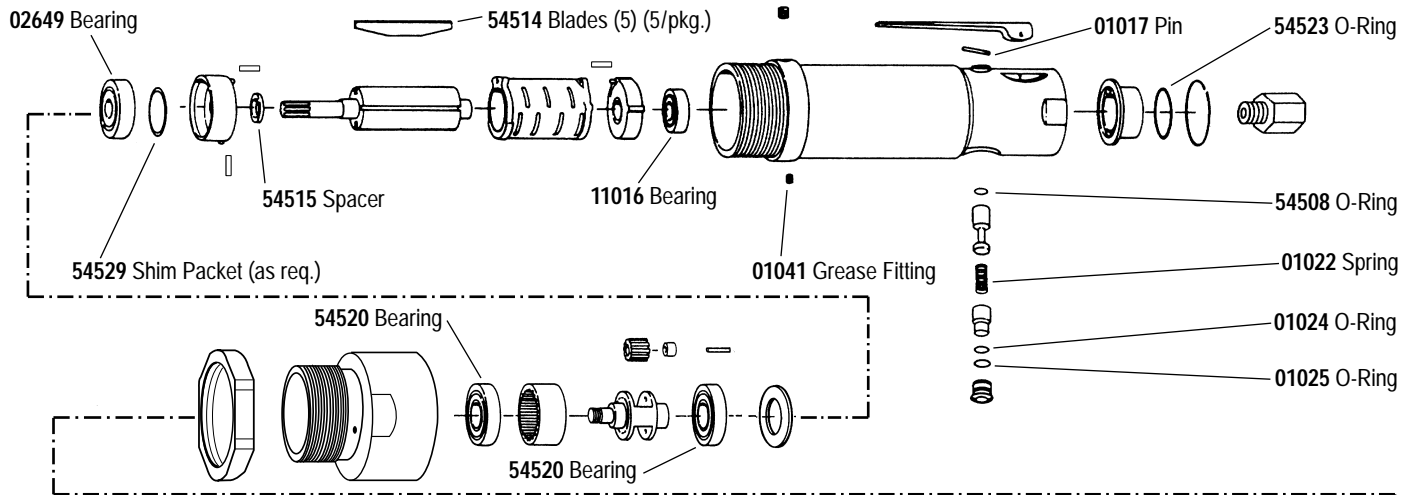


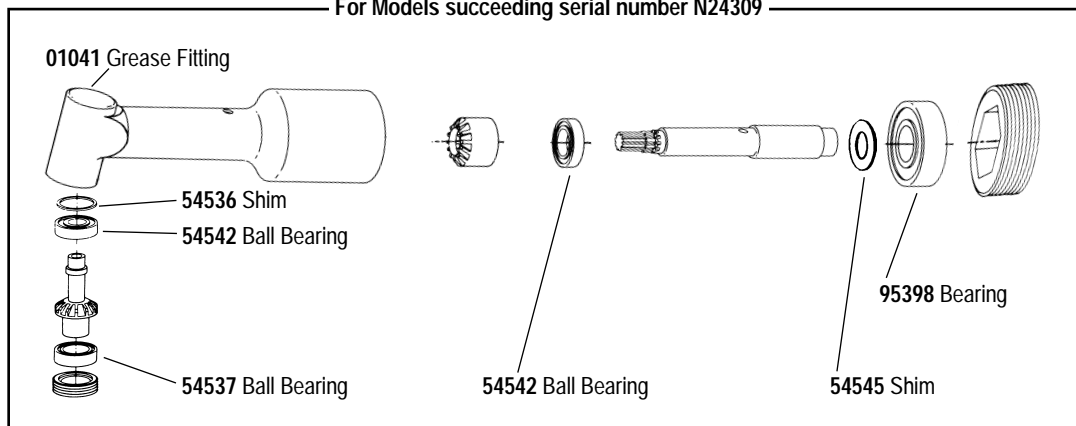
For use with:
3,200 RPM Angle Head Tools

