

For Models  
S/N 7E1200 and higher:  
13100, 13101, 13102,  
13120, 13121, 51200,  
51201, 51202, 51203,  
51204, 51205, 52050,  
52051, 52052, 52060,  
52062, 53075, 53076,  
53077, 53078, 53079

Parts Page Reorder No. PD98•14  
Effective January, 1998  
Supersedes PD96•50

## 96173 Tune-Up Kit

For all .3Hp , Straight-Line, Planetary Geared Tools.

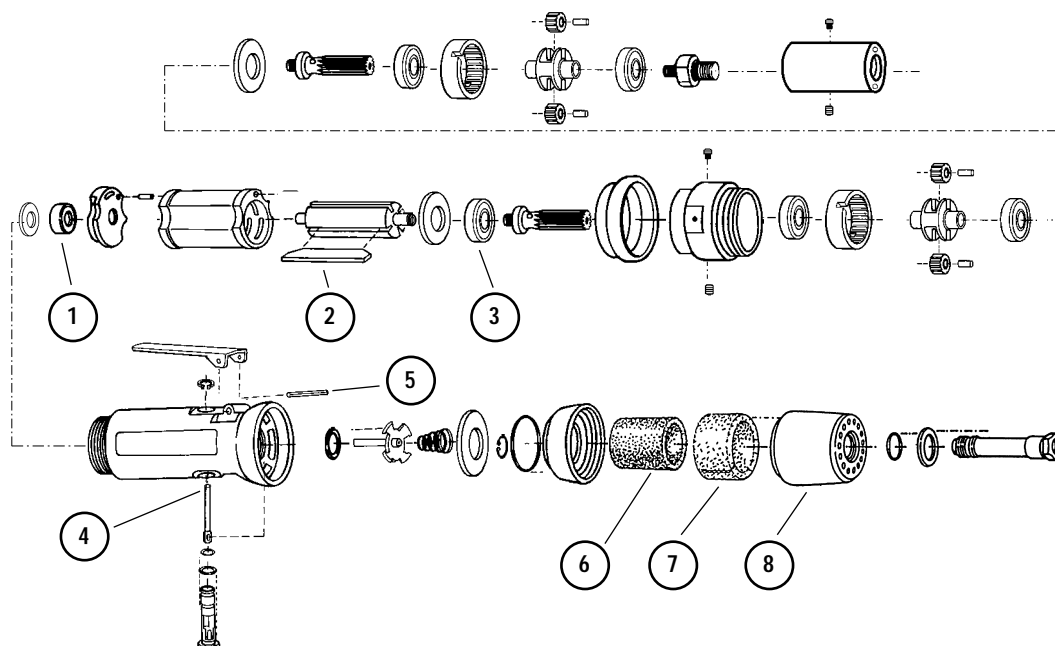
Please refer to appropriate parts pages for parts breakdown and assembly/disassembly instructions.

### 400 RPM, 650 RPM, 950 RPM Tools

#### Index Key

No. Part # Description

- 1 02696 Bearing
- 2 01480 Motor Blades (4)
- 3 01007 Bearing
- 4 01449 Valve Stem
- 5 12132 Pin
- 6 94524 Sintered Muffler
- 7 94525 Felt Muffler
- 8 94522 Muffler Cap

