Angle Head Drill
3,200 RPM

Parts Page Reorder No. PD09•31
Effective June, 2009

Air Tool Manual – Safety, Operation and Maintenance

SAVE THIS DOCUMENT, EDUCATE ALL PERSONNEL

Models:

53135 – Vacuum Drill
53430 – Drill



Model 53135

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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 statues, ordinances and/or regulations.





⚠ WARNING

Respiratory protection to be used when exposed to contaminant's 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 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: Angle Head Drills can be used to drill wood, ceramics, plastics, fiberglass, laminates, hard and soft materials.

Do Not use tool for anything other than intended applications.

Training: Proper care, maintenance, and storage of your tool will maximize performance.

- Employer's Responsibility – Provide Angle Head Drill operators with safety instructions and training for safe use of tools and accessories.

Caution: Remove adjusting keys or wrenches before turning on the tool. A wrench or a key that is left attached to a rotating part of the tool may result in personal injury.

(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 recommended accessories. See back page of manual and Dynabrade catalog.
- Follow tool specifications before choosing size and type of accessory.
- Only use recommended fittings and air line sizes. Air supply hoses and air hose assemblies must have a minimum working pressure rating 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. 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.

- Tool RPM must never exceed abrasive/accessory RPM rating. Check accessory manufacturer for details on maximum operating speed or special mounting instructions.

Warning: Keep hand and clothing away from working end of the air tool. Tool movement or breakage of inserted tool may cause injury.

Caution: Release throttle lever in case of an interruption of the energy supply. Use only recommended angle gear "grease". Do not contaminate the grease with any other product.

Warning: 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 drill 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.

DRILL ACCESSORY MOUNTING INSTRUCTIONS

Warning: Disconnect power source before removing inserted tool.

- Use **95987** 5/16" wrench to hold flats on **54549** Spindle and thread drill bit all the way into spindle. Use adjustable wrench to turn flats on drill bit clockwise until it is securely fastened.

Caution: Remove adjusting keys or wrenches before turning the tool on. A wrench or a key if left attached to a rotating part of the tool may result in personal injury.

- 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 Angle Head Drill 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.

- To remove bit, use **95987** 5/16" wrench to hold flats on **54549** Spindle. Use adjustable wrench to remove bit by turning it counterclockwise until it is free of **54549** Spindle.

Bit Selection:

- Use sharp bits. Sharp bits are less likely to bind when drilling.
- Use the proper bit for the job. Check the information on the bit's packaging for proper usage. Do not use bits larger than the rated capacity of the drill.

Caution: If the bit binds, the drill will suddenly react in the opposite direction of the rotation of the bit. The operator should prepare for a sudden reaction by holding the tool securely.

- Use proper speed for the size of bit. larger bits should be run at the lower speed. Driving larger bits at the high speeds will increase the chance of reaction.
- Avoid drilling warped, wet, knotty, and pitchy materials if possible.
- When removing the bit from the tool avoid contact with the skin and use proper protective glove when grasping the bit or accessory. Accessories may be hot after prolonged use.
- Make sure that work area is uncluttered, and visitors are at a safe range from the tools and debris.
- A moving drill accessory that snags or catches within work piece may cause tool to stop unexpectedly or move erratically, which may cause injury.
- Release throttle lever in case of interruption of the energy supply.

Warning: 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.

Warning: Always work with a firm footing, posture and proper lighting.

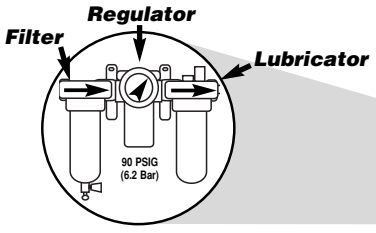
- Ensure that sparks and debris resulting from work do not create a hazard.
- This tool is rear exhaust. Exhaust may contain lubricants, vane material, bearing grease, and other materials flushed through the tool.

