Parts Page Reorder No. PD07•06
Effective February, 2007

DynaZip

Air Tool Manual – Safety, Operation and Maintenance

SAVE THIS DOCUMENT, EDUCATE ALL PERSONNEL

Model:

13280 – 3,500 RPM, Wire Wheel
13320 – 3,500 RPM, Eraser Wheel



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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 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 contaminants 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 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 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: DynaZip is ideal for removal of surface materials using wire wheels and erasing accessories.

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 tool will maximize performance.

- Employer's Responsibility – Provide DynaZip operators with safety instructions and training for safe use of tool and accessories.

Accessory Selection:

- Abrasive/accessory RPM (speed) rating MUST be approved for AT LEAST the tool RPM rating.
- Before mounting an accessory, inspect for defects. Do not use defective accessories.
- Do not use grinding wheels or cut-off wheels.
- 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.

- Keep hand and clothing away from working end of the air tool.
- Working end of the air tool has potential hazard of cutting and severing.

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 AN ACCESSORY, after all tool repairs and whenever a DynaZip 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: Tool RPM must never exceed abrasive/accessory RPM rating. Check accessory manufacturer for details on maximum operating speed or special mounting instructions.

- With power source connected at the air tool relieve hose of air pressure and disconnect tool from air supply when changing recommended accessories.
- 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).

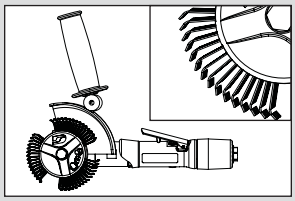
Caution: After installing the accessory, before testing or use and/or after assembling tool, the DynaZip must be started at a reduced speed to check for good balance. Gradually increase tool speed. DO NOT USE if tool vibration is excessive. Correct cause, and retest to insure safe operation.

- Release the throttle lever in case of an interruption of the energy supply.
- Make sure that work area is uncluttered, and visitors are at a safe range from the tools and debris. Potentially explosive atmospheres can be caused by dust and fumes resulting from sanding or grinding. Always use dust extraction or suppression systems which are suitable for the material being processed.
- Proceed with caution in unfamiliar surroundings. Hidden hazards may exist, such as electricity or other utility lines.
- 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.
- Work may generate hazardous dust.
- 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 do not create a hazard.
- This tool is rear exhaust. Exhaust may contain lubricants, vane material, bearing grease, and other materials flushed thru the tool.
- For **92284** Hub Assembly individual parts sequence see parts diagram on page 4.

Common Practices:

