



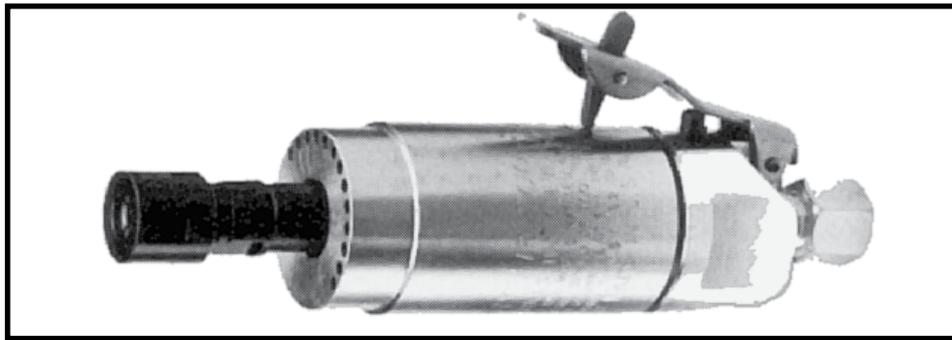
HENRYTOOLS

Industrial Airtools

MODELS
4117 GL
4117 GLS
4117 GLSK



General Safety and Maintenance Manual



Model 4117GL FRONT EXHAUST die grinder with Erickson Style Type Collet.

Model Number	Exhaust Direction	Throttle Type	Speed	Power Output	Case Material	Weight		Length	Diameter	Air Consumption	Wheel Capacity
						Aluminum	Steel				
4117GL	FRONT	(L) Lever or (K) Safety Lever	15000 to 22000 R.P.M. (18000RPM is Standard)	0.9 H.P. 675 W	Steel or Aluminum	1.5 lb/0.7 Kg	2.0 lb/0.9 Kg	6.9 inch 175 mm	1.6 inches 41 mm	25 CFM (11.8 L/s)	Mounted stones or Carbide Burrs ONLY... Not rated for use with grinding wheels.
4117GLS						1.6 lb/0.7 Kg	2.0 lb/0.9 Kg	9.3 inch 236 mm			
4117GLSK						1.7 lb/0.8 Kg	2.1 lb/1.0 Kg	12.3 inch 312 mm			

THE HENRY TOOL CO., MANUFACTURED BY HENRY TOOLS

498 SO. BELVOIR BLVD., SOUTH EUCLID, OH 44121 U.S.A.

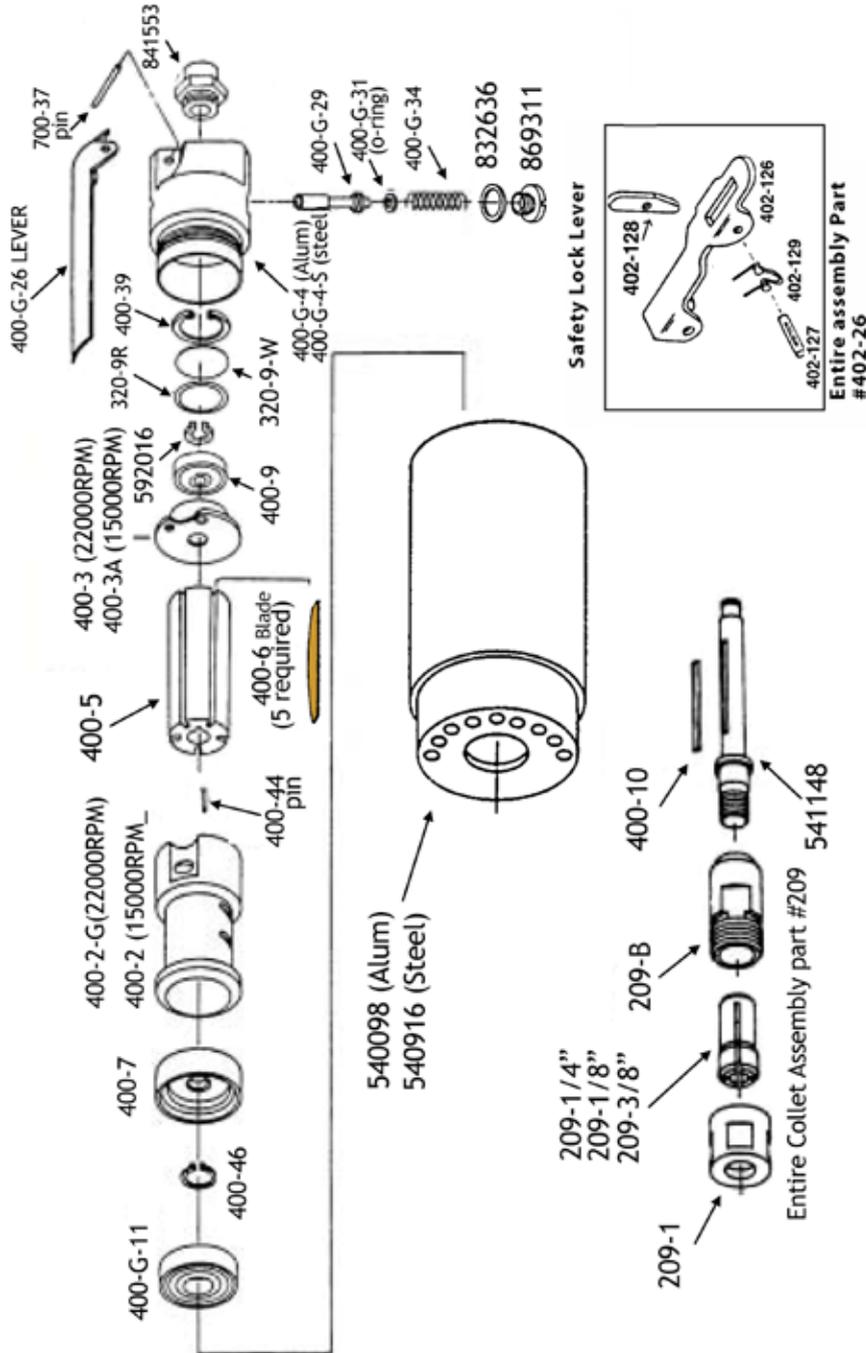
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Model 4117G Die Grinder with Erickson Type Collet with interchangeable collet inserts.

