

For Serial No. 3A2827 and Higher

Parts Page Reorder No. PD03•05
Effective January, 2003
Supersedes PD01•30

Rolling Pin Sander

Air Motor and Machine Parts

Model:

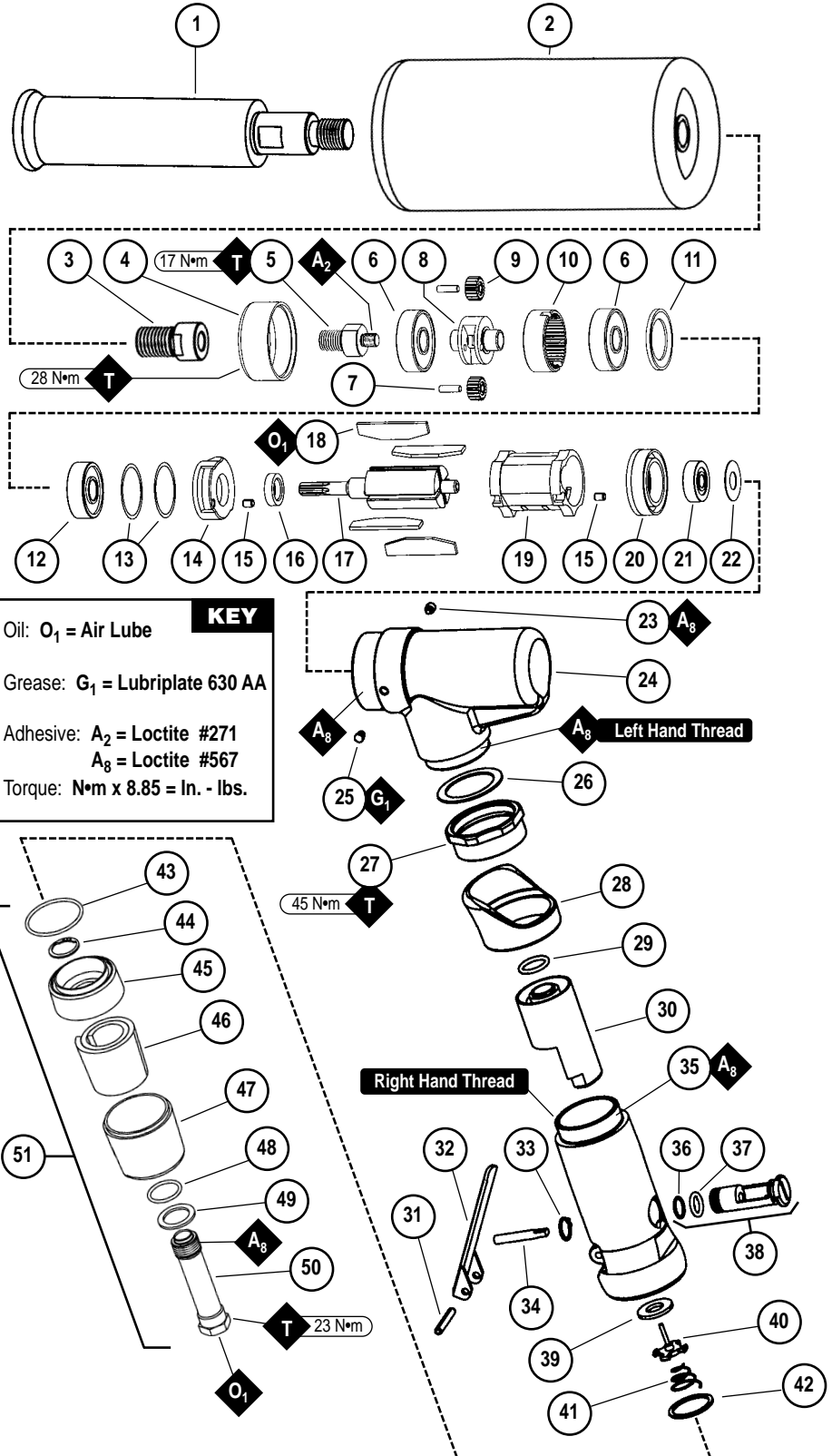
58050 – 3,200 RPM

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.