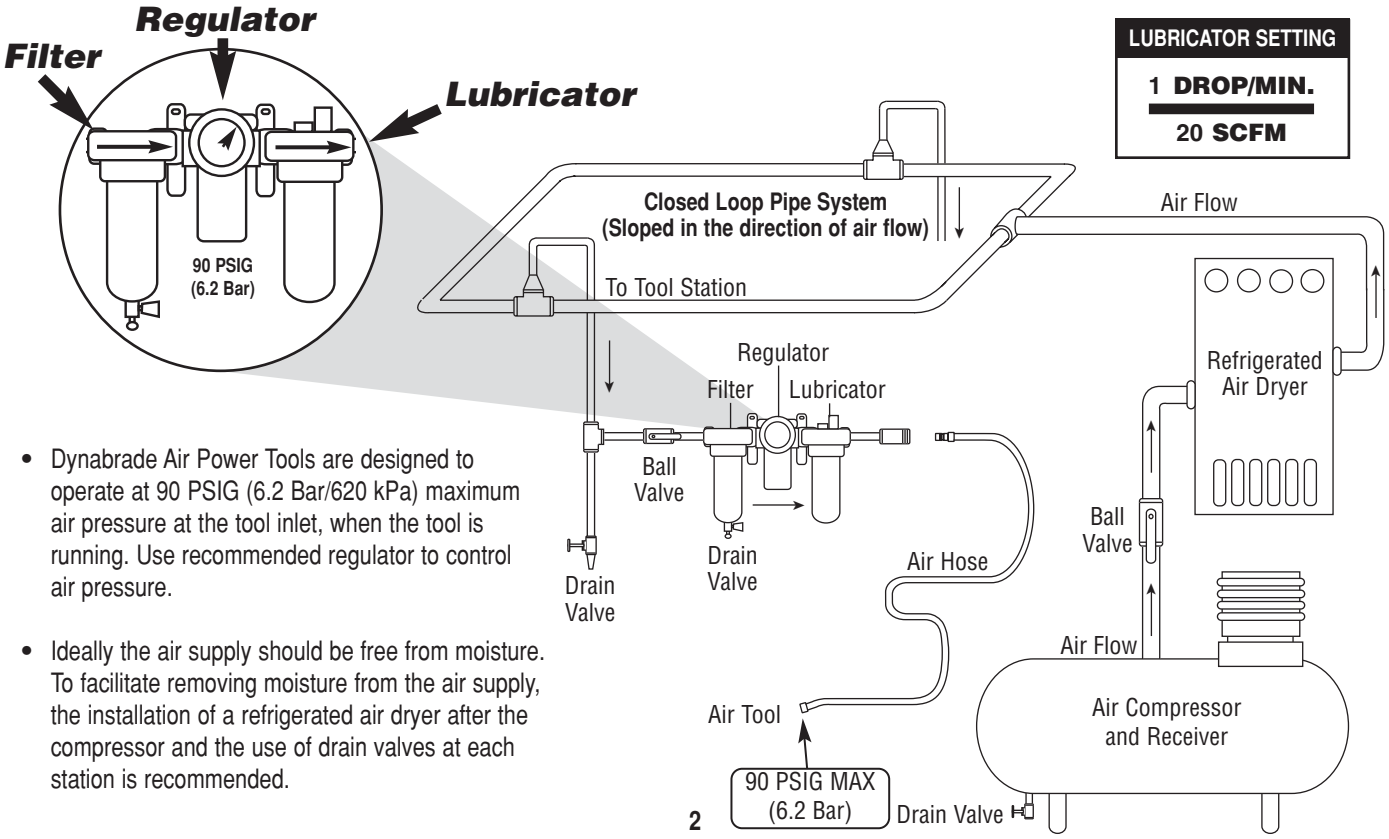
- Proper technique to use Model **13320** is to pull the tool toward you with a slight side to side motion as it is pulled.
- When mounting wire wheels the wire bend should be mounted towards the rotation direction. (See fig.1)
- For proper sharpening, see instructions on page 3 for wheel mounting and procedure. (See fig. 2)

Figure 1



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 the air supply, the installation of a refrigerated air dryer after the compressor and the use of drain valves at each station is recommended.

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 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 Filter-Regulator-Lubricator (FRL) – Provides accurate air pressure regulation and two stage filtration of water contaminants. Operates 40 SCFM @ 100 PSIG with 3/8" NPT female ports.
- **Apply 2 plunges of 95542 Grease through grease fitting located on side of 7˚ Housing with 95541 Grease Gun after every 16 Hours of use.**
- 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 the free speed of DynaZip by using a tachometer on regular basis.
- BEFORE MOUNTING AN ACCESSORY, after all tool repairs and whenever a DynaZip 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.
- 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 **96174**) 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.

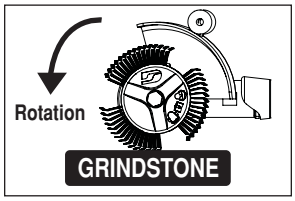
Wire Wheel Sharpening:

- After using Wire Wheels for a certain period of time the tips of the bristles become round and the "brushing" effect is reduced. To recover the Wire Wheel performance on the Coarse or Medium brush, simply run the brushes in REVERSE DIRECTION (See fig.2) on grindstone or concrete flooring for 10-20 seconds. To do this, **DISCONNECT TOOL FROM THE AIR SUPPLY**, then assemble the Wire Wheel in opposite direction to provide reverse spinning to the brush. Reconnect the tool to air supply and spin the brush on the grindstone applying light pressure. Assemble the Wire Wheel in the correct spinning direction again.