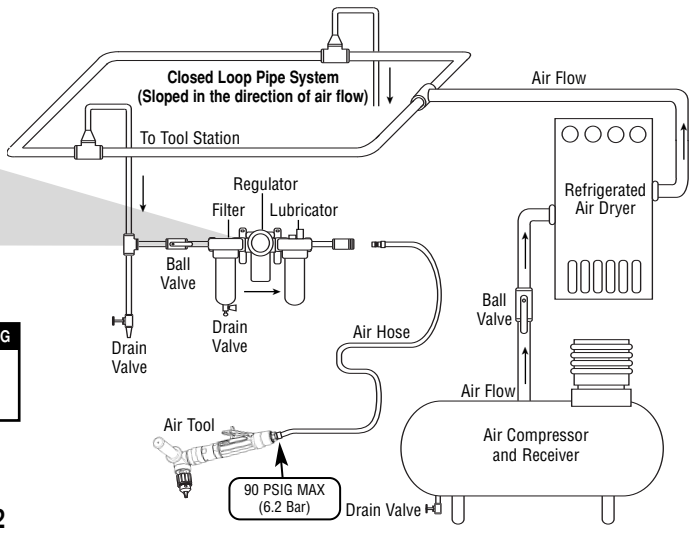
Warning: Drilling certain materials can create explosive dust. It is the employer's responsibility to notify the user of acceptable dust levels.

- Some material contains chemicals which may be toxic. Take caution to prevent dust inhalation and skin contact. Follow material supplier safety data.
- Certain materials can cause sparks which can cause fires or explosions. It is the user's responsibility to make sure the work is done on spark free materials.

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/620 kPa) 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.

LUBRICATOR SETTING
1 DROP/MIN.
20 SCFM

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 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: **10681** Air Filter-Regulator-Lubricator (FRL) – Provides accurate air pressure regulation and two stage filtration of water contaminant's.
- Grease the planetary gear assembly with the **95542** Grease by applying **2-3 plunges** with the **95541** Grease Gun after **every 50 hours** of use for maximum gear life.
- Lubricate the angle gear head the **95542** Grease by applying **1 plunge** with the **95541** Grease Gun after **every 25 hours** of use for maximum gear life.
- 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 Angle Head Drill using a tachometer with out accessory attached with 90 PSIG at inlet while tool is running. This tool should be speed checked on a regular basis. Always check tool speed after any maintenance or repair.

Caution: 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.

Caution: DO NOT clean or maintain tools with chemicals that have a low flash point (example: WD-40®).

- A Motor Tune-Up Kit (P/N **96333**) 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 excessive tool vibration.

Handling and 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.
- Protect abrasive accessories from exposure to water, solvents, high humidity, freezing temperature and extreme temperature changes.
- Store accessories in protective racks or compartments to prevent damage.

Notice

All Dynabrade motors use the highest quality parts and materials 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.

