1 hp Dynastraight
6" Extension, Governor Controlled

Air Tool Manual – Safety, Operation and Maintenance

SAVE THIS DOCUMENT, EDUCATE ALL PERSONNEL

Models:
13511 – 1,800 RPM
with 5/8" or 1" Combination Arbor
13512 – 3,400 RPM
with 1/2" Diameter Arbor
13515 – 3,400 RPM
with 5/8"-11 Threaded Arbor
13516 – 3,400 RPM
with 5/8" or 1" Combination Arbor
13517 – 4,500 RPM
with 1/2" Diameter Arbor
13518 – 4,500 RPM
with 5/8" or 1" Combination Arbor
13519 – 6,000 RPM
with 5/8"-11 Threaded Arbor
13520 – 4,500 RPM
with 5/8"-11 Threaded Arbor
13531 – 1,800 RPM
with 5/8"-11 Threaded Arbor

SAFETY LEGEND

WARNING

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: Extension Dynastraight Finishing Tools are ideal for surface preparation, cleaning and finishing using abrasive wheels, discs and related accessories.

Do Not Use Tool For Anything Other Than Its Intended Applications.

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

Employer’s Responsibility – Provide Extension Dynastraight 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 back page of manual and Dynabrade literature.
• 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 PSI (10 bars, g) or 150 percent of the maximum pressure produced in the system, whichever is higher. (See tool Machine Specifications table.)
• DO NOT use – Grinding wheels, cut-off wheels, saw blades or other products outside tool intent.

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

**Operation:** Be sure that any loose clothing, hair and all jewelry is properly restrained.
- Secure inlet bushing on air tool with a wrench before attempting to install the air fitting to avoid damaging housing assembly.
- 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 disconnected from air tool, mount recommended accessory onto arbor assembly.
- When mounting abrasive or accessory on arbor be sure to follow recommended procedure of the manufacturer.
- 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, the Extension Dynastraight 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, posture and proper lighting.

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

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**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. Incorporating a refrigerated air dryer after the compressor and drain valves at each tool station (as shown) further reduces moisture from condensation in the air supply.
**Disassembly Instructions - 1hp Extension Dynastraight**

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

**Disconnect tool from power source before tool repair.**

**Motor Disassembly:**

1. Remove abrasive accessory and hardware from arbor/threaded spindle.
2. Using 51969 Repair Collar (order separately) or padded vise, secure front end of housing using machined flats on the silver ring.
3. Remove 51952 Extension Handle from 53695 Gear Casing (twist counterclockwise).
4. Slide 51982 Bearing Spacer and spindle assembly through rear of 51952 Extension Handle.
5. Remove 96524 Retaining Ring from front of extension handle if necessary.
6. Secure 51955 Spindle at wrench flats, and remove arbor/threaded spindle, 51956 Felt Ring and 51969 Coupling Nut.
7. Secure 01007 Bearing and press 51955 Spindle through both 01007 Bearings.
8. Secure 54520 Bearing and press 51955 through 54520 Bearing.
10. Secure planetary Carrier using 53698 Wrench (order separately) and remove 51969 Coupling Nut (twist counterclockwise).
11. Remove 04014 Set Screw(s) and pull planetary carrier assembly(s) from planetary gear casing.
12. Press planetary carrier assembly through 54520 Bearing.
13. Remove 96498 Wave Spring.
14. Remove ring gear and press retainer pins and gears from planetary carrier.
15. Remove remaining tool assembly from vise.
16. Pull motor assembly from housing assembly.
17. Remove governor assembly by using a slotted screw driver. (LEFT HAND thread)
18. Secure 51925 Cylinder and place a 1/8” (3mm) drift pin to the base of the internal thread and press the 51921 Rotor from the 02057 Rear Bearing.
19. Slide 02057 Rear Bearing from 51923 Rear Bearing Plate.
20. Remove 51925 Cylinder and 51926 Blades.
21. Press rotor through 54520 Bearing, 51922 Front Bearing Plate and 51927 Rotor Spacer.
22. Slide 54520 Bearing and shims from 51922 Front Bearing Plate.

