4" Right Angle Grinder

Air Tool Manual – Safety, Operation and Maintenance

SAVE THIS DOCUMENT, EDUCATE ALL PERSONNEL

Model:

52706 - 12,000 RPM Accepts: 4" (100 mm) Type 27 Grinding Wheels with 5/8" Arbor Hole



FIND THE MOST CURRENT OFFERING OF SUPPORT DOCUMENTS AND ACCESSORIES @ WWW.DYNABRADE.COM

🛦 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 A WARNING A WARNING Practice safety requirements. Work alert, Read and understand tool manual before have proper attire, and do not operate tools under work starts to reduce risk of injury to operator, visitors, and tool. the influence of alcohol or drugs. **A** WARNING **A** WARNING Ear protection to be worn when exposure to sound, exceeds the limits of applicable Federal, State or Eye protection must be worn at all times, eye protection to conform to ANSI Z87.1. local statues, ordinances and/or regulations. A WARNING A WARNING Air line hazard, pressurized supply lines and flexible hoses can cause serious injury. Do not use damaged, Respiratory protection to be used when exposed to contaminants that exceed the applicable threshold limit values required by law. frayed or deteriorated air hoses and fittings. 🕰 WARNING Some dust created by grinding, sanding, 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" Right Angle Grinders are ideal for removal of material using Type 27 grinding wheels.

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" Right Angle Grinder operators with safety instructions and training for safe use of tools and accessories.

Accessory Selection:

- Use only Type 27 grinding wheels with 5/8" arbor hole.
- · 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 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, g) or 150 percent of the maximum pressure produced in the system, whichever is higher. (See tool Machine Specifications table.)

OPERATING INSTRUCTIONS

Warning: Always wear eye protection. Always use wheel guard. Make sure it is positioned to protection always use wheel guard. Make sure it is positioned to best protect the operator and make sure it is securely fastened. Wheel guards that are worn, damaged or have been subject to a wheel breaking must be replaced 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.

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 A WHEEL, after all tool repairs and whenever a grinder is issued for use, check tool RPM (speed) with tachometer with air pressure set at 90 PSIG

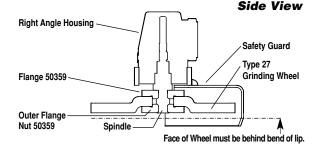
while the tool is running. If tool is operating at a higher speed than the RPM marked on the tool housing, or operating improperly, the tool must be serviced and corrected before use. Caution: Wheel speed rating must be approved for at least the tool RPM rating. Check accessory manufacturer for details on maximum operating speed or special mounting instructions.

TYPE 27 Grinding Wheel Mounting

- With power source disconnected from the air tool.
- Clean spindle and flange mounting surfaces. Inspect for nicks, cuts and sharp edges.
- Use only Dynabrade 50359 Flanges (2). Thread flange with raised boss facing outward as shown in diagram onto spindle of tool and secure firmly using supplied wrenches.
- · Check for flange flatness and runout by rotating spindle.
- Inspect Type 27 grinding wheels for cracks and/or defects before mounting.
- Install Type 27 grinding wheel by locating arbor hole over the flange's raised boss as shown in the diagram.
- Thread outer flange with raised boss facing toward abrasive wheel as shown in diagram and secure flange firmly against the wheel using supplied wrenches.

Caution: Over tightening the flange can cause damage to the wheel and/or flanges.

- Check for wheel firmness by holding the spindle and pulling on the edge of the wheel in the tightening position.
- · Orient guard position to best protect the operator.