Handling and Storage:

- DO NOT rest tool on pad. (See Tool Resting Position Diagram)
- 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.

Figure 2



Machine Specifications

Model Number	Motor hp (W)	Motor RPM	Wheel Dia. Inch (mm)	Sound Level	Maximum Air Flow SCFM (LPM)	Hose I.D. Size Inch (mm)	Air Inlet Thread	Weight Pound (kg)	Length Inch (mm)	Height Inch (mm)
13280	.4 (298)	3,500	4 (102)	79 dB(A)	23 (765)	1/4 (6)	1/4" NPT	3.29 (14.6)	11.5 (293)	4.9 (124)
13320	.4 (298)	3,500	4 (102)	79 dB(A)	23 (765)	1/4 (6)	1/4" NPT	3.29 (14.6)	11.4 (290)	4.9 (124)

Additional Specifications: Air Pressure 90 PSIG (6.2 Bar)
Sound Level is the pressure measurement according to the method outlined in ISO regulation ISO-15744

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.

One Year Warranty

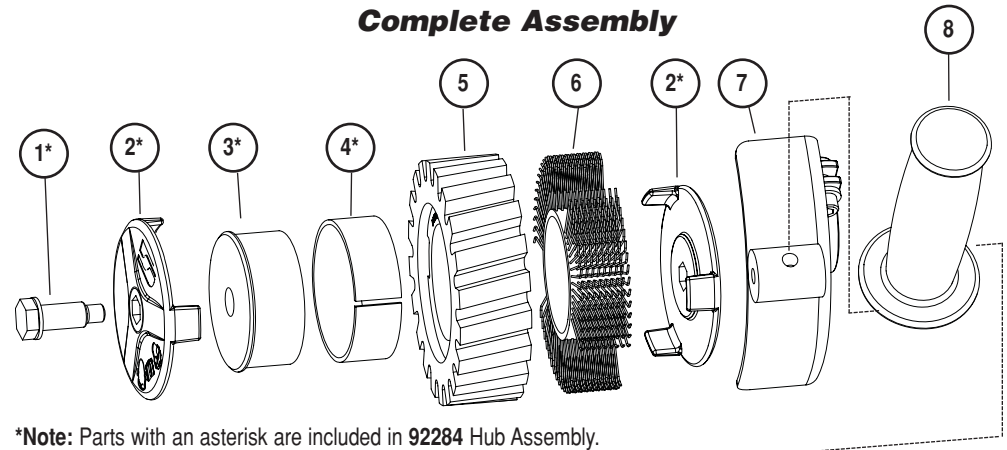
Following the reasonable assumption that any inherent defect which might prevail in a product will become apparent to the user within one year from the date of purchase, all equipment of our manufacture is warranted against defects in workmanship and materials under normal use and service. We shall repair 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.

