

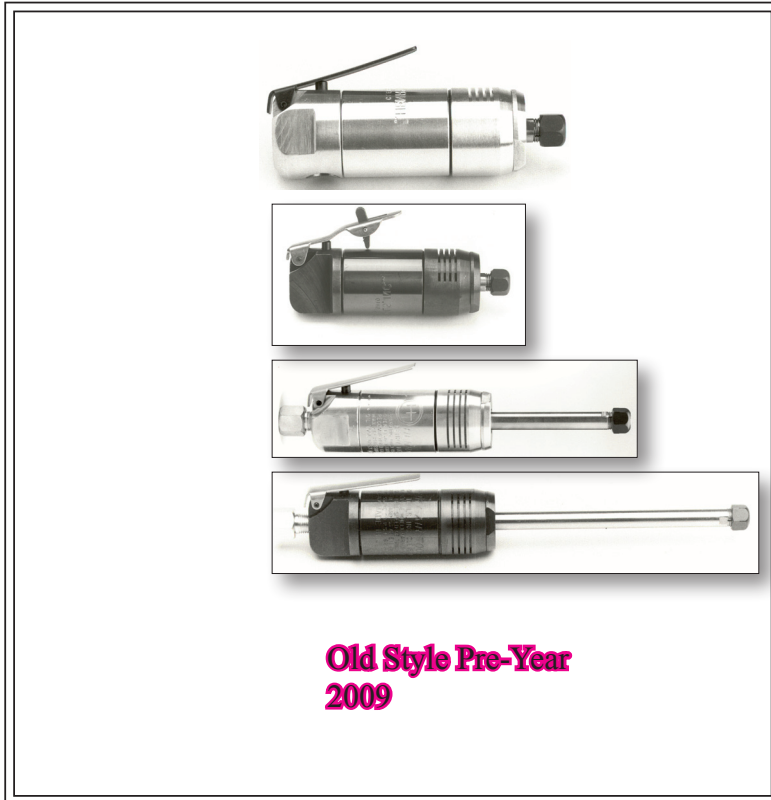
# HENRY TOOLS

Industrial Airtools at Work

Models  
 40 GL  
 40 GLS  
 40 GL+3"  
 40 GL+6"  
 40 GLSK  
**Old Style**



## General Safety and Maintenance Manual



| Model Number | Exhaust Direction                | Throttle Type                 | Speed                | Power Output   | Case Material     | Weight         |                | Length      | Diameter | Air Consumption | Collet Size |
|--------------|----------------------------------|-------------------------------|----------------------|----------------|-------------------|----------------|----------------|-------------|----------|-----------------|-------------|
|              |                                  |                               |                      |                |                   | Aluminum       | Steel          |             |          |                 |             |
| 40G          | Front or Side (Side is Standard) | (L) Lever or (K) Safety Lever | 15000 to 22000 R.P.M | 0.9 H.P. 675 W | Steel or Aluminum | 1.5 lb/0.68 Kg | 2.5 lb/1.13 Kg | 5.6 inch    | 1 3/4"   | 25cfm 11.8 L/S  | 1/4 inch    |
| 40G+3        |                                  |                               |                      | 1.6 lb/0.7 Kg  |                   | 2.5 lb/1.1 Kg  | 8.8 inch       | 44 mm       |          |                 |             |
| 40G+6        |                                  |                               |                      |                |                   | 1.7 lb/0.8 Kg  | 2.5 lb/1.13 Kg | 11 1/2 inch |          |                 |             |