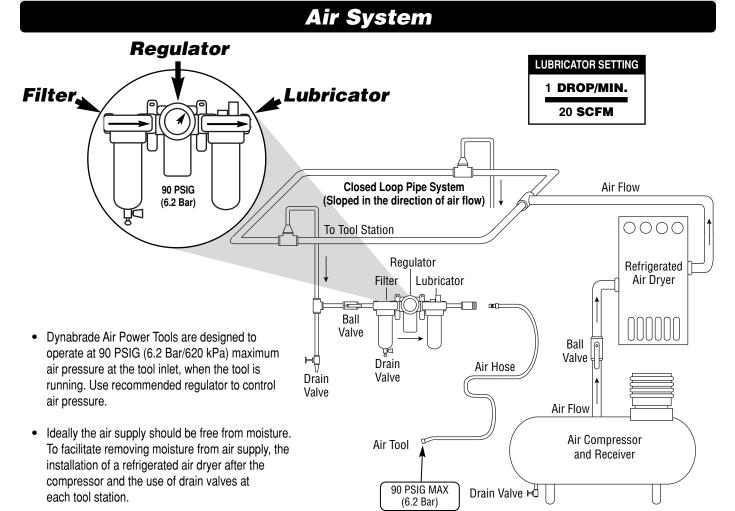


Connect air tool to power source. Be careful NOT to depress throttle lever in the process. Do not expose air tool to inlet pressure above 90 PSIG or (6.2 Bars).

Caution: After installing the accessory, make sure that no one is in the unguarded plane of the wheel before starting the grinder. IN A PROTECTED AREA, test run the wheel 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 wheel at its free speed (RPM) in a protected area for at least one minute before applying the wheel to the work.

- · 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 has rear exhaust. 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.

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



Maintenance Instructions

Important: 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 and EN 792-4 for additional maintenance information.

- Use only genuine Dynabrade replacement parts to insure 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: 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.
- Lubricate wick system through the angle gear oil fitting with 2-3 plunges for every 24 hours of use, to achieve maximum gear life. Important: Use only the recommended angle gear oil for the wick system. Do not contaminate the wick with any other oil or grease product. (Order 95848 Gear Oil and 95541 Gun)
- 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.

Routine Preventative Maintenance:

- Check free speed of 4" Right Angle Grinder using a tachometer.
- Inspect flanges regularly for nicks, cuts, sharp edges, flatness and runout. Replace damaged or worn flanges with genuine Dynabrade flanges.
- Inspect wheel guard for wear or damage. Guards that are bent and severely worn or subject to a wheel breakage must be replaced.
- · Inspect grinding wheels before mounting. Do not mount wheels that are damaged or cracked.
- Check grinding wheel speed rating. Rating on wheel must be greater than the tool speed marked on the housing.
- If grinding wheel 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®).
- A Motor Tune-Up Kit (P/N 96179) is available which includes high wear and medium wear motor parts.
- Air tool labels must be kept legible at all times, if not, reorder label(s) 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 below).
- <u>DO NOT</u> carry tool by air hose or near the tool throttle lever.
- Protect Type 27 grinding wheel from exposure to water, solvents, high humidity, freezing temperature and extreme temperature changes.
- DO NOT USE Type 27 grinding wheels that have been dropped or show signs of cracks, nicks or other defects.
- Store accessories in protective racks or compartments to prevent damage.

Machine Specifications

Model	Motor	Motor	Sound	Maximum Air Flow	Spindle	Air Pressure	Weight	Length	Height
Number	hp (W)	RPM	Level	CFM/SCFM (LPM)	Thread	PSIG (Bars)	Pound (kg)	Inch (mm)	Inch (mm)
52706	.4 (306)	12,000	81 dB(A)	3/23 (651)	3/8"-24 male	90 (6.2)	1.7 (.8)	7-1/2 (189)	3 (77)

Additional Specifications: Air Inlet Thread 1/4" NPT • Hose I.D. 1/4" or 8mm

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.

