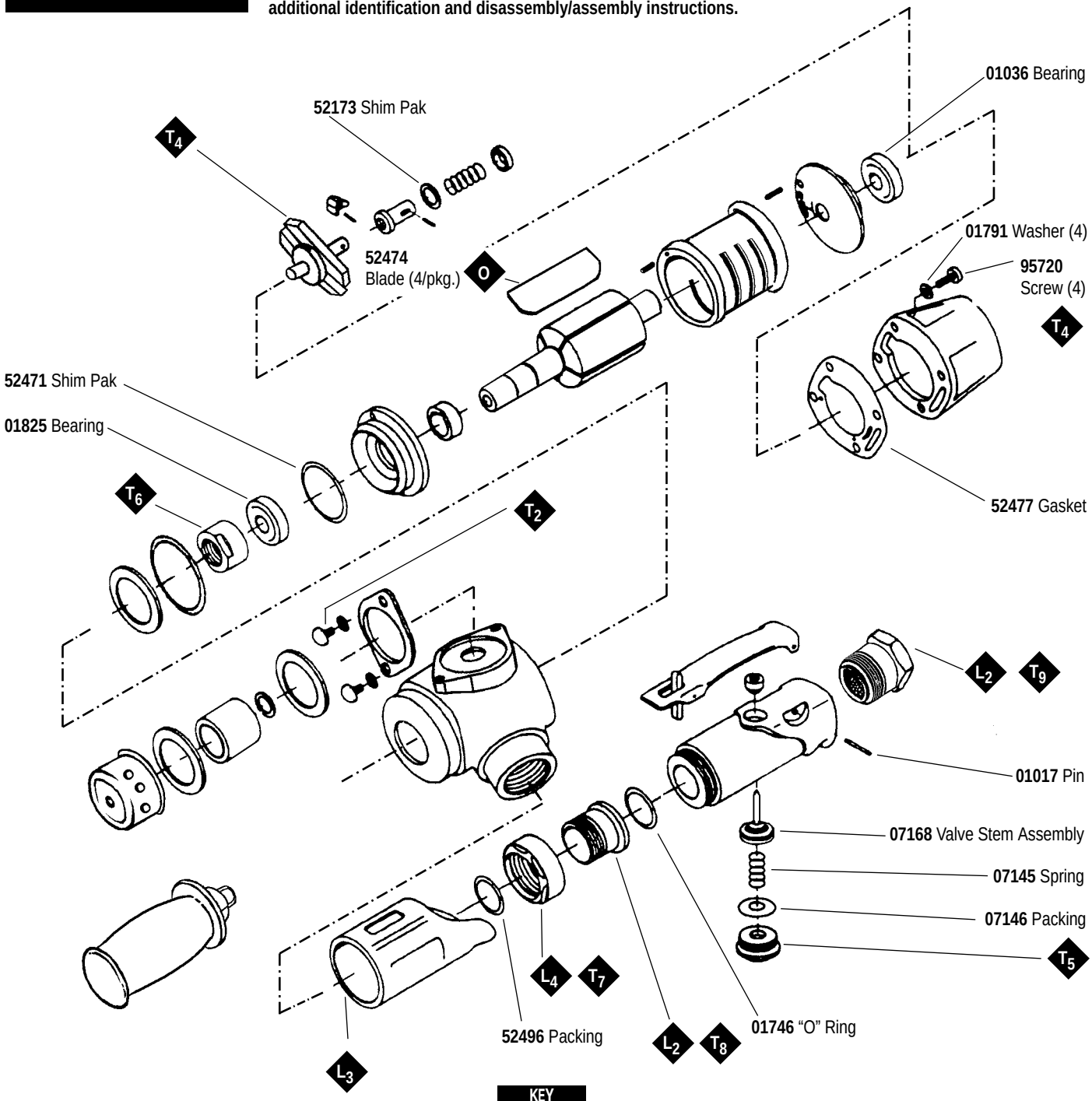
For use with Models:
11450, 11477, 52450,
52451, 52452, 52453,
52454, 52455

Parts Page Reorder No. PD97•37
Effective May, 1997

96259 Motor Tune-Up Kit

⚠WARNING **Parts included in tune-up kit are identified by part number. Not all parts are required for all tools. Disassembly/Assembly instructions may not apply to all models, please refer to appropriate parts page for additional identification and disassembly/assembly instructions.**



KEY

O Oil	G Grease
L	Loctite/Hernon: **L_2 = Loctite #271, L_3 = Loctite #380, L_4 = Hernon #940**
T	Torque: N•m x 8.85 = In. - lbs. **T_2 = 4.5 N•m, T_3 = 7 N•m, T_4 = 9 N•m, T_5 = 17 N•m, T_6 = 22.5 N•m, T_7 = 45 N•m, T_8 = 50 N•m, T_9 = 56 N•m**

Important: Please indicate Model #, Serial #, and RPM when ordering replacement parts. See reverse side for tune-up instructions.

