

Right-Angle Dynascaler®

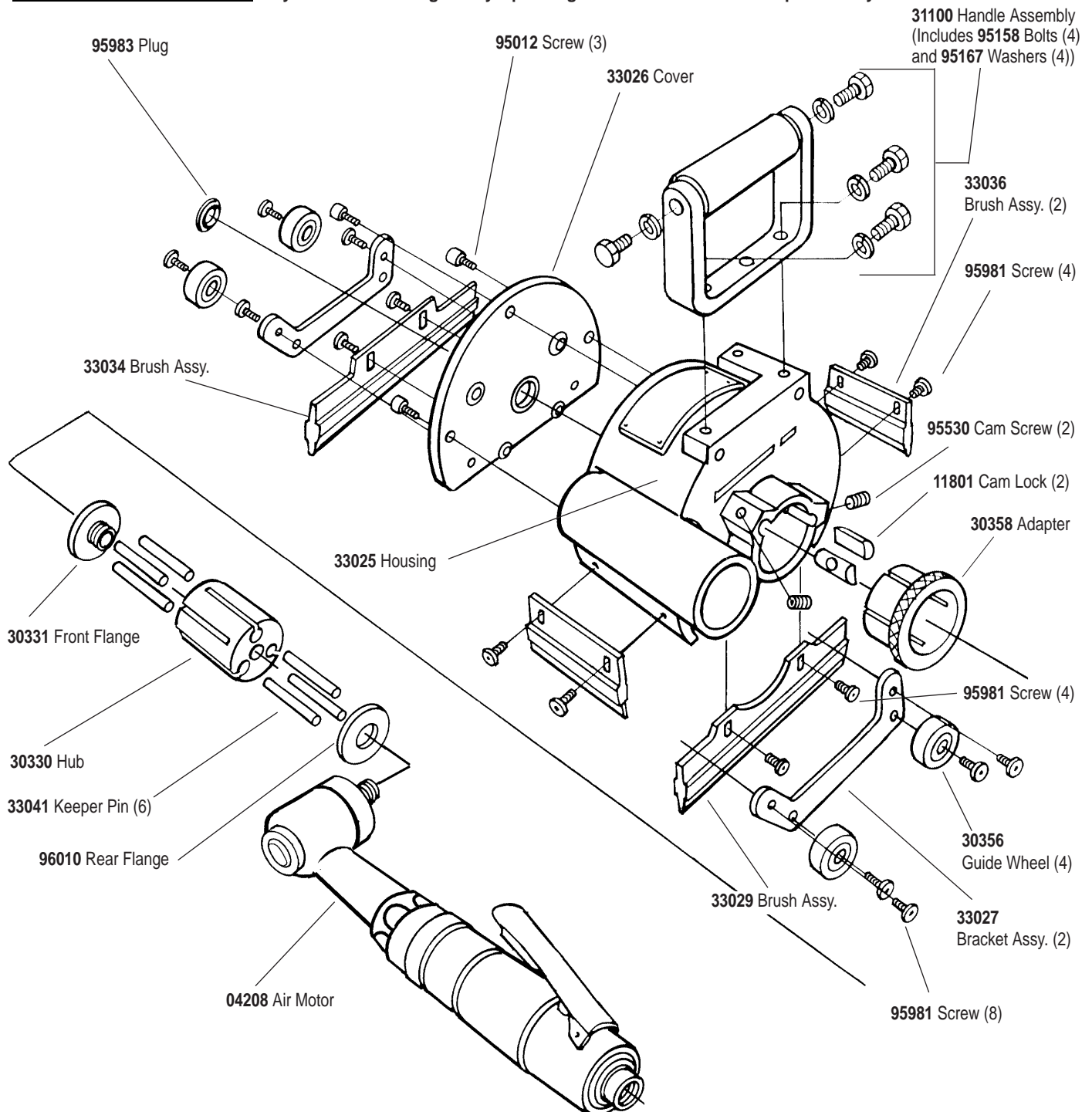
Models:

30337 – 2" wide for work on flats.