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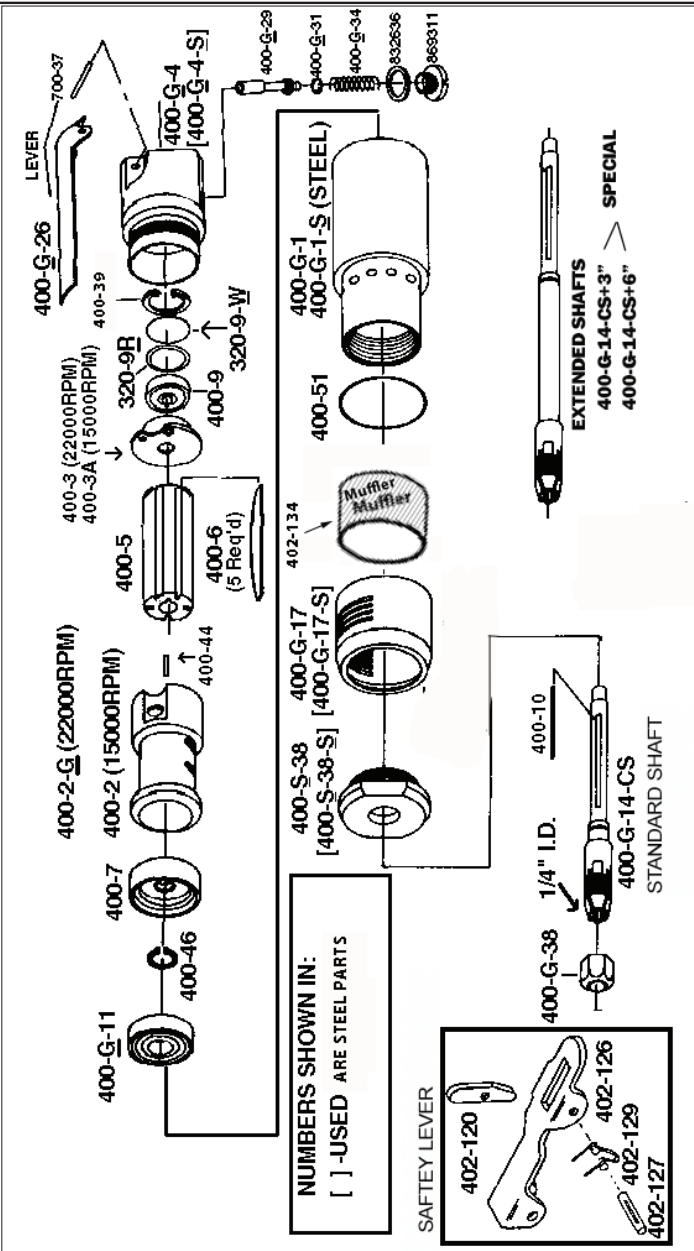
# General Operators Instructions and Service Manual



Model 40-GL+3" shown with 3" extended length spindle.



Model 40-GLS+6" shown with 6" extended length spindle.



**Old Style Pre-Year 2009**

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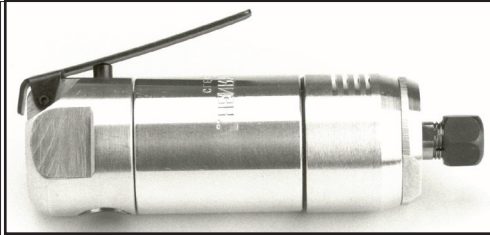
| PART NUMBER   | DESCRIPTION                    |
|---------------|--------------------------------|
| 400-G-1       | CASE (ALUMINUM)                |
| 400-G-1-S     | CASE (STEEL)                   |
| 400-G-11      | FRONT BEARING                  |
| 400-G-14-CS   | SPINDLE (Standard Length)      |
| 400-G 14-CS+3 | 3" EXTENDED SPINDLE            |
| 400-G 14-CS+6 | 6" EXTENDED SPINDLE            |
| 400-G-17      | SIDE EXHAUST SLEEVE (ALUM)     |
| 400-G-17-S    | SIDE EXHAUST SLEEVE (STEEL)    |
| 400-G-26      | THROTTLE LEVER                 |
| 400-G-29      | THROTTLE VALVE-INCLUDES 844302 |
| 400-G-34      | SPRING                         |
| 400-S-38      | RETAINING CAP (ALUM)           |
| 400-S-38-S    | RETAINING CAP (STEEL)          |
| 400-2G        | CYLINDER                       |
| 400-5         | ROTOR                          |
| 400-6         | BLADE (5 Are REQ)              |
| 400-7         | FRONT ENDPLATE                 |
| 400-9         | REAR BEARING                   |
| 400-10        | KEY                            |
| 400-27        | BUSHING 1/4" x 1/4"            |
| 400-44        | ROLL PIN                       |
| 400-46        | SNAP RING                      |
| 400-51        | O-RING                         |
| 402-126       | SAFETY LEVER                   |
| 402-127       | SAFETY LEVER PIN               |
| 402-128       | LOCKOUT LEVER                  |
| 402-129       | SAFETY LEVER SPRING            |
| 402-134       | MUFFLER                        |
| 400-3         | REAR ENDPLATE                  |
| 400-39        | SNAP RING                      |
| 700-37        | THROTTLE LEVER PIN             |
| 591106        | SET SCREW (SPECIFY SPEED)      |
| 592016        | SNAP RING                      |
| 832636        | GASKET                         |
| 841552        | 3/8 NPT TO 3/8 NPT BUSHING     |
| 841553        | 3/8 NPT TO 1/4 NPT BUSHING     |
| 844302        | O-RING                         |
| 869311        | THROTTLE VALVE CAP             |
| ASSEMBLIES    |                                |
| 510075        | REPAIR KIT                     |
| 402-26        | SAFETY LEVER ASSY.             |
| WRENCHES      |                                |
| 490-3         | PIN SPANNER                    |
| 1100-044      | 7/16" WRENCH                   |
| 1100-063      | 5/8" WRENCH                    |
| 1100-075      | 3/4" WRENCH                    |

