Parts Page Reorder No. PD13•10
Effective April, 2013

Mini-Dynafile® II

Abrasive Belt Tool

For Serial No. 13D3028A and Higher

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

Model	RPM	Belt Size
15003	25,000	1/2" W x 12" L
15013	25,000	1/2" W x 13" L
15006 Versatility Kit	25,000	1/4"–1/2" W x 12" L

SANDER

Model 15003

DYNABRADE LIFETIME WARRANTY MADE IN USA

⚠ WARNING

Read and understand this tool manual before operating your air tool. Follow all safety rules for the protection of operating personnel as well as adjacent areas. Always operate, inspect and maintain this tool in accordance with the American National Standards Institute (ANSI). Safety Requirements for the Use, Care and Protection of Abrasive Wheels – ANSI B7.1, Compressed Air and Gas Institute (CAGI) Safety Code for Portable Air Tools – B186.1, Code of Federal Regulation – CFR 29 Part 1910, International Organization for Standardization (ISO) Hand Held Non-Electric Power Tools – ISO 11148, Safety Requirements and applicable State and Local Regulations.

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

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

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

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

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

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

Some dust created by sanding, grinding, drilling, and other construction activities contain chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- Lead from lead-based paints
- Crystalline silica from bricks and cement and other masonry products
- Arsenic and chromium from chemically treated lumber

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

SAFETY and OPERATING INSTRUCTIONS

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

Carefully Read all instructions before operating or servicing any Dynabrade® Abrasive Power Tool. Products offered by Dynabrade are not to be modified, converted or otherwise altered from the original design.

Tool Intent: Mini-Dynafile® II are used for grinding, deburring, blending and polishing on various materials. Tool accepts optional abrasive belts that are 1/8" –1/2" wide and up to 13" long.

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

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

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

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

MAINTENANCE INSTRUCTIONS

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

INSTALLATION

- To ensure long life and dependable service, use a Closed Loop Air System and Filter-Regulator-Lubricator (FRL) as diagramed below.
- Each tool should have its own dedicated hose connected to an air supply FRL. Quick disconnects should be installed at the FRL in an effort to reduce contamination into the tool. Securely affix all fittings and hose assemblies.
- It is strongly recommended that all Dynabrade rotary vane air tools be used with a Filter-Regulator-Lubricator to minimize the possibility of misuse due to unclean air, wet air or insufficient lubrication. Dynabrade recommends the following: **10681** Air Line Filter-Regulator-Lubricator — Provides accurate air pressure regulation, two-stage filtration of water contaminants and micro-mist lubrication of pneumatic components.
- Dynabrade recommends 1 drop of air lube per minute for each 20 SCFM (example: if the tool specification states 40 SCFM, set the drip rate on the filter-lubricator to 2 drops per minute). **95842** Dynabrade Air Lube is recommended.

MAINTENANCE SCHEDULE

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

Note: *Turbine style air motors do not require oil.*

Daily (every 8 hours):

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

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

- Check air line pressure with a gage. (MAX. 90 PSIG or 6.2 Bar operating pressure at the air inlet of the tool.)

◆ W — Lubricate wick system and right angle gears through gear case fitting. Apply 3 plunges of **95848** Gear Oil. Use **95541** Lubricant Gun (Prime lubricant gun before use).

- Check tool for proper operation: If operating improperly or demonstrates unusual vibration, the tool must be serviced and problem corrected before further use.

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

- Measure RPM (speed) by setting air pressure to 90 PSIG (6.2 Bar) at tool inlet, without accessory mounted, while the tool is running. Using tachometer, check spindle speed of the tool. Unless otherwise stated the no-load speed may not exceed the rated speed. If tool speed exceeds maximum rated RPM, service as required and correct before use.
- If tool is running too fast: look for worn, damaged or missing governor, air control rings and silencer(s). Service as required.
- If tool is running too slow: look for malfunctioning governor, clogged inlet screen, silencer(s) or air stream. Service as required.

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

Every 50 Hours:

◆ G — Lubricate planetary gears through gear case fitting with 3 plunges of **95542** Grease. Use **95541** Lubricant Gun. (Prime lubricant gun before use).

REPAIR

- Use only genuine Dynabrade replacement parts to ensure quality. To order replacement parts, specify Model#, Serial# and RPM of your air tool.
- Mineral spirits are recommended when cleaning the tool and parts. Do not clean tool or parts with any solvents or oils containing acids, esters, ketones, chlorinated hydrocarbons or nitro carbons.
- A Motor Tune-Up Kit is available which includes high wear and medium wear motor parts.
- Air tool markings must be kept legible at all times, if not, reorder housing and replace. User is responsible for maintaining specification information.

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

HANDLING & STORAGE

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

END OF USE/DISPOSAL

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

NOTICE

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

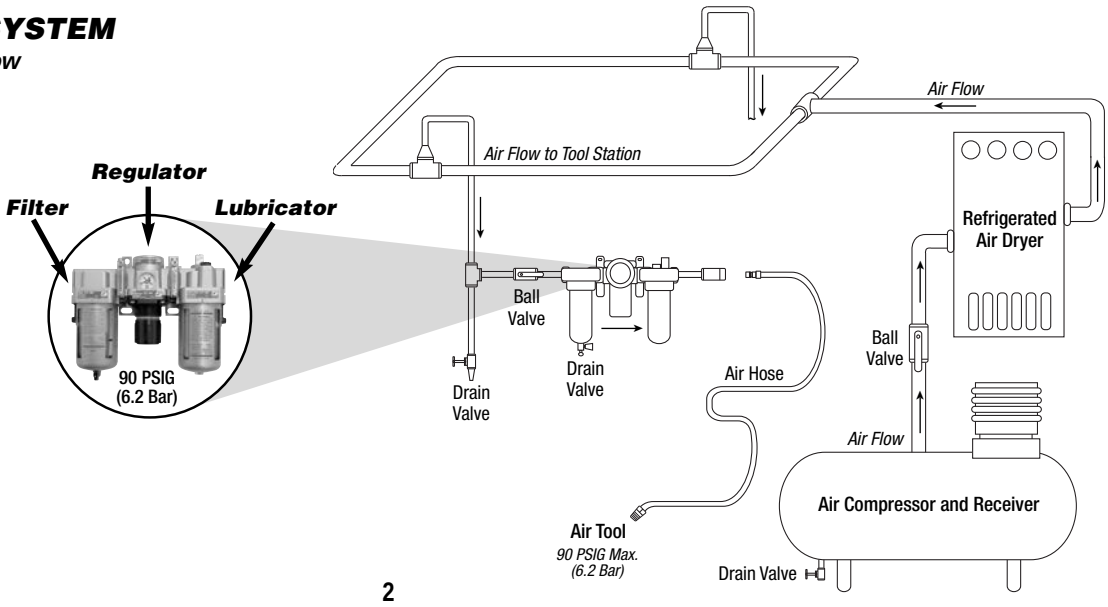
CLOSED LOOP AIR SYSTEM

Sloped in Direction of Air Flow

- Dynabrade Air Power Tools are designed to operate at 90 PSIG (6.2 Bar) 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/Minute per 20 SCFM