Motor and Machine Parts

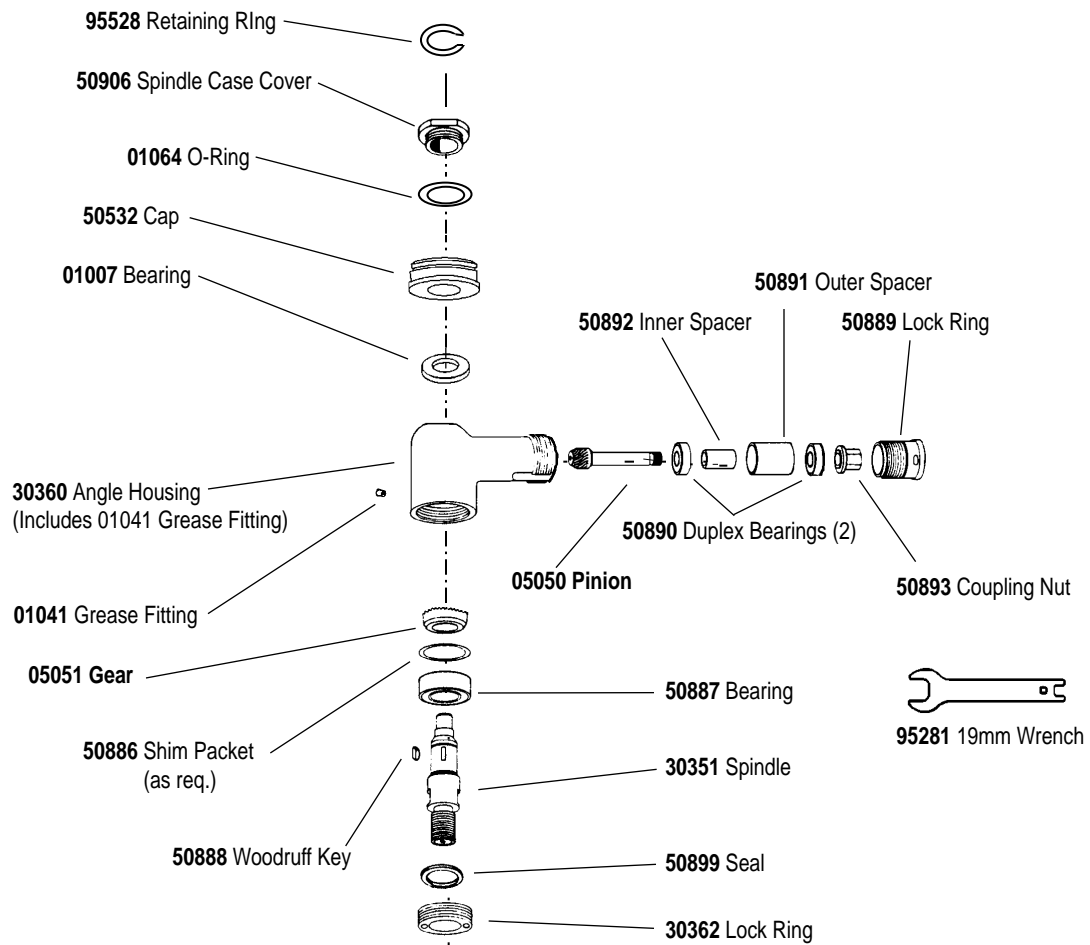
WARNING

Always operate, inspect and maintain this tool in accordance with the Safety Code for portable air tools (ANSI B186.1) and any other applicable safety codes and regulations. Please refer to Dynabrade's Warning/Safety Operating Instructions for more complete safety information.



See inside for Important Operating Instructions and Accessories.

Angle-Head Assembly



Accessories



Roto Peen Flaps

- As flaps rotate against the workpiece, the shot particles mechanically fracture and remove scale and old coatings with minimal removal of the base metal.

Type B - For removing lighter coatings and producing a high profile surface on steel.