95809 Tune-Up Kit

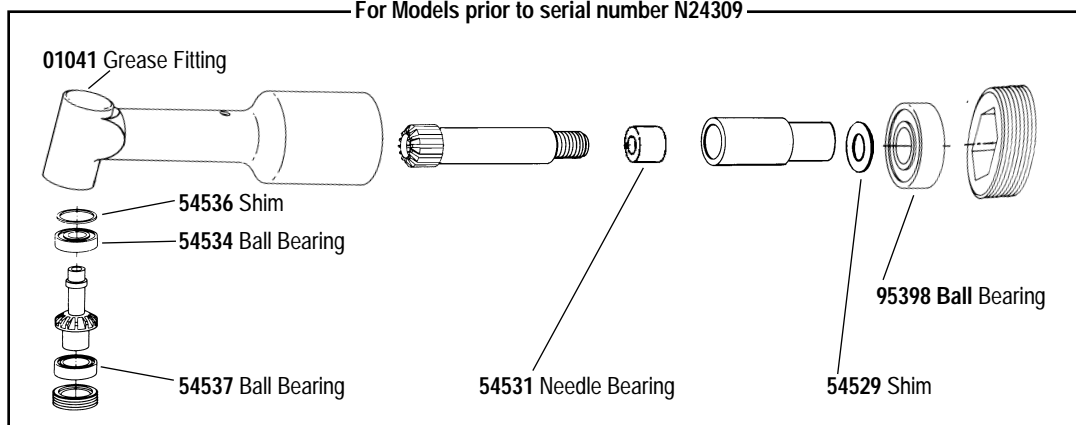
Parts included in kit are identified. See reverse side for Tune-up Instructions.



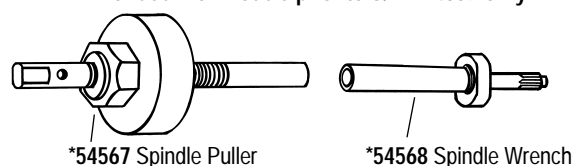
For Models succeeding serial number N24309



For Models prior to serial number N24309



*For use with models prior to S/N N24309 Only



Tune-Up Instructions

Important: Manufactures warranty is void if tool is disassembled before warranty expires.

Refer to the appropriate parts page for additional part identification.

Motor Disassembly:

1. Secure tool in a soft jaw vise holding onto wrench flats on rear of motor housing.
2. Secure lock ring with a wrench and twist angle housing from motor housing (**Note:** Left hand threads).
3. Remove **54526** Adapter from motor housing and loosen **01040** Lock Screw.
4. Pull planetary gear assembly from motor housing. Pull motor from housing (if motor does not pull out freely, lightly tap end of housing with a rubber mallet).
5. Clamp a bearing separator between the **54522** Ring Gear of the planetary carrier assembly and front **54520** Bearing (nearest to spindle end of assembly). Press bearing from carrier.
6. Remove ring gear and gears. Press rear **54520** Bearing from planetary carrier.
7. Press rotor from **02649** Bearing and front bearing plate. Remove **54515** Spacer, cylinder and **54514** Blades from rotor. Press **11016** Bearing from rear bearing plate.
8. Remove **54505** Plug from motor housing. Remove valve assembly.
9. Remove **95713** Inlet Adapter. Pry retaining ring from rear of housing and remove **54524** Muffler and **54523** O-Ring.

Motor disassembly complete.

Motor Reassembly:

Important: Be sure parts are clean and in good repair before reassembly. Follow all torque, grease and lubrication instructions.