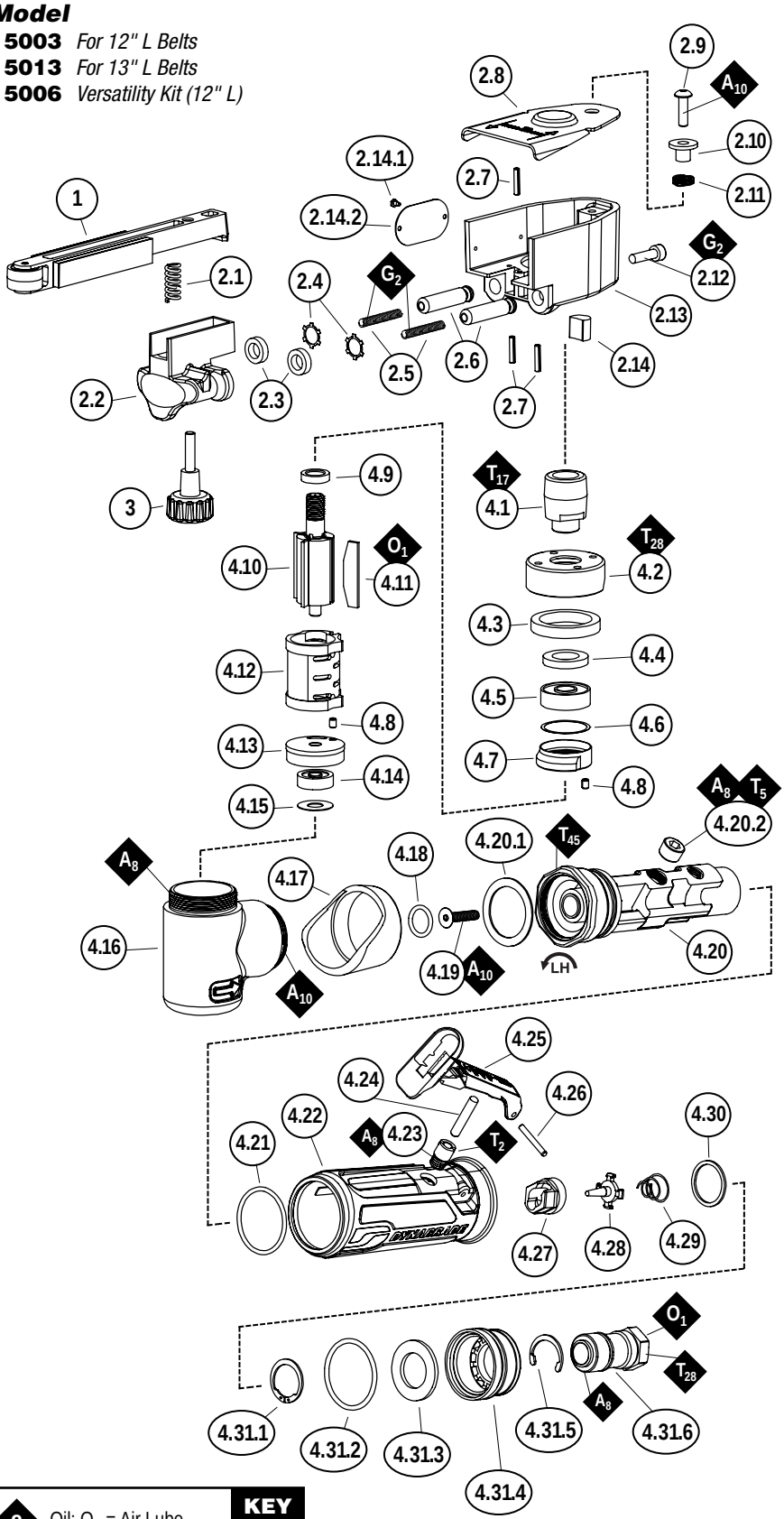


Mini-Dynafile® II

Complete Assembly

Model

15003 *For 12" L Belts*
15013 *For 13" L Belts*
15006 *Versatility Kit (12" L)*



KEY

- Oil: O_1 = Air Lube
- Grease: G_2 = Loctite® #771
- Adhesive: A_8 = Loctite® #567, A_{10} = Loctite® #243
- T_x X = Torque Value (N•m)
- Torque: N•m x 8.85 = lb•in.

Always follow adhesive manufacturers cleaning and priming recommendations.

Figure 1 - ***Verstatility Kit (15006)***

Part No.	Belt Size	Platen Pad
15026	1/2" W x 12" L	Hard
15028	1/4"–1/2" W x 12" L	—
15030	1/2" W x 12" L	Thin

Kit also includes 01644 Threaded Collet to convert tool to 1/4" Die Grinder.

ITEM	P/N	DESCRIPTION	QTY.
1	15026 15035 See Fig.1	CONTACT ARM - 15003 CONTACT ARM - 15013 VERSATILITY KIT - 15006	AR
2	15060 15063	HOUSING ASBLY - 15003/06 HOUSING ASSEMBLY - 15013	1
2.1	11040	SPRING	1
2.2	15101	TENSION ARM	1
2.3	15110	WIPER	2
2.4	15112	RETAINER CLIP	2
2.5	96085	SPRING	2
2.6	15105	SUPPORT SHAFT	2
2.7	96086	PIN	3
2.8	15057	BELT GUARD	1
2.9	96014	SCREW	1
2.10	15131	SHOULDER WASHER	1
2.11	15132	WAVE SPRING	1
2.12	01788	SCREW	1
2.13	15061 15062	HOUSING - 15003/15006 HOUSING - 15013	1
2.14	40029	MOTOR LOCK	1
2.14.1	95442	SCREW	2
2.14.2	96186 96140	LABEL - 15003/15006 LABEL - 15013	1
3	15108	KNOB	1
4	04118	MOTOR ASSEMBLY	1
4.1	15118	DRIVE WHEEL	1
4.2	15106	EXHAUST COVER	1
4.3	15111	FELT SILENCER	1
4.4	01580	FELT SEAL	1
4.5	02649	BEARING	1
4.6	54529	SHIM PACK (3/PKG.)	1
4.7	01478	FRONT BEARING PLATE	1
4.8	50767	PIN	2
4.9	01479	SPACER	1
4.10	01475	ROTOR	1
4.11	01480	VANE SET (4/PKG.)	1
4.12	01476	CYLINDER	1
4.13	02673	REAR BEARING PLATE	1
4.14	02696	BEARING	1
4.15	02679	SHIELD	1
4.16	01546	HOUSING	1
4.17	01558	COLLAR	1
4.18	95523	O-RING	1
4.19	15129	SCREW	1
4.20	45309	THROTTLE BODY ASSEMBLY	1
4.20.1	01548	GASKET	1
4.20.2	01437	PLUG	1
4.21	96077	O-RING	1
4.22	09622	SLEEVE	1
4.23	45315	BUSHING	1
4.24	97045	PIN	1
4.25	45263	THROTTLE LEVER ASSEMBLY	1
4.26	97060	PIN	1
4.27	45310	SEAL	1
4.28	58365	TIP VALVE	1
4.29	01468	SPRING	1
4.30	01564	SPACER	1
4.31	94535	MUFFLER ASSEMBLY	1
4.31.1	95711	RETAINING RING	1
4.31.2	96065	O-RING	1
4.31.3	01486	FELT SILENCER	4
4.31.4	01446	AIR DEFLECTOR	1
4.31.5	95620	RETAINING RING	1
4.31.6	01578	INLET ADAPTER	1
—	95266	HEX KEY (3 MM)	1

AR – "As Required"

MACHINE SPECIFICATIONS

Model	Speed	Power	Sound	Air Consumption	Belt Size	Weight	Length	Height
15003	25,000 RPM	.4 hp (298 W)	83 db(A)	21 SCFM (595 LPM)	1/2" W x 12" L	1.6 lb. (.73 kg)	11.6" (294 mm)	3.9" (98 mm)
15013	25,000 RPM	.4 hp (298 W)	83 db(A)	21 SCFM (595 LPM)	1/2" W x 13" L	1.6 lb. (.73 kg)	12.1" (307 mm)	3.9" (98 mm)
15006	25,000 RPM	.4 hp (298 W)	83 db(A)	21 SCFM (595 LPM)	1/4"–1/2" W x 12" L	1.6 lb. (.73 kg)	11.6" (294 mm)	3.9" (98 mm)

Additional Specifications: Air Inlet Thread 1/4" NPT • Hose I.D. 3/8" (10 mm)
Sound Level is the pressure measurement according to the method outlined in ISO regulation ISO-15744

OPTIONAL ACCESSORIES

Motor Tune-Up Kit

- Includes assorted parts to help maintain and repair motor.

Part No. 96541

"Mega Flow" Plug

- Provides up to twice the air flow compared to standard plug design.
- Plug has "ported" design to prevent "starving" of the air tool.

Part No. 95675 *Male*

Dynabrade Air Lube

- For pneumatic equipment.
- Absorbs up to 10% of its weight in water.
- Prevents rust and formation of sludge.

Part No. 95821 *4 oz.*
Part No. 95842 *1 pt.*

Dynaswivel®

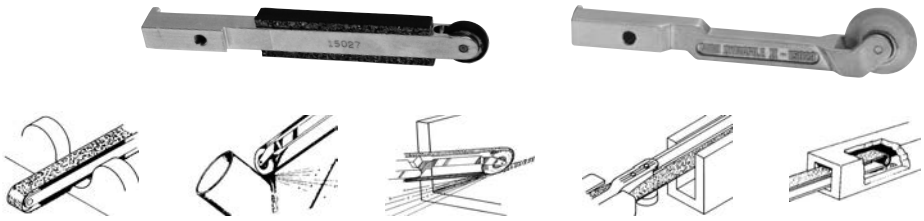
- Composite construction.
- 1/4" NPT.
- Swivels 360° at two locations which allows an air hose to drop straight to the floor.

Part No. 94300

OPTIONAL CONTACT ARMS

Dynabrade offers a wide variety of contact arms designed for unique applications and different uses. These designs include different size contact wheels, longer length arms and belt tracking options.

For a complete representation of optional contact arms and accessories look in Dynabrade Catalogs and Product Literature.



PD15.17
October, 2015
Supersedes PD12.07

Tune-Up Kit – 96541

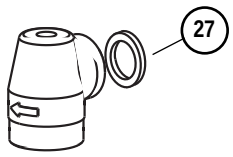
.4 hp Motor Tools:
Straight-Line / Right Angle / 7˚ Offset