Type C - For descaling steel, removing general duty coatings from steel and concrete, and for preparing steel and concrete to accept coatings.

Part Number	Flap Type	Flap Width	Flap Unit
39000	C	1"	12
39001	B	1"	12
39002	C	2"	6
39003	B	2"	6



30330 Hub

- Six-slot hub for 2" wide flaps.
 - Hub carries flexible flap assemblies of bonded shot particles.
 - Roto peen flaps not included.
- Roto Peen® is a registered trademark of 3M Co.



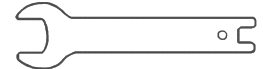
96260 Motor Tune-Up Kit

- Includes assorted parts to help maintain motor in tip-top shape.

Wrenches



95048 – 1/8" hex wrench
95135 – 5/32" hex wrench
95303 – 1/4" hex wrench



95281 – 19 mm open-end



Dynabrade Air Lube

- Formulated for pneumatic equipment.
 - Absorbs up to 10% of its weight in water.
 - Prevents rust and formation of gum and sludge.
 - Keeps pneumatic tools operating longer with greater power and less downtime.
- 95842: 1 pt.(473 ml). 95843: 1 gal (3.8 l).

Grease

- Multi-purpose grease for all types of bearings, cams, gears.
 - High film strength; excellent resistance to water, steam, etc.
 - Workable range 0° F to 300° F.
- 95541: Push-type Grease Gun (one-hand operation). 95542: 10 oz. (283.5 g) tube.

95674 Coupler

95675 Ported Male Plug

Universal Coupler and Plug

95674 Coupler

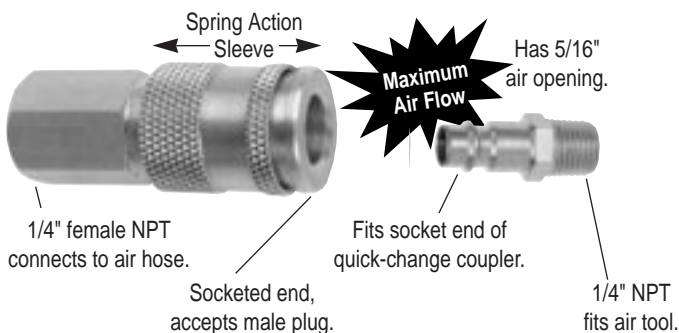
- Has 1/4" female NPT and quick-change socket. Fits most major brands of male plugs. Single-action quick connect, brass connection.

95675 Ported Male Plug

- Connects to female couplers and air tools. "Ported" design provides up to 35% more air flow capacity than other plug to prevent "starving" the air tool.

95673 Coupler/Plug Assembly

- Includes 95674 Coupler and 95675 Ported Male Plug. For quick connect/disconnect of air hose and air tool.



Important Operating, Maintenance and Safety Instructions

Carefully read all instructions before operating or servicing any Dynabrade® Abrasive Power Tool.

Warning: Hand, wrist and arm injury may result from repetitive work motion and overexposure to vibration.

Important: All Dynabrade air tools must be used with a Filter-Regulator-Lubricator to maintain all warranties.

Operating Instructions:

Warning: Eye, face and body protection must be worn while operating power tools. Failure to do so may result in serious injury or death. Follow safety procedures posted in workplace.

1. With power source disconnected from tool, securely fasten abrasive/accessory on tool.
2. Install air fitting into inlet bushing of tool. **Important:** Secure inlet bushing of tool with a wrench before attempting to install the air fitting to avoid damaging valve body housing.
3. Connect power source to tool. Be careful **not** to depress throttle lever in the process.
4. Check tool speed with tachometer. If tool is operating at a higher speed than the RPM marked on the tool or operating improperly, the tool should be serviced to correct the cause before use.