**Motor and Extension Disassembly Complete.**

**Housing Disassembly:**

1. Secure housing using 51989 Repair Collar (see back cover for Optional Accessories).
2. Remove inlet bushing with muffler assembly (twist counterclockwise).
3. Remove 53682 Gasket, 51943 Spring, 96442 O-Ring, 51940 Spacer, 94528 Felt Silencer, 53686 Muffler Cap, 94924 Wave Spring and 53683 Spacer from 53681 Inlet Bushing.
4. Remove 51944 Tip Valve and 51945 Valve Seat.

**Housing Disassembly Complete.**

**Assembly Instructions - 1hp Extension Dynastraight**

**Motor Assembly:**

Important: Be sure parts are clean and in good repair before assembling. Follow grease, oil and torque specifications.

1. Place Rotor into padded vise with male thread or spline facing upwards.
2. Slip 51927 Rotor Spacer over rotor shaft and down against rotor body face.
3. Press 96441 Coiled Pin into 51922 Front Bearing Plate. Make certain, coiled pin does not protrude beyond internal bearing surface.
4. Place a .002” shim into the base of 51922 Front Bearing Plate as an initial spacing and slide 54520 Bearing to the front plate base. Note: 51951 Shim Pack contains .001” and .002” shims.
5. Press bearing/bearing plate assembly onto rotor. (For 1,800, 3,400, & 4,500 RPM Models) Slide bearing/bearing plate onto rotor and thread pinion into place. Torque to 17 N+m (For 6,000 RPM Model.)
6. Check clearance between rotor and front bearing plate by using a .001” feeler gauge. Clearance should be between .001” – .0015”. Adjust clearance by repeating steps 4 and 5 with different shims if necessary.
7. Once proper rotor gap clearance is achieved, install well lubricated 51926 Blades (4) into rotor slots. Dynabrade recommends lubricating blades with 95842 Air Lube. Important: Make certain beveled edge of blade follows rotor outside diameter.
8. Install 51925 Cylinder over rotor and front plate raised boss. Align coiled pin on front to cylinder slot.
9. Press 96441 Coiled Pin into blind hole on 51923 Rear Bearing Plate. Press (2) 96445 Coiled Pins into the back side of rear bearing plate.
10. Peel backing off 51924 Gasket and align it firmly in place onto 51923 Rear Bearing Plate.
11. Place 51923 Rear Bearing Plate over rotor mandrel and insert raised boss on rear bearing plate into cylinder diameter, while inserting short coiled pin into cylinder slot. Be sure inlet slot on rear bearing plate line up with inlet slot on cylinder. Flip cylinder end to end and repeat step 8 for correct assembly.
12. Press 02057 Bearing onto rotor and onto 51923 Rear Bearing Plate until it is seated. Important: Cylinder must fit snug between bearing plates. If too tight, rotor will not turn freely. Rotor must be lightly tapped at press fit end until rotor spins freely while still maintaining a snug fit. A loose fit will not achieve the proper preload on motor bearing. While pressing 02057 Bearing, make certain to contact inner race of bearing only.
13. Add one drop of #243 Loctite® (or equiv.) to governor assembly male thread and screw governor assembly onto place (LEFT HAND thread) with a slotted screw head. Torque to 2 N·m (18 lb.-in.).

(continued on next page)
**Assembly Instructions - (Continued)**

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

14. Install motor assembly into housing, making sure motor drops all the way into housing. **Note:** Align both 96445 Coiled Pins to slots in insert and against 51924 Gasket.

Motor Assembly Complete.