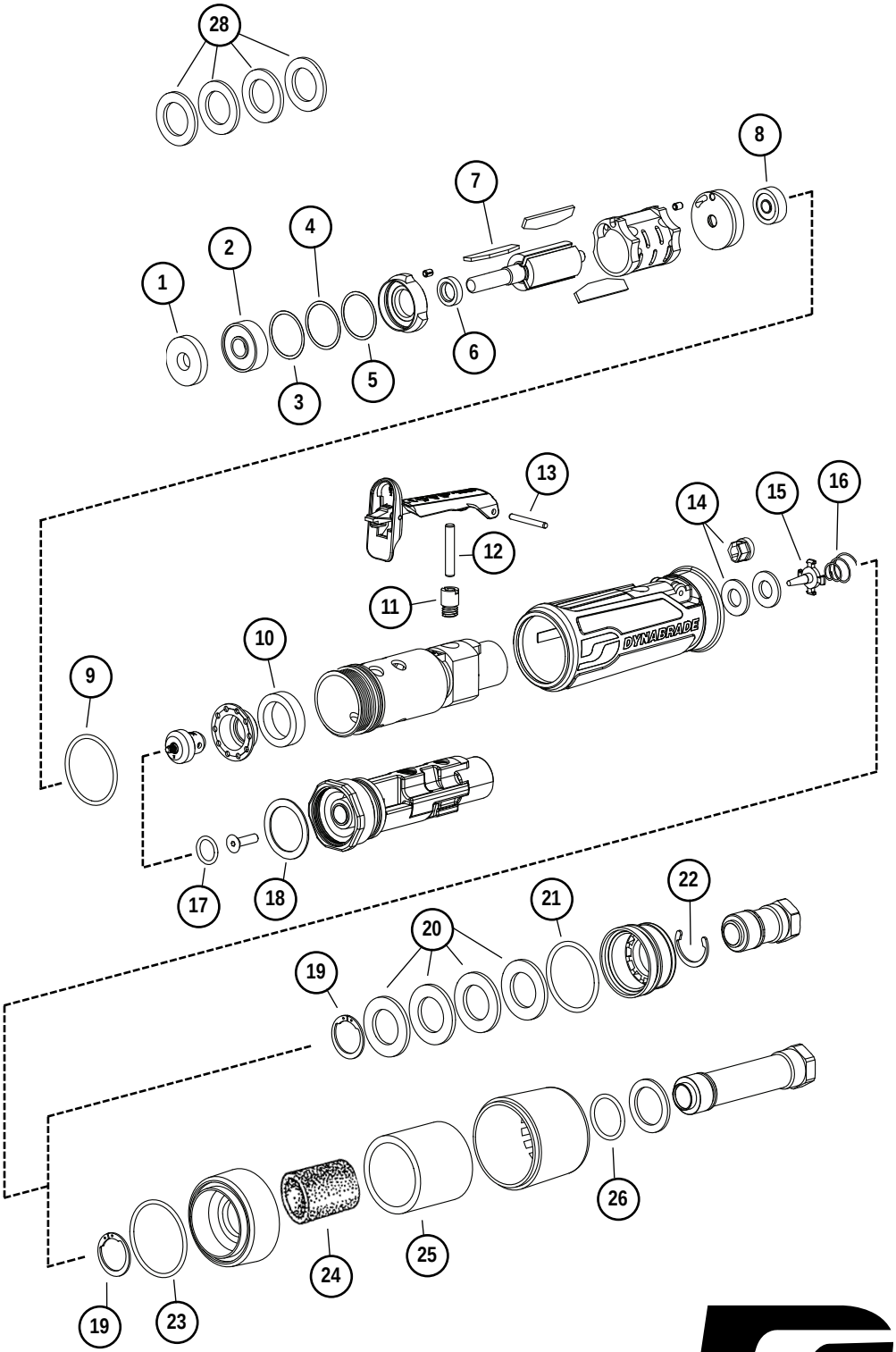
Air Motor and Machine Parts

NOTICE Parts included in tune-up kit are identified by part number. ***Not all parts are required for all tools.*** Please refer to appropriate parts page for additional identification and disassembly/assembly instructions.

Index Key

No.	Part #	Description
1	**01580**	Felt Seal
2	**02649**	Bearing
3	**54543**	Shim - .001" (As Required)
4	**54544**	Shim - .002" (As Required)
5	**54551**	Shim - .003" (As Required)
6	**01479**	Spacer
7	**01480**	Vane Set (4/Pkg.)
8	**02696**	Bearing
9	**96077**	O-Ring
10	**45278**	Filter
11	**45257**	Bushing
	45315	Bushing
12	**97045**	Pin
13	**97060**	Pin
14	**01464**	Seal (2)
	45310	Seal
15	**58365**	Tip Valve
16	**01468**	Spring
17	**95523**	O-Ring
18	**01548**	Gasket
19	**95711**	Retaining Ring
20	**01486**	Felt Silencer (5)
21	**96065**	O-Ring
22	**95620**	Retaining Ring
23	**95438**	O-Ring
24	**94524**	Sintered Bronze Muffler
25	**94525**	Felt Muffler
	94528	Felt Muffler
26	**95375**	O-Ring
27	**01728**	Felt Silencer
For Right Angle, Front Exhaust Models		
28	**43492**	Felt Silencer (4)
For Straight-Line, Front Exhaust Models		





DYNABRADE®

Parts Page Reorder No. PD07•26
Effective July, 2007
Supersedes PD06•19

Mini-Dynafile® II

For Serial No. 7G1858 and Higher

Air Tool Manual – Safety, Operation and Maintenance

SAVE THIS DOCUMENT, EDUCATE ALL PERSONNEL

Models:

15003 – Basic Tool
15006 – Versatility Kit

⚠ 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 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 alerted from the original design without expressed written consent from Dynabrade, Inc.

Tool Intent: Dynafile® abrasive belt machine replaces tedious hand filing and sanding and can be used for grinding, deburring, blending and polishing. Tool can be used on most materials including metal, plastic, fiberglass, composites, rubber, glass and stone.

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 its performance.

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

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.
- Mount only recommended accessories. See manual and Dynabrade catalog.
- Follow tool specifications before choosing size and type of accessory.
- Only use recommended fittings and air line sizes. (See tool Machine Specifications table.)

(continued on next page)

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.

- 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.)
- Keep hand and clothing away from working end of the air tool.
- 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.
- 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.

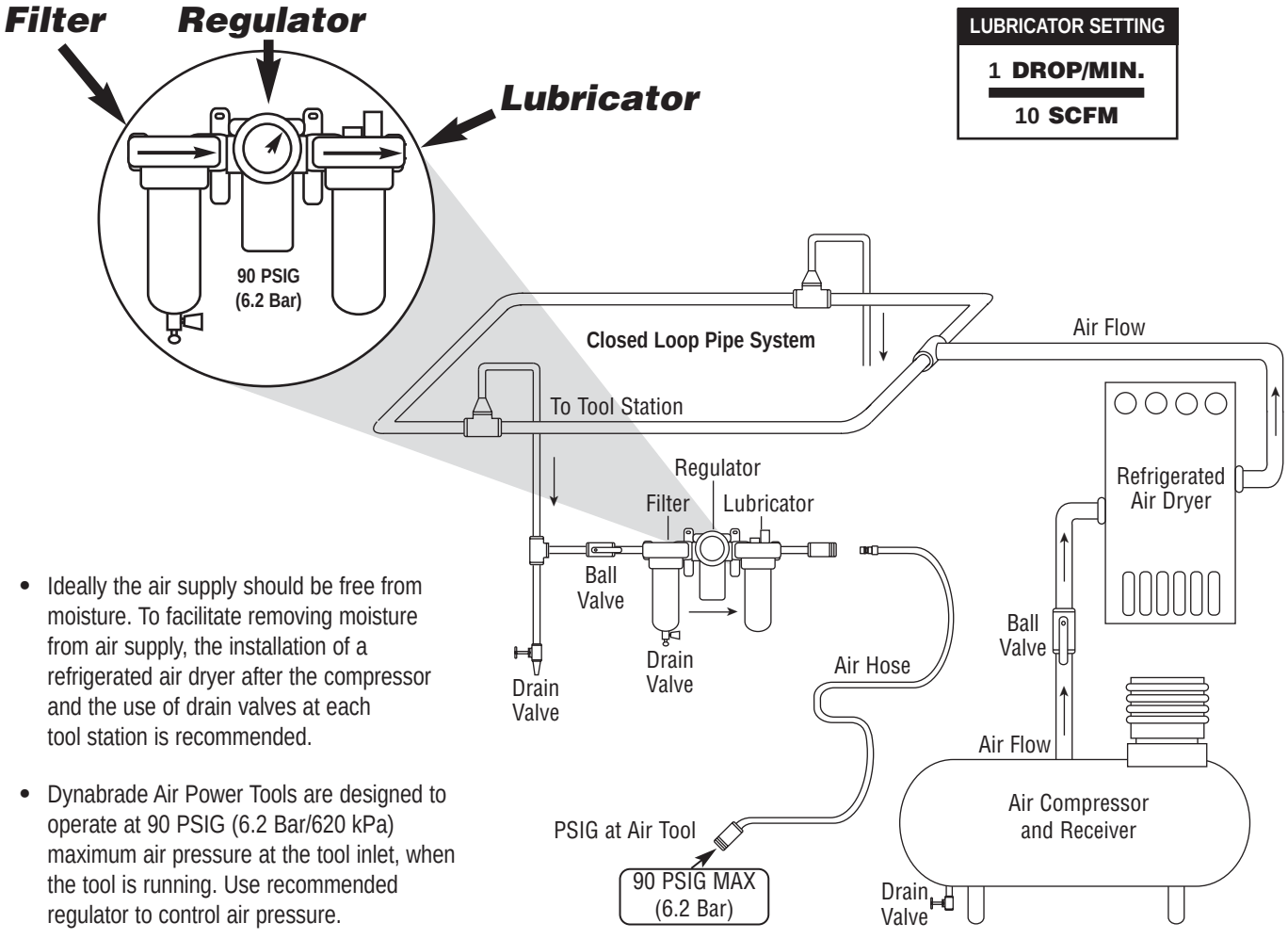
- Disconnect air hose from tool when changing belts and contact arms.
- Connect air tool to power source. Be careful NOT to depress throttle lever in the process. **Do not expose air tool to inlet pressure above 90 PSIG or (6.2 Bars).**

Caution: After installing the accessory, before testing or use and/or after assembling tool, the Dynafile® 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.

- Make sure that work area is uncluttered, and visitors are at a safe range from the tools and debris.
- 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, good posture and proper lighting.
- 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.

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

Air System



- 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.
- 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.

Machine Specifications

Model Number	Motor hp (W)	Motor RPM	Max. SFPM (SMPM)	Sound Level	Air Flow Rate SCFM (LPM)	Abrasive Belt Size Inch (mm)	Weight Pound (kg)	Length Inch (mm)	Height Inch (mm)
All Models	.4 (298)	25,000	4,890 (1,486)	78 dB(A)	20 (566)	1/8"-1/2" (3-13)W x 12" (305)L	1.8 (.82)	10-3/4 (275)	3-1/2 (89)

Additional Specifications: Air Inlet Thread 1/4" NPT • Hose I.D. Size 1/4" (6 mm) • 90 PSIG (6.2 Bars)

Maintenance Instructions

Important: A Preventative Maintenance Program is recommended whenever portable power tools are used.

- 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 for air pressure regulation, two stage filtration of water and contaminants. Operates 40 SCFM/1,133 LPM @ 100 PSIG with 3/8" NPT female ports.
- Dynabrade recommends one drop of air lube per minute for every 10 SCFM (example: if the tool specification states 40 SCFM, set the drip rate on the filter-lubricator to 4 drops per minute). Dynabrade Air Lube (P/N **95842**: 1 pt 473 ml) is recommended.