DynaZip

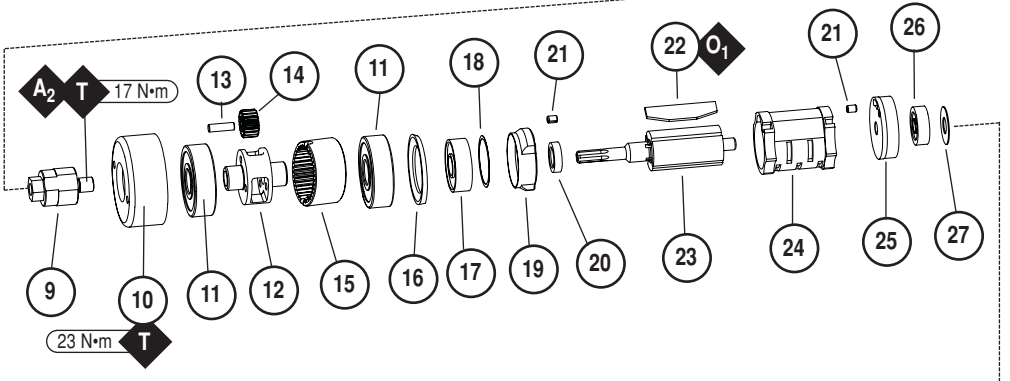
Complete Assembly

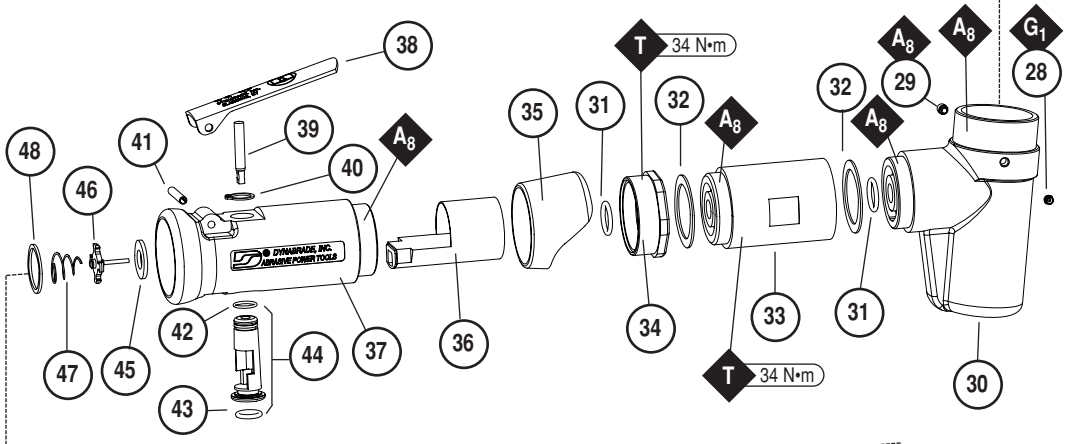
Models:
13280, 13320

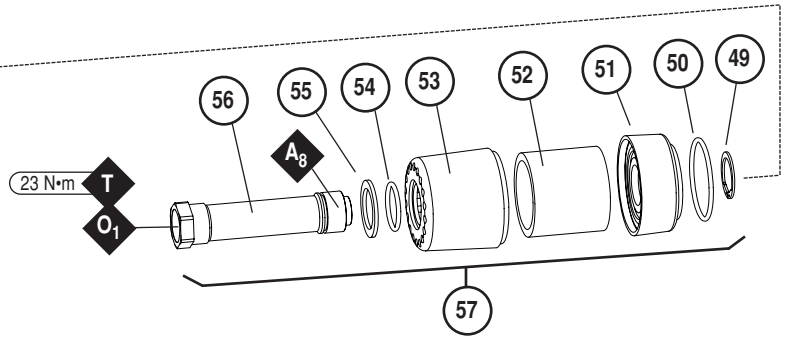
Index Key		
No.	**Part #**	**Description**
1	**92283***	Bolt
2	**92282***	Hub (2)
3	**92281***	Cushion
4	**92280***	Shield
5	**92255**	Red-Tred™(Eraser Whl)
6	**92245**	Wire Wheel (Coarse)
7	**13323**	Guard Assembly
8	**53163**	Handle
9	**13324**	Adapter
10	**50781**	Rear Exhaust Cover
11	**54552**	Bearing (2)
12	**12222**	Planetary Carrier
13	**54472**	Gear Shaft (3)
14	**54519**	Gear Assembly (3) (Includes 01003 Bearing)
15	**54468**	Ring Gear
16	**50778**	Spacer
17	**02649**	Bearing
18	**54529**	Shim Pack (3/Pkg.)
19	**01478**	Front Bearing Plate
20	**01479**	Spacer
21	**50767**	Pin (2)
22	**01480**	Vane (4/Pkg.)
23	**54554**	Rotor
24	**01476**	Cylinder
25	**02673**	Rear Bearing Plate
26	**02696**	Bearing
27	**02679**	Shield
28	**01041**	Lubricant Fitting
29	**50784**	Set Screw
30	**50776**	Housing
31	**95523**	O-Ring (2)
32	**01548**	Gasket (2)
33	**13326**	Housing Extension
34	**01461**	Lock Nut
35	**01558**	Insulator Collar
36	**01470**	Insert
37	**Housing**	
	13282	Model **13280**
	13322	Model **13320**
38	**01448**	Throttle Lever
	01462	Safety-Lock Lever (Optional)
39	**01449**	Valve Stem
40	**95558**	Retaining Ring
41	**12132**	Pin
42	**01024**	O-Ring
43	**95730**	O-Ring
44	**01469**	Speed Reg. Assy.
45	**01464**	Seal
46	**01472**	Tip Valve
47	**01468**	Spring
48	**01564**	Air Control Ring
49	**95711**	Retaining Ring
50	**95438**	O-Ring
51	**94522**	Muffler Cap
52	**94528**	Felt Silencer
53	**94521**	Muffler Base
54	**95375**	O-Ring
55	**94526**	Washer
56	**94523**	Inlet Adapter
57	**94519**	Muffler Assembly