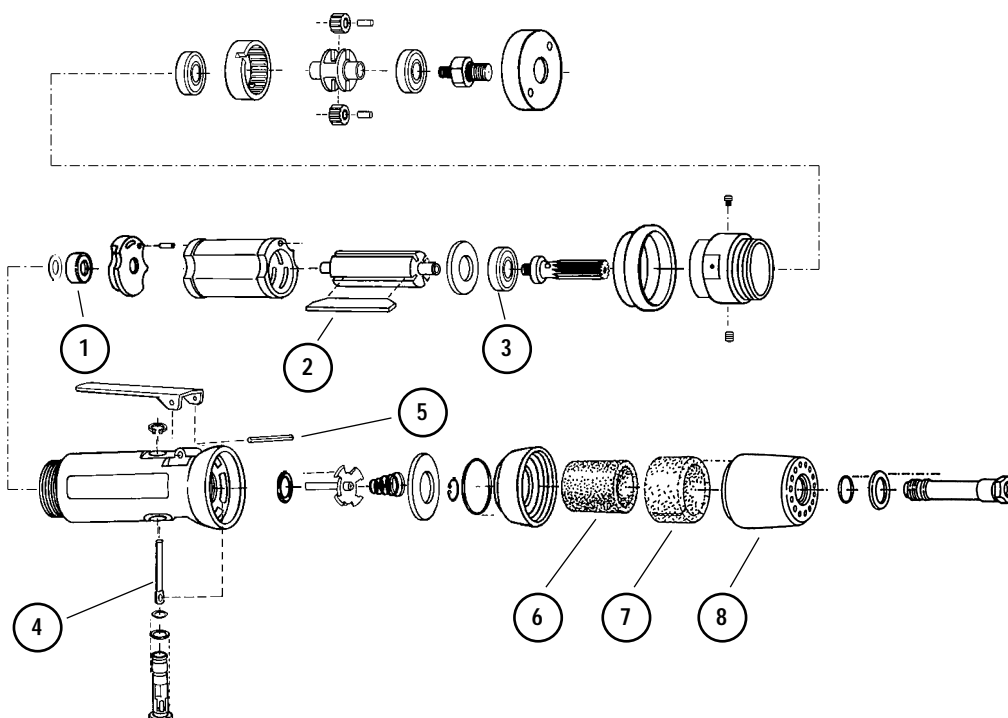


### 3,200 RPM and 5,000 RPM Tools

#### Index Key

No. Part # Description

- 1 02696 Bearing
- 2 01480 Motor Blades (4)
- 3 01007 Bearing
- 4 01449 Valve Stem
- 5 12132 Pin
- 6 94524 Sintered Muffler
- 7 94525 Felt Muffler
- 8 94522 Muffler Cap



**Important:** Please Indicate **Model #**, **Serial #**, and **RPM** when ordering replacement parts. See reverse side for disassembly/assembly instructions.  
Please refer to Dynabrade's Preventative Maintenance Schedule (PD98-01) for a guide to expectant life of component parts.

## Disassembly/Assembly Instructions

**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.

### Motor Disassembly:

1. Disconnect tool from power source. Secure air tool in vise using 52296 Repair Collar.
2. With an adjustable pin wrench, remove 50781 Rear Exhaust Cover or 53153 Planetary Housing by turning counter-clockwise.
3. Pull 50782 Adapter and planetary carrier assembly from 50781 Rear Exhaust Cover or 53153 Planetary Housing.
4. Press planetary carrier assembly from rear bearing. Remove ring gear and gears from 50780 Planetary Carrier.
5. Secure planetary carrier in vise and remove 50782 Adapter. Press carrier from front bearing.
6. Remove second planetary gear assembly. Repeat step 5. Remove 50778 Spacer (on 400, 650, 950 Rpm Tools only).
7. Grab onto pinion and pull motor assembly from motor housing.
8. Press 50777 Rotor from rear bearing plate. Press 02696 Rear Bearing from rear bearing plate, remove shield.
9. Remove cylinder and rotor blades from rotor.
10. Secure rotor in vise and remove pinion from rotor by inserting a 3mm drift pin through hole in pinion and twist off (right hand threads).
11. Press pinion and rotor through front bearing and front bearing plate.

Motor disassembly complete.