Maintenance Instructions:

1. Check tool speed regularly with a tachometer. If tool is operating at a higher speed than the RPM marked on the tool, the tool should be serviced to correct the cause before use.
2. Some silencers on air tools may clog with use. Clean and replace as required.
3. All Dynabrade air motors should be lubricated. Dynabrade recommends one drop of air lube per minute for each 10 SCFM (example : if the tool specification state 40 SCFM, set the drip rate of your filter-lubricator at 4 drops per minute). Dynabrade Air Lube (P/N **95842**: 1pt. 473ml.) is recommended.
4. An air line filter-regulator-lubricator must be used with this air tool to maintain all warranties. Dynabrade recommends the following: **11289** Air Line Filter-Regulator-Lubricator — Provides accurate air pressure regulation, two-stage filtration of water contaminants and micro-mist lubrication of pneumatic components. Operates 40 CFM @ 100 PSI has 3/8" NPT female ports.
5. Use only genuine Dynabrade replacement parts. To reorder replacement parts, please specify the **Model #**, **Serial #** and **RPM** of your machine.
6. A motor tune-up kit (P/N **96260**) is available which includes assorted parts to help maintain motor in peak operating condition.
7. Mineral spirits are recommended when cleaning the tool and parts. Do not clean tool or parts with any solvents or oils containing acids, esters, ketones, chlorinated hydrocarbons or nitro carbons.

Safety Instructions:

Products offered by Dynabrade should not be converted or otherwise altered from original design without expressed written consent from Dynabrade, Inc.

- **Important:** User of tool is responsible for following accepted safety codes such as those published by the American National Standards Institute (ANSI).
- Operate machine for one minute before application to workpiece to determine if machine is working properly and safely before work begins.
- Always disconnect power supply before changing abrasive/accessory or making machine adjustments.
- Inspect abrasives/accessories for damage or defects prior to installation on tools.
- Please refer to Dynabrade's Warning/Safety Operating Instructions Tag (Reorder No. **95903**) for more complete safety information.
- **Warning:** Hand, wrist and arm injury may result from repetitive work, motion and overexposure to vibration.

Notice

All Dynabrade motors use the highest quality parts and metals available and are machined to exacting tolerances. The failure of quality pneumatic motors can most often be traced to an unclean air supply or the lack of lubrication. Air pressure easily forces dirt or water contained in the air supply into motor bearings causing early failure. It often scores the cylinder walls and the rotor blades resulting in limited efficiency and power. Our warranty obligation is contingent upon proper use of our tools and cannot apply to equipment which has been subjected to misuse such as unclean air, wet air or a lack of lubrication during the use of this tool.

