Models:

51735 - Versatility Kit
52280 - 1/4" Die Grinder
52515 - 4-1/2" Fiber Disc Sander
52516 - 4-1/2" Fiber Disc Sander w/07184 Guard
52518 - 14mm x 2 Spindle Thread
52557 - 3" Disc Sander w/94519 Muffler Assy.
52558 - 3" Disc Sander w/94537 Muffler Assy.
57127 - Depressed Center Wheel Grinder

For Serial No. 0H1000 and Higher

PD03.37R
June, 2016
Supersedes PD03.37

.55 hp Air Tools

Air Motor and Machine Parts

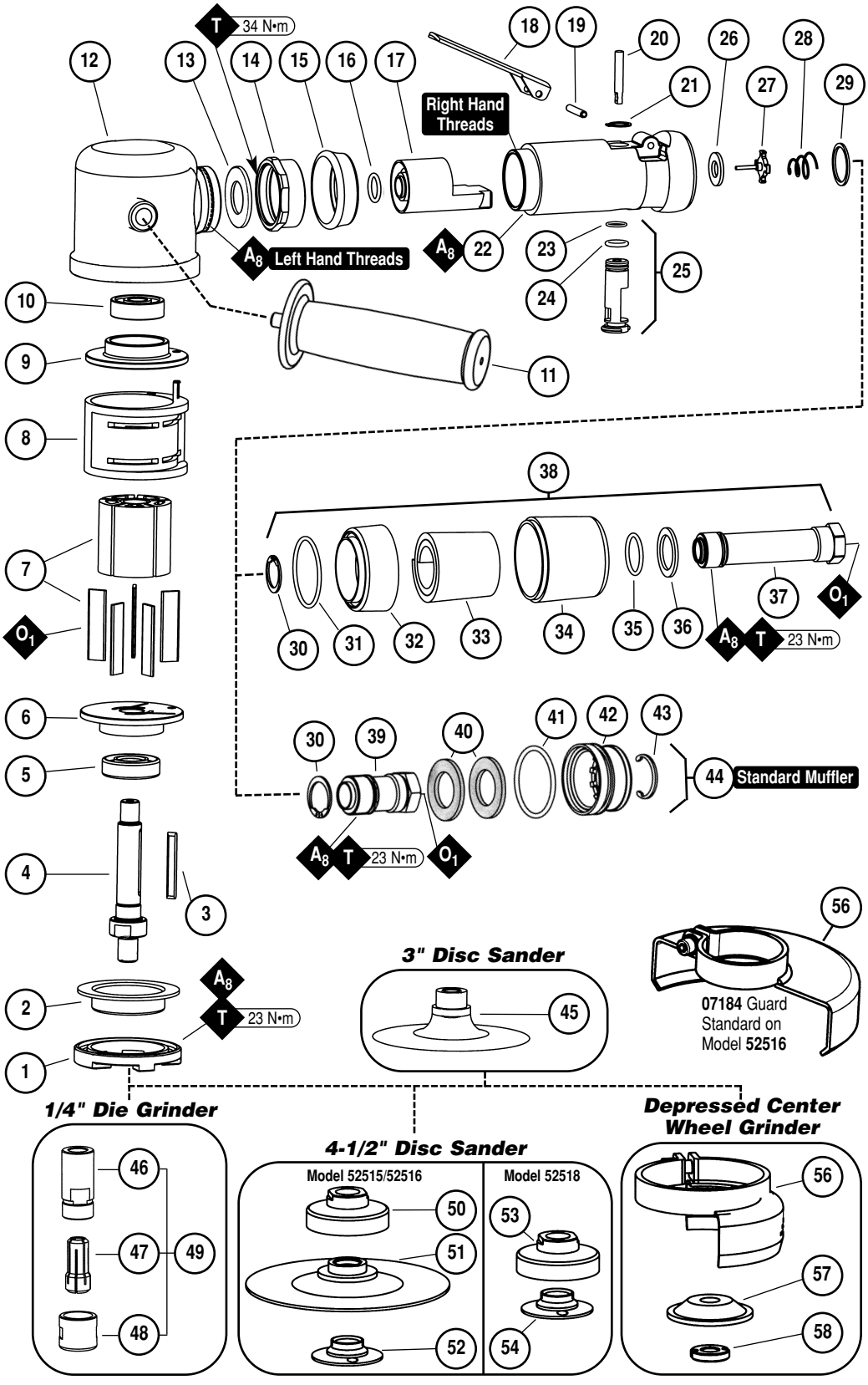
⚠ WARNING **Always operate, inspect and maintain this tool in accordance with the Safety Code for portable air tools (ANSI B186.1) and any other applicable safety codes and regulations. Please refer to Dynabrade's Warning/Safety Operating Instructions for more complete safety information.**