Routine Preventative Maintenance: Check free speed of Dynafile® using a tachometer.

- 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 **96074**) 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.
- 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 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.

Abrasive Belt and Contact Arm Assembly Change/Housing Angle Adjustment

To Change Abrasive Belts:

1. Disconnect the tool from the power source.
2. Loosen the **15058** Captive Screw and remove the **15057** Belt Guard.
3. Pull back the **15101** Tension Arm and remove the abrasive belt.
4. Install a new abrasive belt, and the **15057** Belt Guard.
5. Connect the tool to the power source and adjust the belt tracking by turning the **15108** Knob.

To Change Contact Arm Assemblies:

1. Disconnect the tool from the power source.
2. Loosen the **15058** Captive Screw and remove the **15057** Belt Guard.
3. Pull back the **15101** Tension Arm and remove the abrasive belt.
4. Loosen the **15108** Knob to remove the contact arm assembly.
5. Install the desired contact arm assembly so that the tab on the end of the arm faces toward the **15101** Tension Arm.
6. Fasten the contact arm assembly in place with the **15108** Knob.
7. Install a new abrasive belt, and the **15057** Belt Guard.
8. Connect the tool to the power source and adjust the belt tracking by turning the **15108** Knob.

Housing Angle Adjustment:

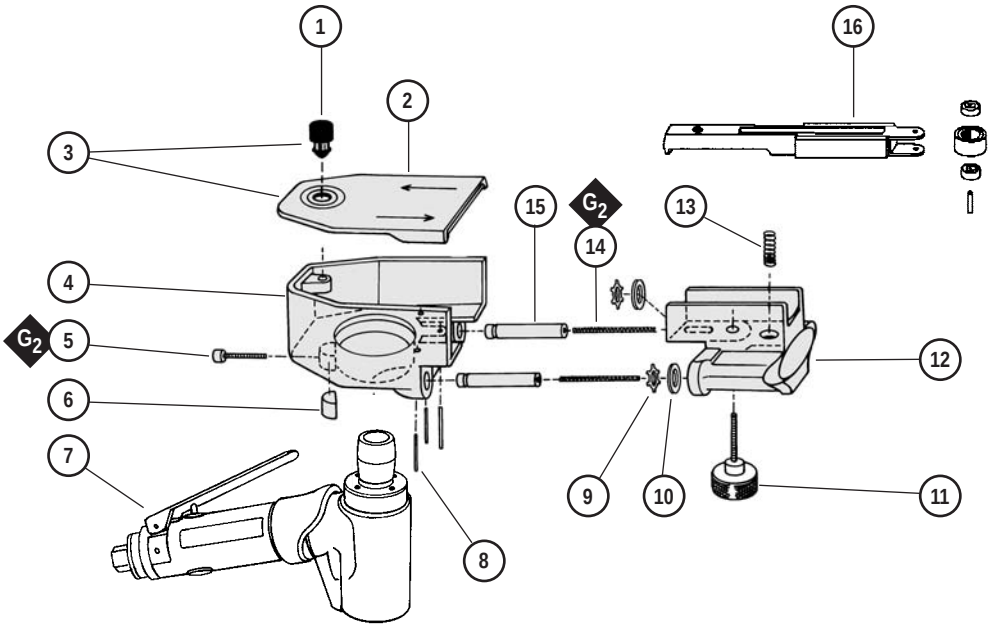
1. To pivot the **15060** Housing Assembly, use a 3mm hex key to loosen the **01788** Motor Lock Screw.
2. Pivot the housing assembly and fasten it to the desired position.

Mini-Dynafile® II

Complete Assembly Breakdown

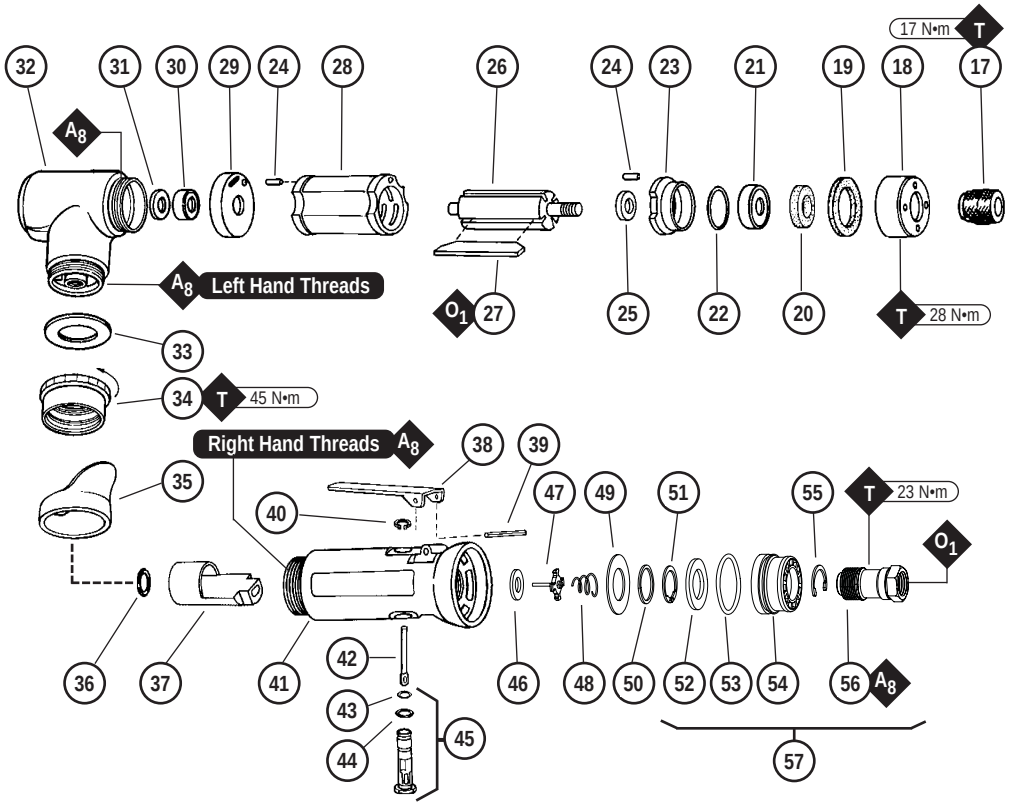
Index Key

No.	Part #	Description
1	**15058**	Captive Screw
2	**15057**	Belt Guard
3	**15059**	Cover Assembly
4	**15056**	Housing
5	**01788**	Motor Lock Screw
6	**40029**	Motor Lock
7	**04115**	Air Motor
8	**96086**	Roll Pin (3)
9	**15112**	Retainer Clip (2)
10	**15110**	Wiper (2)
11	**15108**	Knob
12	**15101**	Tension Arm
13	**11040**	Spring
14	**96085**	Spring (2)
15	**15105**	Support Shaft (2)
16		Contact Arm Assy. (Refer to page 6)
17	**15118**	Drive Wheel
18	**15106**	Exhaust Cover
19	**15111**	Silencer
20	**01580**	Silencer
21	**02649**	Bearing
22	**54529**	Shim Pack (3/Pkg)
23	**01478**	Front Bearing Plate
24	**50767**	Pin (2)
25	**01479**	Spacer
26	**01475**	Rotor
27	**01480**	Blades (4)
28	**01476**	Cylinder
29	**02673**	Rear Bearing Plate
30	**02696**	Bearing
31	**02679**	Shield
32	**01546**	Housing
33	**01548**	Gasket
34	**01461**	Lock Nut
35	**01558**	Collar
36	**95523**	O-Ring
37	**01470**	Insert
38	**01448**	Throttle Lever
	01462	Safety Lock Lever
39	**12132**	Pin
40	**95558**	Retaining Ring
41	**02117**	Housing
42	**01449**	Valve Stem
43	**95730**	O-Ring
44	**01024**	O-Ring
45	**01469**	Speed Regulator Assembly (Includes O-Rings)
46	**01464**	Seal
47	**01472**	Tip Valve
48	**01468**	Spring
49	**01683**	Air Control Ring
50	**01564**	Spacer
51	**95711**	Retaining Ring
52	**01486**	Felt Silencer (4)
53	**96065**	O-Ring
54	**01446**	Air Deflector
55	**95620**	Retaining Ring
56	**01578**	Inlet Adapter
57	**94535**	Muffler Assembly



Note: Shaded parts represent **15060** Housing Assembly.

04115 Air Motor



KEY

- **O** Oil: **O_1 = Air Lube**
- **A** Adhesive: **A_3 = Loctite #242**, **A_8 = Loctite #567**, **A_9 = Loctite #587**
- **T** Torque: **N•m x 8.85 = In. - lbs.**
- **G** Grease: **G_2 = Loctite #771**

Disassembly/Assembly Instructions - Mini-Dynafile® II

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 **96074** 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.

1. 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 removing the air supply connection.
2. Remove the **15057** Belt Guard, abrasive belt and contact arm assembly. Use a 3mm hex key to loosen the **01788** Motor Lock Screw and remove the **15060** Housing Assembly from the air motor.

Motor Disassembly:

1. Place the **52296** Repair Collar around the **01546** Housing and fasten in a vise so that the **15118** Drive Wheel is pointing up.
2. Use the **50971** Lock Ring Tool or an adjustable 3mm pin spanner wrench to remove the **15106** Exhaust Cover by turning it counterclockwise. Remove the felt silencers.
3. Carefully pull the air motor out of the **01546** Housing. Remove the **02679** Shield.
4. Fasten the **96346** 2" Bearing Separator around the portion of the **01476** Cylinder that is closest to the **02673** Rear Bearing Plate. Place the bearing separator on the table of the **96232** #2 Arbor Press so that the drive wheel is pointing down. Use a 3/16" or 5mm diameter flat end drive punch as a press tool and push the rotor out of the **02696** Rear Bearing. Use the **96210** Bearing Removal Tool and the arbor press to remove the **02696** Bearing from the rear bearing plate.
5. Fasten the vane slot portion of the rotor in a vise with aluminum or bronze jaws so that the drive wheel is pointing up.
6. Use the **95262** 14mm Wrench to remove the **15118** Drive Wheel by turning it counterclockwise.
7. Remove the front bearing/plate, shims and **01479** Spacer.

