Henrytools
Industrial Tools at Work

MODELS
49 GL

General Safety and Maintenance Manual

REAR EXHAUST DIE GRINDER

MODEL 49 G Series die grinder feature a rear exhaust and Erickson style type collet. Various collet insert sizes can be quickly swapped out for your particular application. Rear exhaust won't deflect dangerous metal chips at the operator.

REAR EXHAUST DIE GRINDER

Model Number	Exhaust Direction	Throttle Type	Speed	Power Output	Case Material	Weight Aluminum	Length	Diameter	Air Consumption	Collet Size
49 G	REAR	(L) Lever or (K) Safety Lever	15000 to 22000 R.P.M. (22000RPM is Standard)	0.9 H.P. 675 W	Alum	1.5 lb/0.7 Kg	6.4 inch/ 162 mm	1.6 inches 41 mm	25cfm 11.8 L/S	1/8", 1/4" 5/16", 3/8, 6mm, or 8mm

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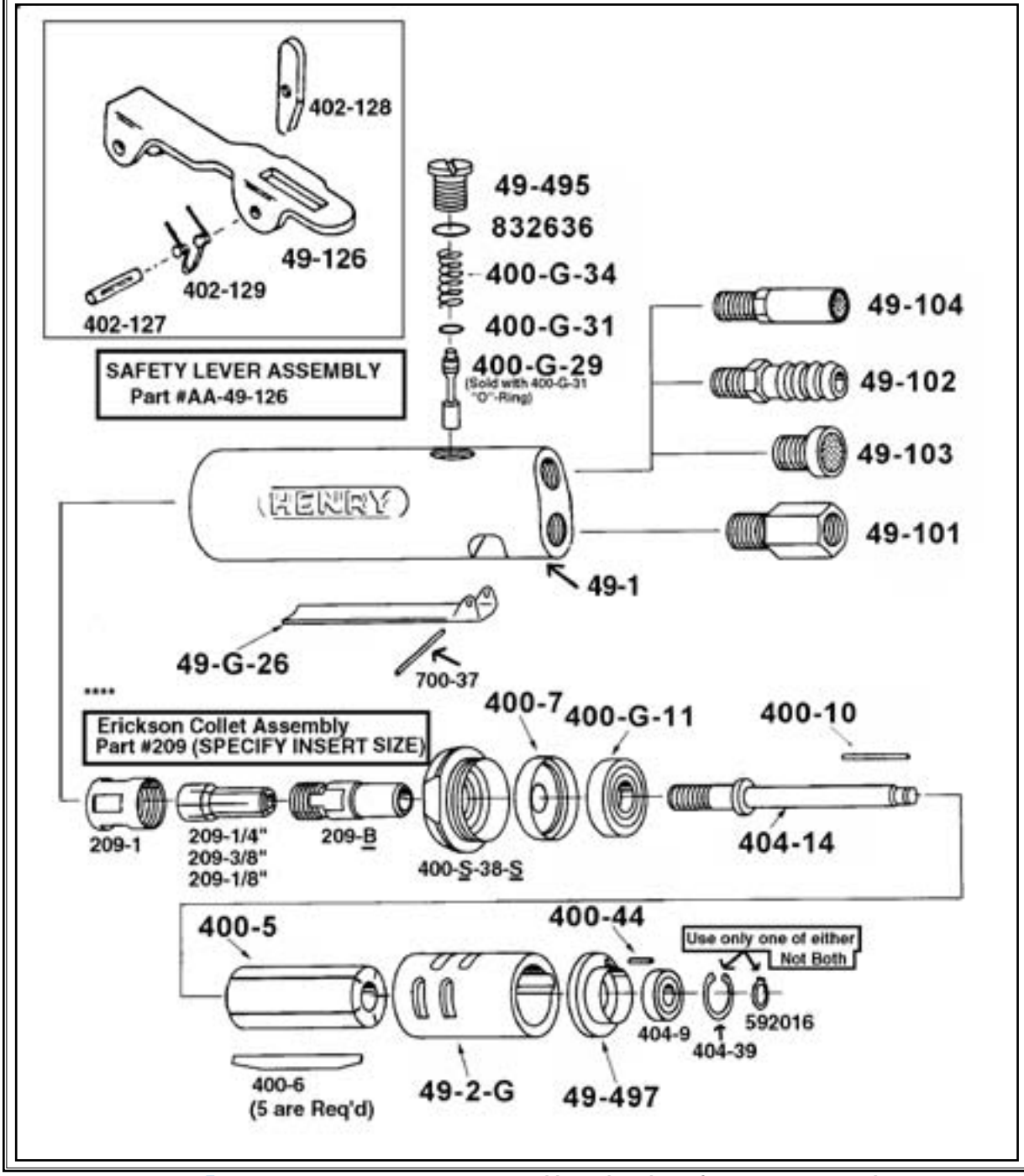
REAR EXHAUST DIE GRINDER



