

Rebel Series Grinders

7" & 9" Diameter, Right Angle

Safety, Operation and Maintenance – Save This Document and Educate All Personnel

Model	Wheel Dia.	RPM	Power
53280	7" (180 mm)	8,500	2.8 hp
53282	9" (230 mm)	6,500	

GRINDER



**LIFETIME
WARRANTY**

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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 Standards Institute (ANSI). Safety Requirements for abrading materials with coated abrasive systems – ANSI B7.1, Compressed Air and Gas Institute (CAGI) Safety Code for Portable Air Tools – B186.1, Code of Federal Regulation – CFR 29 Part 1910, International Organization for Standardization (ISO) Hand Held Non-Electric Power Tools – Safety Requirements and applicable State and Local Regulations.



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



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



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



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



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



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

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 and OPERATING INSTRUCTIONS



Carefully Read and Understand the General and Grinder sections found in Tool Safety and Operating Guidelines (PN00001676) Before Handling or Using Tool.

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.

Tool Intent: Rebel Series Grinders are ideal for material removal using depressed center grinding wheels, or abrasive flap discs. Follow Rebel Series Grinders abrasive mounting instructions included with the tool.

DO NOT USE Tool for Anything Other Than Its Intended Applications.

Training: Proper care, maintenance, and storage of your air tool will maximize tools performance and reduce chance for accident.

Employer's Responsibility: Provide operators with safety instructions and training for safe use of tools and accessories.

Report to Your Supervisor any Condition of the Tool, Accessories or Operation you Consider Unsafe.

MAINTENANCE INSTRUCTIONS

Important: To keep tool safe, a Preventative Maintenance Program is recommended. The program should include inspection of the tool and all related accessories and consumables, including air lines, pressure regulators, filters, oilers, etc. (refer to CAGI B186.1 for additional maintenance information). If accessory or tool breakage occurs, investigate failure to determine the cause and correct before issuing tool for work. Use the following schedule as a starting point in developing a Preventative Maintenance Program. If tool does not operate properly (RPM, vibration, start/stop) after these scheduled checks or at any time, the tool must be repaired and corrected before returning tool to use.

INSTALLATION

- To ensure long life and dependable service, use a Closed Loop Air System and Filter-Regulator-Lubricator (FRL) as diagramed below.
- Each tool should have its own dedicated hose connected to an air supply FRL. Quick disconnects should be installed at the FRL in an effort to reduce contamination into the tool. Securely affix all fittings and hose assemblies.
- 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: **10690** Air Line Filter-Regulator-Lubricator — Provides accurate air pressure regulation, two-stage filtration of water contaminants and micro-mist lubrication of pneumatic components.
- Dynabrade recommends 1 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). **95842** Dynabrade Air Lube is recommended.

MAINTENANCE SCHEDULE

Maintenance schedules depend on the type and style of tool. Refer to page 3 to reference symbols associated with specific maintenance items/areas. Match maintenance schedules accordingly. See page 4 for any additional maintenance information.

Daily (every 8 hours):

- Inspect tool and accessories for damage or broken parts. Replace items as necessary to ensure proper operation and safety.

D Lubricate motor as recommended. Use **95842** Dynabrade Air Lube (10W/NR). Apply 1 drop/minute of air lube per 20 SCFM.

- Check air line pressure with a gage. (MAX. 90 PSIG or 6.2 Bar operating pressure at the air inlet of the tool.)
- Check tool for proper operation: If operating improperly or demonstrates unusual vibration, the tool must be serviced and problem corrected before further use.

Every 20 Hours/Once a Week (which ever comes first):

- Measure RPM (speed) by setting air pressure to 90 PSIG (6.2 Bar) at tool inlet, without accessory mounted, while the tool is running. Using a tachometer, check spindle speed of the tool. Unless otherwise stated the no-load speed may not exceed the rated speed. If tool speed exceeds maximum rated RPM, service as required and correct before use.
- If tool is running too fast: look for worn, damaged or missing governor and silencer(s). Service as required.
- If tool is running too slow: look for malfunctioning governor, clogged inlet screen, silencer(s) or air stream. Service as required.
- Governors are not serviceable including the trip disc which activates the overspeed door. Replace complete **54984** Governor Assemblies, do not try to repair. Governors should be handled with care. Do not pull on springs or trip disc in effort to adjust governor.