Motor Disassembly Complete.

Valve Disassembly:

1. Position the **52296** Repair Collar around the **02117** Housing and fasten the tool in a vise so that the **01578** Inlet Adapter is pointing up.
2. Remove the **01578** 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 **02117** 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 lubrication, 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 **02117** 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 **02117** Housing and fasten the tool in a vise so that the air inlet opening is pointing up.
4. Install the **01464** Seal into the **02117** 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 **01578** Inlet Adapter and install the **94535** Muffler Assembly onto the **02117** Housing. (Torque to 23N•m/200 in. lbs.)
9. Hold the tool air inlet adapter stationary with a wrench when attaching or installing the air supply connection.

Valve Assembly Complete.

Motor Assembly:

1. Install the **01479** Spacer onto the rotor.
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 front bearing plate.
4. Position the rotor in a vise with aluminum or bronze jaws so that the rotor spindle is pointing up. Install the front bearing/plate onto the rotor.
5. Install the **01580** Silencer around the rotor spindle. Install the **15111** Silencer into the **15106** Exhaust Cover and place these onto the rotor. Install the **15118** Drive Wheel. (Torque to 17N•m/150 in. lbs.) Remove the assembly from the vise.
6. Use a .001" (0.3mm) thick feeler gauge to check the clearance between the front bearing plate and the face of the rotor.
7. The clearance should be .001"-.0015" (0.3-0.4mm). **Note:** If the clearance needs adjustment repeat steps 2-6 adding or removing shims as required.
8. Lubricate the **01480** Blades (4) with the **95842** Dynabrade Air Lube 10W/NR (or equivalent) and install these into the rotor.
9. 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.
10. Use the raised outer diameter of the **96216** Bearing Press Tool and the **94232** #2 Arbor Press to install the **02696** Bearing into the **02673** Rear Bearing Plate.
11. Use the raised inner diameter of the **96216** 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.
12. 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.
13. Carefully slide the motor assembly into the **02117** Housing.
14. Use the **50971** Lock Ring Tool or a adjustable 3mm pin spanner wrench to fasten the **15106** Exhaust Cover onto the **02117** Housing. (Torque to 28N·m/250 in. lbs.)

Motor Assembly Complete.

Throttle Positioning Procedure:

Important: Carefully perform this procedure so as not to entirely separate the 01546 Housing from the 02117 Housing. Loosen the 01461 Lock Nut only enough to make the desired throttle lever adjustment.

1. Place the **52296** Repair Collar around the **02117** Housing and fasten it in a vise so that the **01546** Housing is pointing up.
2. Slip the **01558** Collar down onto the **02117** Housing to expose the **01461** Lock Nut.
3. With a firm hold on the **01546** Housing use a 34mm or an adjustable wrench to turn the lock nut clockwise to loosen the **01546** Housing from the **02117** Housing.
4. Orient the throttle lever to the operators desired grip and positioning. **Note:** Allow for additional rotation of the **01546** Housing as the **01461** Lock Nut is tightened.
5. Grasp the **01546** Housing firmly to reduce it rotation. Use a 34mm or an adjustable wrench to tighten the **01461** Lock Nut. (Torque to 45 N•m/400 in. lbs.)

(continued on next page)

6. Slip the **01558** Collar back over the **01461** Lock Nut.

Note: The factory preset positioning for the throttle lever is the 11:00 position. This is in relation to the drive wheel positioning at 12:00.

Throttle Positioning Procedure Complete.

Final Assembly:

1. Install the **15060** Housing Assembly onto the air motor and use a 3mm hex key to tighten the motor lock screw. Install the contact arm assembly, abrasive belt and **15057** Belt Guard.
2. With the air supply shut off, carefully connect the tool to the air supply hose. **Note:** Use a wrench to hold the air tool inlet adapter stationary when install the air supply connection.

Final Assembly Complete. 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).

Preventative Maintenance Schedule

For All Mini-Dynafile® II Models

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.

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.

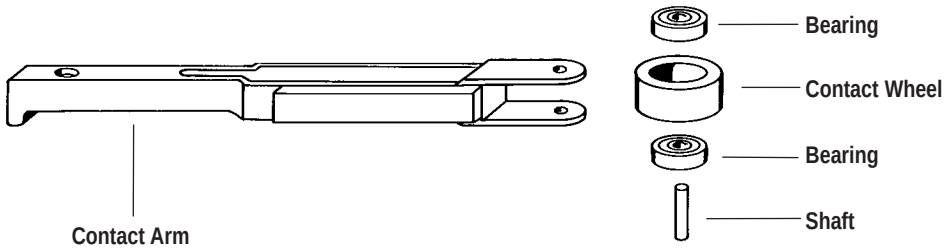
96074 – Motor Tune-Up Kit

Index #	Part Number	Description	Number Required	High Wear 100%	Medium Wear 70%	Low Wear 30%	Non-Wear 10%
1	**15058**	Captive Screw	1			**D**	
2	**15057**	Belt Guard	1				**L**
3	**15059**	Cover Assembly	1			**X**	
4	**15056**	Housing	1			**X**	
5	**01788**	Motor Lock Screw	1			**X**	
6	**40029**	Motor Lock	1				**L**
7	**04115**	Air Motor	1	**N/A**	**N/A**	**N/A**	**N/A**
8	**96086**	Roll Pin	3			**X**	
9	**15112**	Retainer Clip	2			**X**	
10	**15110**	Wiper	2			**X**	
11	**15108**	Knob	1				**X**
12	**15101**	Tension Arm	1				**X**
13	**11040**	Spring	1			**X**	
14	**96085**	Spring	2			**X**	
15	**15105**	Support Shaft	2			**X**	
16	**See Note**	Contact Arm Assy.	1	**N/A**	**N/A**	**N/A**	**N/A**
17	**15118**	Drive Wheel	1				**X**
18	**15106**	Exhaust Cover	1				**X**
19	**15111**	Silencer	1	**T**			
20	**01580**	Silencer	1	**T**			
21	**02649**	Bearing	1		**T**		
22	**54529**	Shim Pack (3/Pkg)	1		**T**		
23	**01478**	Front Bearing Plate	1			**X**	
24	**50767**	Pin	2				**X**
25	**01479**	Spacer	1				**X**
26	**01475**	Rotor	1	**T**			
27	**01480**	Blades (4/Pkg)	1			**X**	
28	**01476**	Cylinder	1				**X**
29	**02673**	Rear Bearing Plate	1		**T**		
30	**02696**	Bearing	1		**T**		
31	**02679**	Shield	1				**X**
32	**01546**	Housing	1		**T**		
33	**01548**	Gasket	1				**X**
34	**01461**	Lock Nut	1			**X**	
35	**01558**	Collar	1			**T**	
36	**95523**	O-Ring	1			**D**	
37	**01470**	Insert	1			**X**	
38	**See Note**	Throttle Lever	1			**X**	
39	**12132**	Pin	1		**T**		
40	**95558**	Retaining Ring	1			**T**	
41	**02117**	Housing	1			**X**	
42	**01449**	Valve Stem	1			**T**	
43	**95730**	O-Ring	1			**X**	
44	**01024**	O-Ring	1			**X**	
45	**01469**	Speed Regulator Assembly	1			**T**	
46	**01464**	Seal	1			**T**	
47	**01472**	Tip Valve	1			**T**	
48	**01468**	Spring	1			**T**	
49	**01683**	Air Control Ring	1				**L**
50	**01564**	Spacer	1			**X**	
51	**95711**	Retaining Ring	1			**T**	
52	**01486**	Felt Silencer	4	**T**			
53	**96065**	O-Ring	1			**T**	
54	**01446**	Air Deflector	1				**X**
55	**95620**	Retaining Ring	1			**T**	
56	**01578**	Inlet Adapter	1			**X**	

Note: Please refer to pages 4 of tool manual for specific part number.

Mini-Dynafile® II Contact Arm Assemblies

Contact Wheel Assembly Includes wheel, bearing and shaft.

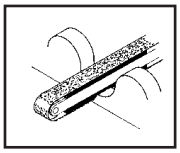


Mini-Dynafile® II Standard Contact Arms						
Part Number	Abrasive Belt Size	Contact Wheel Description	Contact Wheel Assembly	Contact Wheel Only	Bearing (2) Req.	Shaft
15026	1/2" x 12"	5/8" D x 3/8" W, Rubber	11078	11077	11052	11054
15028	1/4" or 1/2" x 12"	1" D x 3/8" W, Rubber	11080	11079	11052	11054
15029	1/8" x 12"	1" D x 3/8" W Urethane, Tapered	11086	11085	11052	11054
15030	1/2" x 12"	5/16" D x 3/8" W, Steel	11068	11067	11051	11054
15031	1/2" x 13"	7/16" D x 3/8" W, Rubber	11070	11069	11051	11054

Mini-Dynafile® II Standard Contact Arms

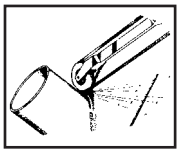
Contact arms allow for 3" workable reach.
Contact Wheels noted include bearing and shaft.

15026 (Standard on all models).
Grind over contact wheel or platen.



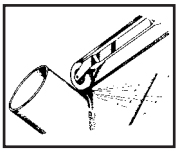
Belt Size: 1/2" wide x 12" long.
11078 Contact Wheel: 5/8" diameter x 3/8" wide, rubber.
11026 Platen: 1/2" wide.