**Gear Casing Assembly:**

1. Press Front 54520 Bearing onto front end of 53695 Gear Casing.
2. Install gears with needle bearings and assemble onto planetary carrier by pressing retainer shafts into place.
3. Place 96498 Wave Spring at the base of 53695 Gear Casing.
4. Slide planetary carrier assembly into 53695 Gear Casing and through 54520 Bearing.
5. Apply one drop of #243 Loctite® to threads of 51969 Coupling Nut and thread onto planetary carrier. Torque to 17 N•m (150 lb.-in.). Using 53698 Carrier Wrench (**order separately**).
6. Install Ring Gear over 54520 Front Motor Bearing, keep 2 machined slots facing outward.
7. After threaded surfaces have been properly cleaned and primed apply a small amount of #567 Loctite® to the male thread of the housing and thread 53695 Gear Casing over ring gear in place. **Important:** Align rotor spline to planetary gears to allow carrier to spin freely.
8. When slots from ring gear line up with set screw hole. Apply a small amount of #567 Loctite® to 04014 Set Screw and install to lock ring gear in place.
9. Torque 53695 Gear Casing to 35 N•m (310 lbs.-in.).
10. Place 50902 Coupler over 51969 Coupling Nut.
11. Press one 01007 Bearing on end of 51955 Extension Spindle that is further from the wrench flats, then repeat with second 01007 Bearing on the same end of the spindle. **Important:** While pressing 01007 Bearings, make certain to contact inner race of bearing only.
12. Press 54520 Bearing onto end of spindle that is closer to wrench flats. **Important:** While pressing 54520 bearing, make certain to contact inner race of bearing only.
13. Secure 51955 Extension Spindle and apply #243 Loctite® (or equiv.) to external threads then torque 51969 Coupling Nut on single bearing end to 17 N•m (150 lbs.-in.).
14. Install 51956 Felt Ring over small boss on the arbor/spindle selected.
15. On double bearing end of 51955 Extension Spindle, apply #243 Loctite® (or equiv.) to external threads and torque arbor/spindle with 51956 Felt Ring to 17 N•m (150 lbs.-in.).
16. Install 96524 Retaining Ring into groove inside 51952 Extension Handle.
17. Insert spindle assembly, with arbor/spindle first, into larger diameter end of 51952 Extension Handle.
18. Insert 51982 Bearing into larger diameter end of extension handle.
19. Pull 50902 Coupler half way off of 51969 Coupling Nut, to insure proper alignment.
20. Apply a small amount of #567 Loctite® (or equiv.) to external threads just above machined flats on 53695 Gear Casing.
22. Thread gear casing/housing assembly onto extension handle.
23. Secure front end of housing using 51989 Repair Collar (order separately) or padded vase, align the vise jaws with machined flat on the silver ring. Torque 51952 Extension Handle onto gear casing to 35 N•m (310 lbs.-in.).

Gear Casing and Extension Assembly Complete.

**Housing Assembly:**

1. Secure housing using 51989 Repair Collar (**see back cover for Optional Accessories**). With extension facing downward.
2. Install 51945 Valve Seat by aligning 3 male prongs with three deep slots on insert. Make certain valve seat is pressed flat against base of pocket. **Note:** Add a few drops of Dynabrade Air Lube (P/N 95842) to pocket walls before inserting 51945 Valve Seat.
3. Install 51944 Tip Valve as shown.
4. Slide 51942 Baffle into housing long end in first, and place 51941 Spring into shallow wall end of baffle.
5. Pre-assemble muffler, slide 53683 Spacer over 53681 Inlet Bushing and up against the hex head base. Slide 94924 Wave Spring over 53681 Inlet Bushing and up against spacer. Pre roll 94528 Felt Silencer and install it in 53686 Muffler Cap. Support felt/muffler cap assembly and slide 53681 Inlet Bushing thru the inside until the muffler cap assembly seats against the 94924 Wave Spring. Flare the felt and place 51940 Spacer over male thread and set 96442 O-Ring into groove at the base of thread. Return felt to unflared form. Slide 51943 Spring into bushing and up to the two 51938 Screens.
6. Place 53682 Gasket over felt silencer and against 53686 Muffler Cap.
7. Apply one drop of Loctite® #243 (or equiv.) to 51937 Inlet Bushing thread.
8. Align small inside diameter of 51943 Spring to cone point on 51944 Tip Valve and thread 51937 Inlet Bushing and sub-assembly into place. Torque bushing to 35 N•m (310 lbs.-in.).
9. Slide 96443 O-Ring onto 51946 Valve Stem and slide sub-assembly until o-ring passes through housing hole. Make certain valve stem assembly slides freely after the o-ring passes through the hole.
10. Remove housing from 51989 Repair Collar and replace repair collar onto the bench top with the part number identifier against the bench. Align the throttle lever holes to housing pin hole and rest the housing and throttle lever onto the legs of the repair collar. Press 96444 Coiled Pin into lever hole and center into housing.