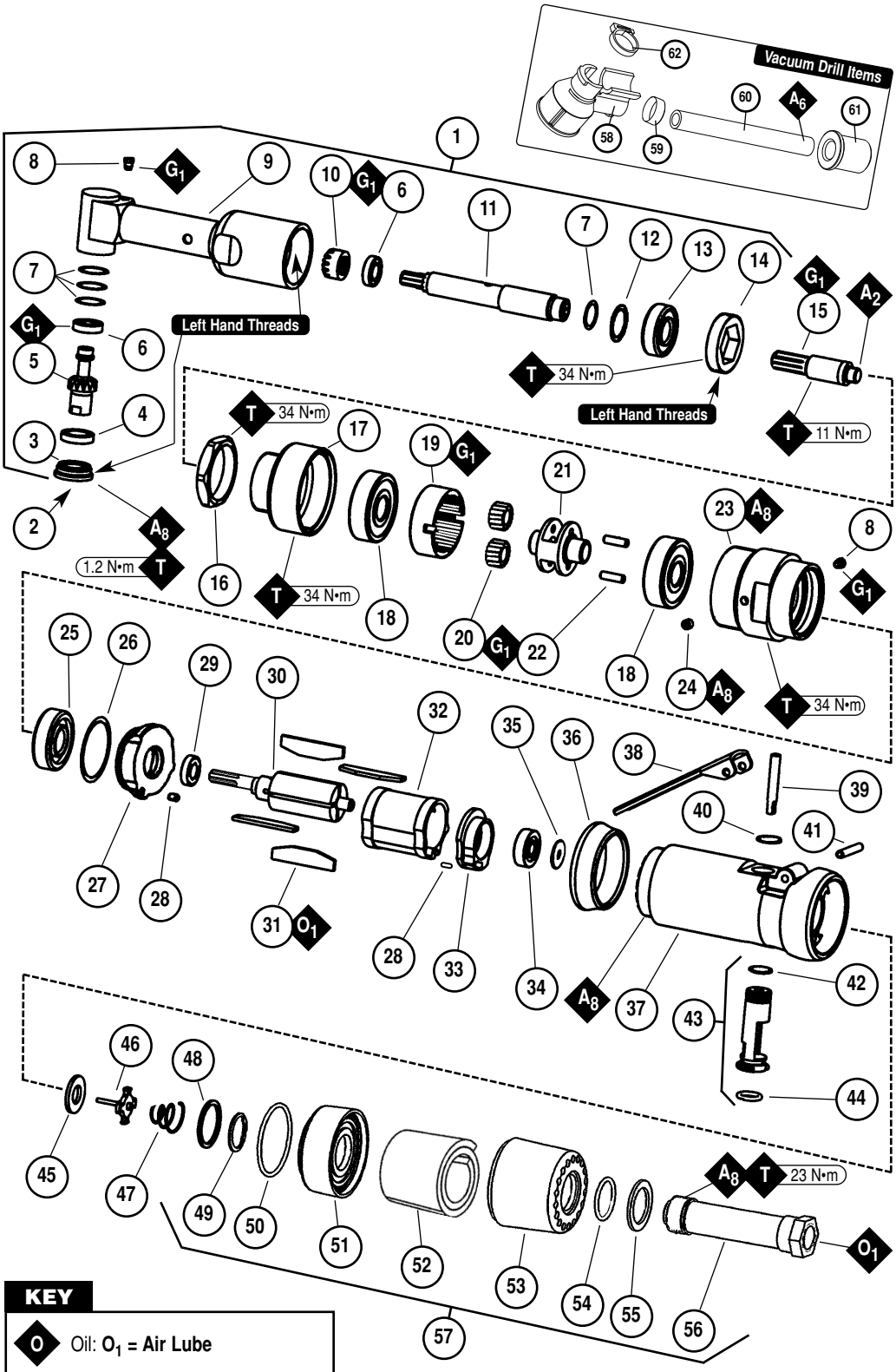
Lifetime Warranty

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. 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.

Angle Head Drill
Complete Assembly

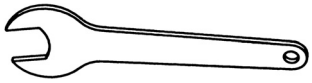
Index Key

No.	Part #	Description
1	**54560**	Angle-Head Assy.
2	**Head Assembly***	
3	**54550**	Bearing Cap
4	**54537**	Bearing
5	**54549**	Spindle
6	**54542**	Bearing (2)
7	**54536**	Shim Pack (3/pkg.) (2)
8	**01041**	Grease Fitting (2)
9	**54547**	Angle-Head Housing
10	**54546**	Bevel Gear
11	**54541**	Spindle
12	**54551**	Shim (2)
13	**95398**	Bearing
14	**54540**	Retaining Nut
15	**53450**	Spline Drive
16	**54527**	Lock Ring
17	**53451**	Adapter
18	**54520**	Bearing (2)
19	**54468**	Ring Gear
20	**54519**	Gear (2)
21	**50786**	Carrier
22	**54472**	Shaft (2)
23	**53152**	Gear Case
24	**50784**	Set Screw
25	**02649**	Bearing
26	**54529**	Shim Pack (3/pkg.)
27	**01478**	Front Bearing Plate
28	**50767**	Pin (2)
29	**01479**	Spacer
30	**54554**	Rotor
31	**01480**	Motor Vane (4/pkg.)
32	**01476**	Cylinder
33	**02676**	Rear Bearing Plate
34	**02696**	Bearing
35	**02679**	Shield
36	**01547**	Collar Insulator
37	**02186**	Housing - **53430**
	02231	Housing - **53135**
38	**01448**	Throttle Lever
	01462	Safety Throttle Lever
39	**01449**	Valve Stem
40	**95558**	Retaining Ring
41	**12132**	Spring Pin
42	**95730**	O-Ring
43	**01469**	Speed Regulator Assy.
44	**01024**	O-Ring
45	**01464**	Seal
46	**01472**	Tip Valve
47	**01468**	Spring
48	**01564**	Air Control Ring
49	**95711**	Retaining Ring
50	**95438**	O-Ring
51	**94521**	Muffler Base
52	**94528**	Muffler
53	**94522**	Muffler Cap
54	**95375**	O-Ring
55	**94526**	Spacer
56	**94523**	Inlet Adapter
57	**94519**	Muffler Assembly
58	**52755**	Vacuum Shroud
59	**30709**	Hose Clamp (2)
60	**51791**	3/8" x 6' Vacuum Hose
61	**51790**	Vacuum Hose Adapter
62	**02341**	Snap Grip Tube Clamp