15029
Grind corners, enter grooves, strap polish.



Belt Size: 1/8" wide x 12" long.
11086 Contact Wheel: 1" diameter x 3/8" wide, urethane.
No Platen

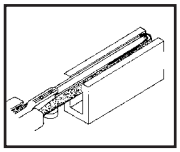
15028
Grind corners, enter grooves, strap polish.



Belt Size: 1/4" or 1/2" wide x 12" long.
11080 Contact Wheel: 1" diameter x 3/8" wide, rubber.
No Platen

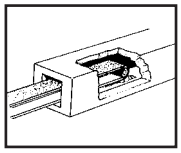
45 PSIG Max.

15030
Enter channels as narrow as 7/16".



Belt Size: 1/2" wide x 12" long.
11068 Contact Wheel: 5/16" diameter x 3/8" wide, steel.
11027 Platen: 1/2" wide.

15031
For 13" long belts
Runs at 45 PSIG max.
Work on contact wheel or Dynapad.



Belt Size: 1/2" wide x 13" long.
11070 Contact Wheel: 7/16" diameter x 3/8" wide, rubber.
11027 Platen: 1/2" wide.

Optional Accessories

Composite 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.

50971 Lock Ring Tool

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

Threaded Collet Inserts

These uniquely designed inserts thread directly into the drive wheel.

01644 – 1/4" insert
01646 – 6mm insert
01647 – 1/8" insert
01648 – 3mm insert

96216 Bearing Press Tool

- This tool is designed to safely press a bearing into a bearing plate and onto a shaft.

11288 Dynafile Contact Arm and Idler Wheel Repair Kit

- Contains special tools to assist in the replacement of contact wheels and bearings.

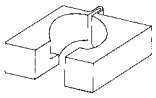
96074 Motor Tune-Up Kit:

- Includes assorted parts to help maintain and repair motor.

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 prevents damage to valve body of tool during disassembly/assembly.

96210 Bearing Removal Tool

- This tool is designed yo pass through the I.D. of the bearing plate and push against the I.D. of the bearing.

Abrasives

12" Long Abrasive Belts

Aluminum Oxide

Belt Width	Grit 40	60	80	120	180	220	320
1/8"	––	––	92206	92207	92208	92209	92210
1/4"	92105	92106	92107	92108	92118	92119	92120
1/2"	92110	92111	92112	92113	92114	92115	92116

Abrasive Impregnated Non-Woven Nylon

Belt Width	Super Fine Grey	Very Fine Blue	Medium Maroon	Coarse Brown
1/2"	90311	90312	90313	90314

DYNABRADE®

For Serial No. 1B1000 and Higher

Parts Page Reorder No. PD01•29
Effective March, 2001
Supercedes PD97•64

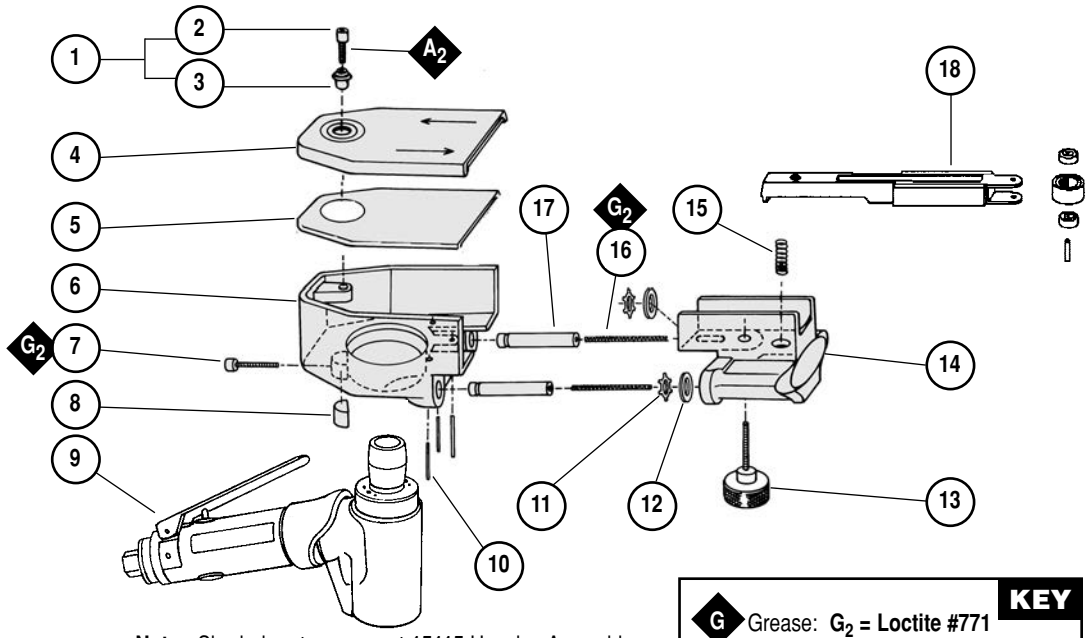
Mini-Dynafile® II

Models:
15002 – Vacuum Tool
15003 – Basic Tool with Drive Wheel
15006 – Versatility Kit

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. See inside for Important Operating, Maintenance and Safety Instructions.**

15003, 15006 Tool Assembly



Note: Shaded parts represent **15115** Housing Assembly.

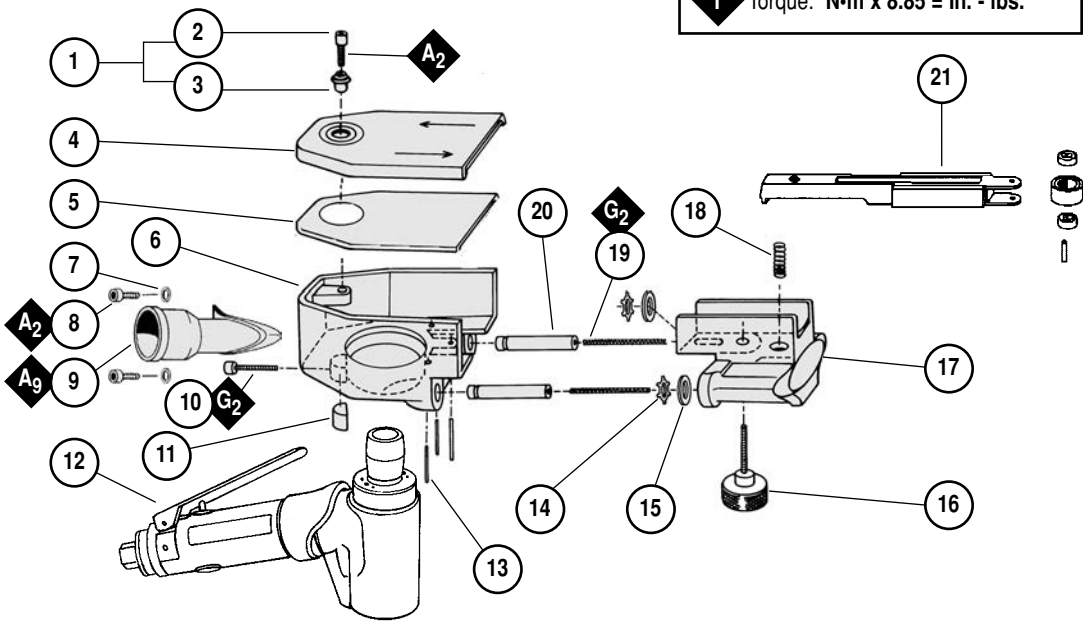
Index Key

No.	Part #	Description
1	**15114**	Button Latch Assy. (includes **96084** and **40025**)
2	**96084**	Screw
3	**40025**	Button
4	**15117**	Guard Assembly (includes **15102**)
5	**15102**	Gasket
6	**15100**	Housing
7	**01788**	Motor Lock Screw
8	**40029**	Motor Lock
9	**04115**	Air Motor
10	**96086**	Roll Pin
11	**15112**	Retainer Clip
12	**15110**	Wiper
13	**15108**	Knob
14	**15101**	Tension Arm
15	**11040**	Spring
16	**96085**	Spring (2)
17	**15105**	Support Shaft (2)
18		Contact Arm Assy. (Refer to page 6)

KEY

- G — Grease: **G_2 = Loctite #771**
- A — Adhesive: **A_2 = Loctite #271**, **A_8 = Loctite #567**, **A_9 = Loctite #587**
- T — Torque: **N•m x 8.85 = In. - lbs.**