Note: Special care must be taken when servicing governors. Refer to specific tool manual for governor instructions and/or speed control devices. Governor assemblies made from molded plastic components are non-serviceable and must be replaced.

Every 1,000 Hours (every time tool is rebuilt):

G Gears are greased for the life of the tool. Replace if grease is hard packed or full of debris. Install 14 grams of **96747** Grease on pinion gear and in cavities on either side of top spindle bearing. Keep grease out of top spindle bearing pocket as it may prevent ability to seat bearing in cavity.

REPAIR

- Use only genuine Dynabrade replacement parts to ensure quality. To order replacement parts, specify Model#, Serial# and RPM of your air tool.
- 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.
- A Motor Tune-Up Kit is available which 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.



After maintenance is performed on tool, add a few drops of **95842** Dynabrade Air Lube to the tool inlet and start the tool a few times to lubricate air motor. Verify RPM (per 20 hr maintenance schedule), vibration and operation.

- The overspeed device has two main components:
 - The trip disc which is integral to the governor assembly.
 - The overspeed door.
- The overspeed door is held open via an interference fit between the door, the hinge pin and the rear end plate. If a governor were to fail and allow the tool to overspeed, the trip disc would expand and close the overspeed door preventing air from entering the motor. To reset the overspeed door, loosen and remove the four screws holding the throttle handle and remove the spacer, motor spring, gasket and governor chamber, if necessary remove motor. Flip the overspeed door open and gently snap it back into place. There should be a slight resistance as the door approaches 90°. The door should be tipped towards the governor by 5° and not wiggle or move freely. Turn motor by hand to ensure all parts spin freely and have clearance. Reassemble tool and set air pressure at 90PSIG (6.2 Bar) at tool inlet and check RPM as indicated. If tool overspeeds again or there is no resistance when the overspeed door is reset, replace governor assembly, the overspeed door, the hinge pin and possibly the rear end plate.

HANDLING & STORAGE

- Use of tool rests, hangers and/or balancers is recommended.
- Protect tool inlet from debris (see Notice below).
- **Do Not** carry tool by air hose or near the tool throttle lever.
- Store accessories in protective racks or compartments to prevent damage.
- Follow the handling instructions outlined in the operating instructions when carrying the tool and when changing accessories.
- Protect accessories from exposure to water, solvents, high humidity, freezing temperature and extreme temperature changes.

END OF USE/DISPOSAL

When tool has reached its end of useful service, disassemble tool into its primary components (i.e. steel, aluminum and plastic) and recycle or discard per local, state and/or federal regulations as to not harm the environment.