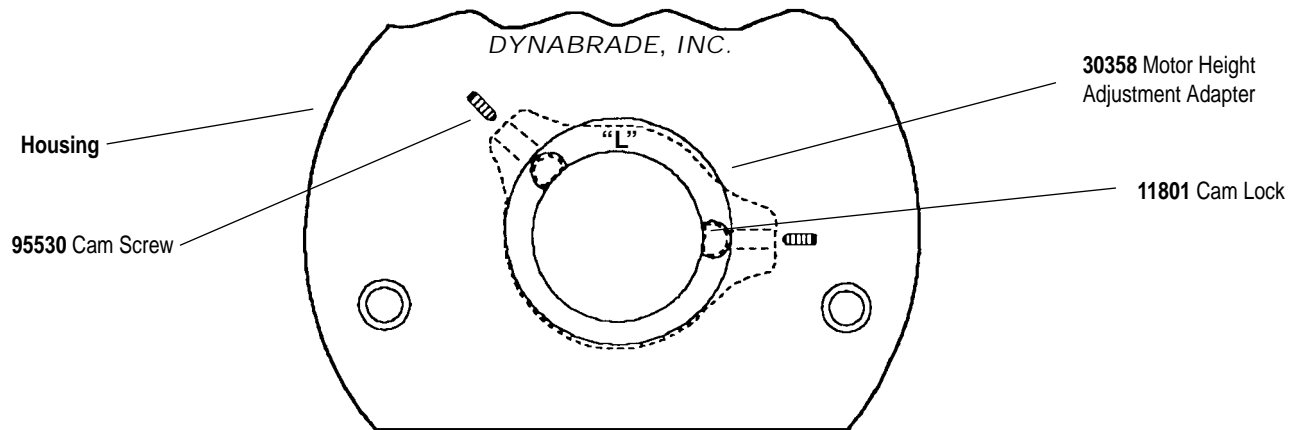
One Year Warranty

Following the reasonable assumption that any inherent defect which might prevail in a product will become apparent to the user within one year from the date of purchase, all equipment of our manufacture is warranted against defects in workmanship and materials under normal use and service. We shall repair or replace at our factory, any equipment or part thereof which shall, within one year after delivery to the original purchaser, indicate upon our examination to have been defective. Our obligation is contingent upon proper use of Dynabrade tools in accordance with factory recommendations, instructions and safety practices. It shall not apply to equipment which has been subject to misuse, negligence, accident or tampering in any way so as to affect its normal performance. Normally wearable parts such as bearings, contact wheels, rotor blades, etc., are not covered under this warranty.

Machine Number	Length Inch (mm)	Weight Pounds (kg)	Spindle Thread	Abrasive Belt Size Inch (mm)	Air Flow Rate SCFM (LPM)	Sound Level	Motor HP (W)	RPM (Loaded)	Air Pressure PSI (Bars)
30337	11-3/4" (298)	6.5 (2.9)	1/2"-20 male	2" (51)W	38 (1,076)	94 dBA	.7 (522)	2,400	90 (6.2)

Additional specifications: Height 8-1/4" (210mm) • Air Inlet Thread 3/8" (9 mm) NPT • Hose Size 1/2" (13 mm)

Instructions for Adjusting Position of Roto-Peen to Work Surface



1. Using a hex wrench, loosen both **95530** Cam Screws located on the housing near the motor inlet hole.
2. Rotate **30358** Motor Height Adjustment Adapter for desired distance of roto-peen/motor from workpiece:

“L” at 12 o’clock – lowest position.

When motor height adjustment adapter is set in the “L” position (“L” at 12 o’clock), the roto-peen/motor is set at its lowest position. This position is best for low RPM operation.

“L” at 9 or 3 o’clock – nominal/mean/middle position.

Turning the adjustment adapter 90° to the left or right from the lowest position sets the roto-peen/motor in the nominal or mean position. This position is best for normal operating conditions (90 PSI and 2,400 RPM underload).

“L” at 6 o’clock – highest position.

Turning the adjustment adapter 180° to the left or right from the lowest position sets the roto-peen/motor at the highest distance from the workpiece.

Note: The adjustment adapter is preset at the factory in the highest position.

⚠ WARNING

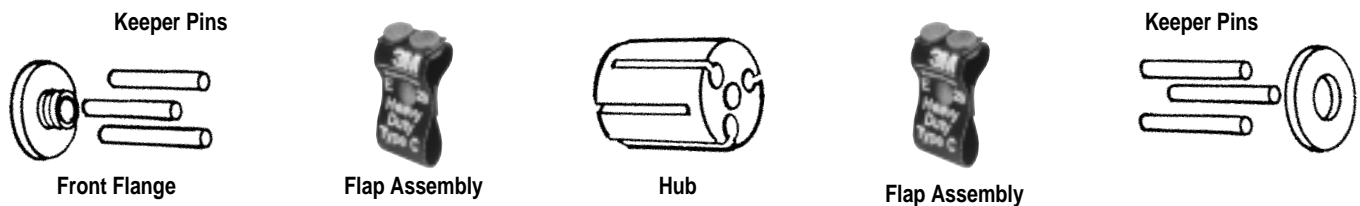
Do not exceed 3,400 RPM.

Do not operate machine without guarding in proper position.

Disconnect power supply from tool before making any changes or adjustments to hub or flap assemblies.

Use eye, face, hearing and body protection while operating this tool. Full face shield and muff type hearing protection is recommended.

3M Heavy Duty Roto Peen Mounting Instructions



Note: There are two types of Flap Assemblies – **Type B** and **Type C**. The identification Type B or Type C is printed on the front of each flap.