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PART NUMBER	Description
400-2-G	Cylinder (22000RPM)
400-2	Cylinder (15000RPM)
400-G-11	Bearing
400-46	Snap Ring
400-5	Rotor
400-6	Rotor Blades (5 are Required)
400-44	Cylinder Pin
540098	Front Case Aluminum
540916	Front Case STEEL
400-9	Bearomg
592016	Snap Ring
400-3	Rear Emd ;ate (22000RPM)
400-3A	Rear Emd ;ate (15000RPM)
320-9R	O-Ring
320-9-W	Bearing Cover
400-39	Snap Ring
400-G-26	Lever
700-37	Pin
841553	screen bushing
400-G-29	Throttle Valve
400-G-31	O-Ring
400-G-34	Spring
832636	Gasket
869311	Throttle Valve Cap
402-128	safety lock trigger
402-126	Lever (Bare)
402-129	Safety Lever Spring
402-127	Safety Lever Pin

PART NUMBER	Description
402-26	ENTIRE Safety Lock Lever Assembly
541148	Spindle
209-1	Collet Cap
209-B	Collet Body
400-10	Key
209-1/4"	1/4" collet insert
209-1/8"	1/8" collet insert
209-3/8"	3/8" Collet insert
400-G-4	Aluminum Backhead
400-G-4-S	STEEL Backhead
400-7	Front End Plate

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DISASSEMBLY

1. (a) Model 4117 with Erickson collet- remove collet nut (209-1).
2. Clamp backhead [400-G-4(S)] in a vise. Using a strap wrench, unscrew case (540098/540916). 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 oring (If Present)(320-9R). Remove snap ring (592016).
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. Place bearing and spindle assembly (threaded end down) on suitable drill block. Press spindle (541148) through the bearing (400-G-11) 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 [541148] through bearing until it bottoms on shoulder.
2. Slide on front thrust (400-7) over the arbor and on 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. Grasp rotor firmly in a soft jawed vise and replace the erickson collet and tighten firmly.
4. Place five blades (400-6) in slots of rotor. Slip cylinder [400-2(G)] over rotor.
Install rear thrust[400-3(A)]. (Carefully locate cylinder in the smaller hole of the rear thrust (400-3).
5. Place bearing in rear thrust and tap bearing in with suitable bearing driver.
6. Place snap ring (592016) on spindle groove. If desired, drop o-ring(320-9R) and washer (320-9W) in rear thrust. Place snap ring(400-39) into groove.
7. Slip motor assembly in case (540098/540916.) Put backhead in vise and screw on motor housing. Tighten with a strap wrench.
8. Re-attach guard if necessary .

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.

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. Inspect grinding wheels for bends, chips, nicks, cracks or severe wear. If the wheel has any of these problems, or has been soaked in liquids do not use. On brushes check for loose wires that may fly off in operation.
 3. Start new grinding wheels under a steel bench. Run at full throttle for one minute. Defective wheels usually come apart immediately. When starting a cold wheel apply to the work slowly, allow wheel to warm up gradually.
 4. The 4117 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 (4503,4504).
 5. The 4117 die grinders can be used with a guard from the manufacturer. A guard is not needed for : a.) mounted wheels two inches (50 mm) or smaller; b.) grinders used for internal work, while within the work being ground.
 6. At least one-half of the mandrel length (i.e. mounted wheel, burr, etc.) must be inserted into 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. Wear safety goggles and other protective clothing (when necessary).(See regulations.)
 9. 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. Exxon's Spinesstic 10, Atlantic Richfield's Duro 55, Gulf's Gulfspin 10 or an equivalent is recommended. Pour about 1 tablespoon in air inlet and run tool to allow oil to be carried to the interior. OIL DAILY!!!