### Motor Reassembly

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

1. Place spacer and front bearing plate onto front end of 50777 Rotor (threaded end). Press front bearing onto rotor and front bearing plate with spacer.
2. Secure rotor in padded vise with threaded spindle facing up. Apply one drop of #271 Loctite® (or equivalent) to threads of rotor. Using a 3mm drift pin, tighten pinion onto rotor (torque 17.0 N•m/150 in. - lbs.).
3. Apply one drop of #609 Loctite® (or equivalent) to outer race of 02696 Rear Bearing and slip bearing and shield into bearing plate.
4. Install well lubricated blades into rotor slots. Dynabrade recommends using their 95842 Dynabrade Air Lube.
5. Install cylinder over rotor with air inlet hole in cylinder wall facing away from front bearing plate. Be sure 50767 Pin lines up with pin hole in front bearing plate.
6. Press rear bearing plate on to rotor. Be sure that pin and air inlet hole in cylinder line up with air inlet hole and pin hole in bearing plate.
7. Install motor assembly into motor housing.
8. Press front bearing onto front end of 50780 Planetary Carrier.
9. Install gears and 54475 Gear Shafts onto planetary carrier.
10. Slip 54468 Ring Gear over gears and press rear bearing onto planetary carrier.
11. Repeat steps 8, 9, and 10 for second planetary carrier assembly (on 400, 650, 950 Rpm Tools only).
11. Apply one drop of #271 Loctite® to threads of 50782 Adapter. Install adapter onto planetary carrier (torque 17.0 N•m/150 in. - lbs.).
12. Install 50781 Rear Exhaust Cover or 53153 Planetary Housing onto housing to secure motor (torque 28 N•m/250 in. - lbs.).

Motor Reassembly Complete.

### Valve Body Disassembly:

1. Position valve body in vise using 52296 Repair Collar with air inlet facing up.
2. Remove air fitting by securing 94523 Inlet Adapter with a wrench and twist air fitting from inlet adapter.  
**Important:** 94523 Inlet Adapter must be secured before attempting to remove air fitting to avoid damaging valve body housing.
3. Remove 94523 Inlet Adapter.
4. Remove 95711 Retaining Ring from inlet adapter and separate 94521 Muffler Base from 94522 Muffler Cap. Remove sintered muffler and felt muffler.
5. Remove 01564 Air Control Ring from valve body. Using needle nose pliers, remove 01468 Spring, tip valve and seal.
6. Using a 2.5mm drift pin, tap 12132 Pin from housing and remove throttle lever.
7. Remove 95558 Retaining Ring. Push 01469 Regulator from valve body and remove O-rings.

Disassembly complete.

### Valve Body Reassembly:

1. Insert 01469 Regulator with O-rings and valve stem in place into valve body. Secure with 95558 Retaining Ring.
2. Secure valve body in vise using 52296 Repair Collar with air inlet facing upwards. Insert 01464 Seal.
3. Line up hole in valve stem with hole in housing (looking past brass bushing). Insert 01472 Tip Valve so that the metal pin passes through the hole in the valve stem. Install 01468 Spring (small end towards tip valve).
4. Assemble sintered muffler and felt muffler together and place in 94522 Muffler Cap. Install 94521 Muffler Base onto muffler cap.
5. Install 95438 O-ring into groove on muffler base. Place 95375 O-Ring and 94526 Spacer into recessed area of muffler cap.
6. Slip 94523 Inlet Adapter through muffler assembly and install 95711 Retainer Ring into groove on inlet adapter.
7. Install 01564 Air Control Ring into valve body housing.
8. Apply Hernon #940 PST Pipe Sealant to threads of 94523 Inlet Adapter and install entire muffler assembly onto valve body (torque 23.0 N•m/200 in. - lbs.).
9. Replace air fitting. Secure inlet adapter with a wrench before tightening air fitting.
10. Install throttle lever and 12132 Pin.

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 PSI. If motor does not operate properly or operates at a higher RPM than marked on the tool, the tool should be serviced to correct the cause before use. Before operating, place 2-3 drops of Dynabrade Air Lube (P/N 95842) directly into air inlet with throttle lever depressed. Operate tool for 30 seconds to determine if tool is operating properly and to allow lubricating oils to properly penetrate motor.

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