15002 Vacuum Tool Assembly

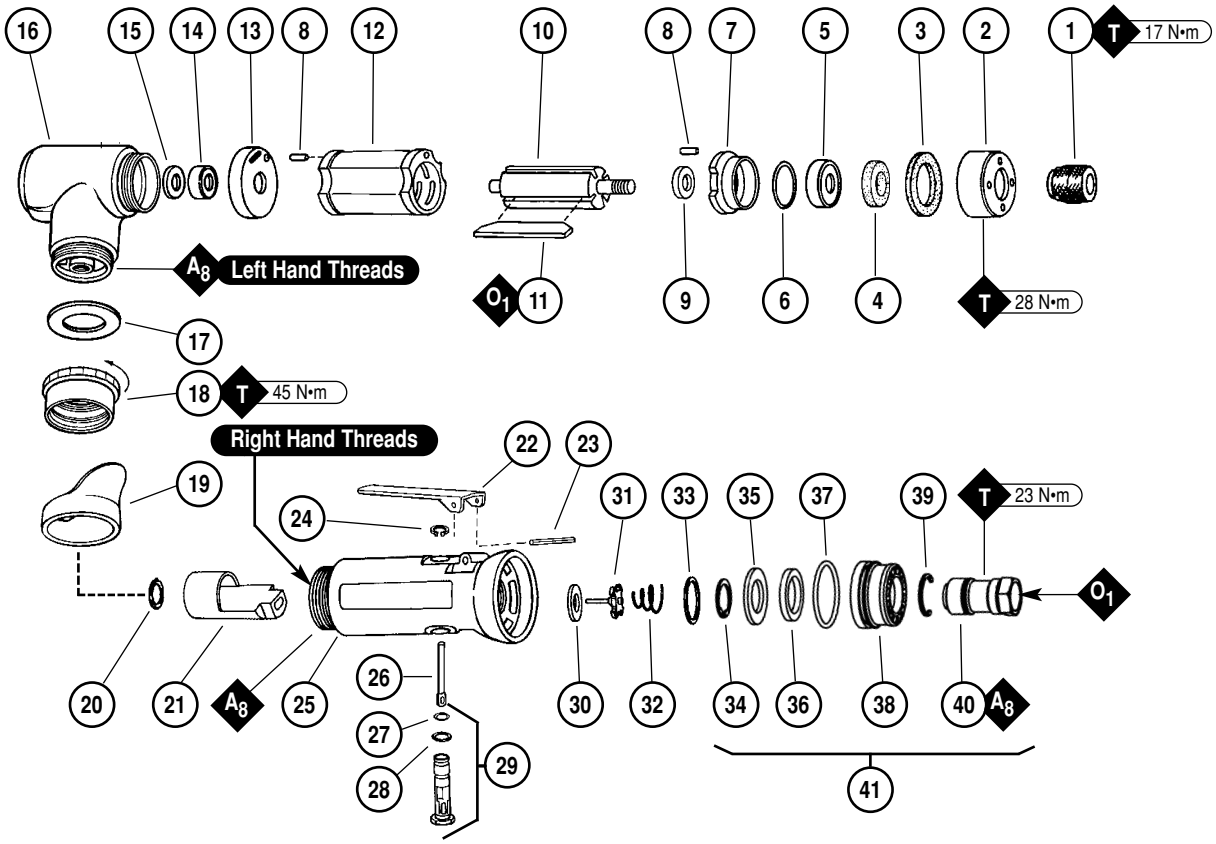


Note: Shaded parts represent **15116** Housing Assembly.

Index Key

No.	Part #	Description
1	**15114**	Button Latch Assy. (includes **96084** and **40025**)
2	**96084**	Screw
3	**40025**	Button
4	**15117**	Guard Assembly (includes **15102**)
5	**15102**	Gasket
6	**15113**	Housing
7	**96087**	Washer (2)
8	**95264**	Screw (2)
9	**15107**	Vac Port
10	**01788**	Motor Lock Screw
11	**40029**	Motor Lock
12	**04115**	Air Motor
13	**96086**	Roll Pin
14	**15112**	Retainer Clip
15	**15110**	Wiper
16	**15108**	Knob
17	**15101**	Tension Arm
18	**11040**	Spring
19	**96085**	Spring (2)
20	**15105**	Support Shaft (2)
21		Contact Arm Assy. (Refer to page 6)

04115 Air Motor



Index Key			
No. Part # Description			
1 **15118** Drive Wheel	13 **02673** Rear Bearing Plate	24 **95558** Retaining Ring	34 **95711** Retaining Ring
2 **15106** Exhaust Cover	14 **02696** Bearing	25 **02116** Housing - **15002**	35 **01486** Felt Silencer (4)
3 **15111** Silencer	15 **02679** Shield	**02117** Housing - **15003**	36 **01379** Bronze Muffler
4 **01580** Silencer	16 **01546** Housing	26 **01449** Valve Stem	37 **96065** O-Ring
5 **02649** Bearing	17 **01548** Gasket	27 **95730** O-Ring	38 **01446** Air Deflector
6 **54529** Shim Pak (3)	18 **01461** Lock Nut	28 **01024** O-Ring	39 **95620** Retaining Ring
7 **01478** Front Bearing Plate	19 **01558** Collar	29 **01469** Speed Regulator Assembly	40 **01578** Inlet Adapter
8 **50767** Pin (2)	20 **95523** O-Ring	30 **01464** Seal	41 **94535** Muffler Assembly
9 **01479** Spacer	21 **01470** Insert	31 **01472** Tip Valve	
10 **01475** Rotor	22 **01448** Throttle Lever	32 **01468** Spring	
11 **01480** Blades (4)	**01462** Safety Lock Lever	33 **01378** Air Control Ring	
12 **01476** Cylinder	23 **12132** Pin		

KEY

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

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. Check tool speed with tachometer. If tool is operating at a higher speed than the RPM marked on the tool or operating improperly, the tool should be serviced to correct the cause before use.

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**: 1pt. 473ml.) is recommended.
4. An Air Line Filter-Regulator-Lubricator must be used with this air tool to maintain all warranties. 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 40 SCFM @ 100 PSIG has 3/8" NPT female ports.
5. Use only genuine Dynabrade replacement parts. To reorder replacement parts,please specify the **Model #**, **Serial #** and **RPM** of your machine.
6. A Motor Tune-Up Kit (P/N **96074**) 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.

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).
- Operate machine for one minute before application to workpiece to determine if machine is working properly and safely before work begins.
- 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.
- **Warning:** Hand, wrist and arm injury may result from repetitive work, motion and overexposure to vibration.

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.

Model Number	Motor HP (W)	Motor RPM	Max. SFPM (SMPM)	Sound Level	Air Flow Rate CFM/SCFM (LPM)	Abrasive Belt Size Inch (mm)	Weight Pound (kg)	Length Inch (mm)	Height Inch (mm)
All Models	.35 (261)	25,000	4,890 (1,486)	78 dB(A)	3/20 (566)	1/8"-1/2" (3-13)W x 12" (305)L	1.8 (.82)	10-3/4 (275)	3-1/2 (89)

Additional Specifications: Air Inlet Thread 1/4" NPT • Hose I.D. Size 1/4" (8 mm) • 90 PSIG (6.2 Bars)

Disassembly/Assembly Instructions - Mini-Dynafile® II

Important: Manufacturer's warranty is void if tool is disassembled before warranty expires.

Notice: Dynabrade strongly recommends the use of their 52296 Repair Collar (sold separately) during assembly/disassembly activities. Failure to use this collar will highly increase the risk of damage to the valve body of this tool. Please refer to parts breakdown for part identification.

To Disassemble:

1. Remove Belt Guard, abrasive belt and contact arm assembly.

Motor Disassembly:

1. Separate **04115** Air Motor from tool assembly (**15002**, **15003** or **15006**) by loosening **01788** Motor lock screw with a **95266**, 3 mm hex key.
2. Hold **01546** Housing in a vise by using **52296** Repair Collar or padded jaws.
   Note: Be careful not to over tighten vise which could damage **01546** Housing
3. Use **50791** Lock Ring Wrench or an adjustable 3 mm pin wrench to remove the **15106** Exhaust Cover (turn counterclockwise). Remove Silencer.
4. Pull motor assembly from housing.
5. Fasten a bearing separator around the **01476** Cylinder (end nearest the **02673** Rear Bearing Plate).
6. Place the bearing separator on the table of the **96232** Arbor press so that the motor spindle points toward the floor.
7. Use a 3/16" diameter drive punch as a press tool and press the rear portion of the **01475** Rotor out of the **02696** Rear Bearing.
8. With the motor now disassembled, secure **01475** Rotor in a soft aluminum or bronze jaw vise, and remove **15118** Drive Wheel with a **95262** 14 mm Wrench or pipe wrench.
9. Remove **01478** Front Bearing Plate, **02649** Front Bearing, shims and **01479** Spacer, these are a slip fit onto the rotor.
10. Remove **02679** Shield from **02696** Rear Bearing, and press **02696** Rear Bearing from **02673** Rear Bearing Plate (**96210** Bearing Removal Tool is available).

Motor disassembly complete.

Valve Body Disassembly:

1. Position valve body in a vise by using **52296** Repair collar so that air inlet points up..
2. Secure **01578** Inlet Adapter with a wrench to prevent it from turning. While holding the inlet adapter stationary remove the air fitting by turning it counter-clockwise. **Important: 01578** inlet Adapter must be secured before attempting to remove the air fitting so as to avoid damaging the valve body housing.
3. Remove **01578** inlet Adapter.
4. Remove **95711** Retaining Ring from inlet adapter. Remove **01486** Felt Silencer (4), and **01379** Bronze Muffler.
5. Remove **01564** Air Control Ring from the valve body housing. Use needle nose pliers and remove **01468** Spring, **01472** Tip Valve and **01464** Seal.
6. Use a 2.5 mm drive punch to remove **12132** Pin and **01448** or **01462** Throttle Lever.
7. Remove **95558** Retaining Ring and push **01469** Regulator from the valve body housing.

Valve Body disassembly complete.

Optional: To disassemble valve body from motor housing, peel back **01558** Collar to expose **01461** Lock Nut. Unscrew lock nut/valve body from motor housing (left hand thread).

To Assemble:

Important: Make sure parts are clean and in good condition before assembling.

Motor Assembly:

1. Place **01475** Rotor in soft aluminum or bronze jaw vise with threaded spindle pointing upwards.
2. Slip **01479** Spacer onto rotor.
3. Place a .002" shim into **01478** Front Bearing Plate as an initial spacing and slip **02649** Bearing into plate (**Note:** Shim Pak contains .001" and .002" shims.)
4. Install bearing/bearing plate assembly onto rotor.
5. Insert silencers into **15106** Exhaust Cover and slide over rotor.
6. Tighten **15118** Drive Wheel onto Rotor (torque to 17 N•m/150 in. - lbs.).
7. Check clearance between rotor and bearing plate by using a .001" feeler gauge. Clearance should be at .001" to .0015". Adjust clearance by repeating steps1-5 with different shim if necessary.
8. Once proper rotor/gap clearance is achieved, install well lubricated **01480** Blades (4) into rotor slots. Dynabrade recommends their air lube P/N **95842**.
9. Install cylinder over rotor. Be sure air inlet holes of cylinder face away from bearing plate and that the **50767** Pin in the front bearing plate aligns correctly with the pin-hole in the cylinder.
10. Press **02696** Rear Bearing into **02673** Rear Bearing Plate. Press bearing/bearing plate assembly onto rotor. Be sure that pin and air inlet holes line-up with pin slot and air inlet holes in cylinder. **Important:** Fit must be snug between bearing plates and cylinder. A loose fit will not achieve the proper preload of motor bearings. If too tight, rotor will not turn freely and must then be lightly tapped at press fit end so it will turn freely while still maintaining a snug fit.
11. Apply a dab of grease onto **02673** Bearing and place **02679** Shield over **02673** Bearing.
12. Secure housing in vise using **52296** Repair Cover or padded jaws so motor cavity faces upwards.
13. Install motor assembly into housing. Be sure motor drops all the way into housing.
14. Tighten exhaust cover onto motor housing by using **50971** Lock Ring Wrench (torque 28 N•m/250 in. - lbs.).