Tune-Up Kit Instructions

Tool Disassembly:

1. Disconnect tool from power source.
2. Remove back-up pad with a 24mm wrench (P/N **95304**).
3. Insert **01697** Inlet Bushing securely into vise.
4. Roll **07136** Handle Grip Back away from housing.
5. Remove **52495** Nut by using a 32mm wrench (P/N **96079**).
6. Separate valve body from housing.
7. Remove **95720** Screws (4) and **01791** Washers (4) from **52461** Housing Cap. Remove housing cap and **52477** Gasket.

Motor Disassembly:

1. Grip onto governor cage assembly and pull motor assembly from housing.
   Note: If motor assembly does not come out freely, gently tap tool rotor side down to "pop" motor from housing.
2. Remove governor cage assembly from **52466** Rotor (left hand thread).
3. Insert a tap pin into rear bearing plate and press the **52466** Rotor from the rear bearing plate.
4. Place motor assembly in softjaw vise.
5. Remove **01823** Washer and **01835** Shim from assembly.
6. Remove **01815** Rotor Nut with an adjustable wrench. Twist rotor nut from shaft
7. Remove **52475** Cylinder, blades (4) and spacer from rotor.
8. Remove **52472** Front Bearing Plate , front bearing and shims from **52466** Rotor. **Note:** Bearing, front bearing plate and spacer are a slip fit into rotor.
9. Press **01036** Bearing from bearing plate.

Motor disassembly complete.

Motor Reassembly:

Important: Be certain all parts are cleaned and in good repair before reassembly.

1. Place **52466** Rotor in padded vise with threaded spindle facing upwards.
2. Slip **52467** Spacer onto rotor.
3. Place .002" shim into front bearing plate as initial spacing and slip **01825** Bearing into plate. **Note: 52471** Shim Pak contains .001" and .003" shims.
4. Install bearing/bearing plate assembly onto rotor.
5. Install **01815** Rotor Nut onto assembly.
6. Tighten rotor nut onto rotor, torque 22.5 N•m/200 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 steps 1-5 with different shims if necessary.
8. Once proper rotor/gap clearance is achieved, install well lubricated **52474** Blades (4) into rotor slots. Dynabrade Air Lube P/N **95842** (or equivalent) is recommended for lubrication before installation in rotor slots.
9. Install cylinder over rotor.
10. Press the **01036** Rear Bearing into **52476** Rear Bearing Plate. Press bearing/bearing plate assembly onto rotor. Be sure that pin and air slot line-up with pin hole and air inlet slot in cylinder.
11. Place the tool into a soft jaw vise and tighten the governor assembly (**52478** Governor Cage) torque 9.0 N•m/80 in. - lbs. (left hand thread).
12. Place **01835** Shim and **01823** Washer into housing.
13. Install **52477** Gasket and **52461** Housing Cap with **95720** screws and **01791** Washers, tighten screws to 9 N•m/80 in. - lbs.
14. Place complete motor assembly into housing. Be sure motor drops all the way into housing.
15. Motor adjustment must 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 a shim.
16. Apply 2 drops of #271 Loctite® (or equivalent) to threads of adjustment bushing before tightening.
17. Slip **52491** Bushing through **52495** Nut and packing, and secure into housing.
18. Tighten **52491** Adjustment Bushing into housing torque 50 N•m/450 in. - lbs. Tighten valve body into housing.
19. Secure inlet bushing into vise. Place **52495** Nut and **01746** O-Ring onto valve body. Swivel **52494** Valve Body to desired throttle lever position.
20. Tighten **52495** Nut to 45 N•m/400 in. - lbs. Roll **07136** Grip back into place.

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 thirty seconds to determine if tool is operating properly and to allow lubricating oils to properly penetrate motor.

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