Right-Angle Grinder Complete Assembly

(13A) (13B)					21	
)	20 27	0
		ds (23	(2			
		L			Q1 (21) (26) (33)	
		(22)	32		₹ 3 4 (36)	
5		29	30)		€)0-\$ 1 0	
A 3 3-	- 2 3 N·I	<u>n</u>)	Right Hand Threads		38 35 39	(37)
				(40) (40) (40) (40) (40) (40) (40) (40)	41	
				50	7 (48)	
		43)000	49
				46		
		42	(44)		Oil: O ₁ = Air Lube W Wicking: W ₁ = Ge	
					A Adhesive: $A_4 = L_1$ $A_8 = L_1$ Torque: N•m x 8.8	
		4			•	

Index Key No. Part # Description 02054 4" Guard Assembly 1 2 **50359** Flange (2) 3 **02083** Spindle 4 02035 Lock Nut 01486 Felt Silencer 5 6 **54520** Bearing 7 97116 Shim 8 **97117** Shim 9 97118 Shim 10 02623 Gear 11 02042 Wick (Bottom) 12 02043 Wick (Top) 13 02031 Housing - Includes: 13A 01041 Gear Oil Fitting 13B 02041 Gear Oil Plate 13c 02033 Needle Bearing 14 02624 Pinion 15 01461 Lock Nut 16 02649 Bearing 17 54543 Shim 18 54544 Shim 19 **54551** Shim 20 01478 Bearing Plate 21 50767 Pin (2) 22 01479 Spacer 23 **02037** Rotor 24 01480 Blade (4/pkg.) 25 01476 Cylinder 26 **02676 Bearing Plate** 02696 27 Bearing 28 02679 Shield 29 01547 Collar 30 02053 Housing 31 12132 Pin 01449 Valve Stem 32 Safety Throttle Lever 33 01462 34 01464 Seal 35 01472 Tip Valve 36 01468 Spring 37 01564 Air Control Ring 38 95558 **Retaining Ring** O-Ring 39 95730 Speed Regulator Assy. 40 01469 41 01024 O-Ring 42 95438 O-Ring 43 95711 Retaining Ring 44 94521 Muffler Base 45 94528 Felt Muffler 46 94522 Muffler Cap 47 95375 O-Ring 48 94526 Spacer 49 94523 Inlet Adapter 50 94519 Muffler Assembly 95262 Open-end Wrench (14mm) 51 96148 Pin Wrench 52



Disassembly/Assembly Instructions - Right-Angle Tools

Important: Manufacturer's warranty is void if tool is disassembled before warranty expires. Please refer to parts breakdown for part identification.

Angle-Head Disassembly:

- 1. Disconnect the tool from the air supply. Important: Hold the air inlet adapter securely with a wrench before removing the air fitting so as to prevent damage to the composite housing.
- 2. Use supplied wrenches to remove the 50359 Flanges (2) and any abrasives.
- 3. Secure the 02031 Housing in a vise by using the 52296 Repair Collar to provide protection for the housing. Position the housing so that the 02035 Lock Ring is facing up.
- 4. Use the 50971 Lock Ring Tool (ordered separately) to remove the 02035 Lock Ring, by turning it counterclockwise.
- 5. Grasp the spindle to pull the spindle, the 54520 Bearing, the gear and the shims out of the housing.
- 6. The bearing and gear can be pressed off the spindle with the 96232, #2 Arbor Press.
- If necessary the 02033 Needle Bearing can be removed by using a 5/16" dia. flat end drive punch to push the 02041 Gear Oil Plate, and 01041 Gear Oil Fitting out of the 02031 Housing.

Angle-Head Disassembly Complete.

Motor Disassembly:

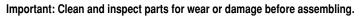
- 1. Disconnect the tool from the air supply. Important: Hold the air inlet adapter securely with a wrench before removing the air fitting so as to prevent damage to the composite housing.
- 2. Secure the motor housing in a vise by using the 52296 Repair Collar (ordered separately) or padded jaws to provide protection for the housing. Position the tool so that the angle-head is pointing up.
- 3. Use a 34 mm or an adjustable wrench to remove the 01461 Lock Nut by turning it clockwise.
- 4. Pull the motor assembly out of the motor housing.
- 5. Fasten the 96346, 2" Bearing Separator around the portion of the 01476 Cylinder that is closest to the 02676 Rear Bearing Plate.
- 6. Place the bearing separator on the table of the arbor press so that the pinion gear end of the rotor is pointing toward the floor.
- 7. Use a 3/16" dia. flat end drive punch as a press tool and position it on the rotor shaft. Press the rotor out of the 02696 Bearing. The 02696 Bearing can be removed from the 02676 Bearing Plate with the 96210 Bearing Removal Tool and the arbor press.
- 8. Secure the body of the rotor in a vise with bronze or aluminum jaws so that the pinion gear is pointing up.
- 9. Use a wrench to remove the pinion gear from the rotor by turning it counterclockwise.
- 10. Push the 02649 Bearing out of the front bearing plate and remove the shims.
- 11. Slip the 01479 Spacer off the rotor.