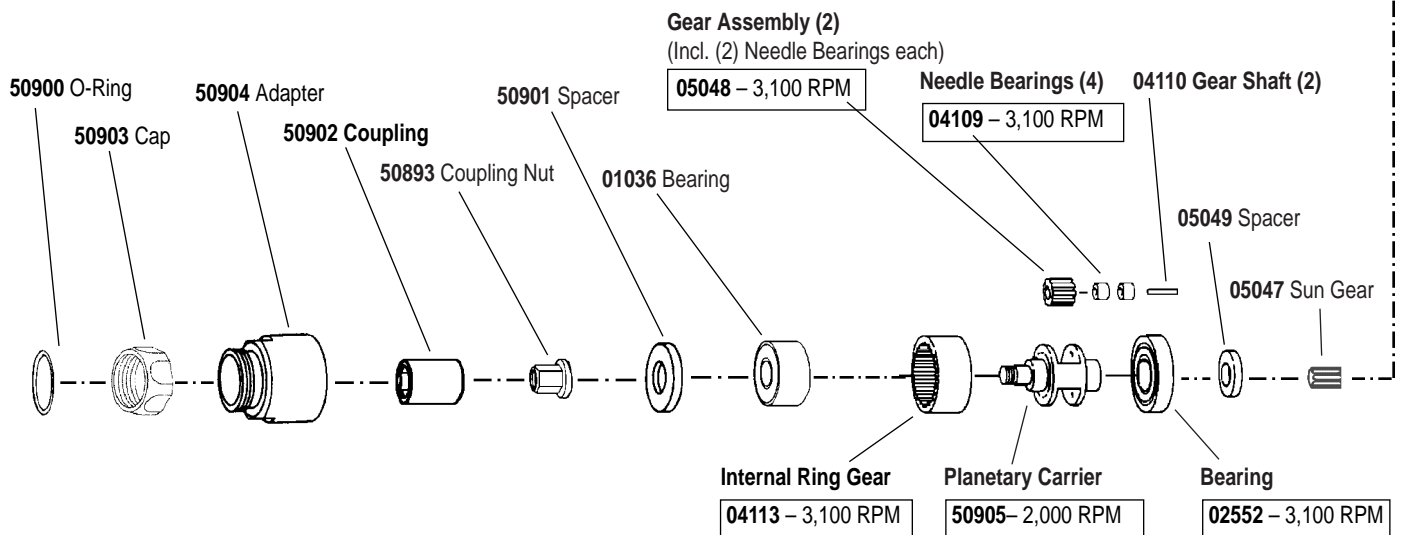
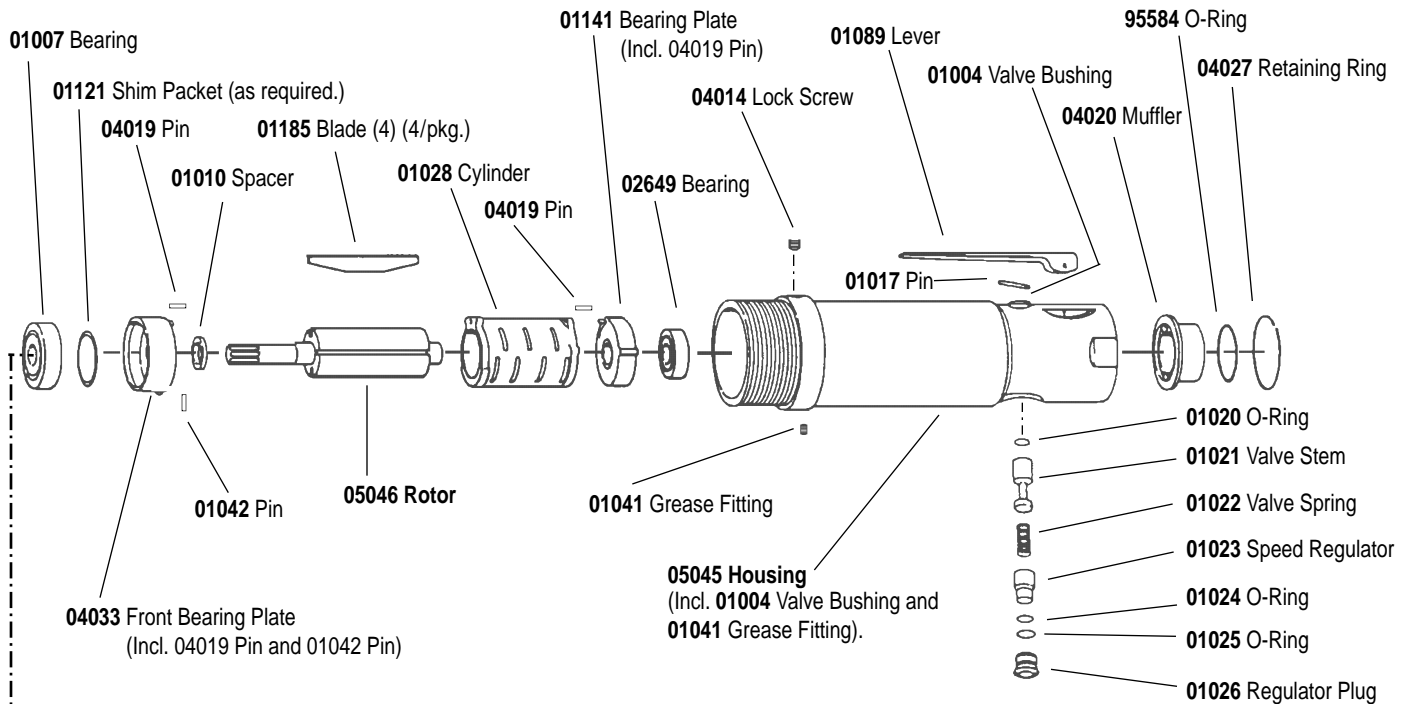
Type B: For roughening of metal surface and concrete. **Type C:** For descaling metal.

