# HEDRY TOOLS

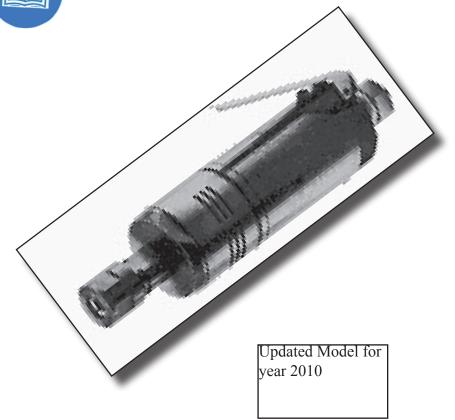
Industrial Airtools at Work

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MODELS 4121AGL 4121AGLS Series







Model	Exhaust	Throttle	Speed	Power	Case	Wei	ght	Length	Diam-	Air	Collet
Number	Direction	Type		Output	Material	Aluminum	Steel		eter	Consumption	Size
4121AGL	SIDE	(L) Lever or (K) Safety	15000 to 22000	0.9 H.P. 675 W	Alum	1.5 lb/0.7 Kg	2.0 lb/0.9 Kg	6.4 inch/ 162 mm	1.6 inches 41 mm	25cfm 11.8 L/S	1/8", 1/4" 5/16", 3%, 6mm, or 8mm
4121AGLS		Lever	R.P.M. (22000RPM is Standard)		Steel Steel						

# THE HENRY TOOL CO., MANUFACTURED BY HENRY TOOLS

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### **General Operators Instructions and Service Manual**



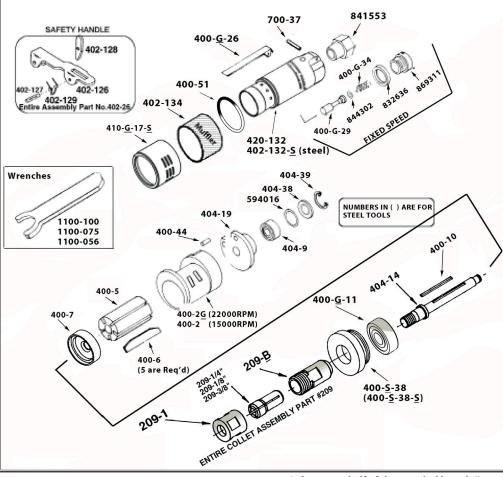
Updated Model for year 2010

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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 (402-
- 130-S) in vise. Remove nut (400-S-38). Pull motor
- case. Model 4121 with **Erickson collet- remove** collet nut (209-1).
- 2. Remove snap ring(400-39) with type 01 pliers. Lift out wafer (320-9W) and o-ring (320-9R). Remove snap ring (592016).
- 3. a. 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



- 1. Before operation check spindle speed with a tachometer. If the RPM's exceeds the rated speed stamped on tool, servicing is required.
- 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 4121 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.
- At least one-half of the mandrel length (i.e. mounted wheel, burr, etc.) must be inserted into the collet. Secure collet chuck tightly.
- Safety levers are available from the manufac-
- 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.)
- 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.



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PART	DESCRIPTION			
209	ERICSON COLLET (ASSEMBLY)			
209-B	3/8-24 COLLET BODY			
209-1	COLLET NUT			
209-1/8	1/8" INSERT			
209-3/16	3/16" INSERT			
209-1/4	1/4" INSERT			
209-5/16	5/16" INSERT			
209-3/8	3/8" INSERT			
400-G-11	FRONT BEARING			
400-G-26	THROTTLE LEVER			
400-G-29	THROTTLE VALVE (INCLUDES 844302)			
400-G-34	SPRING			
400-2G	CYLINDER			
400-2GR	REVERSE ROTATION CYLINDER (SPECIAL ITEM)			
400-5	ROTOR			
400-6	ROTOR BLADE (5 REQ.)			
400-7	FRONT ENDPLATE			
400-10	KEY			
400-44	ROLL PIN			
400-51	O-RING SPECIFY SPEED FOR CASE ASSY.			
402-126	SAFETY LEVER			
402-127	SAFETY LEVER PIN			
402-128	LOCKOUT LEVER			
402-129	SAFETY LEVER SPRING			
402-132	ALUMINUM CASE (SPECIFY SPEED)			
402-132-S	STEEL CASE (SPECIFY SPEED)			
402-132-S-FT	STEEL FLOW THRU CASE (SPECI- FY SPEED)			
402-134	MUFFLER			
404-9	REAR BEARING			
404-14	SPINDLE			
404-19	REAR ENDPLATE			
404-19R	REVERSE ROTATION REAR END- PLATE (SPECIAL ITEM)			
404-38	BEARING COVER			
404-39	SNAP RING			
400-S-38	ALUMINUM MOTOR RETAINER			
410-G-17-S	STEEL SIDE EXHAUST SLEEVE			
400-S-38-S	STEEL MOTOR RETAINER			

PART	DESCRIPTION	Updated Model for
700-37	THROTTLE LEVER PIN	year 2010
591106	SET SCREW (SPECIFY SPEED)	ycai 2010
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	
869311	THROTTLE VALVE CAP	
WRENCHES		
1100-056	9/16"WRENCH	
1100-075	3/4" WRENCH	
ASSEMBLIES		
209	ERICKSON COLLET ASSEMBLY COMPLETE	
510240	REPAIR KIT	
402-26	SAFETY LEVER ASSY.	
AA-402-132	ALUMINUM CASE ASSY.	
AA-402-132-S	STEEL CASE ASSY. (STANDARD LEVER)	
AA-402-132-SK	STEEL SAFETY CASE ASSY.(w/ LOCKOUT SAFETY HANDLE)	

to drop spindle assembly when it is free. Remove (400-2-G) and plate (400-3). b. Grasp (400-5) rotor vertically in vise and remove collet body (209-B) with 5/8" 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 (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-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 [400-2(G)] over rotor. Install rear thrust[400-3(A)]. (Carefully locate cylinder in the smaller hole of the

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### rear thrust.)

5. Place bearing (400-9) in rear thrust (400-3) and tap bearing in with a suitable bearing driver. 6. Place snap ring (592016) on spindle groove. 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 (402-130-S). Put backhead in vise and screw on motor housing. Tighten with a strap wrench.

CAUTION: CHECK TOOL FOR SPEED WITH TACHOM-ETER.

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.

This 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 . (cylin- der 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.		