***Note:** Parts with an asterisk are included in **92284** Hub Assembly.









95262 Open-End Wrench (14 mm)

KEY

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

Assembly/Disassembly Instructions – .4 hp/7˚/Industrial DynaZip

Important: The Manufacturing Warranty is void if the tool is disassembled before the warranty expires by anyone other than a Dynabrade® Approved Repair Technician. Notice: A **96174** Motor Tune-Up Kit is available. Also, the special repair tooling referred to in these instructions can be ordered through your Dynabrade® Distributor. Please refer to this tool manual for correct part number identification.

Important: Always follow these steps before servicing any part of this air tool.

Shut off the air supply, and depress throttle lever to dissipate the remaining air. Carefully disconnect the tool from the air supply hose.
Note: Use a wrench to hold the air tool inlet adapter stationary when disconnecting or removing the air supply connection.

Motor Disassembly:

1. Position the **52296** Repair Collar around the valve housing and hold the tool in a vise so that the hub assembly is pointing up.
2. Use the **95262** Wrench (14 mm) to hold the **13324** Adapter stationary. Using the adjustable wrench, turn counterclockwise to remove the **92283** Bolt. Remove the accessory and hub.
3. Use the **50971** Lock Ring Tool to remove the **50781** Rear Exhaust Cover and **13323** Guard Assembly by turning it counterclockwise.
4. Remove the **50784** Set Screw and pull the planetary gear assembly out of the **50776** Housing. (Set planetary gear assembly aside in a clean area.)
5. Remove the **50778** Spacer and the air motor from the housing.
6. Fasten the **96346** Bearing Separator (2") around the portion of the **01476** Cylinder that is closest to the **02673** Rear Bearing Plate. Place the bearing separator and the motor on the table of the **96232** Arbor Press (#2) so that the pinion gear is pointing down.
7. Remove the **02679** Shield from the **02696** Bearing.
8. Use a 3/16" or 5mm diameter flat end drive punch as a press tool to push the **54554** Rotor out of the **02696** Bearing. Remove the cylinder and **01480** vanes.
9. Use the **96210** Bearing Removal Tool and the arbor press to remove the **02696** Bearing from the **02673** Rear Bearing Plate.
10. Position the rotor and front bearing/plate in the arbor press so that the flat side of the **01478** Front Bearing Plate is supported and the pinion gear is pointing up. Push the pinion end of the rotor out of the **02649** Bearing.
11. Remove the **02649** Bearing and the **54529** Shims from the **01478** Front Bearing Plate.
12. Remove the **01479** Spacer from the rotor.