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No.	Part #	Description
1	58057	Handle w/ 5/8"-11 Spindle
2	94434	Dynacushion 3 1/4" x 7" (5/8"-11 Threaded Bore)
3	55034	Adapter (5/8"-11 Male)
4	50781	Rear Exhaust Cover
5	50782	Adapter
6	54520	Bearing (2)
7	54472	Gear Shaft (2)
8	50786	Planetary Carrier
9	54519	Gear w/ Needle Bearing (2)
10	54468	Ring Gear
11	50778	Spacer
12	02649	Bearing
13	54529	Shim Pack (3/pkg.)
14	01478	Front Bearing Plate
15	50767	Pin (2)
16	01479	Spacer
17	54554	Rotor
18	01480	Blade (4/pkg.)
19	01476	Cylinder
20	02673	Rear Bearing Plate
21	02696	Bearing
22	02679	Shield
23	50784	Screw Set
24	50776	Housing
25	01041	Grease Fitting
26	01548	Gasket
27	01461	Lock Nut
28	01558	Collar
29	95523	O-Ring
30	01470	Insert
31	12132	Pin
32	01448	Throttle Lever
33	95558	Retaining Ring
34	01449	Valve Stem
35	01488	Housing
36	95730	O-Ring
37	01024	O-Ring
38	01469	Speed Regulator Assembly
39	01464	Seal
40	01472	Tip Valve
41	01468	Spring
42	01564	Air Control Ring
43	95438	O-Ring
44	95711	Retaining Ring
45	94521	Muffler Base
46	94528	Felt Muffler
47	94522	Muffler Cap
48	95375	O-Ring
49	94526	Spacer
50	94523	Inlet Adapter
51	94519	Muffler Assembly



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.
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 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 state 40 SCFM, set the drip rate of your 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 up to 40 SCFM @ 100 PSIG, has 3/8" NPT female ports.
5. Lubricate planetary gears through the gear casing grease fitting with **2-3 plunges for every 50 hours of use to achieve maximum gear life (order 95542 Grease and 95541 Gun)**.
6. Use only genuine Dynabrade replacement parts. To reorder replacement parts, specify the **Model #, Serial # and RPM** of your machine.
7. A Motor Tune-Up Kit (P/N **96174**) is available which includes assorted parts to help maintain motor in peak operating condition. Please refer to Dynabrade's Preventative Maintenance Schedule for a guide to expectant life of component parts.
8. 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.
- **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.

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)
58050	.4 (298)	3,200	1/4" NPT	82 dB(A)	3/24 (651)	90 (6.2)	5/8"-11 male	5 (2.3)	17-3/4 (452)	3-1/4 (83)

Additional Specifications: Hose Size 3/8" or 10 mm

(PD03*05)

Disassembly/Assembly Instructions - .4 Hp/Straight-Line/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. With an adjustable pin wrench, remove **50781** Rear Exhaust Cover by turning counter-clockwise.
4. Remove **50784** Set Screw and pull **50782** Adapter and planetary carrier assembly from **50776** Housing.
5. Press planetary carrier assembly from rear **54520** Bearing. Remove ring gear and gears from **50786** Planetary Carrier.
6. Secure planetary carrier in vise and remove **50782** Adapter. Press carrier from front **54520** Bearing.
7. Grab onto pinion and pull motor assembly from motor housing.
8. Press **54554** Rotor from **02696** Rear Bearing. Press **02696** Rear Bearing from **02673** Rear Bearing Plate, remove **02679** Shield.
9. Remove cylinder and rotor blades from rotor.
10. Press rotor through **02649** Front Bearing and **01478** Front Bearing Plate.

Motor Disassembly Complete.

Valve Body Disassembly:

1. Position valve body in vise using **52296** Repair Collar with air inlet facing up.
2. Remove air fitting by securing **94523** Inlet Adapter with a wrench and twist air fitting from inlet adapter.
Important: **94523** Inlet Adapter must be secured before attempting to remove air fitting to avoid damaging valve body housing.
3. Remove **94523** Inlet Adapter.
4. Remove **95711** Retaining Ring from inlet adapter and separate **94521** Muffler Base from **94522** Muffler Cap. Remove felt muffler.
5. Remove **01564** Air Control Ring from valve body. Using needle nose pliers, remove **01468** Spring, **01472** Tip Valve and **01464** Seal.
6. Remove **95558** Retaining Ring. Push **01469** Regulator from valve body and remove o-rings.

Disassembly Complete.

Motor Assembly:

Important: Be sure parts are clean and in good repair before assembling. Follow all grease, oil, and torque specifications.