KEY

- O Oil: O_1 = **Air Lube**
- A Adhesive: A_8 = **Loctite #567**
- T Torque: **N•m x 8.85 = In. - lbs.**

Index Key

No.	Part #	Description
1	**56046**	Lock Ring
2	**02092**	Shield
3	**54673**	Shaft Key
4	**02091**	Rotor Shaft 3/8"-24
	02094	Rotor Shaft 5/8"-11
	02088	Rotor Shaft M14 x 2
5	**02695**	Bearing
6	**54680**	Front Bearing Plate
7	**54705**	Rotor/Blade Set
8	**54670**	Cylinder Assembly (Incl. **95865** Pin)
9	**54679**	Rear Bearing Plate
10	**01206**	Bearing
11	**53163**	Side Handle (Optional)
12	**02097**	Housing
13	**01548**	Gasket
14	**01461**	Lock Nut
15	**01547**	Collar
16	**95523**	O-Ring
17	**01470**	Insert Assembly
18	**01448**	Throttle Lever
	01950	Safety Lock Lever
19	**12132**	Spring Pin
20	**01449**	Valve Stem
21	**95558**	Retaining Ring
22	**52307**	Housing – **52280**
	52586	Housing – **52515**
	52506	Housing – **52516**
	52507	Housing – **52518**
	52587	Housing – **52557**
	52589	Housing – **52558**
	52588	Housing – **57127**
23	**95730**	O-Ring
24	**01024**	O-Ring
25	**01469**	Speed Reg. Assembly
26	**01464**	Seal
27	**01472**	Tip Valve
28	**01468**	Conical Spring
29	**01564**	Air Control Ring
30	**95711**	Retaining Ring
31	**95438**	O-Ring
32	**94521**	Muffler Base
33	**94528**	Felt Muffler
34	**94522**	Muffler Cap
35	**95375**	O-Ring
36	**94526**	Spacer
37	**94523**	Inlet Adapter
38	**94519**	Muffler Assembly
39	**01578**	Inlet Adapter
40	**01486**	Silencer (4) **94535** Muffler Silencer (2) **94537** Muffler
41	**96065**	O-Ring
42	**01446**	Air Deflector
43	**95620**	Retaining Ring
44	**94537**	Standard Muffler Assembly
45	**51347**	3" Backup Pad
46	**50011**	Collet Body
47	**50013**	1/4" Insert
48	**50012**	Collet Cap
49	**50010**	Collet Assembly
50	**50264**	Disc Mount
51	**50267**	Fiber Plate
52	**50268**	Flange
53	**02338**	Disc Mount M14 x 2
54	**02339**	Flange M14 x 2
55	**07184**	Guard
56	**02055**	Guard Assembly
57	**50093**	Backing Flange
58	**50081**	Flange



Important Operating, Maintenance and Safety Instructions

Carefully read all instructions before operating or servicing any Dynabrade® Abrasive Power Tool.
Warning: Hand, wrist and arm injury may result from repetitive work motion and overexposure to vibration.
Important: All Dynabrade Rotary Vane air tools must be used with a Filter-Regulator-Lubricator to maintain all warranties.

Operating Instructions:

Warning: Eye, face, respiratory, sound and body protection must be worn while operating power tools. Failure to do so may result in serious injury or death. Follow safety procedures posted in workplace.

1. With power source disconnected from tool, securely fasten abrasive/accessory on tool.
2. Install air fitting into inlet bushing of tool. **Important:** Secure inlet bushing of tool with a wrench before attempting to install the air fitting to avoid damaging valve body housing.
3. Connect power source to tool. Be careful not to depress throttle lever in the process.
4. Air tools are not intended for use in explosive atmospheres and are not insulated for contact with electrical power sources. Sanding/Grinding certain materials can create explosive dust. It is the employers responsibility to notify the user of acceptable dust levels. Sanding/Grinding can cause spark which can cause fires or explosions. It is the users responsibility to make sure the work area is free of flammable materials.