REAR EXHAUST DIE GRINDER

MODELS 49 GL

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PART	DESCRIPTION
209-B	3/8-24 COLLET BODY
209-1	COLLET NUT
209-1/8	1/8" INSERT
209-1/4	1/4" INSERT (STANDARD)
209-3/8	3/8" INSERT
400-G-11	FRONT BEARING
49-G-26	THROTTLE LEVER
400-G-29	THROTTLE VALVE (INCLUDES 844302)
400-G-34	SPRING
49-101	BUSHING 1/4x1/4"
49-102	HOSE BARB 1/4 x 1/2
49-103	SCREEN
49-104	MUFFLER
49-2-G	CYLINDER
400-5	ROTOR
400-6	ROTOR BLADE (5 are REQ.)
400-7	FRONT ENDPLATE
400-10	KEY
400-44	ROLL PIN
49-126	SAFETY LEVER
402-127	SAFETY LEVER PIN
402-128	LOCKOUT LEVER LATCH
402-129	SAFETY LEVER SPRING
49-1	ALUMINUM CASE
404-9	REAR BEARING
404-14	SPINDLE
404-38	BEARING COVER
404-39	SNAP RING
400-S-38-S	STEEL MOTOR RETAINER
700-37	THROTTLE LEVER PIN
592016	SNAP RING
594016	O-RING
832636	GASKET
841552	3/8 NPT TO 3/8 NPT BUSHING
841553	3/8 NPT TO 1/4 NPT BUSHING
841553-M	3/8 NPT TO 3/8 BSP BUSHING
844302	O-RING
49-495	THROTTLE VALVE CAP
WRENCHES	
1100-056	9/16" WRENCH
1100-075	3/4" WRENCH

PART	DESCRIPTION
REPAIR KITS	
510240	REPAIR KIT INCLUDES ALL BEARINGS, ROTOR BLADES AND SNAP RINGS.
ASSEMBLIES	
49-26	SAFETY LEVER ASSY.

SAFETY

1. Before operation check spindle speed with a tachometer. If the RPM's exceeds the rated speed stamped on tool, servicing is required.
2. Inspect carbide burrs or mounted points for bends, chips, nicks, cracks or severe wear. If they have any of these problems do not use. On brushes check for loose wires that may fly off in operation.
3. Start new mounted points or burrs under a steel bench. Run at full throttle for one minute.
4. The 49 series die grinders are intended for use with Burrs/ Mounted Stones of shank size 1/8 inch, 1/4 inch, 5/16 inch, 3/8 inch, 3mm, 6mm, 8mm. only. They are NOT guarded for type 1 wheels. If you have a type 1 wheel application, please purchase a different model tool.
5. At least one-half of the mandrel length (i.e. mounted wheel, burr, etc.) must be inserted into the collet. Secure collet chuck tightly.
6. Safety levers are available from the manufacturer (49-26).
7. Before mounting or removing a Burr/mounted point disconnect the grinder from air supply. Wear safety goggles and other protective clothing (when necessary).(See regulations.)
8. Properly maintained air tools are less likely to fail or cause accidents. If tool vibrates or produces an unusual sound, repair immediately.