Tool Assembly Complete. Please allow 30 minutes for adhesives to cure before operating tool. **Important:** Before operating, place 2-3 drops of Dynabrade Air Lube (P/N 95842) directly into inlet with throttle lever depressed. Operate tool for 30 seconds to allow air lube to properly lubricate internal motor components. Motor should now be tested for proper operation at 90 PSIG max. If tool operates at a higher RPM than marked on the tool or if vibration and sound levels seem abnormal, the tool should be serviced to correct the cause before use.

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**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: 10681 Air Filter-Regulator-Lubricator (FRL) – Provides accurate air pressure regulation and two stage filtration of water contaminates.
- 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.
- Grease the planetary gear assembly with **95542 Grease** by applying 2-3 Plunges with **95541 Grease Gun** every 50 of use, to achieve maximum gear life.

**Routine Preventative Maintenance:** Check free speed of Extension Dynastraight using a tachometer. This governor controlled grinder should be speed checked every 20 hours of use or weekly, whichever occurs more frequently.

- **DO NOT** disassemble the governor for any reason. Reorder correct speed – governor assembly (See Assembly Breakdown) and recheck free speed of tool with 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 96532) 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)
- **DO NOT** carry tool by air hose or near the throttle lever.
- 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).
- 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.
- Protect tool inlet from debris (see Notice below).
- **DO NOT** carry tool by air hose or near the throttle lever.
- DO NOT blow air supply hose out prior to initial use.
- DO NOT DO NOT clean or maintain tools with chemicals that have a low flash point (example: WD-40®).
- DO NOT DO NOT use 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)
- **DO NOT** store accessories in protective racks or compartments to prevent damage.
- **DO NOT** protect tool inlet from debris (see Notice below).
- **DO NOT** DO NOT carry tool by air hose or near the throttle lever.
- **DO NOT** blow air supply hose out prior to initial use.
- **DO NOT** visually inspect air hoses and fittings for frays, visible damage and signs of deterioration. Replace damaged or worn components.
- **DO NOT** refer to Dynabrade’s Warning/Safety Operating Instructions Tag (Reorder No. 95903) for safety information.

**Machine Specifications**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Motor hp (W)</th>
<th>Motor RPM</th>
<th>Sound Level</th>
<th>Air Flow Rate SCFM (LPM)</th>
<th>Air Pressure PSIG (Bars)</th>
<th>Wheel Arbor Diameter Inch</th>
<th>Weight Pound (kg)</th>
<th>Length Inch (mm)</th>
<th>Height Inch (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>13511</td>
<td>1 (745)</td>
<td>1,800</td>
<td>82 dB(A)</td>
<td>36 (1,019)</td>
<td>90 (6.2)</td>
<td>5/8 or 1</td>
<td>4.6 (2.0)</td>
<td>17-5/16 (440)</td>
<td>1-7/8 (48)</td>
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<td>13512</td>
<td>1 (745)</td>
<td>3,400</td>
<td>80 dB(A)</td>
<td>41 (1,161)</td>
<td>90 (6.2)</td>
<td>1/2</td>
<td>4.4 (2.0)</td>
<td>18-5/8 (475)</td>
<td>1-7/8 (48)</td>
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<td>13515</td>
<td>1 (745)</td>
<td>3,400</td>
<td>80 dB(A)</td>
<td>41 (1,161)</td>
<td>90 (6.2)</td>
<td>5/8-11 Thread</td>
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<td>18-5/8 (475)</td>
<td>1-7/8 (48)</td>
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<td>13516</td>
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<td>80 dB(A)</td>
<td>41 (1,161)</td>
<td>90 (6.2)</td>
<td>5/8 or 1</td>
<td>4.7 (2.0)</td>
<td>18-5/8 (475)</td>
<td>1-7/8 (48)</td>
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<td>13517</td>
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<td>4,500</td>
<td>80 dB(A)</td>
<td>41 (1,161)</td>
<td>90 (6.2)</td>
<td>1/2</td>
<td>4.4 (1.9)</td>
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<td>83 dB(A)</td>
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<td>5/8-11 Thread</td>
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<td>36 (1,019)</td>
<td>90 (6.2)</td>
<td>5/8-11 Thread</td>
<td>4.2 (1.8)</td>
<td>17-5/16 (440)</td>
<td>1-7/8 (48)</td>
</tr>
</tbody>
</table>