Motor Disassembly Complete.

Planetary Gear Disassembly:

1. Fasten the **96346** Bearing Separator (2”) between the back **54552** Bearing and the **54468** Ring Gear so that the flat side of the separator is toward the ring gear.
2. Position the separator in the arbor press so that the **13324** Adapter is pointing down.
3. Use a 5/16" or 8mm diameter flat end drive punch as a press tool to push against the planetary carrier and remove the bearing.
4. Remove the shafts and the planet gears.
5. Carefully fasten the solid part of the planetary carrier in an aluminum or bronze jaw vise so that the **13324** Adapter is pointing up.
6. Use the **95262** Wrench (14 mm) or an adjustable wrench to remove the **13324** Adapter by turning it counterclockwise.
7. Use the arbor press along with the separator and a 5/16” or 8mm diameter flat end drive punch as a press tool to push against the planetary carrier and remove the second bearing.

Planetary Gear Disassembly Complete.

Valve Disassembly:

1. Position the **52296** Repair Collar around the valve housing and fasten the tool in a vise so that the **94523** Inlet Adapter is pointing up.
2. Remove the **94523** Inlet Adapter by turning it counterclockwise.
3. Use needle nose pliers to remove the **01468** Spring and the **01472** Tip Valve. Use a small screwdriver to remove the **01464** Seal.
4. Position the valve housing so that the **12132** Pin, throttle lever, and **01449** Valve Stem can be removed.
5. Use retaining ring pliers to remove the **95558** Retaining Ring and then push the **01469** Speed Regulator Assembly out of the valve housing.

Valve Disassembly Complete.

Important: Clean and inspect all parts for wear before assembling. Note: Follow all lubricant, adhesive, and torque specifications.

Valve Assembly:

1. Install the **01469** Speed Regulator Assembly (with o-rings) into the valve housing and hold it in place with the **95558** Retaining Ring.
2. Position the **52296** Repair Collar around the valve housing and fasten the tool in a vise so that the **12132** Pin, throttle lever, and **01449** Valve Stem can be installed.
3. Position the **52296** Repair Collar around the valve housing and fasten the tool in a vise so that the air inlet opening is pointing up.
4. Install the **01464** Seal into the valve housing so that it is laying flat.
5. Use needle nose pliers to install the **01472** Tip Valve so that the metal pin passes through the hole in the **01449** Valve Stem.
6. Install the **01468** Spring so that the smaller end of the spring fits against the back of the tip valve.
7. Refer to the exploded view of the muffler assembly for the correct order of assembly.
8. Apply a small amount of the Loctite® #567 (or equivalent) to the external threads of the **94523** Inlet Adapter and install the **94519** Muffler Assembly into the valve housing. (Torque to 23N•m/200 in. lbs.)
9. Hold the tool air inlet adapter stationary with a wrench when making or installing the air supply connection.

Valve Assembly Complete.

Motor Assembly:

1. Install the **01479** Spacer onto the rotor.

(continued on next page)

2. Select .003“ (.08mm) thickness shims from the **54529** Shim Pack and install these into the **01478** Front Bearing Plate.
3. Install the **02649** Bearing into the **01478** Front Bearing Plate.
4. Position the rotor in the **96232** Arbor Press (#2) so that the pinion gear is pointing up. Place the front bearing/plate onto the pinion of the rotor and use the raised center of the **96240** Bearing Press Tool to install these onto the rotor.
5. Use a .001" (0.3mm) thick feeler gauge to check the clearance between the front bearing plate and the face of the rotor.
6. The clearance should be .001"-.0015" (0.3-0.4mm). **Note:** If the clearance needs adjustment, repeat steps 2-4 adding or removing shims as required.
7. Lubricate the **01480** Vanes with the **95842** Dynabrade Air Lube 10W/NR (or equivalent) and install these into the rotor.
8. Install the **01476** Cylinder over the rotor so that the air inlet opening of the cylinder will line up with the air inlet opening in the **02673** Rear Bearing Plate.
9. Use the raised outer diameter of the **96242** Bearing Press Tool and the arbor press to install the **02696** Bearing into the **02673** Rear Bearing Plate.
10. Use the raised inner diameter of the **96242** Bearing Press Tool and the arbor press to install the rear bearing/plate onto the rotor. **Note:** Carefully press the bearing/plate down until it just touches the cylinder. This will establish a snug fit between the bearing plates and the cylinder.
11. Apply a small amount of petroleum lubricant onto the seal of the **02696** Bearing and install the **02679** Shield so that it will stick against seal of the bearing.
12. Carefully slide the motor assembly into the **50776** Housing.
13. Install the **50778** Spacer so that the flat side is against the **02649** Bearing.