Maintenance Instructions:

1. Check tool speed regularly with a tachometer. If tool is operating at a higher speed than the RPM marked on the tool, the tool should be serviced to correct the cause before use.
2. Some silencers on air tools may clog with use. Clean and replace as required.
3. All Dynabrade Rotary Vane air motors should be lubricated. Dynabrade recommends one drop of air lube per minute for each 10 SCFM (example: if the tool specifications state 40 SCFM, set the drip rate of your filter-lubricator at 4 drops per minute).
   Dynabrade Air Lube (P/N **95842**: 1 pt. 473 ml.) is recommended.
4. 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 Line Filter-Regulator-Lubricator — Provides accurate air pressure regulation, two-stage filtration of water contaminants and micro-mist lubrication of pneumatic components.
   Operates 40 SCFM @ 100 PSIG has 3/8" NPT female ports.
5. Use only genuine Dynabrade replacement parts. To reorder replacement parts, specify the **Model #**, **Serial #**, and **RPM** of your machine.
6. A Motor Tune-Up Kit (P/N **96522**) is available which includes assorted parts to help maintain motor in peek operating condition. Please refer to Dynabrade's Preventative Maintenance Schedule for a guide to expectant life of component parts.
7. Mineral spirits are recommended when cleaning the tool and parts. Do not clean tool or parts with any solvents or oils containing acids, esters, keytones, chlorinated hydrocarbons or nitro carbons.
8. DO NOT clean or maintain air tools with chemicals that have a low flash point (example: WD-40®).

Safety Instructions:

Products offered by Dynabrade should not be converted or otherwise altered from original design without expressed written consent from Dynabrade, Inc.



- **Important:** User of tool is responsible for following accepted safety codes such as those published by the American National Standards Institute (ANSI).
- Always disconnect power supply before changing abrasive/accessory or making machine adjustments.
- Inspect abrasives/accessories for damage or defects prior to installation on tools.
- Please refer to Dynabrade's Warning/Safety Operating Instructions Tag (Reorder No. **95903**) for more complete safety information.

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.

LIFETIME WARRANTY

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

Model Number	Motor hp (W)	Motor RPM	Sound Level	Maximum Air Flow CFM/SCFM (LPM)	Air Pressure PSIG (Bars)	Spindle Thread	Weight Pound (kg)	Length Inch (mm)	Height Inch (mm)
52280	.55 (410)	15,000	83 dB(A)	5/33 (934)	90 (6.2)	3/8"-24 male	1.9 (.83)	6 (152)	3-7/8 (98)
52515/52516	.55 (410)	15,000	83 dB(A)	5/33 (934)	90 (6.2)	3/8"-24 male	1.9 (.83)	6 (152)	3-7/8 (98)
52518	.55 (410)	15,000	83 dB(A)	5/33 (934)	90 (6.2)	M14 x 2 male	1.9 (.83)	6 (152)	3-7/8 (98)
52557	.55 (410)	15,000	83 dB(A)	5/33 (934)	90 (6.2)	3/8"-24 male	1.9 (.83)	6 (152)	3-7/8 (98)
52558	.55 (410)	15,000	86 dB(A)	5/33 (934)	90 (6.2)	3/8"-24 male	1.9 (.83)	6 (152)	3-7/8 (98)
57127	.55 (410)	15,000	83 dB(A)	5/33 (934)	90 (6.2)	3/8"-24 male	1.9 (.83)	6 (152)	3-7/8 (98)

Additional Specifications: Air Inlet Thread 1/4" NPT • Hose I.D. Size 3/8" or 10mm

Motor Assembly/Disassembly Instructions – .55 hp Rear Exhaust Tools

Important: Manufacturer's warranty is void if tool is disassembled before warranty expires.
Notice: All of the special tooling referenced to in these instructions can be ordered from Dynabrade. Please refer to this parts page for proper part identification. The **96522** Motor Tune-Up Kit is available. It contains high and medium wear parts.