Motor Disassembly Complete.

Valve Disassembly:

- 1. Use the **52296** Repair Collar to securely hold the motor housing in a vise so that the inlet adapter is pointing up.
- Remove the muffler assembly by loosening the inlet adapter. Remove the 01468 Spring, 01472 Tip Valve, and 01464 Seal. Refer to the parts breakdown for part identification and the sequence of disassembly for the muffler.
- **3.** Reposition the motor housing in the vise so that the throttle lever, and the **12132** Pin are accessible. Remove the pin and lever by using a 2.5 mm dia. drive punch.
- Use retaining ring pliers to remove the 95558 Retaining Ring and push the 01469 Speed Regulator Assembly out of the motor housing.

Valve Disassembly Complete.



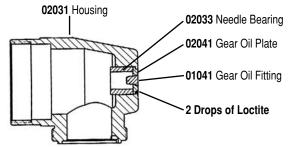
Valve Assembly:

- 1. Install the 01469 Speed Regulator Assembly into the motor housing, and secure it in place with the 95558 Retaining Ring.
- 2. Use the 52296 Repair Collar to securely hold the motor housing in a vise so that the air inlet is pointing up.
- 3. Insert the 01449 Valve Stem into the speed regulator assembly so that the hole in the valve stem aligns with the air inlet hole in the motor housing.
- 4. Install the 01464 Seal so that it lays flat. Use a needle nose pliers to grasp the nylon portion of the 01472 Tip Valve and install it so that the metal pin fits into the hole of the 01449 Valve Stem.
- 5. Install the 01468 Spring so that the smaller end fits against the back of the tip valve.
- 6. Refer to the parts breakdown for part identification and the sequence of assembly for the muffler. Apply a small amount of Loctite #567 (or equivalent) to the male threads of the inlet adapter and install the muffler assembly. Tighten the inlet adapter. (Torque to 23 N•m/200 in. lbs.)

Valve Body Assembly Complete.

Motor Assembly:

- 1. Secure the body of the rotor in a vise with bronze or aluminum jaws so that the threaded end is pointing up.
- 2. Slip the 01479 Spacer onto the 02037 Rotor.
- 3. Select .003 (.08mm) thick shims from the 54529 Shim Pack and place these into the 01478 Front Bearing Plate.
- 4. Install the 02649 Bearing into the front bearing plate and slip the bearing/plate assembly onto the rotor.
- 5. Install the pinion onto the rotor, making it hand tight.



Disassembly/Assembly Instructions - (continued)

- 6. Check the clearance between the rotor and the bearing plate with a .001 thick feeler gauge. Clearance should be .001" to .0015" (0.03-0.04mm). If it's necessary, readjust clearance by repeating steps 3-5 with different thickness shims.
- 7. Once the proper rotor/plate clearance is achieved wrench tighten the pinion. (Torque to 17N•m/150 in. lbs.)
- 8. Apply the 95842 Dynabrade Air Lube (10W/NR or equivalent) to the 01480 Blades and install them onto the rotor.
- 9. Use the 96216 Bearing Press Tool so that it pushes against the outer race of the 02696 Bearing and install it into the 02676 Rear Bearing Plate with the arbor press.
- 10. Place the pinion on the tool plate of the arbor press so that the rear portion of the rotor is pointing up.
- 11. Install the 01476 Cylinder so that it rests against the 01478 Bearing Plate. Note: Make sure that the air inlet passage of the cylinder will properly aligned with the air inlet passage in the 02676 Bearing Plate.
- 12. Use the 96216 Bearing Press Tool so that it pushes against the inner race of the 02696 Bearing and install the rear bearing/plate assembly onto the rotor with the arbor press. Important: Carefully press the rear bearing/plate assembly onto the rotor until it touches the 01476 Cylinder. A "snug" fit should exist between the bearing plates and cylinder. If it is too tight the rotor will not turn freely and will cause damage to the bearings. If it is too loose the proper bearing preload will not be achieved.
- 13. Apply a small amount of grease to the seal of the 02696 Rear Bearing and place the 02679 Shield against the seal of the bearing.
- 14. Install the motor assembly into the housing so that the air passage node of the rear bearing plate aligns with the air passage notch inside the housing.
- 15. Apply a small amount of Loctite #567 (or equivalent) to the threads of the motor housing and use a 34mm (or an adjustable wrench) to connect the anglehead assembly to the motor housing. (Torque to 34 N•m/300 in. lbs.)