KEY

- **O** Oil: **O_1 = Air Lube**
- **G** Grease: **G_1 = Lubriplate 630 AA**
- **A** Adhesive: **A_2 = Loctite #271**, **A_6 = Loctite #380**, **A_8 = Loctite #567**
- **T** Torque: **N•m x 8.85 = In. - lbs.**



95987 5/16" Open End Wrench

Disassembly/Assembly Instructions

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

Angle-Head Tool Disassembly:

1. To avoid damage to motor housing use **52296** Repair Collar and secure motor housing in a vise.
2. Using two wrenches, place one on **54527** Lock Ring, and the other on **54547** Angle-Head Housing. Turn **54547** Housing clockwise (left hand thread).

To Remove Planetary Gear Housing and Motor Assembly:

1. Secure wrench to **53152** Gear Housing and turn counter-clockwise to remove planetary assembly.
2. Slide motor out of housing. **Note:** If motor does not slide out freely, tap end of housing with plastic mallet.

To Disassemble Planetary Gear Assembly:

1. Secure **53152** Gear Housing in vise, secure pin wrench to **53451** Adapter and turn counterclockwise to remove and expose planetary assembly. **Note:** Dynabrade, Inc. **97782** Pin Wrench may be used. Loosen **50784** Lock Screw and remove planetary assembly.
2. Clamp a bearing separator between the **54468** Ring Gear and the **54520** Bearing toward the spline end of the assembly.
3. Hang the planetary assembly with the separator in an arbor press (spline end pointing up) and press bearing from **50786** Carrier.
4. Remove **54468** Ring Gear and both **54519** Gears (2) along with **54472** Shafts. Press remaining **54520** Bearing from **50786** Carrier.
5. The **53450** Spline need not be removed from the **50786** Carrier as it is a durable item.

Motor Disassembly:

1. Clamp a bearing separator between the **02676** Bearing Plate and the **01476** Cylinder.
2. Hang the motor assembly with the separator in an arbor press (**Note:** gear end pointing down) and press **02696** Bearing from **54554** Rotor.
3. **02676** Rear Bearing Plate and **02696** Bearing can now be pressed off. Press **02649** Bearing and **01478** End Plate from **54554** Rotor.

Angle-Head Assembly Disassembly:

1. Remove **54540** Retaining Nut using a standard 5/8" hex key. **Note:** Left hand thread.
2. Slide out **54541** Spindle and associated parts from **54547** Angle-Head Housing.
3. Loosen **54550** Bearing Cap, using a standard pin wrench (**Note: 96165** Dynabrade Pin Wrench. Pull out **54549** Spindle and associated parts).

Disassembly Complete.

Angle-Head Assembly Assembly:

Important: Be sure parts should be thoroughly cleaned before assembling. Follow all grease, oil and torque specifications.