Motor Assembly Complete. (Note: See Final Assembly)

Planetary Gear Assembly:

1. Use the **96232** Arbor Press (#2) and the raised center of the **96240** Bearing Press Tool to install the front **54552** Bearing onto the threaded end of the planetary carrier.
2. Carefully fasten the solid part of the planetary carrier in a vise with aluminum or bronze jaws so that the end of the planetary carrier and the bearing are pointing up.
3. Apply a small amount of the Loctite® #271 to the threads of the **13324** Adapter. **Note:** The threads that mate with the threads of the planetary carrier. Install the **13324** Adapter onto the planetary carrier. (Torque to 17N•m/150 in. lbs.)
4. Apply a small amount of the Lubriplate® 630 AA (or equivalent) to the shafts and planetary gears. Install these into the planetary carrier.
5. Apply a small amount of the Lubriplate® 630 AA (or equivalent) to the teeth of the ring gear. Install the ring gear so the notches in the ring gear align with the set screw and lubricant fitting in the **50776** Housing.
6. Use the **96232** Arbor Press (#2) and the raised center of the **96240** Bearing Press Tool to install the rear **54552** Bearing onto the end of the planetary carrier. **Note:** Carefully press the bearing down until it just touches the ring gear. This will establish a snug fit between the bearings and the ring gear.

Planetary Gear Assembly Complete. (Note: See Final Assembly)
Please allow 30 minutes for adhesives to cure before operating tool.

Final Assembly:

1. Carefully install the planetary gear assembly. Align the notches in the ring gear with the set screw and lubricant fitting in the housing.
2. Apply a small amount of the Loctite® #567 (or equivalent) to the set screw and install into the **50776** Housing.
3. Apply two plunges of the **95542** Grease with the **95541** Lubricant Gun into the lubricant fitting.
4. Apply a small amount of the Loctite® #567 (or equivalent) to the threads of the **50776** Housing and install the **50781** Rear Exhaust Cover. (Torque to 28N•m/250 in. lbs.)
5. Use the **95262** Wrench (14 mm) to hold the **13324** Adapter stationary and install the **92284** Hub Assembly.

Final Assembly Complete.

Throttle Positioning Procedure:

Important: Carefully perform this procedure without entirely separating the 50776 Housing from the valve housing. Loosen the 01461 Lock Nut only enough to make the desired throttle lever adjustment.

1. Place the **52296** Repair Collar around the valve housing and fasten it in a vise so that the **50776** Housing is pointing up.
2. Slip the **01558** Collar down onto the valve housing to expose the **01461** Lock Nut.
3. Use an adjustable wrench to hold the **13326** Housing Extension Adapter stationary while using a 34 mm Open-End Wrench or an adjustable wrench to turn the lock nut clockwise to loosen the housing extension adapter from the valve housing.
4. Orient the throttle lever to the operators desired grip and positioning. **Note:** Allow for additional rotation of the **13326** Housing Extension Adapter Housing as the **01461** Lock Nut is tightened. **(Position throttle lever so tool will not activate, or accidentally start up, when at rest.)**
5. Hold the **13326** Housing Extension Adapter stationary. Use a 34 mm Open-End Wrench or an adjustable wrench to tighten the **01461** Lock Nut. (Torque to 45 N•m/400 in. lbs.)
6. Slip the **01558** Collar back over the **01461** Lock Nut.