Motor Assembly Complete.

Angle-Head Assembly:

- 1. Press the 01041 Gear Oil Fitting into the 02041 Gear Oil Plate.
- 2. Carefully apply two drops of Loctite #680 (or equivalent) to the recessed area of the 02031 Housing and press the gear oil plate along with gear oil fitting into the housing. (Allow 30 minutes for the adhesive to cure.)
- 3. Press the 02033 Needle Bearing into the housing.
- 4. Position the 96239 Bearing Press Tool so that it rests against the inner race of the 54520 Bearing and press the bearing onto the spindle.
- 5. Align the hex shaped I.D. area of the gear with that of the spindle and press the gear into place.
- 6. Apply a small amount of Loctite #567 (or equivalent) to the mating threads of the 02031 Housing. Connect these parts while being aware of the right and left hand threads.
- 7. Place the 52296 Repair Collar around the motor housing and position the tool in a vise so that the angle-housing end of the tool is pointing up.
- Use a 34 mm or adjustable wrench on the 01461 Lock Nut while holding the angle housing stationary with one hand. Note: The throttle lever can be positioned in 360° to the desired location. Allow for additional rotation when tightening the lock nut. (Torque to 23 N•m/200 in. lbs.)
- 9. Reposition the tool assembly in the vise so that the opening in the angle housing, for the 02035 Lock Ring is facing up.
- 10. Soak the wicks in the 95848 Gear Oil before installing them into the 02031 Housing. Install the top wick first followed by the bottom wick. Position truncated side of each wick toward the end of the pinion gear.
- 11. Install the 02028 Spindle into the angle housing. Apply a slight amount of pressure down on the spindle while rotating it back and forth checking for the proper backlash or fit between the gears. A slight amount of backlash or clearance should exist between the bevel and pinion gears. When a tight fit exist, then add shims as needed placing the required thickness of shims between the outer race of the 54520 Bearing and the bearing seat in the housing.
- Place (1) 01486 Felt Silencer into the 02035 Lock Ring, and apply a small amount of Loctite #567 (or equivalent) to the threads of the 02035 Lock Ring. Use the 50971 Lock Ring Wrench to install the lock ring onto the 02031 Housing. (Torque to 23 N•m/200 in. lbs.)
- 13. Install and orient 02054 (4") Wheel Guard Assembly, position to best protect operator.
- 14. Install flanges and abrasive following mounting procedure.

Angle-Head Assembly Complete.

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

Important: 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. 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. Loctite[®] is a registered trademark of Loctite Corp.

Special Greasing Instructions



• Lubricate wick system through the angle gear oil fitting with 2-3 plunges for every 24 hours of use, to achieve maximum gear life.

Important: Use only the recommended angle gear oil for the wick system. Do not contaminate the wick with any other oil or grease product.

(Order 95848 Gear Oil and 95541 Gun)

Preventative Maintenance Schedule

For Model 52706

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 T Included in Tune-Up Kit X Type of wear, no other comments apply. L Easily lost. Care during assembly/disassembly. D Easily damaged during assembly/disassembly. R Replace each time tool is disassembled.