Disassembly/Assembly Instructions - Mini-Dynafile® II (continued)

15. Motor adjustment can now be checked. With motor housing still mounted in vise, pull end of rotor and twist (10-15 lbs. force), rotor should turn freely without drag. If drag or rub is felt, then increase preload or remove shim. Also, push end of rotor and twist (10-15 lbs. force), rotor should turn freely without drag. If drag or rub is felt, then deload or add shim.

Motor assembly is complete.

Valve Body Assembly:

1. Install **01469** Regulator complete with o-rings and valve stem into valve body housing. Secure it in place with **95558** Retaining Ring.
2. Place valve body housing in a vise, holding it with the aid of **52296** Repair collar so that the air inlet opening points up.
3. Insert **01464** Seal into the air inlet opening so that it lays flat.
4. Line up hole in valve stem with inlet opening in housing (looking past brass bushing). Install **01472** Tip Valve so that the metal pin passes through the hole in the valve stem. Install **01468** Spring (small end against tip valve).
5. Position **01378** Air Control Ring around inlet opening. Place **01379** Bronze Muffler inside **01446** Air Deflector. With **95620** Retaining Ring installed on female threaded end of **01578** Inlet Adapter insert the inlet adapter through **01446** Air Deflector. Place 01486 Felt Silencer (4) inside **01446** Air Deflector. Install **95711** Retaining Ring into groove at the male threaded end of the inlet adapter. Install **96065** O-Ring into groove on the air deflector.
6. Apply Loctite® #567 (or equivalent) to the male threads of the **01578** Inlet adapter install **96065** O-Ring into groove on the air deflector.
7. Install **01448** or **01462** Throttle Lever onto valve body housing with **12132** Pin.
8. Secure **01578** Inlet Adapter with a wrench to prevent it from turning. While holding the inlet adapter stationary install the air fitting by turning it clock wise. Important: **01578** Inlet Adapter must be secured before attempting to install the air fitting so as to avoid damaging the valve body housing.

Tool assembly is complete. Please allow 30 minutes for adhesives to cure before operating tool.

Housing Assembly:

1. With **40029** Motor lock in place, install air motor assembly into housing and secure in place by tightening **01788** Motor Lock Screw.
2. Complete assembly by installing contact arm assembly, abrasive belt and belt guard.

Tool assembly is complete. Please allow 30 minutes for adhesives to cure before operating tool.

Important: 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.

Note: Throttle lever is present at the factory at an 11:00 o'clock position.

Important: The regular maintenance of any air tool will contribute to greater efficiency of tool and will prolong tool life. The failure of quality pneumatic air bearings causing early failure. It often scores the cylinder walls and the rotor blades resulting in limited efficiency and power. Frequent drainage of water traps in air lines is recommended. Each tool on each drop should also be equipped with a secondary air processing unit. This consists of an in-line Filter-Regulator-Lubricator. All Dynabrade Rotary Vane air tools must be used with a Filter-Regulator-Lubricator to maintain all warranties. Our warranty obligation is contingent upon proper use of our tools and cannot apply to equipment which has been subject to misuse such as unclean air, wet air or a lack of lubrication during the use of the tool.

Loctite® is a registered trademark of the Loctite Corp.

Housing Angle Adjustment:

1. Disconnect power source.
2. To pivot housing, loosen **01788** Motor Lock Screw on housing with the supplied 3 mm hex wrench (P/N – **95266**).
3. Pivot housing to desired angle and retighten the **01788** Motor Lock Screw.

Abrasive Belt/Contact Arm Change Instructions:

To Change Belt:

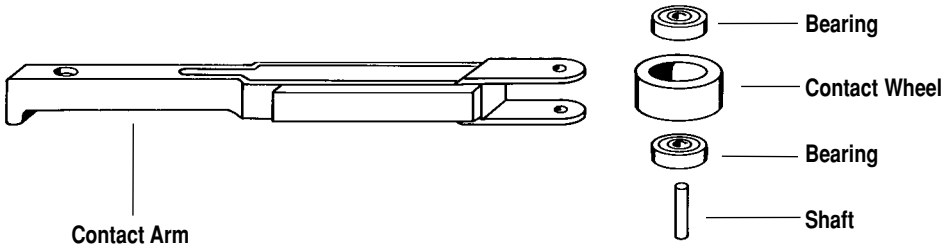
1. Disconnect power source.
2. Remove "pop-off" cover.
3. Pull back on tension arm assembly.
4. Remove and replace abrasive belt and cover.
5. Connect power source.
6. Adjust belt tracking by turning **15108** Rough Adjustment Knob to the left or right accordingly while machine is running.

To Change Contact Arm Assembly:

1. Disconnect power source.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.
2. Remove "pop-off" cover.
3. Pull back on tension arm assembly and remove abrasive belt.
4. Remove **15108** Rough Adjustment Knob.
5. Remove contact arm and replace with desired arm, making sure that the tab on the end of the arm is facing downward.
6. Replace **15108** Knob.
7. Install abrasive belt and cover.
8. Connect power source and adjust belt tracking by turning **15108** Knob to the left or right accordingly while machine is running.

Mini-Dynafile® II Contact Arm Assemblies

Contact Wheel Assembly Includes wheel, bearing and shaft.



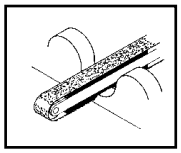
Mini-Dynafile® II Standard Contact Arms

Part Number	Abrasive Belt Size	Contact Wheel Description	Contact Wheel Assembly	Contact Wheel Only	Bearing (2) Req.	Shaft
15026	1/2" x 12"	5/8" D x 3/8" W, Rubber	11078	11077	11052	11054
15028	1/4" or 1/2" x 12"	1" D x 3/8" W, Rubber	11080	11079	11052	11054
15029	1/8" x 12"	1" D x 3/8" W Urethane, Tapered	11086	11085	11052	11054
15030	1/2" x 12"	5/16" D x 3/8" W, Steel	11068	11067	11051	11054
15031	1/2" x 13"	7/16" D x 3/8" W, Rubber	11070	11069	11051	11054

Mini-Dynafile® II Contact Arms

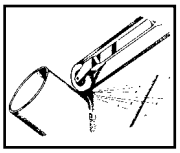
Contact arms allow for 3" workable reach.
Contact Wheels noted include bearing and shaft.

15026 (Standard on all models).
Grind over contact wheel or platen.



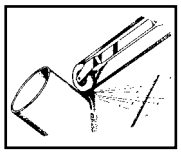
Belt Size: 1/2" wide x 12" long.
11078 Contact Wheel: 5/8" diameter x 3/8" wide, rubber.
11026 Platen: 1/2" wide.

15029
Grind corners, enter grooves, strap polish.



Belt Size: 1/8" wide x 12" long.
11086 Contact Wheel: 1" diameter x 3/8" wide, urethane.
No Platen

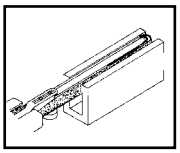
15028
Grind corners, enter grooves, strap polish.



Belt Size: 1/4" or 1/2" wide x 12" long.
11080 Contact Wheel: 1" diameter x 3/8" wide, rubber.
No Platen

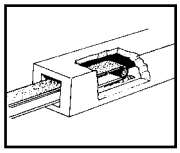
45 PSIG Max.

15030
Enter channels as narrow as 7/16".



Belt Size: 1/2" wide x 12" long.
11068 Contact Wheel: 5/16" diameter x 3/8" wide, steel.
11027 Platen: 1/2" wide.

15031
For 13" long belts
Runs at 45 PSIG max.
Work on contact wheel or Dynapad.



Belt Size: 1/2" wide x 13" long.
11070 Contact Wheel: 7/16" diameter x 3/8" wide, rubber.
11027 Platen: 1/2" wide.

Optional Accessories

Dynaswivel®

- Swivels 360˚ AT TWO PIVOT POINTS allowing the air hose to drop directly to the floor while providing superb tool handling.
- New **94300** 1/4" NPT, non-marring composite construction.

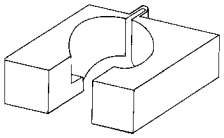
96074 Motor Tune-Up Kit

- Includes assorted parts to help maintain and repair motor.

Threaded Collet Inserts

These uniquely designed inserts thread directly into the drive wheel.

01644 – 1/4" insert
01646 – 6 mm insert
01647 – 1/8" insert
01648 – 3 mm insert



52296 Repair Collar

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

Abrasives

12" Long Abrasive Belts

Abrasive Impregnated Non-Woven Nylon				
Belt Width	Super Fine Grey	Very Fine Blue	Medium Maroon	Coarse Brown
1/2"	90311	90312	90313	90314

Aluminum Oxide							
Belt Width	Grit 40	60	80	120	180	220	320
1/8"	—	—	92206	92207	92208	92209	92210
1/4"	92105	92106	92107	92108	92118	92119	92120
1/2"	92110	92111	92112	92113	92114	92115	962116