

Henrytools

Industrial Tools at Work

MODELS
5102H
5102HK
5102HG
Series

General Safety and Maintenance Manual



EXTENDED HORIZONTAL GRINDER FOR USE WITH MOUNTED POINTS AND CARBIDE BURRS.



***This tool is NOT designed for the use of type 1 or 27 grinding wheels.**

CAPACITY:

Burrs/ Mounted Stones

Model Number	Exhaust Direction	Throttle Type	Rated Speed	Power Output	Case Material	Weight		Overall Length	Body Diameter	Working Air Consumption	Collet Insert Sizes
						ALUM	STEEL				
5102HL	Side Exhaust	(L) Lever or (K) Safety Lever (G) Spade Handle Grip	15000-18000 R.P.M.	1.5 H.P .1130 W	(S) Steel or Alumi-num	5.9 Lb./2.9 Kg	7.2 Lb./3.3 Kg	17.7 Inch (450mm)	2.5 Inch (63.5 mm)	35 cfm (16.5 L/s)	1/8, 1/4, 5/16, 3/8
5102HK											
5102HG						6.9 Lb./3.1 Kg	8.2 Lb./3.7 Kg				
	See note		See note	See note	See note					See note	See note

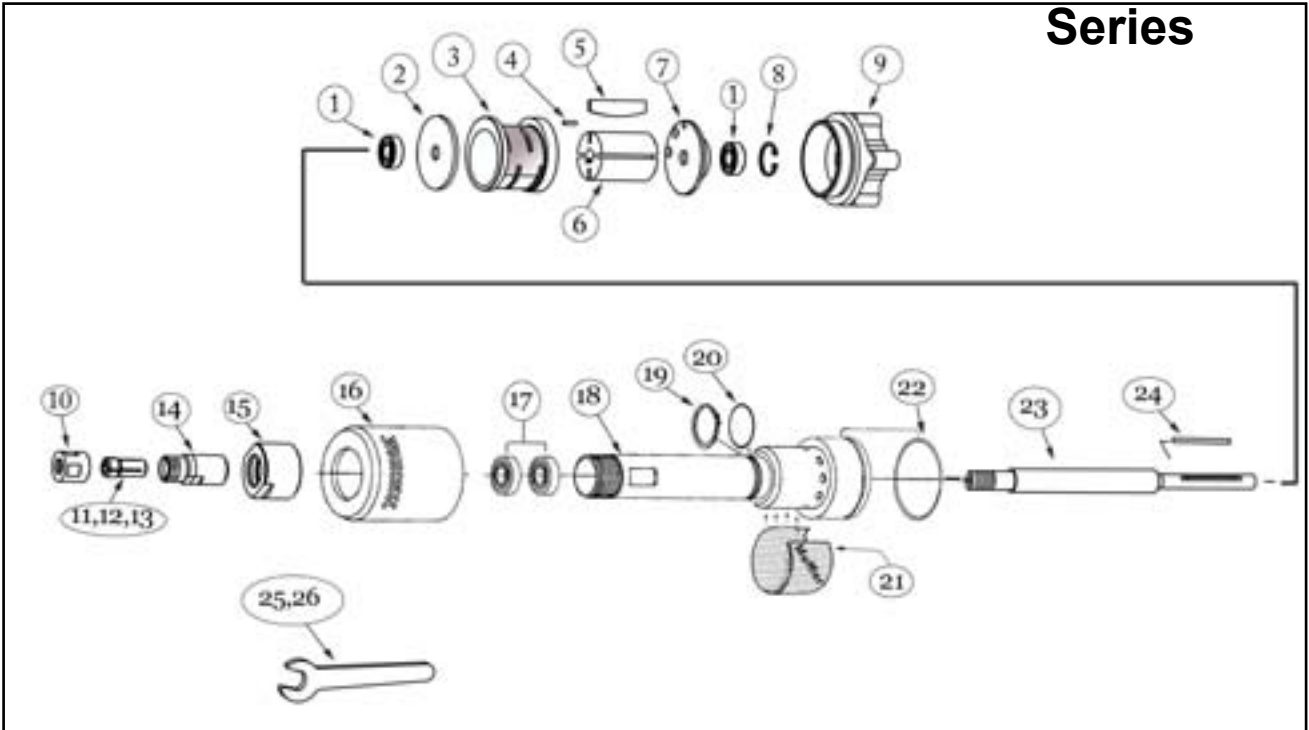
THE HENRY TOOL CO., MANUFACTURED BY HENRY TOOLS

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