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# General Operators Instructions and Service Manual



**Old Style Pre-Year 2009**

**Models**  
 40 GL  
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 40 GL+6"  
 40 GLSK

## PNEUMATIC DIE GRINDER SAFETY

The 40GL die grinders are intended for use with mounted wheels, points and carbide burrs. They are not guarded for type 1 wheels. If you have a type 1 wheel application, please purchase a wheel guard or another tool that that tool won't accommodate a guard.

## GRINDER SAFETY

### ALWAYS COMPLY WITH:

1. General Industry Safety & Health Regulations, Part 1910, OSHA 2206, available from: Sup't of Documents; Government Printing Office; Washington DC 20402
2. Safety Code for Portable Air Tools, ANSI B186.1 available from: American National Standards Institute, Inc.; 1430 Broadway; New York, NY 10018
3. State and Local regulations.
4. Portions of the above codes and regulations are listed below for quick reference.

### THESE EXCERPTS ARE NOT INTENDED TO BE ALL INCLUSIVE - STUDY AND COMPLY WITH ALL REGULATIONS!

1. Always turn off the air supply and disconnect the air supply hose before installing, removing or adjusting any accessory on this tool, or before performing any maintenance on this tool.
2. After mounting a wheel or other abrasive accessory, the Grinder shall be run in a protected enclosure, at gradually increasing speed, for at least 60 seconds. When starting work with a cold wheel, apply it gradually to the workpiece until it becomes warm. Do not continue to use a grinder if:

- The speed rating of the accessory is less than the speed of the grinder
- If tool vibrates repair immediately.
- You sense changes in tool speed or an unusual increase in noise that would indicate tool is running at excessive speed.
- You notice excessive end play in spindle
- You hear any unusual sound from grinder

### RETURN THE TOOL TO THE TOOL CRIB FOR SERVICE IMMEDIATELY.

3. Make certain no one is in front of or in line with the wheel or other abrasive accessory. Be aware that it may fail at this time if it is defective, improperly mounted or the wrong size and speed. Stop immediately if considerable vibration or other defects are detected. Shut off the air supply and determine the cause.
4. OPERATOR PROTECTIVE EQUIPMENT - Wear goggles or face shield at all times tool is in operation. Other protective clothing shall be worn, if necessary. SEE REGULATIONS.
5. Keep hands, loose clothing and long hair away from rotating end of tool.
6. Anticipate and be alert for sudden changes in motion during start up and operation of any power tool.
7. Keep body stance balanced and firm. Do not overreach when operating this tool. High reaction torques can occur at or below the recommended air pressure.
8. Tool accessories may continue to rotate briefly after throttle is released.
9. Air powered tools can vibrate in use. Vibration, repetitive motions or uncomfortable positions may be harmful to your hands and arms. Stop using any tool if discomfort, tingling feeling or pain occurs. Seek medical advice before resuming use.
10. This tool is not designed for working in explosive atmospheres. Do not use this tool on materials whose dust or fumes can cause a potentially explosive environment.
11. This tool is not insulated against electric shock.
12. Product Safety information - When Placing the Tool in Service
  - NEVER MODIFY ANY PART OF THIS TOOL!!!! Always install, operate, inspect and maintain this product in accordance with all applicable standards and regulations (local, state, country, federal, etc.).
  - Always use clean, dry air at 90 psig (6.2 bar/620 kPa) maximum air pressure at the inlet. Higher pressure may result in hazardous situations including excessive speed, rupture, or incorrect output torque
  - DO NOT MODIFY THE TOOL, SAFETY DEVICES, OR ACCESSORIES.