96179 - Motor Tune-Up Kit

		Description	Manakan		Madiana Wear	I W/	
Index		Description	Number		Medium Wear		Non-Wear
	Number		Required	100%	70%	30%	10%
1		4" Guard Assembly	1				X
2	50359		2				Х
3	02083	Spindle	1				X
4	02035	Lock Nut	1				Х
5		Felt Silencer	1	Т			
6	54520		1		Т		
7	97116	Shim	1		T		
8	97117	Shim	1		Т		
9	97118	Shim	1		Т		
10	02623	Gear	1			Х	
11	02042	Wick	1		Т		
12	02043	Wick	1		т		
13	02031	Housing	1			_	Х
13a		Gear Oil Fitting	1			D	
13в	02041	Gear Oil Plate	1			X	
13c	02033	Needle Bearing	1			Х	
14	02624	Pinion	1			Х	
15	01461	Lock Nut	1			Х	
16	02649	Bearing	1		Х		
17	54543	Shim	1		т		
18	54544	Shim	1		Т		
19	54551	Shim	1		Т		
20	01478	Bearing Plate	1			Х	
21	50767	Pin	2			Х	
22	01479	Spacer	1			Х	
23	02037	Rotor	1				Х
24	01480	Blade (4/pkg.)	1	Т			
25	01476	Cylinder	1			Х	
26	02676	Bearing Plate	1			Х	
27	02696		1		Т		
28	02679	Shield	1		Т		
29	01547	Collar	1			Х	
30	02053	Housing	1				Х
31	12132	Pin	1		Т		
32	01449	Valve Stem	1		Т		
33	01462	Safety Throttle Lever	1			Х	
34	01464	Seal	1		Т		
35		Tip Valve	1		т		
36	01468	Spring	1		Т		
37	01564		1				L
38	95558	Retaining Ring	1	Т			
39		O-Ring	1				D
40	01469	Speed Regulator Assy.	1		Т		
41	01024		1				D
42	95438	O-Ring	1			D	
43	95711	Retaining Ring	1	Т			
44	94521	Muffler Base	1			Х	
45	94528		1	Т			
46	94522	Muffler Cap	1			Х	
47	95375	O-Ring	1			L	
48	94526	Spacer	1			L	
49	94523	Inlet Adapter	1			_	Х
10	01020	initer iduptor	•				A

Optional Accessories

FIND THE MOST CURRENT OFFERING OF SUPPORT DOCUMENTS AND ACCESSORIES @ WWW.DYNABRADE.COM



Dvnaswivel®

 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.



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: 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.



Dynabrade Angle Gear Oil

· Specifically formulated to saturate wick system in right angle gear head.

95848: 2.5 oz. tube

95541: Gear Oil Gun









maintain and repair motor.

· Includes assorted parts to help

96179 Motor Tune-Up Kit

53621 Overhose Assembly

 Overhose Assembly directs exhaust away from operator.

Composite-Style Coupler

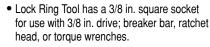
- Lightweight 1.4 oz. (.05 Kg), non-marring composite material.
- · Easy connect/disconnect by single push-button action.
- Shock-proof, low-vibration, crush-resistant. 94960: 1/4" Female NPT 94980: 1/4" Male NPT



52296 Repair Collar

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

50971 Lock Ring Wrench



Reference Contact Information

- 1. American National Safety 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

Visit Our Web Site: www.dynabrade.com

3. European Committee for Standardization Rue de Stassart 36 B - 1050 Brussels, Belgium



Email: Customer.Service@Dynabrade.com

DYNABRADE, INC., 8989 Sheridan Drive • Clarence, NY 14031-1490 • Phone: (716) 631-0100 • Fax: 716-631-2073 • International Fax: 716-631-2524 DYNABRADE EUROPE S.ar.I., Zone Artisanale • L-5485 Wormeldange—Haut, Luxembourg • Telephone: 352 76 84 94 1 • Fax: 352 76 84 95 1 © DYNABRADE, INC., 2005 PRINTED IN USA