468	Spring
32	01642	Air Control Ring
33	95711	Retaining ring
34	95438	O-Ring
35	94521	Muffler Base
36	94524	Sintered Muffler
37	94525	Felt Muffler
38	94522	Muffler Cap
39	95375	O-Ring
40	94526	Spacer
41	94523	Inlet Adapter
42	94520	Muffler Assembly

KEY

O Oil: O₁ = Air Lube

A Adhesive: A₂ = Loctite #271
 A₈ = Loctite #567

T Torque: N·m x 8.85 = In. - lbs.

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 Rotary Vane air tools must be used with a Filter-Regulator-Lubricator to maintain all warranties.

Operating Instructions:

Warning: Eye, face, respiratory, sound 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.

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 Rotary Vane air motors should be lubricated. Dynabrade recommends one drop of air lube per minute for each 10 SCFM (example: if the tool specifications states 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: **11405** 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 SCFM @ 100 PSIG has 3/8" NPT female ports.
5. Use only genuine Dynabrade replacement parts. To reorder replacement parts, please specify the **Model #**, **Serial #** and **RPM** of your machine.
6. A Motor Tune-Up Kit (P/N 96049) 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, ketones, 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.
- **Warning:** Hand, wrist and arm injury may result from repetitive work, motion and overexposure to vibration.
- **Important:** This tool is designed for use with Type 27 wheels 2" diameter and smaller only. **Never remove wheel guard.**

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.

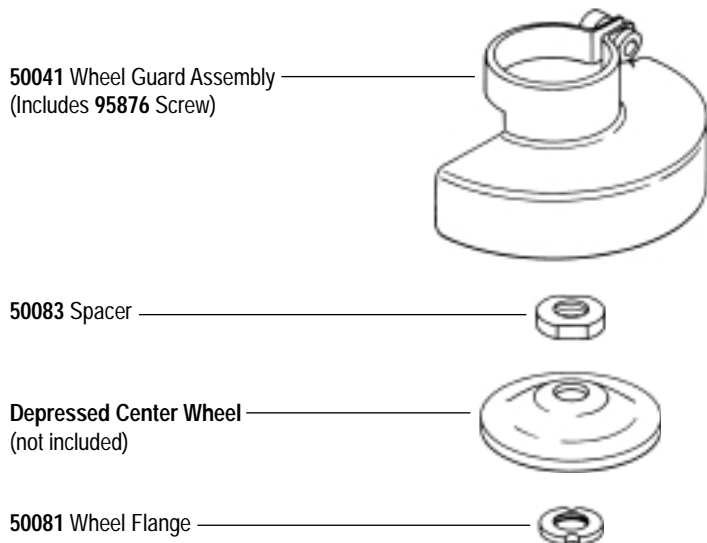
One Year Warranty

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	Motor HP (W)	Motor RPM	Air Inlet Thread	Sound Level	Air Flow Rate CFM/SCFM (LPM)	Air Pressure PSIG (Bars)	Spindle Thread	Weight Pound (kg)	Length Inch (mm)	Height Inch (mm)
50343	.4 (289)	25,000	1/4" NPT	87 dB(A)	3/20 (566)	90 (6.2)	3/8"-24 male	1.4 (.6)	8-1/4 (210)	3-1/2 (89)

Additional Specification: Hose I.D. Size 1/4" (8 mm)

Mounting Arrangement for Depressed Center Wheels



Important Safety Information

1. Always use eye, face and body protection.
2. Always use wheel guard.
3. For safe use of this tool, always comply with OSHA, ANSI Standards B7.1 and B186.1.
4. Some wheels are supplied with throwaway adapters (mounting flanges) attached by the manufacturer. These adapters should not be used again.

Warning: Do not remove wheel guard.

Disassembly/Assembly Instructions – .4 Hp/7°/Rear Exhaust

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

Notice: Dynabrade strongly recommends the use of their 52296 Repair Collar (sold separately) during assembly/disassembly activities. Failure to use this collar will highly increase the risk of damage to the valve body of this tool. Please refer to parts breakdown for part identification.

Motor Disassembly:

1. Disconnect tool from power source.
2. Secure air tool in vise using 52296 Repair Collar.
3. Remove wheel guard assembly.
4. With an adjustable pin wrench or 50971 Lock Ring Tool, remove 01690 Exhaust Cover by turning counter-clockwise.
5. Pull motor assembly from housing.
6. Remove 50785 Adapter from rotor shaft.
7. Remove 53161 Front Bearing Plate, cylinder, and blades (4) from rotor. **Note:** The 01007 Bearing and 53161 Front Bearing Plate are a slip fit onto rotor.
8. Press rotor from 02673 Rear Bearing Plate. Press 02696 Bearing from rear bearing plate.