## SERVICE INSTRUCTIONS

### DISASSEMBLY

1. Model 40GL with collet chuck- remove collet nut (400-G-38) with 5/8" wrench and 7/16" wrench.
2. Clamp backhead (400-G-4(S)) in a vise. Using a strap wrench, unscrew case (400-G-1). Tap lightly on threaded end of spindle, this will allow the motor to drop out.
3. Remove snap ring (400-39) with type 01 pliers. Lift out wafer (320-9W) and o-ring (if present) (320-9R).
4. With brass or aluminum jawed vise, grasp the O.D. of the cylinder and end plate (400-3) firmly. Use a 3/16" punch and tap spindle out of rear bearing (400-9), being careful not to drop spindle assembly when it is free.
5. Remove the rotor (400-5), blades (400-6), key (400-10) and front thrust plate (400-7).
6. Remove snap ring (400-46) with type 02 pliers. Place bearing and spindle assembly (threaded end down) on suitable drill block. Press spindle through the bearing with an arbor press.
- 7 To check throttle valve. unscrew plug (869311) and lift out valve spring (400-G-34) and plunger (400-G-29). Remove o-ring (400-G-31) and replace if cracked or worn.

### REASSEMBLY

1. Support front bearing (400-G-II) on suitable drill block. Press spindle [400-G-14-CS] through bearing until it bottoms on shoulder.
2. With type 02 pliers place the snap ring (400-46) into the groove. Slide on front thrust (400-7) over the arbor and onto the front bearing.
3. Place the key (400-10) into the slot in the spindle. Slide rotor (400-5) over spindle, aligning the keyway in the rotor with the key in spindle.
4. Place five blades (400-6) in slots of rotor. Slip cylinder [400-2(G)] over rotor. Install rear thrust [400-3]. (Carefully locate cylinder in the smaller hole of the rear thrust.)
5. Place bearing in rear thrust and tap bearing in with a suitable bearing driver.
6. Place o-ring (320-9R) and washer (320-9W) into rear end plate. Place snap ring (400-39) into groove of rear end plate.
7. Slip motor assembly in case (400-G-1) Put backhead in vise and screw on motor housing. Tighten with a strap wrench.

### CAUTION: CHECK TOOL FOR SPEED WITH TACHOMETER. THE SPEED STAMPED ON TOOL MUST BE AT OR ABOVE THE ACTUAL SPEED OF THE TOOL.

Additional information on safety is available in the "American National Safety Code for Portable Air Tools" (ANSI B186.1). This bulletin is available from the American Standards Institute, Inc., 1430 Broadway, New York, N.Y. 10018.

This tool is designed to operate on 90 psi (6.2 bar) maximum air pressure with 1/4 (8 mm) hose.

Do not use this grinder for Type 1 Wheel applications. Do not use any mounted point or carbide burr for which the operating speed listed is lower than the actual free speed labeled on the grinder.

### SAFETY

1. Before operation check spindle speed with a tachometer. If the RPM's exceed the rated speed stamped on tool, servicing is required.
2. The 40GL die grinders are intended for use with mounted wheels, points and carbide burrs. They are not guarded for type 1 wheels. If you have a type 1 wheel application, please purchase a wheel guard or another tool if that tool won't accommodate a guard.
6. At least one-half of the mandrel length (i.e. mounted wheel, burr, etc.) must be inserted into the collet. Secure collet chuck tightly.
7. Safety levers are available from the manufacturer (402-26).
8. Before mounting or removing a wheel disconnect grinder from air supply. The wheel should fit properly on arbor; do not use bushings or wheel flanges to adapt a wheel to any arbor unless recommended by manufacturer. (Wheel flanges should be at least 1/3 the diameter of the grinding wheel.)
- Wear safety goggles and other protective clothing. (See regulations.)
10. Properly maintained air tools are less likely to fail or cause accidents. If tool vibrates or produces an unusual sound, repair immediately.

### LUBRICATION

1. An air line filter-regulator-lubricator should be located as closely as possible to the tool.
2. Clean out dirt and moisture from air hoses daily. Keep screen handle bushing in tool.
3. OIL TOOLS DAILY.

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