

Disassembly Instructions - 1 hp. Planetary Reduction Gears

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.

Visit Our Website: www.dynabrade.com

DYNABRADE, INC. • **DYNABRADE INTERNATIONAL** 8989 Sheridan Drive, Clarence, New York 14031-1490 USA Telephone: (716) 631-0100 • Fax: 716-631-2073 • Int'l Fax: 716-631-2524

DYNABRADE DO BRASIL Rua Oneda, 632, Sao Bernardo do Campo • SP – CEP 09895-280 Telephone: 55-11-4390-0133 • Fax: 55-11-4399-1067 Email: customer.service@dynabrade.com

DYNABRADE EUROPE S.àr.I. Zone Artisanale, L-5485 Wormeldange—Haut, Luxembourg Telephone: + 352 768 494 1 • Fax: + 352 768 495





- 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.

Visit Our Website: www.dynabrade.com

Email: customer.service@dynabrade.com

DYNABRADE, INC. • **DYNABRADE INTERNATIONAL** 8989 Sheridan Drive, Clarence, New York 14031-1490 USA Telephone: (716) 631-0100 • Fax: 716-631-2073 • Int'l Fax: 716-631-2524

 DYNABRADE DO BRASIL

 Rua Oneda, 632, Sao Bernardo do Campo • SP - CEP 09895-280

 Telephone: 55-11-4390-0133 • Fax: 55-11-4399-1067

DYNABRADE EUROPE S.à r.I. Zone Artisanale, L-5485 Wormeldange—Haut, Luxembourg Telephone: +352 768 494 1 • Fax: +352 768 495





2. Use a 2.5 mm or 3/32" hex key to remove the setscrew.

Visit Our Website: www.dynabrade.com

DYNABRADE, INC. • DYNABRADE INTERNATIONAL 8989 Sheridan Drive, Clarence, New York 14031-1490 USA

Telephone: (716) 631-0100 • Fax: 716-631-2073 • Int'l Fax: 716-631-2524

DYNABRADE DO BRASIL Rua Oneda, 632, Sao Bernardo do Campo • SP – CEP 09895-280 Telephone: 55-11-4390-0133 • Fax: 55-11-4399-1067 Email: customer.service@dynabrade.com

DYNABRADE EUROPE S.àr.I. Zone Artisanale, L-5485 Wormeldange—Haut, Luxembourg Telephone: +352 768 494 1 • Fax: +352 768 495





3. Remove the planetary reduction.

Visit Our Website: www.dynabrade.com

DYNABRADE, INC. • DYNABRADE INTERNATIONAL 8989 Sheridan Drive, Clarence, New York 14031-1490 USA

Telephone: (716) 631-0100 • Fax: 716-631-2073 • Int'l Fax: 716-631-2524

 DYNABRADE DO BRASIL

 Rua Oneda, 632, Sao Bernardo do Campo • SP – CEP 09895-280

 Telephone: 55-11-4390-0133 • Fax: 55-11-4399-1067

Email: customer.service@dynabrade.com

DYNABRADE EUROPE S.àr.I. Zone Artisanale, L-5485 Wormeldange—Haut, Luxembourg Telephone: +352 768 494 1 • Fax: +352 768 495





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.

Visit Our Website: www.dynabrade.com

DYNABRADE, INC. • **DYNABRADE INTERNATIONAL** 8989 Sheridan Drive, Clarence, New York 14031-1490 USA Telephone: (716) 631-0100 • Fax: 716-631-2073 • Int'l Fax: 716-631-2524

DYNABRADE DO BRASIL
Puia Queda 622 Sao Bergardo do Compo • SP., CED 00805-280

Rua Oneda, 632, Sao Bernardo do Campo • SP – CEP 09895-280 Telephone: 55-11-4390-0133 • Fax: 55-11-4399-1067 Email: customer.service@dynabrade.com

DYNABRADE EUROPE S.àr.I. Zone Artisanale, L-5485 Wormeldange—Haut, Luxembourg Telephone: + 352 768 494 1 • Fax: + 352 768 495





- 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.

Visit Our Website: www.dynabrade.com

Email: customer.service@dynabrade.com

DYNABRADE, INC. • **DYNABRADE INTERNATIONAL** 8989 Sheridan Drive, Clarence, New York 14031-1490 USA Telephone: (716) 631-0100 • Fax: 716-631-2073 • Int'l Fax: 716-631-2524

DYNABRADE DO BRASIL

Rua Oneda, 632, Sao Bernardo do Campo • SP – CEP 09895-280 Telephone: 55-11-4390-0133 • Fax: 55-11-4399-1067 DYNABRADE EUROPE S.àr.I. Zone Artisanale, L-5485 Wormeldange—Haut, Luxembourg Telephone: +352 768 494 1 • Fax: +352 768 495





- 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.