Motor Disassembly Complete.

Valve Body Disassembly:

1. Reposition motor housing in vise so inlet bushing is facing upwards.
2. Remove 94523 Inlet Bushing and muffler assembly from valve body housing. Using needle nose pliers, remove 01468 Spring, 01472 Tip Valve, and 01464 Seal.
3. Remove 95711 Retaining Ring from inlet adapter and disassemble muffler assembly.
4. Using a 2.5 mm diameter drift pin and a hammer, tap 12132 Pin out from housing and remove throttle lever.
5. Remove 95558 Retaining Ring and push 01469 Speed Regulator Assembly from housing.

Tool Disassembly Complete.

Motor Assembly:

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

1. Place 50777 Rotor in padded vise with threaded spindle facing upwards.
2. Install bearing/bearing plate assembly onto rotor.
3. Apply a small amount of Loctite® #271 (or equivalent) to the threads of the adapter that attach to the rotor and tighten 50785 Adapter onto rotor (torque to 17 N•m/150 in. - lbs.).
4. Install lubricated 01480 Blades (4) into rotor slots. Dynabrade Air Lube P/N 95842 is recommended for lubrication.
5. Install cylinder over rotor. Be sure air inlet holes of cylinder face away from bearing plate and that the pin in the front bearing plate aligns correctly with the pin-hole in the cylinder.
6. Press 02696 Rear Bearing into 02673 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. A loose fit will not achieve the proper preload of motor bearings. 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.
7. Secure housing in vise using 52296 Repair Collar.
8. Install motor assembly into housing. Be sure motor drops all the way into housing.
9. Install 01690 Exhaust Cover onto motor housing (torque 28 N•m/250 in. - lbs.).

Motor Assembly Complete.

(continued on next page)

Disassembly/Assembly Instructions (continued)

Valve Body Assembly:

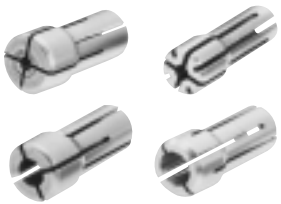
1. Install **01469** Speed Regulator Assembly along with **01449** Valve Stem into housing and secure with **95558** Retaining Ring.
2. Secure valve body in vise using **52296** Repair Collar with air inlet facing upwards.
3. Insert **01464** Seal into housing.
4. Line-up the hole in the **01449** Valve Stem with the hole in the housing (looking past brass bushing). Insert **01472** Tip Valve so that the metal pin passes through the hole in the valve stem. Install **01468** Spring (small end first).
5. Assemble muffler assembly. Slip **94523** Inlet Adapter through muffler assembly and secure with **95711** Retaining Ring.
6. Install air control ring into valve body housing.
7. Apply Loctite® #567 PST Pipe Sealant (or equivalent) to threads of inlet bushing and install muffler assembly onto valve body (torque 23 N•m/200 in. - lbs.).
8. Install throttle lever and **12132** Pin. Remove from vise.

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

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.

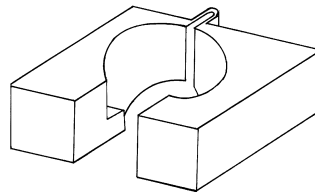
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Optional Accessories



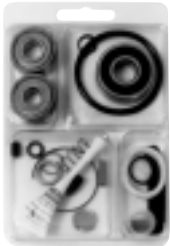
Collet Inserts

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



52296 Repair Collar

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



96049 Motor Tune-Up Kit

- Includes assorted parts to help maintain and repair motor.



Dynaswivel®

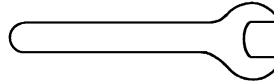
Swivels 360° at two locations which allows an air hose to drop straight to the floor, no matter how the tool is held.

- **94300** 1/4" NPT.



50971 Lock Ring Tool

- Lock Ring Tool has a 3/8 in. square socket for use with 3/8 in. drive; breaker bar, ratchet head, or torque wrenches.



Open-End Wrenches

- 96076** – 12 mm open-end.
- 95262** – 14 mm open-end.

Visit Our Web Site: www.dynabrade.com

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