PH: (216) 291-1011 OR (800) 826-5257 • FAX: (216) 291-5949 OR (800) 303-2800

EMAIL: DAVIDH@MSN.COM • WEBSITE: WWW.HENRYTOOLS.COM

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ITEM NUMBER	PART NO.	DESCRIPTION
1	300-G-29	BEARING (2 REQ.)
2	500-7	FRONT END PLATE
3	500-2A	CYLINDER
4	832126	ROLL PIN
5	500-6A	BLADE (4 REQ.)
6	500-5A	ROTOR
7	500-3	REAR ENDPLATE
8	500-46	LOCK RING
9	500-G-5-S	STEEL BACKHEAD
10	209-1	COLLET NUT
11	209-1/4"	1/4" COLLET INSERT (STANDARD)
12	209-1/8"	1/8" COLLET INSERT
13	209-3/8"	3/8" COLLET INSERT
14	1100-670-520	COLLET BODY
15	500-16-C	CAP
16	500-G-17-S	EXHAUST DEFLECTOR

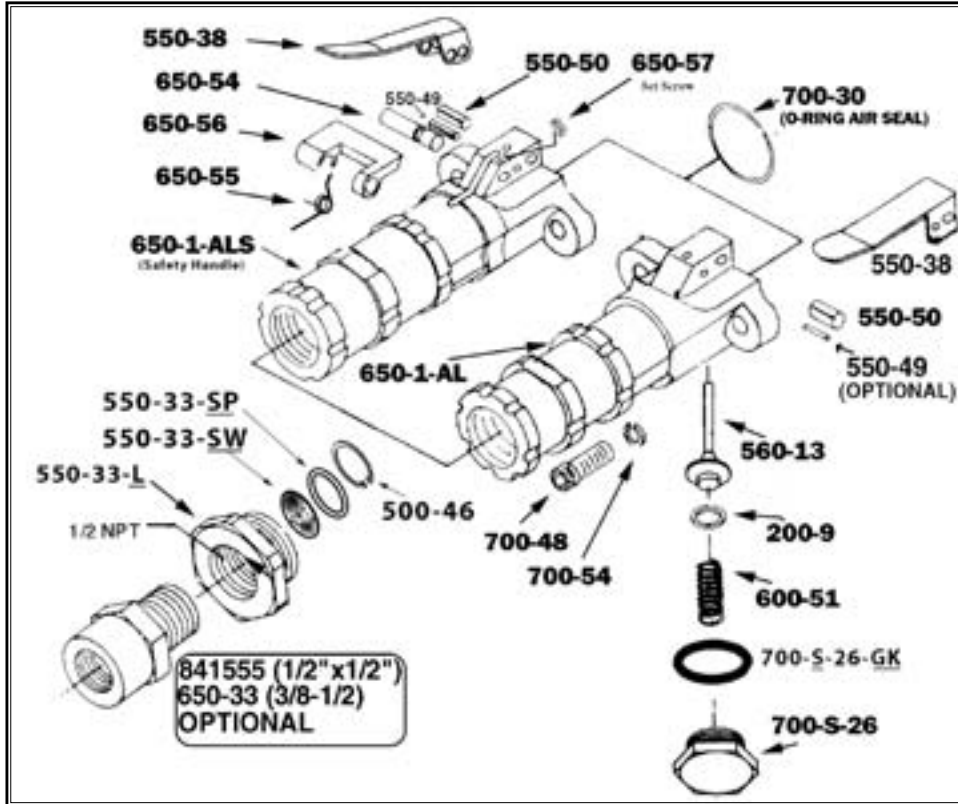
ITEM NUMBER	PART NO.	DESCRIPTION
17	501-13	BEARING PAIR
18	500-1-HS	STEEL CASE
19	500-G-24	LOCK RING
20	500-47	O-RING
21	500-G-19	MUFFLER
22	500-23	O-RING
23	500-14-SC	SPINDLE
24	500-H-10	KEY
25	1100-068	11/16" WRENCH
26	1100-075	3/4" WRENCH

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Model 5102H shown with carbide Burr and Safety Lockout Handle.