Motor Disassembly:

1. Disconnect the tool from the air supply.
2. Remove any guards and attachments from the tool.
3. Position the **57092** Repair Collar around the **02097** Housing and secure the tool in a vise so that the spindle is pointing up.
4. Use the **56058** Lock Ring Wrench to remove the **56046** Lock Ring by turning it counterclockwise.
5. Grasp the spindle and pull the motor assembly out of the housing. Remove the **02092** Shield from the motor assembly.
6. Fasten the **96346** Bearing Separator around the **54680** Cylinder and position the motor assembly in the **96232** #2 Arbor Press so that the spindle is pointing toward the floor.
7. Use a 3/16" dia. flat punch as a press tool and push the rotor shaft out of the **01206** Bearing.
8. Remove the cylinder, rotor, blades, and key.
9. Use the arbor press to remove the **54680** Front Bearing Plate and **02695** Bearing.

Motor Disassembly Compete.

Valve Housing Disassembly:

1. Position the **52296** Repair Collar around the valve housing and secure the tool in a vise so that the air inlet is pointing up.
2. Hold the **94523** or the **01578** Inlet Adapter stationary with an adjustable wrench while using another wrench to remove any air fitting. It is important to hold the inlet adapter stationary when removing the air fitting so as to prevent damage to the valve housing.
3. Remove the **94523** or **01578** Inlet Adapter.
4. Refer to the exploded view of the muffler assemblies on the front of this parts page to identify the components and their order of disassembly/assembly.
5. Remove the **01564** Air Control Ring from the valve housing.
6. Use needle nose pliers to remove the **01468** Spring and the **01472** Tip Valve. Use a small screwdriver to remove the **01464** Seal.
7. Use a 2.5mm dia. drive punch top remove the **12132** Pin and throttle lever.
8. Remove the **95558** Retaining Ring with retaining ring pliers and push the **01469** Speed Regulator Assembly out of the valve housing.

Valve Housing Disassembly Compete.

Valve Housing Assembly:

Important: Clean and inspect all parts before assembling.

1. Install the **01469** Speed Regulator Assembly (includes o-rings) into the valve housing and secure it in place with the **95558** Retaining Ring.
2. Insert the **01449** Valve Stem into the speed regulator so that the end with the hole is visible through the air inlet.
3. Install the **01446** Seal into the air inlet.
4. Use needle nose pliers to install the **01472** Tip Valve so that the metal pin fits through the hole of the valve stem.
5. Install the small end of the **01468** Spring over the back of the **01472** Tip Valve.
6. Refer to the exploded view of the muffler assemblies on the front of this parts page to identify the components and their order of disassembly/assembly.
7. Install the **01564** Air Control Ring onto the back of the valve housing. Apply a small amount of the Loctite #567 (or equivalent) to the male threads of the **94523** or the **01578** Inlet Adapter and install the muffler assembly onto the valve housing. Torque to 23 N•m/200 in.- lbs.
8. Install the throttle lever and secure it with the **12132** Pin.
9. Hold the **94523** or the **01578** Inlet Adapter stationary with an adjustable wrench while using another wrench to install any air fitting. It is important to hold the inlet adapter stationary when installing the air fitting so as to prevent damage to the valve housing.

Valve Housing Assembly Compete.

Motor Assembly:

1. Use the **57091** Bearing Press Tool to install the **02695** Bearing onto the rotor shaft. Position the press tool so that it will push against the inner race of the bearing.
2. Install the **54680** Front Bearing Plate onto the **02695** Bearing and the rotor shaft.
3. Insert the **54673** Shaft Key into the rotor shaft.
4. Lubricate the blades with Dynabrade Air Lube (10W/NR or equivalent) and install the **54705** Rotor/Blade Set.
5. Install the **54680** Cylinder over the rotor. Make sure that the cylinder is positioned correctly.
6. Use the **57091** Bearing Press Tool to install the **54679** Rear Bearing Plate and the **01206** Bearing onto the rotor shaft. Push against the inner race of the bearing until the rear bearing plate makes contact with the cylinder. There should be a snug fit between the bearing plates and the cylinder.
7. Install the motor assembly into the **02097** Housing so that the line-up pin fits into the line up hole on the inside of the housing.
8. Place the shield against the front bearing plate.
9. Position the **57092** Repair Collar around the **02097** Housing and secure the tool in a vise so that the spindle is pointing up.
10. Apply a small amount of the Loctite #567 (or equivalent) to the threads of the **56046** Lock Ring and install it into the housing. Torque to 23 N•m/200 in.- lbs.
11. Install all guards and attachments that are required for the safe operation of the tool.