**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.

**Extension Dynastraight® Arbors**

<table>
<thead>
<tr>
<th>Index Key</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Hex Nut</td>
</tr>
<tr>
<td>2</td>
<td>5/8” – 11 Threaded Arbor</td>
</tr>
<tr>
<td>3</td>
<td>5/8” or 1” Combination Arbor</td>
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<tr>
<td>4</td>
<td>1/2” Diameter Arbor</td>
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<td>5</td>
<td>Spacer (2)</td>
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<tr>
<td>6</td>
<td>Rear Flange</td>
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<td>7</td>
<td>Spacer</td>
</tr>
<tr>
<td>8</td>
<td>Arbor 5/8” or 1” Diameter</td>
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<td>9</td>
<td>Arbor 1/2” Diameter</td>
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<tr>
<td>10</td>
<td>Hex Nut</td>
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<tr>
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<td>Spacer</td>
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<td>Wheel Flange (2)</td>
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<td>13</td>
<td>Wheel Flange (2)</td>
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**Additional Specifications:**

- Air Inlet Thread 3/8” NPT
- Hose I.D. Size 3/8” or 10mm
- Air Flow Rate Based At Max HP
- Air Pressure 90 PSIG

**Index Key**

<table>
<thead>
<tr>
<th>No.</th>
<th>Part #</th>
<th>Description</th>
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<tbody>
<tr>
<td>95274</td>
<td>1</td>
<td>Hex Nut</td>
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<td>53626</td>
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<td>5/8” – 11 Threaded Arbor</td>
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<td>95764</td>
<td>3</td>
<td>Screw</td>
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<td>4</td>
<td>Front Flange 5/8”</td>
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<td>5</td>
<td>Front Flange 1”</td>
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<td>Arbor 5/8” or 1” Diameter</td>
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<td>Arbor 1/2” Diameter</td>
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</table>
For Models:
13511, 13512, 13515
13516, 13517, 13518
13519, 13520, 13531

Index Key
No. Part # Description
1 96524 Retaining Ring
2 53660 Grip
3 51952 Extension Handle
4 Arbor (See Chart)
5 51956 Felt Seal
6 01007 Bearing (2)
7 51955 Spindle Extension
8 54520 Bearing (3)
9 51982 Spacer
10 51969 Coupling Nut (2)
11 50902 Coupler
12 96498 Wave Spring (2)
13 95438 O-Ring
14 53620 Adapter
15 01041 Grease Fitting
16 04014 Set Screw
17 53695 Adapter
18 Carrier
53676 1,800 & 3,400 RPM
53669 4,500 RPM
53668 6,000 RPM
19 Planetary Gears
53193 1,800 & 3,400 RPM
53195 4,500 RPM
53661 6,000 RPM
20 04026 Needle Bearing (4)
96528 Bearing (3) 6,000 RPM Only
21 53679 Shaft (2) (Qty. 3 for 6,000 RPM)
22 Ring Gear
53665 1,800, 3,400, 4,500 RPM
53663 6,000 RPM
23 51951 Shim Pack (3/pkgs.)
24 51922 Front Bearing Plate
25 96441 Pin (2)
26 51927 Spacer
27 51926 Blade (4/pkgs.)
28A 53660 Pinion (6,000 RPM Only)
28 Rotor
53667 1,800 & 3,400 RPM
53666 4,500 RPM
53660 6,000 RPM
29 51925 Cylinder
30 51923 Rear Bearing Plate
31 02057 Bearing
32 96445 Pin (2)
33 51924 Gasket
34 Governor Assembly
51953 1,800 RPM
51933 3,400, 4,500, 6,000 RPM
35 All Housings include:
Waxing & Specification Labels
53711 Housing – Model 13511
53712 Housing – Model 13512
53713 Housing – Model 13513
53716 Housing – Model 13516
53717 Housing – Model 13517
53718 Housing – Model 13518
53719 Housing – Model 13519
53796 Housing – Model 13520
53794 Housing – Model 13531
36 96444 Pin
37 51949 Safety Lock Lever
38 51946 Valve Stem Assembly
(Incl. 96443 O-Ring)
39 51945 Valve Seat
40 51944 Tip Valve
41 51943 Spring
42 96442 O-Ring
43 51940 Spacer
44 53682 Gasket
45 94528 Felt Silencer
46 53686 Muffler Cap
47 94924 Wave Spring
48 53683 Spacer
49 53681 Inlet Bushing
(Incl. 2 – 51938 Screws)
50 01180 Warning Label
51 01181 Specification Label

Model – Arbor
13511 53628
13512 53627
13513 53628
13515 53626
13516 53628
13517 53627
13518 53628
13519 53626
13520 53628
13531 53626

*b Note: All parts indicated by an asterisk are included in 53655 Muffler Assembly.
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 or 50% of a man year.