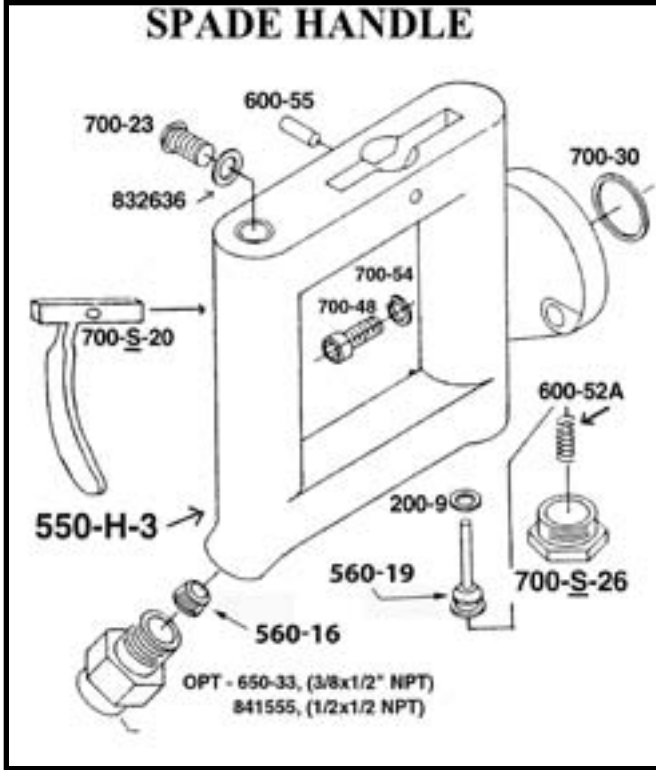
Part Number	Description
200-9	O-Ring
500-46	Snap Ring
550-33-L	Live Handle Adaptor bushing
550-33-SW	Screen Filter
550-33-SP	Spacer
550-38	Lever
550-50	Lever Pin
560-13	Throttle Valve Assembly with 200-9 O-ring installed
600-51	Plunger Spring
650-1-AL	Live Handle Body (Non-Lockout type)
650-1-ALS	Safety Lock Valve Body (Bare)
AA-650-1-AL	Handle Assembly (Complete) (Non-lockout handle)
AA-650-1-ALS	Safety Lock Handle Assembly (Complete)

Part Number	Description
650-33	Screen Bushing (1/2x3/8)
650-54	Safety Lock Pin
650-55	Safety Lock Spring
650-56	Safety Lock Lever
650-57	Set Screw
700-30	O-Ring
700-48	Cap Screw
700-54	Lock Washer
700-S-26	Plug
700-S-26-GK	Gasket
841555	Screen Bushing (1/2X1/2)


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PART NUMBER	DESCRIPTION
700-23	SCREW
832636	GASKET
200-9	O-RING
550-H-3	D HANDLE
560-19	THROTTLE VALVE (INCLUDES O-RING 200-9)
600-52A	SPRING
650-55	TRIGGER PIN
700-30	GASKET
700-48	SCREW
700-54	LOCK WASHER
700-S-20	LEVER TRIGGER
700-S-26	THROTTLE VALVE CAP
841555	1/2 INCH NPT X 1/2 INCH NPT SCREEN HANDLE BUSHING
AA-550-H-3	SPADE HANDLE ASSY.(COMPLETE)

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 restrictions
	Hose I.D. is too small	Use required hose I.D.
	Worn vanes and worn cylinder	Exchange vanes (500-6A) and cylinder (500-2A).
	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 (200-9) for example.
Spindle wobbles or vibrates.	Bearings worn out	Disconnect tool from the air supply. <i>Immediate</i> servicing is required.
	 Danger!! or spindle is bent.	