1. Insert a .002" shim from **54529** Shim pack into front bearing plate.
2. Insert new **02649** Bearing into front bearing plate.
3. Place new **54515** Spacer onto pinion end of rotor. Make sure countersink faces rotor.
4. Press from bearing plate assembly onto rotor until tight against spacer.
5. Check clearance between rotor and bearing plate. Apply an outward (pulling) pressure on rotor. If rotor rubs bearing plate, reduce the spacing by removing shim or substitute with .001" shim.
6. Insert new **54514** Blades (lubricate blades with Dynabrade Air Lube P/N **95842** or equivalent before installation).
7. Place cylinder over rotor. Be sure pin holes and air inlet holes align with holes in bearing plate.
8. Press new **11016** Bearing into rear bearing plate and press assembly onto rotor. Be sure pin holes and air holes line up with holes in cylinder.
9. Insert motor assembly into housing. The pin in front bearing plate should enter guide slot in housing wall.
10. Install **54517** Spacer with unrelieved face towards front bearing plate.
11. Press new **54520** Bearing onto front end of planetary carrier.
12. Replace gears, gear shafts and ring gear (notches face rear of carrier).
13. Press new **54520** Bearing onto carrier (there should be a slight drag between ring gear and bearings).
14. Install planetary assembly onto motor housing. Line-up notches in ring gear with hole in housing for lock screw.
15. Install lock screw until snug, then back off 1/2 turn.
16. Install **54526** Adapter onto motor housing.
17. Install new O-rings and spring stem assembly and replace into motor housing.
18. Install new **54523** O-Ring onto muffler and replace into housing. Replace snap ring and inlet adapter.

Motor reassembly complete.

Angle Head Assemblies:

For models succeeding S/N N24309.

1. Remove retaining nut from angle housing with 5/8" hex key.
2. Slide spindle assembly from housing and disassemble.
3. Remove bearing cap with pin wrench and remove work spindle assembly.
4. Install new **54542** Bearing and **54537** Bearing onto work spindle and insert into housing.
5. Install bearing cap and test for end play. Spindle should turn freely. If there is excessive end play, insert new **54536** Shim behind **54542** Bearing.
6. Reassemble spindle assembly using new **54542** Bearing, **95398** Bearing and **54545** Shim Pack (as required). Replace and tighten retaining nut.
7. Test for backlash between gears. There should be .002" to .003" Backlash. Adjust using **54545** Shim Pack.

For models prior to S/N N24309.

Note: **54567** Spindle Puller and **54568** Spindle Wrench (or equivalent) required. These tools are not included with tune-up kit.

1. Remove retaining nut from angle housing with 5/8" hex key.
2. Insert **54568** Spindle wrench into spline adapter of spindle and unscrew.
3. Screw female threaded end of **54567** Spindle Puller onto gear spindle. Tighten puller ring until gear spindle and **54531** Needle Bearing are removed from angle housing.
4. Remove bearing cap with pin wrench and remove work spindle assembly.
5. Install new **54534** Bearing and **54537** Bearing onto work spindle and insert into housing.
6. Install bearing cap and test for end play. Spindle should turn freely. If there is excessive end play, insert new **54536** Shim behind **54534** Bearing.
7. Insert gear spindle into housing, make sure teeth line up.
8. Install new **54531** Needle Bearing into housing and onto gear spindle. Using bored end of **54568** Spindle Wrench, press **54531** Needle Bearing over gear spindle down to gear.
9. Line up hole in housing with hole in gear spindle and lock together using a 3 mm pin.
10. Install **95398** Bearing onto spline adapter and using **54568** Spline Wrench, tighten spline adapter onto gear spindle.
11. Replace and tighten retaining nut.
12. Test for backlash between gears. There should be .002" to .003" backlash. Adjust using **54529** Shim Pack.

Reattach angle housing to motor housing and secure with lock ring.

Motor should operate at 3,200 RPM at 90 PSI (6.2 Bar). RPM should be checked with a tachometer. If machine is running at a higher RPM then the tool should be serviced to correct the cause before use. Before operating, Dynabrade recommends that 2-3 drops of pneumatic tool oil be placed directly into air inlet with throttle lever depressed and that the gears be greased through the grease fitting located on the motor and angle housings.