### Preventative Maintenance Schedule

For All 1hp Extension Dynastraight

**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.

### Parts Common to all Models:

<table>
<thead>
<tr>
<th>Index #</th>
<th>Part Number</th>
<th>Description</th>
<th>Number Required</th>
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**Note:** Please refer to page 4 of tool manual for specific part number.
Optional Accessories

Dynaswivel®
- Swivels 360° AT TWO PIVOT POINTS allowing the air hose to drop directly to the floor while providing superb tool handling.
95461 – 3/8” NPT.

51989 Repair Collar
- Specially designed collar for use in vise to prevent damage to valve body of tool during disassembly/assembly.

Dynabrade Air Lube
- Formulated for pneumatic equipment.
- Absorbs up to 10% of its weight in water.
- Prevents rust and formation of sludge.
- Keeps pneumatic tools operating longer with greater power and less down time.
95842: 1 pt. (473 ml)
95843: 1 gal. (3.8 L)

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.

Bearing Press Tools
- Used to install bearings.
96243: For installing 02057 Bearing.
96244: For installing 01007 & 54520 Bearings.

53199 Handle Mount
- Improved ergonomic feel with grip-traction to reduce hand fatigue.

53163 Handle Assembly

96532 Motor Tune-Up Kit
- Includes assorted parts to help maintain and repair motor.

94465 Wheel inflation Tool
- Controlled inflation/deflation of pneumatic wheel.
- Has 1/4” female thread; fits 1/4” air hose.
- 95633 Nozzle replacement available.

94472 Pneumatic Wheel
- Easily regulate hardness by air pressure.
- Inflates to 20 PSI maximum.

53698 Carrier Wrench
- Carrier Wrench has a 3/8 in. square socket for use with 3/8 in. drive; breaker bar, ratchet head, or torque wrenches.

96005 Male Plug
- Provides up to twice the air flow compared to standard plug design.
- Plug has “ported” design to prevent “starving” of the air tool.

95281 – 19mm Open-end Wrench.

53699 Carrier Wrench
- 3 Sided wrench to for use with 6,000 RPM models.

Lifetime Warranty
All Dynabrade portable pneumatic power tools are rigorously inspected and performance tested in our factory before shipping to our customers. If a Dynabrade tool develops a performance problem and an inherent defect is found during normal use and service, Dynabrade will warrant this tool against defects in workmanship and materials for the lifetime of the tool. Upon examination and review at our factory, Dynabrade shall confirm that the tool qualifies for warranty status, and will repair or replace the tool at no charge to the customer. Normally wearable parts and products are NOT covered under this warranty. Uncovered items include bearings, contact wheels, rotor blades, regulators, valve stems, levers, shrouds, guards, O-rings, seals, gaskets and other wearable parts. Dynabrade’s warranty policy is contingent upon proper use of our tools in accordance with factory recommendations, instructions and safety practices. It shall not apply to equipment that has been subjected to misuse, negligence, accident or tampering in any way so as to affect its normal performance. To activate lifetime warranty, customer must register each tool at www.dynabrade.com. Dynabrade will not honor lifetime warranty on unregistered tools. A one-year warranty will be honored on all unregistered portable pneumatic power tools. Lifetime warranty applies only to portable pneumatic tools manufactured by Dynabrade, Inc. in the USA. Lifetime warranty applies only to the original tool owner; warranty is non-transferable.

Reference Contact Information

1. American National Standards Institute – ANSI
25 West 43rd Street
Fifth 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. Power Tool Institute, Inc.
P.O. Box 818
Yachata, Oregon 97498-0818
Tel: 1 (503) 547-3185
Fax: 1 (503) 547-3539

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

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Dynabrade Europe S.àr.l., Zone Artisanale • L-5485 Wormeldange—Haut, Luxembourg • Telephone: 352 76 84 94 1 • Fax: 352 76 84 95 1
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