1. To correct for bearing tolerances, it is necessary to use **54529** Shim Pack (as req.) to maintain correct clearance between ends of rotor and bearing plates.
2. Insert .002 Shim in **01478** Front Bearing Plate.
3. Insert **02649** Bearing into **01478** Bearing Plate.
4. Assemble **01479** Spacer onto pinion end of **54554** Rotor, making sure that the countersink faces the rotor.
5. Assemble **01478** Front Bearing Plate onto rotor by pressing on the inner race of **02649** Bearing and by supporting rotor on opposite end. Be sure that the bearing is pressed tight against **01479** Spacer.
6. Hold rotor in left hand and the bearing plate in right hand. Apply an outward (pulling) pressure and observe spacing between end of rotor and bearing plate. This should be from flush (not rubbing) to .002 maximum. If the rotor rubs the bearing plate, reduce the spacing between the bearing and the bearing plate by removing the .002 shim entirely, or by substituting a .001 shim for the .002 shim. However, if there is more than .002 spacing between the end of the rotor and bearing plate, add .001 shim between the bearing and the bearing plate.
7. Assemble **01476** Cylinder so that inlet part will align with inlet holes in **02673** Rear Bearing Plate. The cylinder exhaust slots must align with the slots in the bearing plate.
8. Insert **01480** Blades (lubricate blades with Dynabrade Air Lube P/N **95842** or equivalent prior to installation).
9. Support assembly squarely on the pinion end of rotor. Press **02676** Bearing into **02673** Rear Bearing Plate and press these onto rotor, pressing on the inner race of **02696** Bearing, just enough to bring the bearing plate against the cylinder. There should be slight drag between the bearing plates and cylinder when these are moved with the fingers. Position cylinder until motor turns "finger free." Be sure that pin and air inlet hole in cylinder line up with air inlet hole and pin hole in bearing plate.
10. Place **02679** Shield over **02696** Bearing.
11. Install motor assembly into motor housing.
12. Press front **54520** Bearing onto front end of **50786** Planetary Carrier.
13. Apply one drop of #271 Loctite® to threads of **50782** Adapter. Install adapter onto planetary carrier (torque 17.0 N•m/150 in. - lbs.).
14. Install planetary gears and **54472** Gear Shafts onto planetary carrier.
15. Slip **54468** Ring Gear over gears and press rear **54520** Bearing onto planetary carrier.
16. Slip complete planetary carrier onto pinion in motor housing, so that notches in ring gear line-up with grease fitting and set screw. Install **50784** Set Screw into housing.
17. Install **50781** Exhaust Cover onto **50776** Housing (torque 28 N•m/250 in. - lbs.).

Motor Assembly Complete.

Valve Body Assembly:

1. Insert **01469** Regulator with o-rings and valve stem in place into valve body. Secure with **95558** Retaining Ring.
2. Secure valve body in vise using **52296** Repair Collar with air inlet facing upward. Insert **01464** Seal.

(continued on next page)

Disassembly/Assembly Instructions (continued)

3. Line up hole in valve stem with hole in 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 toward tip valve).
4. Assemble felt muffler into **94522** Muffler Cap. Install **94521** Muffler Base onto muffler cap.
5. Install **95438** O-Ring into groove on muffler base. Place **95375** O-Ring and **94526** Spacer into recessed area of muffler cap.
6. Slip **94523** Inlet Adapter through muffler assembly and install **95711** Retainer Ring into groove on inlet adapter.
7. Install **01564** Air Control Ring into valve body housing.
8. Apply Loctite® #567 PST Pipe Sealant to threads of **94523** Inlet Adapter and install entire muffler assembly onto valve body (torque 23.0 N•m/200 in. - lbs.).
9. Replace air fitting. Secure inlet adapter with a wrench before tightening air fitting.

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. 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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Accessories



96174 Motor Tune-Up Kit

- Includes assorted parts to help maintain and repair motor.



Grease

- Multi-purpose grease for all types of bearings, cams, gears.
- High film strength; excellent resistance to water, steam, etc.
- Workable range 0° F to 300° F

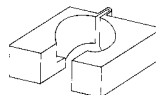
95541: Push-Type Grease Gun (one-handed operation).

95542: 10 oz. (283.5 g) tube.



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.



52296 Repair Collar

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

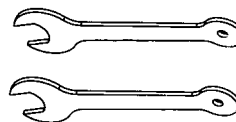


Dynabrade Air Lube

- 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.

95842: 1pt. (473 ml)

95843: 1gal. (3.8L)



Open End Wrenches

- **95262:** 14 mm
- **95263:** 17 mm