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

Throttle Lever Positioning Procedure:

1. Place the **52296** Repair Collar around the valve housing and secure it in a vise so that the **02097** Housing is pointing up.
2. Slip the **01547** Collar down onto the valve housing to expose the **01461** Lock Nut.

(continued on last page)

Motor Assembly/Disassembly Instructions – .55 hp *(continued)*

3. With a firm hold on the **02097** Housing, use a 34mm or an adjustable wrench to turn the **01461** Lock Nut counterclockwise to loosen the **02097** Housing from the valve housing.
4. Orient the throttle lever to the operators desired grip and positioning. **Note:** Allow for additional rotation of the **02097** Housing as the **01461** Lock Nut is tightened.
5. With a firm hold on the **02097** Housing to reduce its rotation, use a 34mm or an adjustable wrench to tighten the **01461** Lock Nut. Torque to 45 N•m.400 in.- lbs.

Important: Carefully perform this procedure so as not to entirely separate the **02097** Housing from the valve housing. Loosen the **01461** Lock Nut only enough to make the desired throttle lever adjustment. Motor should now be tested for proper operation at 90 PSIG. If motor does not operate properly or operates at a higher RPM than marked on the tool, the tool should be serviced to correct the cause before use. Before operating, place 2-3 drops of Dynabrade Air Lube (P/N **95842**) directly into air inlet with throttle lever depressed. Operate tool for 30 seconds to determine if tool is operating properly and to allow lubricating oils to properly penetrate motor

Loctite® is a registered trademark of Loctite Corp.

Optional Accessories



Dynaswivel®

Swivels 360° at two locations which allows an air hose to drop straight to the floor, no matter how the tool is held.

- **94300:** 1/4" NPT.



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)



96522 Motor Tune-Up Kit

- Includes assorted parts to help maintain and repair motor.



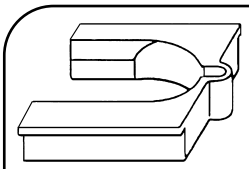
96232 (#2) Arbor Press

- This arbor press is ideal for the disassembly and assembly of air motors.



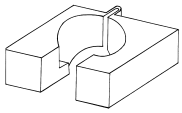
96346 Bearing Separator

- Use the separator to remove gears and bearings.



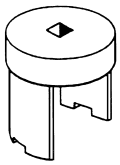
57092 Repair Collar

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



52296 Repair Collar

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



56058 Lock Ring Wrench

- Lock Ring Tool has a 3/8 in. square socket for use with 3/8 in. drive; breaker bar, ratchet head, or torque wrenches.



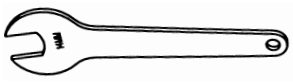
57091 Bearing Press Tool

- Use with a #2 arbor press to achieve accurate press of bearings and motor parts.

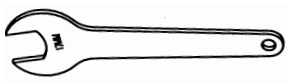
96525 Tool Repair Kit

- Includes special tools for proper disassembly/assembly of the tool.
- Includes all above listed tools.

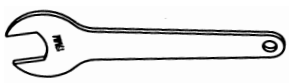
Wrenches



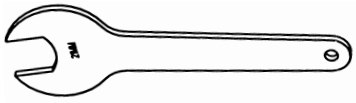
95262 – 14mm open-end
Used On Models **52557**, **52558, 57127** & **52580**.



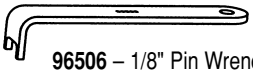
95263 – 17mm open-end
Used On Model **52515**, **52516** & **52518**.



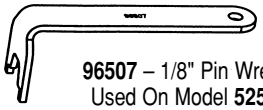
95281 – 19mm open-end
Used On Model **52280** & **52518**.



95823 – 21mm open-end
Used On Model **52515** & **52516**.



96506 – 1/8" Pin Wrench
Used On Model **57127**.



96507 – 1/8" Pin Wrench
Used On Model **52515**, **52516** & **52518**.

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