1. Remove front cover guard by removing **95012** Screw (5/32" Hex Wrench).
2. Freeze motor spindle by inserting a 19mm open end wrench on wrench flats of spindle.
3. Insert a 1/4" hex key into front flange and twist counterclockwise from hub.
4. Remove hub by twisting counterclockwise from spindle.
5. Place roto peen flap assembly into slots on hub. Make sure front side of each flap is facing the same way and in the direction of rotation (printed side is front side).
6. Place a keeper pin through each flap assembly.
7. Install **96010** Rear Flange over motor spindle. Screw hub with rotor peen flaps onto spindle until snug. Be sure all flaps and keeper pins stay in proper position.
8. Install front flange (torque 150 lbs. in.).
9. Replace front cover guard.

Important: Heavy duty roto peen flaps must only be operated with the printed side of the flaps facing the direction of rotation or very rapid flap wear will result.

Roto Peen is a registered trademark of 3M Co.

Dynascaler® Air Motor – 04208 Motor Assembly



Disassembly/Assembly Instructions - 3,400 RPM

Important: Manufacturer's warranty is void if tool is disassembled before warranty expires.

Please refer to parts breakdown for part identification.

Motor Disassembly:

1. Disconnect tool from power source. Remove hub assembly from motor spindle.
2. Loosen **95530** Cam Screws and pull motor assembly from housing. Secure air tool in padded vise.
3. Remove **30362** Lock Ring and remove Angle -Head Assembly.
3. Loosen **50904** Adapter turning it counter clockwise.
4. Loosen **04014** Lock Screw and remove.
5. Pull out planetary gear assembly. Motor is now free to slide out of housing. (**Note:** If motor does not slide out freely, tap end of housing with plastic mallet).
6. Clamp a bearing separator between the **04113** Ring Gear and the **01036** Bearing toward the spline end of the assembly.
7. Hang the planetary assembly with the separator in an arbor press (**Note:** spline end pointing up) and press bearing from **04112** Carrier.
8. Remove **04113** Ring Gear and both **05048** Gears along with **04110** Shafts. Normally **04109** Needle Bearings inside **05048** Gears will last the life of the gears. Replacement gears have needle bearings already pressed in. If it is desired to replace needle bearings in gears, pusher rod must be .249 minus .005 inches in diameter. When pressing new needle bearings into gears, press **only** on the **trademark** end of bearings.
9. Press remaining **02552** Bearing from **04112** Carrier.
10. Clamp a bearing separator between the **04033** Bearing Plate and the **01028** Cylinder.
11. Hang the motor assembly with the separator in an arbor press (**Note:** gear end pointing up) and press bearing from **05046** Rotor.
12. **04033** Front Bearing Plate and **01007** Bearing can now be pressed off.
13. Press **01141** Bearing Plate and **02649** Bearing from **05046** Rotor.

To Reassemble

1. Press a **04019** Pin into face of **01141** Bearing Plate and **04019** Bearing Plate. Press **01042** Pin in outer diameter of **04033** Front Bearing Plate.
2. To correct for bearing tolerances, it is necessary to use **01121** Shim Pack (as req.) to maintain correct clearance between ends of rotor and bearing plates.
3. Insert .002 Shim in **04033** Front Bearing Plate.
4. Insert **01007** Bearing into **04003** Bearing Plate.
5. Assemble **01010** Spacer onto pinion end of **05046** Rotor, making sure that the countersink faces the rotor.
6. Assemble **04033** Front Bearing Plate onto rotor by pressing on the inner race of **01007** Bearing and by supporting rotor on opposite end. Be sure that bearing is pressed tight against **01010** Spacer.
7. Hold rotor in left hand and the bearing plate in right hand. Apply an outward (pulling) pressure and observe spacing between end of rotor and bearing plate. This should be from flush (not rubbing) to .002 maximum. If the rotor rubs the bearing plate, reduce the spacing between the bearing and the bearing plate by removing the .002 shim entirely, or by substituting a .001 shim for the .002 shim. However, if there is more than .002 spacing between the end of the rotor and bearing plate, add .001 shim between the bearing and the bearing plate.
8. Assemble **01028** Cylinder so that inlet part will align with inlet holes in **01141** Rear Bearing Plate. The cylinder exhaust slots must align with the slots in the bearing plate.
9. Insert **01185** Blades (lubricate blades with Dynabrade Air Lube P/N **95842** or equivalent prior to installation).
10. Support assembly squarely on the pinion end of rotor. Place **02649** Bearing in **01141** Rear Bearing Plate and press onto rotor, pressing on the inner race of **02649** Bearing, just enough to bring the bearing plate against the cylinder. There should be a slight drag between the bearing plates and cylinder when these are moved with the fingers. Position cylinder until motor turns "finger free".
11. Insert motor into **05045** Housing, making sure that **01042** Pin in **04033** Front Bearing Plate enters into slot cut into housing.
12. Insert **05049** Spacer with unrelieved face toward **04033** Front Bearing Plate.
13. Press **02552** Bearing onto front end of **04112** Carrier until it seats.
14. Make sure that assembled **04109** Needle Bearing and **05048** Gears are lined up with hole and slide **04110** Shafts into **04112** Carrier and **05048** Gears until end of shaft is flush with carrier face.
15. Place **04113** Gear, notches are to face rear end of the **04112** Carrier.
16. Press **01036** Bearing onto **04112** Carrier until there is a slight drag between the ring gear and the two bearings.
17. Insert planetary assembly into motor housing, keeping notches in ring gear lined up with threaded hole for **01040** Lock Screw.
18. Thread lock screw into **05045** Motor Housing. Turn lock screw down until snug. Then back off 1/2 turn.
19. Thread **50904** Adapter onto **05045** Motor Housing.
20. Install **95530** Cam Screws into housing, install hub.

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. Loctite® is a registered trademark of Loctite Corp.



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