1. Assemble **54542** Bearing and **54537** Bearing to **54549** Spindle. Insert assembly into small cavity of angle-head.
2. Screw in **54550** Bearing Cap and test for end-play. Spindle must turn freely, but there should not be excessive end-play. If end-play is excessive, insert **54536** Shims as required in **54547** Angle-Head Housing behind **54542** Bearing.
3. Press **54542** Bearing, and slip **54546** Bevel Gear onto **54541** Spindle. Install **95398** Bearing onto **54541** Spindle and insert spindle assembly into housing.
4. Use a standard 5/8" hex key to install **54540** Retaining Nut (**Note:** left hand thread) in **54547** Angle-Head Housing "finger tight".
5. Test for backlash between gears. There should be .002 to .003 backlash between the gears. If assembly does not have proper backlash, remove **54540** Retaining Nut and **95398** Bearing. Place shims as required on bearing seat of **54541** Spindle. Replace **95398** Bearing and **54540** Retaining Nut. When proper backlash is set, tighten **54540** Retaining Nut with standard 5/8" hex key and recheck for backlash.
6. Torque the **54540** Retaining Nut 34 N•m/300 in. - lbs.

Motor Assembly:

1. Slip **01479** Spacer onto **54554** Rotor.
2. Place a .002" shim into **01478** Front Bearing Plate as an initial spacing. Then slip **02649** Bearing into **01478** Front Bearing Plate. Press assembly onto rotor.

(continued on next page)

Disassembly/Assembly Instructions Continuted

Motor Assembly Continued:

3. Check the clearance between rotor and bearing plate by using a .001" feeler gauge. Clearance should be at .001" to .0015". Adjust clearance by repeating steps 1-3 changing shims as required.
4. Once proper rotor gap clearance is achieved, install lubricated blades into rotor slots. (Use **95842** Dynabrade Air Lube or equivalent.)
5. Install **01476** Cylinder so it rests against the **01478** Front Bearing Plate, (make sure inlet holes of cylinder line up with inlet holes in **02676** Rear bearing Plate).
6. Press **02696** Bearing into **02676** Rear Bearing Plate. Press this assembly onto rotor. Important: Fit must be snug between bearing plates and cylinder. 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. A loose fit will not achieve the proper preload of motor bearings. Next, place a small amount of grease on the **02696** Bearing and stick the **02679** Shield against the bearing.

Planetary Gear Assembly:

1. Press **54520** Bearing onto front end of **50786** Carrier until it seats. Install **54519** Gears with holes in **50786** Carrier and slide in **54472** Shafts
2. Slip **54468** Ring Gear over gears and press rear **54520** Bearing onto **50786** Carrier until there is a slight drag between the ring gear and the two bearings.
3. Slide assembly into **53152** Gear Case aligning slots in **54468** Ring Gear with holes in gear case.
4. Install **50784** Lock Screw into **53152** Gear Case using #567 Loctite or equivalent. Install **53451** Adapter to **53152** Gear Case, torque 34 N•m/300 in. - lbs. (use a small amount of #567 Loctite® on threads).

To Assemble Motor and Planetary Gear Housing:

1. Slip motor into housing making sure motor drops all the way into housing. Secure motor assembly in vise using **52296** Repair Collar.
2. Attach **53152** Gear Case with planetary gears installed onto housing, torque 34 N•m/300 in. - lbs. (Use a small amount of #567 Loctite® on threads.)

To Install Angle-Head to Motor Assembly:

1. Run **54527** Lock Ring tight against **53451** Adapter (**Note:** Left-hand thread).
2. Assemble **5456** Angle-Head Assembly by threading onto **53451** Adapter making sure **53450** Spine Drive engages into rear of **54541** Spindle (engage as many threads as possible until proper orientation is achieved with throttle).
3. Secure **54560** Angle-Head Assembly by torquing **54527** Lock Ring 34 N•m/300 in. - lbs. against the **54547** Housing.

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

Note: Motor should operate at 3,200 RPM at 6.2 bar (90 PSIG). RPM should be checked with a tachometer.

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. 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.