Visit Our Website: www.dynabrade.com

Email: customer.service@dynabrade.com

DYNABRADE, INC. • **DYNABRADE INTERNATIONAL** 8989 Sheridan Drive, Clarence, New York 14031-1490 USA Telephone: (716) 631-0100 • Fax: 716-631-2073 • Int'l Fax: 716-631-2524

DYNABRADE DO BRASIL Rua Oneda, 632, Sao Bernardo do Campo • SP – CEP 09895-280 Telephone: 55-11-4390-0133 • Fax: 55-11-4399-1067 DYNABRADE EUROPE S.àr.I. Zone Artisanale, L-5485 Wormeldange—Haut, Luxembourg Telephone: +352 768 494 1 • Fax: +352 768 495





8. Use the arbor press to push the planetary carrier out of the 02552 Bearing.

Visit Our Website: www.dynabrade.com

DYNABRADE, INC. • DYNABRADE INTERNATIONAL 8989 Sheridan Drive, Clarence, New York 14031-1490 USA

Telephone: (716) 631-0100 • Fax: 716-631-2073 • Int'l Fax: 716-631-2524

 DYNABRADE DO BRASIL

 Rua Oneda, 632, Sao Bernardo do Campo • SP – CEP 09895-280

 Telephone: 55-11-4390-0133 • Fax: 55-11-4399-1067

Email: customer.service@dynabrade.com

DYNABRADE EUROPE S.àr.I. Zone Artisanale, L-5485 Wormeldange—Haut, Luxembourg Telephone: +352 768 494 1 • Fax: +352 768 495





Planetary Gear Disassembly Complete.

Clean and inspect parts before assembling.

Visit Our Website: www.dynabrade.com

DYNABRADE, INC. • **DYNABRADE INTERNATIONAL** 8989 Sheridan Drive, Clarence, New York 14031-1490 USA Telephone: (716) 631-0100 • Fax: 716-631-2073 • Int'l Fax: 716-631-2524

DYNABRADE DO BRASIL Rua Oneda, 632, Sao Bernardo do Campo • SP – CEP 09895-280 Telephone: 55-11-4390-0133 • Fax: 55-11-4399-1067 Email: customer.service@dynabrade.com

DYNABRADE EUROPE S.àr.I. Zone Artisanale, L-5485 Wormeldange—Haut, Luxembourg Telephone: +352 768 494 1 • Fax: +352 768 495



Assembly Instructions - 1 hp. Planetary Reduction Gears

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.

Visit Our Website: www.dynabrade.com

DYNABRADE, INC. • **DYNABRADE INTERNATIONAL** 8989 Sheridan Drive, Clarence, New York 14031-1490 USA Telephone: (716) 631-0100 • Fax: 716-631-2073 • Int'l Fax: 716-631-2524

DYNABRADE DO BRASIL Rua Oneda, 632, Sao Bernardo do Campo • SP – CEP 09895-280 Telephone: 55-11-4390-0133 • Fax: 55-11-4399-1067 Email: customer.service@dynabrade.com

DYNABRADE EUROPE S.àr.I. Zone Artisanale, L-5485 Wormeldange—Haut, Luxembourg Telephone: +352 768 494 1 • Fax: +352 768 495





- 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.

Visit Our Website: www.dynabrade.com

Email: customer.service@dynabrade.com

DYNABRADE, INC. • **DYNABRADE INTERNATIONAL** 8989 Sheridan Drive, Clarence, New York 14031-1490 USA Telephone: (716) 631-0100 • Fax: 716-631-2073 • Int'l Fax: 716-631-2524

Telephone: (716) 631-0100 • Fax: 716-631-2073 • Int'l Fax: 716-631-252 DYNABRADE DO BRASIL

Rua Oneda, 632, Sao Bernardo do Campo • SP – CEP 09895-280 Telephone: 55-11-4390-0133 • Fax: 55-11-4399-1067 DYNABRADE EUROPE S.àr.I. Zone Artisanale, L-5485 Wormeldange—Haut, Luxembourg Telephone: +352 768 494 1 • Fax: +352 768 495





 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.)

