

General Safety and Maintenance Manual



Super Heavy Duty (Front Exhaust Die Grinders)



SUPER HEAVY DUTY DIE GRINDER SERIES



4124GLS+6" Model with "FRONT EXHAUST" and super extended length spindle shown above.



Model Number	Exhaust Direction	Throttle Type	Speed	Power Output	Case Material	Weight		Length	Diameter	Air Consumption	Collet Size
						Aluminum	Steel				
4124G	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	1.6 lb/0.7 Kg	2.0 lb/0.9 Kg	6.6 inch 167 mm	1.6 inches 41 mm	25cfm 11.8 L/S	1/8", 1/4", 5/16", 3/8"
4124G+6						1.8 lb/0.8 Kg	2.5 lb/1.1 Kg	12.3 inch 312 mm			

THE HENRY TOOL CO., MANUFACTURED BY HENRY TOOLS

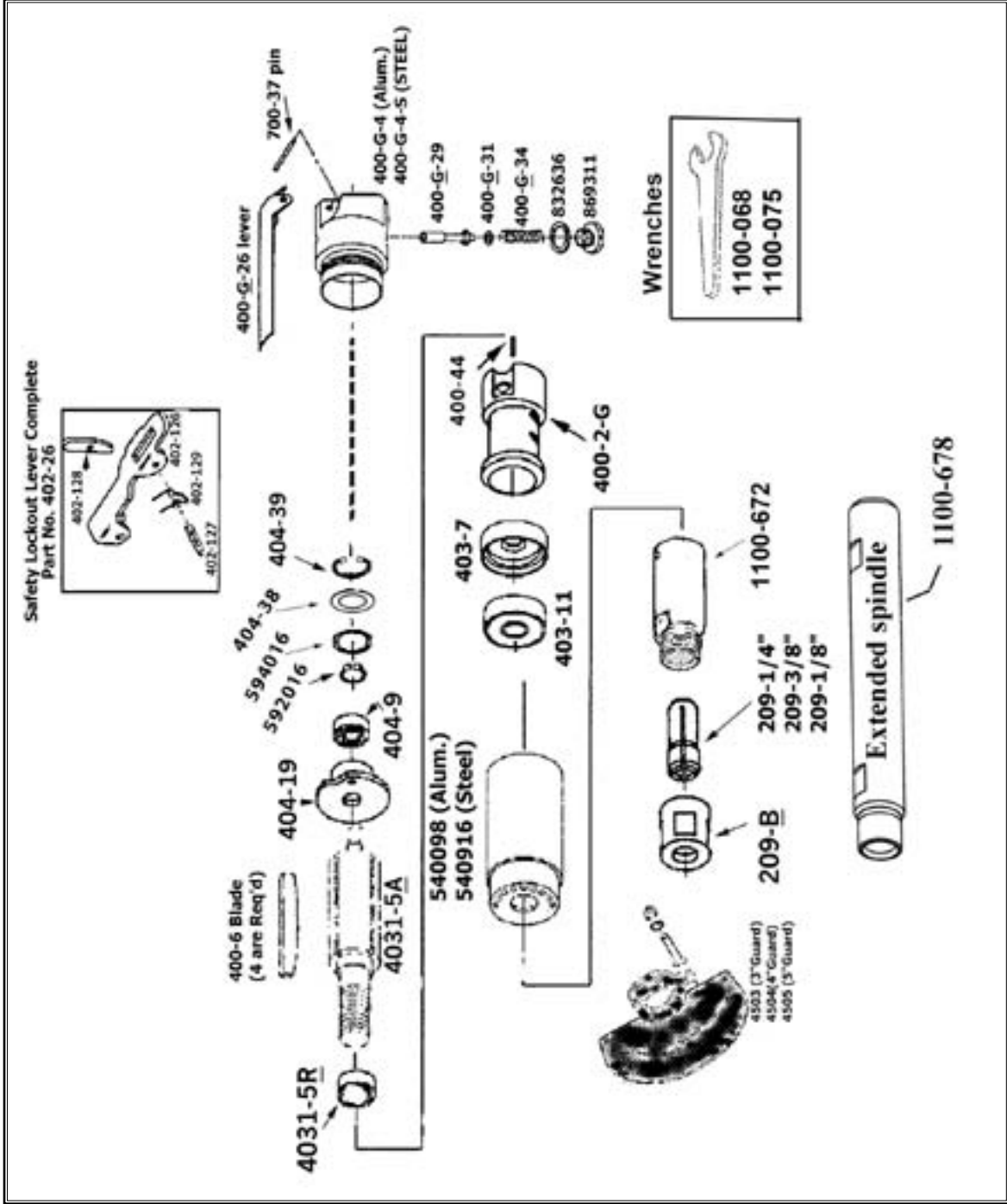
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MODELS
4124 GL
4124 GL+6
4124 GLS