Machine Specifications

Model Number	Motor hp (W)	Motor RPM	Air Inlet Thread	Sound Level	Air Flow Rate SCFM (LPM)	Air Pressure PSIG (Bars)	Hose I.D. Size	Weight Pound (kg)	Length Inch (mm)	Height Inch (mm)
All Models	.4 (298)	3,200	1/4" NPT	77 dB(A)	21 (595)	90 (6.2)	1/4" (6 mm)	2.0 (.9)	11-3/4 (276)	3-1/2 (90)

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

Preventative Maintenance Schedule

Angle Head Drill

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:

Index #	Part Number	Description	Number Required	High Wear 100%	Medium Wear 70%	Low Wear 30%	Non-Wear 10%
3	**54550**	Bearing Cap	1				X
4	**54537**	Bearing	1			T	
5	**54549**	Spindle	1				X
6	**54542**	Bearing	2			T	
7	**54536**	Shim Pack (3/pkg.)	2		X		
8	**01041**	Grease Fitting	2				T
9	**54547**	Angle Head Housing	1				X
10	**54546**	Bevel Gear	1			X	
11	**54541**	Spindle	1				X
12	**54551**	Shim	2	T			
13	**95398**	Bearing	1			T	
14	**54540**	Retaining Nut	1				X
15	**53450**	Spline Drive	1			X	
16	**54527**	Lock Ring	1			X	
17	**53451**	Adapter	1			X	
18	**54520**	Bearing	2			X	
18	**54468**	Ring Gear	1			X	
20	**54519**	Gear Assembly	2			X	
21	**50786**	Carrier	1				X
22	**54472**	Shaft	2			X	
23	**53152**	Gear Case	1			X	
24	**50784**	Set Screw	1			L	
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**	Spacer	1			T	
30	**54554**	Rotor	1			X	
31	**01480**	Motor Vane (4/pkg.)	1	T			
32	**01476**	Cylinder	1			X	
33	**02676**	Rear Bearing Plate	1			X	
34	**02696**	Bearing	1	T			
35	**02679**	Shield	1			T	
36	**01547**	Collar Insulator	1			X	
37	**See pg 4**	Housing	1				X
38	**See pg 4**	Throttle Lever	1			X	
39	**01449**	Valve Stem	1			T	
40	**95558**	Retaining Ring	1		T		
41	**12132**	Spring Pin	1			T	
42	**95730**	O-Ring	1			T	
43	**01469**	Speed Regulator Assy.	1		T		
44	**01024**	O-Ring	1			T	
45	**01464**	Seal	1			T	
46	**01472**	Tip Valve	1			T	
47	**01468**	Spring	1			T	
48	**01564**	Air Control Ring	1				L
49	**95711**	Retaining Ring	1		T		
50	**95438**	O-Ring	1			T	
51	**94521**	Muffler Base	1			X	
52	**94528**	Muffler	1	T			
53	**94522**	Muffler Cap	1			X	
54	**95375**	O-Ring	1			T	
55	**94526**	Spacer	1			L	
56	**94523**	Inlet Adapter	1				X
58	**52755**	Vacuum Shroud	1		X		
59	**30709**	Hose Clamp	2				X
60	**51791**	3/8" x 6' Vacuum Hose	1			X	
61	**51790**	Vacuum Hose Adapter	1				X
62	**02341**	Snap Grip Tube Clamp	1				X

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.



Tune-Up Kit

Part No. 96333

Optional Accessories

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



Dynaswivel®

- Swivels 360° AT TWO PIVOT POINTS allowing the air hose to drop directly to the floor while providing superb tool handling.

Part No. 94300 – 1/4" NPT



Motor Tune-Up Kit

- Includes assorted parts to help maintain and repair motor.

Part No. 96333

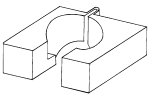


Dynabrade Air Lube

- 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: 1pt. (473 ml)

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



Repair Collar

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

Part No. 51989



Grease 10 oz.

- 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.

Part No. 55542



Push-Type Grease Gun

- One-hand operation.

Part No. 95541

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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