Visit Our Website: www.dynabrade.com

DYNABRADE, INC. • DYNABRADE INTERNATIONAL 8989 Sheridan Drive, Clarence, New York 14031-1490 USA

Telephone: (716) 631-0100 • Fax: 716-631-2073 • Int'l Fax: 716-631-2524

 DYNABRADE DO BRASIL

 Rua Oneda, 632, Sao Bernardo do Campo • SP - CEP 09895-280

 Telephone: 55-11-4390-0133 • Fax: 55-11-4399-1067

Email: customer.service@dynabrade.com

DYNABRADE EUROPE S.àr.I. Zone Artisanale, L-5485 Wormeldange—Haut, Luxembourg Telephone: +352 768 494 1 • Fax: +352 768 495





3. Apply the 95542 Grease or equivalent to the needle bearings in the planet gears.

Visit Our Website: www.dynabrade.com

DYNABRADE, INC. • DYNABRADE INTERNATIONAL 8989 Sheridan Drive, Clarence, New York 14031-1490 USA

Telephone: (716) 631-0100 • Fax: 716-631-2073 • Int'l Fax: 716-631-2524

DYNABRADE DO BRASIL Rua Oneda, 632, Sao Bernardo do Campo • SP – CEP 09895-280 Telephone: 55-11-4390-0133 • Fax: 55-11-4399-1067 Email: customer.service@dynabrade.com

DYNABRADE EUROPE S.àr.I. Zone Artisanale, L-5485 Wormeldange—Haut, Luxembourg Telephone: +352 768 494 1 • Fax: +352 768 495





• Install the planet gears and the 53182 Shafts into the carrier.

Visit Our Website: www.dynabrade.com

DYNABRADE, INC. • DYNABRADE INTERNATIONAL

8989 Sheridan Drive, Clarence, New York 14031-1490 USA Telephone: (716) 631-0100 • Fax: 716-631-2073 • Int'l Fax: 716-631-2524

 DYNABRADE DO BRASIL

 Rua Oneda, 632, Sao Bernardo do Campo • SP – CEP 09895-280

 Telephone: 55-11-4390-0133 • Fax: 55-11-4399-1067

Email: customer.service@dynabrade.com

DYNABRADE EUROPE S.àr.I. Zone Artisanale, L-5485 Wormeldange—Haut, Luxembourg Telephone: +352 768 494 1 • Fax: +352 768 495





• 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.

Visit Our Website: www.dynabrade.com

DYNABRADE, INC. • DYNABRADE INTERNATIONAL 8989 Sheridan Drive, Clarence, New York 14031-1490 USA

Telephone: (716) 631-0100 • Fax: 716-631-2073 • Int'l Fax: 716-631-2524

 DYNABRADE DO BRASIL

 Rua Oneda, 632, Sao Bernardo do Campo • SP - CEP 09895-280

 Telephone: 55-11-4390-0133 • Fax: 55-11-4399-1067

Email: customer.service@dynabrade.com

DYNABRADE EUROPE S.àr.I. Zone Artisanale, L-5485 Wormeldange—Haut, Luxembourg Telephone: +352 768 494 1 • Fax: +352 768 495





- **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.

Visit Our Website: www.dynabrade.com

DYNABRADE, INC. • DYNABRADE INTERNATIONAL DY

8989 Sheridan Drive, Clarence, New York 14031-1490 USA Telephone: (716) 631-0100 • Fax: 716-631-2073 • Int'l Fax: 716-631-2524

DYNABRADE DO BRASIL

Rua Oneda, 632, Sao Bernardo do Campo • SP – CEP 09895-280 Telephone: 55-11-4390-0133 • Fax: 55-11-4399-1067 Email: customer.service@dynabrade.com

DYNABRADE EUROPE S.àr.I. Zone Artisanale, L-5485 Wormeldange—Haut, Luxembourg Telephone: +352 768 494 1 • Fax: +352 768 495





5. Install the planetary reduction into the planetary gear casing or planetary cover.

Visit Our Website: www.dynabrade.com

DYNABRADE, INC. • DYNABRADE INTERNATIONAL 8989 Sheridan Drive, Clarence, New York 14031-1490 USA

Telephone: (716) 631-0100 • Fax: 716-631-2073 • Int'l Fax: 716-631-2524

DYNABRADE DO BRASIL Rua Oneda, 632, Sao Bernardo do Campo • SP – CEP 09895-280 Telephone: 55-11-4390-0133 • Fax: 55-11-4399-1067 Email: customer.service@dynabrade.com

DYNABRADE EUROPE S.àr.I. Zone Artisanale, L-5485 Wormeldange—Haut, Luxembourg Telephone: +352 768 494 1 • Fax: +352 768 495





Visit Our Website: www.dynabrade.com

DYNABRADE, INC. • DYNABRADE INTERNATIONAL

8989 Sheridan Drive, Clarence, New York 14031-1490 USA Telephone: (716) 631-0100 • Fax: 716-631-2073 • Int'l Fax: 716-631-2524

DYNABRADE DO BRASIL Rua Oneda, 632, Sao Bernardo do Campo • SP – CEP 09895-280 Telephone: 55-11-4390-0133 • Fax: 55-11-4399-1067 Email: customer.service@dynabrade.com

DYNABRADE EUROPE S.àr.I. Zone Artisanale, L-5485 Wormeldange—Haut, Luxembourg Telephone: +352 768 494 1 • Fax: +352 768 495





• Apply Loctite #567 or equivalent to the 04014 Setscrew(s) and install.