NOTICE

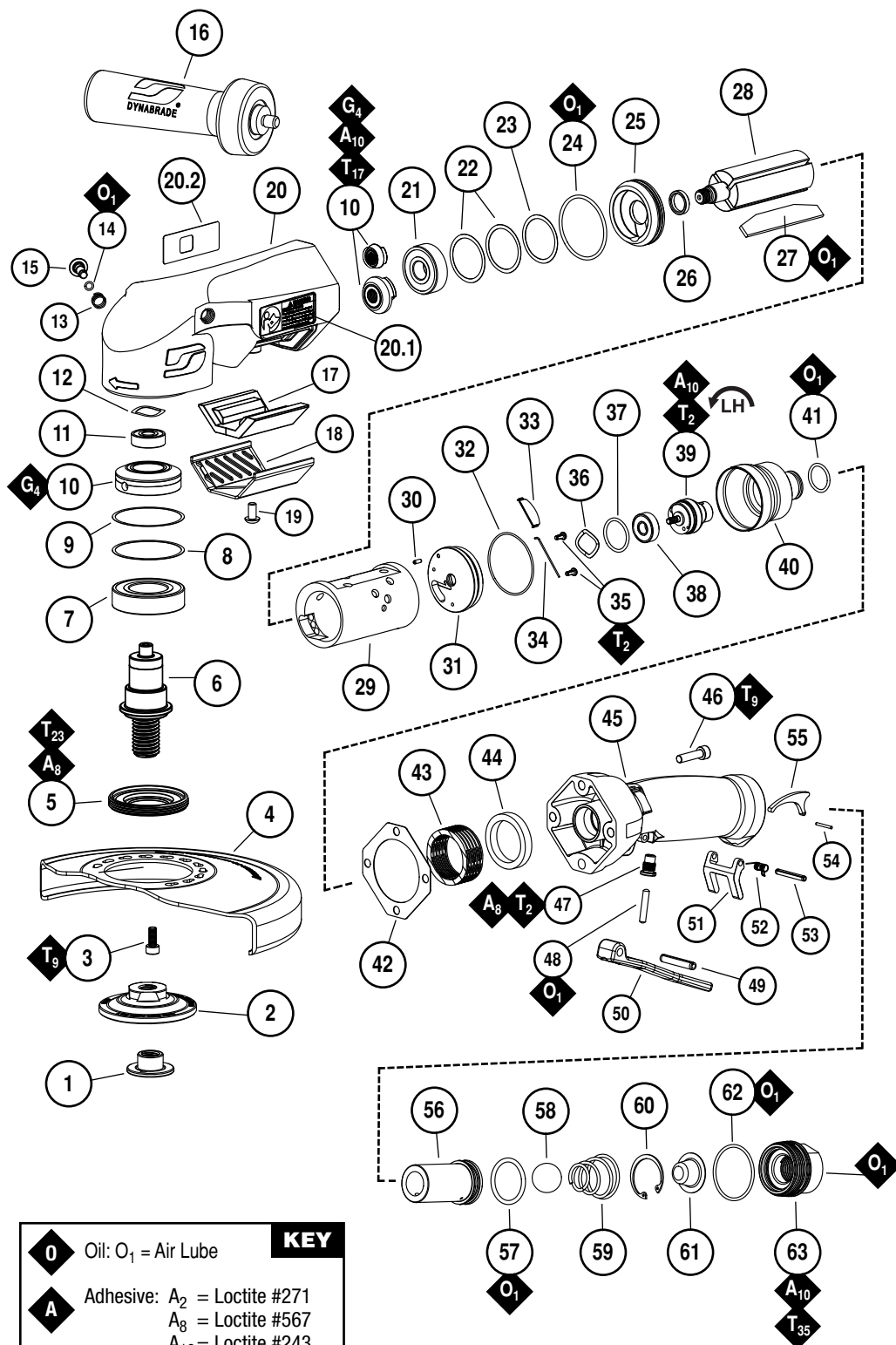
All Dynabrade air motors use the highest quality parts available and are manufactured to exacting tolerances. Air motor failures are often traced to lack of lubrication or unclean air supply. Compressed air can force dirt and other contaminants into motor bearings causing early failure. Contaminants can score cylinder wall and vanes resulting in reduced efficiency and power. Our warranty obligation is contingent upon proper use of our tools. Air motors which have been subjected to misuse, contaminated air or lack of lubrication will void warranty.

Models

53280 - 7" Dia., 8,500 RPM
53282 - 9" Dia., 6,500 RPM

Rebel Series Grinders

Complete Assembly



KEY	
O	Oil: O ₁ = Air Lube
A	Adhesive: A ₂ = Loctite #271 A ₈ = Loctite #567 A ₁₀ = Loctite #243
G	Grease: G ₄ = 96747
T_x	X = Torque Value (N•m) (N•m x 8.85 = lb•in.)

Always follow adhesive manufacturers
cleaning and priming recommendations.