LUBRICATION

Lubricate the motor with an air line lubricator, using a light air motor oil. Adjust the lubricator to dispense one drop per cycle or three drops per minute.

CAUTION Do not use substitutes for oil and grease. This could result in damage to the tool.

MAINTENANCE

1. Proper and continuous lubrication.
2. Blow out air hose to assure a clean air supply.
3. Be sure the air filter and line lubricator are clean.
4. Fill the line lubricator before operation.
5. Place a few drops of oil into the air inlet of the tool be-fore attaching the air line.
6. Use moisture separators to remove water from the air line.
7. An air line filter-regulator-lubricator should be located as closely as possible to the tool.
8. Keep screen handle bushing in tool.

DISSASEMBLY

1. (a) Clamp case (49-1) on it's flats in a vise. Remove nut (400-S-38-S). Pull motor from case.
2. Remove snap ring(404-39) with type 01 pliers. Lift out wafer (404-38) and o-ring (594016). Remove snap ring (592016).
3. a. With a brass or aluminum jawed vise, grasp the O.D. of the cylinder(49-2-G) and end plate (49-497) 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. Remove (49-2-G) and plate (49-497). b. Grasp (400-5) rotor vertically (***without damaging it***) in vise and remove collet body (209-B) with 5/8"

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DISSASEMBLY (continued)

wrench.
4. Remove the rotor (400-5) from spindle, blades (400-6), key (400-10) and front thrust plate (400-7) .
5. Place bearing and spindle assembly (threaded end down) on suitable drill block. Press spindle through the bearing (400-G-11) with an arbor press.
6. (Optional Step): To check throttle valve. unscrew plug (49-495) 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-11) on suitable drill block. Press spindle [404-14] through bearing until it bottoms on shoulder.
2. Slide on front thrust (400-7) over the arbor and onto the front bearing.
3. a. 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. b. Grasp (400-5) vertically in vise and screw on (209-B) tightly.
4. Place five blades (400-6) in slots of rotor. Slip cylinder [49-2(G)] over rotor.
Install rear thrust [49-497]. (Carefully locate cylinder in the smaller hole of the rear thrust.)
5. Place bearing(404-9) into rear thrust (49-497) and tap bearing in with a suitable bearing driver.
6. Place snap ring (592016) on spindle groove. Drop o-ring(594016) and washer (404-38) in rear thrust. Install snap ring(404-39) into groove.
7. Slip motor assembly into case (49-1). Grasp case (49-1) by the flats in avise. Screw on retainer (400-S-38-S) and tighten.

CAUTION: C***HECK 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 Bl86.1). This bulletin is available from the American Standards Institute, Inc., 1430 Broadway, New York, N.Y. 10018.
Thls tool is designed to operate on 90 psig (6.2 bar) maximum air pressure with 1/4 (8 mm) hose.

FAULT	CAUSE	SOLUTION
Insufficient Power	Air pressure too low	Minimum air pressure *should* be 90 PSI for maximum performance
	Restriction in air hose	Remove bends or other restrictions
	Hose I.D. is too small	Use required hose I.D.
	Worn vanes	Exchange vanes (400-6)
	Screen Support clogged	Clean screen support or exchange with new one
Machine does not start	No air, shut-off valve is closed.	Open shut-off valve
	Worn vanes due to lack of oil or vanes are jammed	Exchange vanes . (cylinder might also be worn out)
Grinder does not want to stop	Worn O-Ring	Replace o-ring in handle (844302) for example.
Spindle wobbles or vibrates.	Bearings worn out . Danger!!	Disconnect tool from the air supply. ***Immediate*** servicing is required.