Important: Use these instructions along with the tool parts page or manual.

Notice: To avoid damage to the motor housing, use the Special Repair Tools designed for the disassembly and assembly of this motor. Disconnect the tool from the air supply. Use the appropriate wrenches to hold the work spindle stationary and remove the accessory.

Planetary Gear Disassembly:

1. Position the 51989 Repair Collar around the motor housing. Fasten the tool in a vise so that the work spindle is pointing up. Use a HEAT GUN to warm the planetary gear casing or planetary cover to soften the thread adhesive.
• Use an adjustable wrench to remove the planetary gear casing or planetary cover. Turn counterclockwise.

• IMPORTANT: Use "Disassembly Instructions - 1 hp. Straight" for repairing the air motor assembly.
2. Use a 2.5 mm or 3/32" hex key to remove the setscrew.
3. Remove the planetary reduction.
4. **Important**: Fasten the 96346 Bearing Separator (2") with the **FLAT SIDE** facing the RING GEAR and the **BEVELED SIDE** facing the 02552 Bearing.
   Place the bearing separator and the planetary reduction in the 96232 Arbor Press (#2) with the spindle pointing down.
5. Use a 5/8" or 16 mm diameter press tool to push the planetary carrier out of the 02552 Bearing.
   - Remove the ring gear, shafts, and planet gears.
6. Fasten the planetary carrier in a vise with aluminum or bronze jaws so that the spindle nut is pointing up.
   - Use an adjustable wrench to remove the spindle nut. Turn counterclockwise.
8. Use the arbor press to push the planetary carrier out of the 02552 Bearing.
Planetary Gear Disassembly Complete.

Clean and inspect parts before assembling.
Planetary Gear Assembly:

1. Use 5/8" or 16 mm diameter deep well socket and the arbor press to install the 02552 Bearing onto the front of the planetary carrier.
2. Fasten the planetary carrier in the vise with aluminum or bronze jaws so that the spindle is pointing up.
   • Apply a small amount of Loctite #271 or equivalent to the thread for the spindle nut.
Install the 04032 Spindle Nut onto the planetary carrier. Use a 19 mm crowfoot and torque wrench to tighten the spindle nut. (T to 17 N•m/~150 in. lbs.)
3. Apply the 95542 Grease or equivalent to the needle bearings in the planet gears.
- Install the planet gears and the 53182 Shafts into the carrier.
Install the ring gear so that the notches will line-up with the lubricant and setscrew holes in the planetary gear casing or planetary cover.
4. Use 5/8” or 16 mm diameter deep well socket and the arbor press to install the 02552 Bearing onto the planetary carrier.

- **IMPORTANT**: Carefully press the bearing to **just touch the ring gear**. This will establish a close fit between the bearings and the ring gear.
5. Install the planetary reduction into the planetary gear casing or planetary cover.
Apply Loctite #567 or equivalent to the 04014 Setscrew(s) and install.
6. Apply Loctite Primer #7649 or equivalent to the housing thread.
Apply a small amount of Loctite #567 or equivalent to housing thread.
7. Use the **51989** Repair Collar to hold the motor assembly in a vise so that the opening of the housing is pointing up.

- **IMPORTANT:** Make sure that the planetary reduction assembly is in-line with the motor pinion gear.
8. The planetary gear casing or planetary cover must thread straight onto the motor housing assembly.
• Use a 1-9/16" crowfoot and torque wrench to tighten the planetary gear casing or planetary cover. (T to 35 N·m/~300 in. lbs.)

9. Check and make sure that the spindle RPM is correct.

**Planetary Gear Assembly Completed.**

Install arbor and accessory.

**Notice:** Apply the information provided in these instruction to all straight-line, extension, and right angle planetary gear assemblies. In addition, refer to the specific parts page or tool manual for each model and follow the exploded views.

• **IMPORTANT:** Use "Disassembly and Assembly Instructions - 1 hp. Straight" for repairing the air motor assembly.