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PART NUMBER	DESCRIPTION
209-1	COLLET NUT
209-1/4	1/4" INSERT
209-1/8	1/8" INSERT
209-3/16	3/16" INSERT
209-3/8	3/8" INSERT
400-G-4	ALUM. BACKHEAD
400-G-4-S	STEEL BACKHEAD
400-2G	CYLINDER (STANDARD)
400-2GR	CYLINDER (REVERSE ROTATION) (Special order cylinder)
400-44	ROLL PIN
400-51	O-RING
400-6	BLADE (4 REQ.)
400-G-26	THROTTLE LEVER
400-G-29	THROTTLE VALVE (INCLUDES 844302)
400-G-34	SPRING
402-126	SAFETY LEVER
402-127	SAFETY LEVER PIN
402-128	LOCKOUT LEVER
402-129	SAFETY LEVER SPRING
4031-5A	ROTOR/SPINDLE
4031-5R	ROTOR SPACER
403-38	FRONT MOTOR RETAINER
403-7	FRONT ENDPLATE
404-19	REAR ENDPLATE
404-19R	REAR ENDPLATE (REVERSE ROTA- TION)(Special)
404-38	BEARING COVER
404-39	SNAP RING
404-9	REAR BEARING
540098	ALUMINUM CASE
540916	STEEL CASE
590031	FRONT BEARING
591106	SET SCREW (SPECIFY SPEED)
592016	SNAP RING
594016	O-RING
700-37	THROTTLE LEVER PIN
832636	GASKET
841552	3/8 NPT TO 3/8 NPT BUSHING
841553	3/8 NPT TO 1/4 NPT BUSHING
844302	O-RING

PART NUMBER	DESCRIPTION
869311	THROTTLE VALVE CAP
1100-672	STANDARD COLLET BODY
1100-678	EXTENDED COLLET BODY (+6")
400-G-4	BACKHEAD (ALUMINUM)
400-G-4-S	BACKHEAD (STEEL)
403-11	BEARING
ASSEMBLIES	
402-26	SAFETY LEVER ASSY.
REPAIR KITS	
510206	REPAIR KIT Model 4123&4124Se- ries. INCLUDES: ALL BEARINGS , ROTOR BLADES and SNAP RINGS.
WRENCHES	
1100-068	11/16" WRENCH
1100-075	3/4" WRENCH

FAULT	CAUSE	SOLUTION
Insufficient Power	Air pressure too low	Minimum air pressure <i>should</i> be 90 PSI for maximum performance
	Restriction in air hose	Remove bends or other restric-tions
	Hose I.D. is too small	Use required hose I.D.
	Worn vanes	Exchange vanes (400-6)
	Screen Support clogged	Clean screen support or ex-change 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. <i>Immediate</i> servicing is required.

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SAFETY

1. Before operation check spindle speed with a tachometer. If the RPM's exceeds the rated speed stamped on tool, servicing is required. For safety reasons and product liability prohibit any modifications to tools.
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 4124 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 (402-26).
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 before 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.

WARNING: Disconnect the air supply hose before servicing the tool.

DISASSEMBLY

1. Secure tool in vise vertically with output of tool oriented toward upward direction. Clamp onto the backhead (400-G-4) flats toward the rear of the tool.
2. Unscrew motor case (540916). Remove entire motor assembly.
3. Secure motor assembly into vise vertically with

- output in the downward direction. Clamp onto flats on the collet body (1100-672).
4. Remove snap ring (404-39) from rear endplate (404-19) with use of snap ring pliers.
5. Lift out bearing cover (404-38) and o-ring (594016).
6. Remove snap ring (592016) from groove of rotor (4031-5A).
7. Using a soft-jawed vise. Secure motor assembly into vise vertically with output toward downward direction. Clamp lightly the outside diameter of the cylinder (400-2G) and endplate (404-19).
8. Use a 3/16" punch to tap spindle out of rear bearing (404-9). Do NOT drop the motor assembly when it is free. Remove from vise.
9. Use a small punch to press the rear bearing from the rear endplate.
10. Remove the 5 blades (400-6).
11. With soft jaws still in vise, clamp firmly onto rotor (4031-5A) with output toward upward position. Remove collet body (1100-672) (right hand thread). Remove from vise.
12. Support the rotor assembly on a suitable drill block. Press the spindle through the front bearing assy. using an arbor press. Use a small punch to remove front bearing (590031) from front endplate(403-7).
13. (OPTIONAL STEP): To check throttle valve unscrew throttle valve cap (869311).
14. (OPTIONAL STEP): Lift out valve spring (400-G-34) and throttle valve (400-G-29). Remove and replace o-ring (844302) if cracked or worn.

ASSEMBLY

1. Be sure that all parts are clean.
2. Press bearing (590031) into recessed area of front endplate (403-7).
3. Support the front bearing assembly on a suitable drill block. Press the rotor (4031-5A) into the rear of front endplate and through front bearing.
4. With soft jaws on vise, clamp firmly onto rotor (4031-5A) with output toward upward position. Install collet body (1100-672) (right hand thread). Remove rotor from vise.
5. Secure motor assembly into vise vertically with output in the downward direction. Clamp onto flats on the collet body (1100-672).
6. Place blades (400-6) into blade slots.
7. Slip cylinder (400-2G) over rotor and onto endplate. The small pin on face of cylinder should face toward rear to tool.
8. Place rear endplate (404-19) onto cylinder. Locate the pin of the cylinder into the small hole of the rear endplate.
9. Press bearing (404-9) into rear endplate with a suitable bearing driver.
10. Install retaining ring (592016) into groove on spindle with snap ring pliers.
11. Place o-ring (594016) and bearing cover (404-38) into rear endplate.
12. Install snap ring (404-39) into groove of rear endplate.
13. Secure motor housing (594016) in vise vertically with output of tool toward upward direction. Clamp onto the flats toward the rear of the motor housing.
14. Slide front motor assembly into motor housing. Replace backhead (400-G-4-S). Tighten assemblies together.
15. Check the operating speed with a reliable tachometer. The speed must be at or below the stamped speed on the tool.

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