Tool Assembly Complete. Please allow 30 minutes for the adhesives to cure before operating tool.
Important: The motor should be tested for proper operation.

Apply 3 Drops of the **95482** Dynabrade Air Lube 10W/NR (or equivalent) into the air inlet adapter with the throttle lever depressed. Carefully connect the tool to an air supply. The tool should operate within 10% of the maximum rated RPM. The tool RPM should not exceed the maximum rated RPM with an operating air supply pressure of 90 PSIG (6.2 bar g).

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Preventative Maintenance Schedule

For All DynaZips

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 hour.

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.



96174 – Motor Tune-Up Kit

Parts Common to all Models:

Index #	Part Number	Description	Number Required	High Wear 100%	Medium Wear 70%	Low Wear 30%	Non-Wear 10%
1	**92283**	Bolt	1			L	
2	**92282**	Hub	2				X
3	**92280**	Shield	1				X
4	**92281**	Cushion	1				X
5	**92255**	Red-Tred™ (Eraser Whl)	1	X			
6	**92245**	Wire Wheel (Coarse)	1	X			
7	**13323**	Guard Assembly	1				X
8	**53163**	Handle	1				X
9	**13324**	Adapter	1				X
10	**50781**	Rear Exhaust Cover	1				X
11	**54552**	Bearing	2		X		
12	**12222**	Planetary Carrier	1				X
13	**54472**	Gear Shaft	3			X	
14	**54519**	Gear Assembly	3			X	
15	**54468**	Ring Gear	1			X	
16	**50778**	Spacer	1				X
17	**02649**	Bearing	1		T		
18	**54529**	Shim Pack (3/Pkg.)	1	T			
19	**01478**	Front Bearing Plate	1			X	
20	**01479**	Spacer	1			T	
21	**50767**	Pin	2			X	
22	**01480**	Vane (4/Pkg.)	1	T			
23	**54554**	Rotor	1			X	
24	**01476**	Cylinder	1			X	
25	**02673**	Rear Bearing Plate	1			X	
26	**02696**	Bearing	1	T			
27	**02679**	Shield	1			T	
28	**01041**	Lubricant Fitting	1			T	
29	**50784**	Set Screw	1			L	
30	**50776**	Housing	1				X
31	**95523**	O-Ring	2	T			
32	**01548**	Gasket	2	T			
33	**13326**	Housing Extension	1				X
34	**01461**	Lock Nut	1			X	
35	**01558**	Insulator Collar	1			X	
36	**01470**	Insert	1			X	
37	**See Note**	Housing	1				X
38	**See Note**	Throttle Lever	1			X	
39	**01449**	Valve Stem	1			T	
40	**95558**	Retaining Ring	1		T		
41	**12132**	Pin	1			T	
42	**01024**	O-Ring	1			T	
43	**95730**	O-Ring	1			T	
44	**01469**	Speed Reg. Assy.	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	**94522**	Muffler Cap	1			X	
52	**94528**	Felt Silencer	1	X			
53	**94521**	Muffler Base	1			X	
54	**95375**	O-Ring	1			T	
55	**94526**	Washer	1			L	
55	**94523**	Inlet Adapter	1				X

Note: Please refer to page 4 of tool manual for specific part number or number required.

Optional Accessories

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



96174 Motor Tune-Up Kit

- Includes assorted parts to help maintain and repair motor.



95542 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.



95541 Push-type Grease Gun

- One-hand operation.



92255 Red-Tred™ Eraser Wheel

- Allows efficient surface preparation and decal removal.



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. (3.8 L)



52296 Repair Collar

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



4" (102 mm) Diameter Wire Wheels

- All wire wheels have band width of 3/4" (19 mm).

92244: 1/2" (13 mm)
92245: 3/4" (19 mm)

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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