Visit Our Website: www.dynabrade.com

DYNABRADE, INC. • DYNABRADE INTERNATIONAL

8989 Sheridan Drive, Clarence, New York 14031-1490 USA Telephone: (716) 631-0100 • Fax: 716-631-2073 • Int'l Fax: 716-631-2524

DYNABRADE DO BRASIL Rua Oneda, 632, Sao Bernardo do Campo • SP – CEP 09895-280 Telephone: 55-11-4390-0133 • Fax: 55-11-4399-1067 Email: customer.service@dynabrade.com

DYNABRADE EUROPE S.àr.I. Zone Artisanale, L-5485 Wormeldange—Haut, Luxembourg Telephone: +352 768 494 1 • Fax: +352 768 495





6. Apply Loctite Primer #7649 or equivalent to the housing thread.

Visit Our Website: www.dynabrade.com

DYNABRADE, INC. • DYNABRADE INTERNATIONAL 8989 Sheridan Drive, Clarence, New York 14031-1490 USA

Telephone: (716) 631-0100 • Fax: 716-631-2073 • Int'l Fax: 716-631-2524

DYNABRADE DO BRASIL Rua Oneda, 632, Sao Bernardo do Campo • SP – CEP 09895-280 Telephone: 55-11-4390-0133 • Fax: 55-11-4399-1067 Email: customer.service@dynabrade.com

DYNABRADE EUROPE S.àr.I. Zone Artisanale, L-5485 Wormeldange—Haut, Luxembourg Telephone: +352 768 494 1 • Fax: +352 768 495





• Apply a small amount of Loctite #567 or equivalent to housing thread.

Visit Our Website: www.dynabrade.com

DYNABRADE, INC. • DYNABRADE INTERNATIONAL

8989 Sheridan Drive, Clarence, New York 14031-1490 USA Telephone: (716) 631-0100 • Fax: 716-631-2073 • Int'l Fax: 716-631-2524

DYNABRADE DO BRASIL Rua Oneda, 632, Sao Bernardo do Campo • SP – CEP 09895-280 Telephone: 55-11-4390-0133 • Fax: 55-11-4399-1067 Email: customer.service@dynabrade.com

DYNABRADE EUROPE S.àr.I. Zone Artisanale, L-5485 Wormeldange—Haut, Luxembourg Telephone: +352 768 494 1 • Fax: +352 768 495





- 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.

Visit Our Website: www.dynabrade.com

Email: customer.service@dynabrade.com

DYNABRADE, INC. • **DYNABRADE INTERNATIONAL** 8989 Sheridan Drive, Clarence, New York 14031-1490 USA Telephone: (716) 631-0100 • Fax: 716-631-2073 • Int'l Fax: 716-631-2524

DYNABRADE DO BRASIL

 Rua Oneda, 632, Sao Bernardo do Campo
 SP - CEP 09895-280

 Telephone: 55-11-4390-0133
 Fax: 55-11-4399-1067

DYNABRADE EUROPE S.àr.I. Zone Artisanale, L-5485 Wormeldange—Haut, Luxembourg Telephone: +352 768 494 1 • Fax: +352 768 495





8. The planetary gear casing or planetary cover must thread straight onto the motor housing assembly.

Visit Our Website: www.dynabrade.com

DYNABRADE, INC. • DYNABRADE INTERNATIONAL 8989 Sheridan Drive, Clarence, New York 14031-1490 USA

Telephone: (716) 631-0100 • Fax: 716-631-2073 • Int'l Fax: 716-631-2524

DYNABRADE DO BRASIL Rua Oneda, 632, Sao Bernardo do Campo • SP – CEP 09895-280 Telephone: 55-11-4390-0133 • Fax: 55-11-4399-1067 Email: customer.service@dynabrade.com

DYNABRADE EUROPE S.àr.I. Zone Artisanale, L-5485 Wormeldange—Haut, Luxembourg Telephone: +352 768 494 1 • Fax: +352 768 495





 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.

Visit Our Website: www.dynabrade.com

DYNABRADE, INC. • **DYNABRADE INTERNATIONAL** 8989 Sheridan Drive, Clarence, New York 14031-1490 USA Telephone: (716) 631-0100 • Fax: 716-631-2073 • Int'l Fax: 716-631-2524

DYNABRADE DO BRASIL Rua Oneda, 632, Sao Bernardo do Campo • SP – CEP 09895-280 Telephone: 55-11-4390-0133 • Fax: 55-11-4399-1067 Email: customer.service@dynabrade.com

DYNABRADE EUROPE S.à r.I. Zone Artisanale, L-5485 Wormeldange—Haut, Luxembourg Telephone: +352 768 494 1 • Fax: +352 768 495