ITEM	P/N	DESCRIPTION	QTY.
1	54983	OUTER FLANGE	1
2	54980	BACKUP FLANGE	1
3	96274	SCREW	5
4	54918 54919	7" TYPE 27 GUARD 9" TYPE 27 GUARD	1
5	54952	LOCK RING	1
6	54951	SPINDLE	1
7	54917	BEARING	1
8	52132	SHIM	1
9	52133	SHIM	1
10	54912 54911	GEAR SET - 53280 GEAR SET - 53282	1
11	02649	BEARING	1
12	97995	WAVE DISC	1
13	98285	SPRING	1
14	96156	O-RING	1
15	54938	PLUNGER	1
16	53134	DAMPENING HANDLE	1
17	54928	SILENCER	1
18	54954	MUFFLER COVER	1
19	50511	SCREW	1
20	55094 55096	HOUSING - 53280 HOUSING - 53282 INCLUDES 54939 BUSHING	1
20.1	25286	WARNING LABEL	1
20.2	25285	MODEL LABEL	1
21	54900	BEARING	1
22	54910	SHIM PACK	AR
23	54909	SHIM	1
24	01787	O-RING	1
25	54901	FRONT END PLATE	1
26	54902	SPACER	1
27	54904	VANE SET (4/PKG)	1
28	54903	ROTOR	1
29	54905	CYLINDER	1
30	96441	PIN	1
31	54906	REAR END PLATE	1
32	96779	O-RING	1
33	54908	OVERSPEED DOOR	1
34	96774	HINGE PIN	1
35	96775	SCREW	2
36	96772	WAVE WASHER	1
37	96773	O-RING	1
38	54907	BEARING	1
39	54984	GOVERNOR ASSY	1
40	54953	GOVERNOR CHAMBER	1
41	95526	O-RING	1
42	54958	GASKET	1
43	54960	MOTOR SPRING	1
44	54961	SPACER	1
45	54936	THROTTLE HANDLE	1
46	95720	SCREW	4
47	54940	BUSHING	1
48	97045	PLUNGER	1
49	96776	PIN	1
50	54937	THROTTLE LEVER	1
51	54941	SAFETY LATCH	1
52	54942	SPRING	1
53	95164	PIN	1
54	54945	PIN	1
55	54943	ACTIVATOR PIVOT	1
56	54944	BALL SEAT	1
57	97807	O-RING	1
58	54946	BALL	1
59	54947	SPRING	1
60	96512	RETAINER RING	1
61	54988	INLET SCREEN	1
62	96777	O-RING	1
63	54990	INLET BUSHING	1
—	94949	PIN SPANNER WRENCH	1

AR - "As Required"

LIFETIME WARRANTY

To validate Dynabrade Lifetime Warranty, you must register each tool at: www.dynabrade.com. Registration of each tool at website is required. Dynabrade will not honor Lifetime Warranty on unregistered tools. Please view the entire Lifetime Warranty Policy at www.dynabrade.com.

MACHINE SPECIFICATIONS

Model	Speed	Power	Air Consumption	Diameter	Weight	Length	Height
53280	8,500 RPM	2.8 hp (2,088 W)	115 SCFM (3,256 LPM)	7" (180 mm)	7.3 lb. (3.3 kg)	13.4" (340 mm)	4.2" (107 mm)
53282	6,500 RPM	2.8 hp (2,088 W)	115 SCFM (3,256 LPM)	9" (230 mm)	7.8 lb. (3.5 kg)	13.4" (340 mm)	4.2" (107 mm)

Additional Specifications: Air Inlet Thread 1/2" NPT • Hose I.D. 1/2" (10 mm) • Spindle Thread 5/8"-11
Visit dynabrade.com for your model's current vibration and sound data.

OPTIONAL ACCESSORIES



High Profile Guard

- Used for type 27 disposable hub flap discs and any other abrasive that doesn't properly fit under the lip of the standard guard.

Part No. 54920: 7" (180 mm) diameter

Part No. 54921: 9" (230 mm) diameter



Low Profile Back-up Flange

- For use with 7/8" diameter center hole flap discs.

Part No. 54981



Whip Hose

- 1/2" diameter air line with 1/2" NPT female fitting, and 1/2" NPT male Mega Flow Plug.

Part No. 94825: 5 feet



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.

Part No. 95842: 1 pt. (473 ml)

Part No. 95843: 1 gal. (3.8 L)

Grease

- For use when current grease is hard packed or full of debris.
- Apply every 1,000 hours of tool use or everytime tool is rebuilt.

Part No. 96747: 14 grams

Tune-Up Kit

- Contains high and medium wear parts.

Part No. 96644

REFERENCE CONTACT INFORMATION

American National Standards Institute (ANSI)
25 West 43 Rd St. 4th Floor | New York, NY 10036
Tel: 1 (202) 293-8020 | www.ansi.org

Compressed Air & Gas Institute (CAGI)
1300 Sumner Ave | Cleveland, OH 44115
Tel: 1 (216) 241-7333 | www.cagi.org

European Committee for Standardization (PNEUROP)
rue des Drapiers 21 | 1050 Brussels, Belgium | www.pneurop.org

International Organization of Standards (ISO)
P.O box 56 | Ch-1211 Geneve 20, Switzerland | www.iso.org

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