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DISASSEMBLY

1. Disconnect air and remove all burrs, inserts, and accessories. Remove collet cap (209-1) & insert (209-xx).
2. Secure tool in vise vertically with output of tool oriented toward upward direction. Clamp onto the sides of the live handle.
3. Unscrew motor housing (500-H-1[S]) (right hand thread) from back-head (500-G-5[S]) using flats on housing. Remove from vise.
4. Remove snap ring (500-46) from groove in endplate (500-3).
5. Rap sharply on the rear O.D. of the motor housing with plastic hammer. The rear end plate, cylinder (500-2A) and blades (500-6A) will dislodge and can be easily removed.
6. Move rotor (500-5A) back and fourth softly until it slides over the key (500-H-10). Remove rotor and key.
7. Rap rear O.D. of housing and the front endplate (500-7) will slide out.
8. Re-install key and slide rotor partially over the key. Clamp rotor firmly in vise and remove front collet body 1100-670-520 (right hand thread).
9. Remove from vise. Remove rotor and key.
10. Secure the housing assembly in vise vertically with output of tool oriented toward downward direction. Clamp on flats of bearing cap (500-16C) in center of vise. Loosen and unscrew housing (left hand thread). Remove from vise. Remove bearing set 501-13.

ASSEMBLY

1. Press double bearing (501-13) into housing. Invert tool and support inner race of bearing (501-13) on a suitable drill block. Press spindle (500-14-SC) through bearing pair with an arbor press. Place center bearing (300-G-29) on spindle. Press bearing until it bottoms on shoulder in housing using a suitable bearing driver.
2. Screw on front cap (500-16C) (left hand thread) and clamp the cap in center of vise. Tighten down housing with flats provided. Remove from vise.
3. Slide front end plate (500-7) over the spindle and into the housing.
4. Place key (500-H-10) in key slot and slide on rotor

- partially over key. Grasp Rotor in vise firmly and screw on and tighten collet body (1100-670-520). Do not overtighten.
5. Remove from vise.
6. Press threaded end of spindle (500-14-SC) through double bearing and housing.
7. Support the spindle assembly on a suitable drill block. Press the spindle through the center bearing (300-G-29) with an arbor press.
8. Slide rotor (500-5A) over key. Install cylinder (500-2A) with locating pin oriented toward rear of tool.
9. Replace 4 blades (500-6A) into rotor slots.
10. Install rear end plate (500-3). Be sure to align small locating hole over cylinder pin.
11. Secure collet body in vise and drive bearing (300-G-29) onto the spindle. Install snap ring (500-46).
12. Clamp live handle (AA-650-1-XXX) and back-head assembly in vise.
13. Place a few drops of oil in the motor assembly and screw on the back-head.
14. Place wrench on the housing flats (500-1-HS). Run tool and tighten firmly.
15. Replace collet insert (209-xx) and colletcap (209-1) on tool.
- 16. Check RPM with a reliable tachometer. Tool must run at or below speed stamped on tool.**
17. Install all required guards and safety devices before returning tool to service



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PNEUMATIC DIE GRINDER SAFETY

The 5102H 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. **SAFETY FIRST!!**

This tool is designed to operate on 90 psi (6.2 bar) max air pressure with 1/2" (12.7mm) hose. Do not use grinder without recommended wheel guard. Do not use any wheel for which the operating speed listed is lower than actual free speed stamped on the grinder.

NEVER MODIFY ANY PART OF THIS TOOL!!!!

DO NOT modify the tool, safety devices, or accessories. Serious injury could result.

1. Safety goggles, ear muffs, safety gloves, dust masks and, if grinding conditions are severe, additional face protection, leather aprons and safety shoes must be worn. Keep others a safe distance from your work area, or ensure they use appropriate Personal Protective Equipment.
2. Before operation check spindles speed with a tachometer. If RPM exceeds speed stamped on tool, servicing is required.
3. Inspect carbide burrs for bends, chips, nicks, cracks or severe wear. If mounted point has any of these, or has been soaked in liquid do not use. On brushes check for loose wires that may fly off in operation.
4. Start new carbide burrs and wheels under at steel bench. Run at full throttle for one minute. Defective wheels usually come apart immediately. When starting a cold wheel apply to work slowly, allow wheel to warm up slowly.
5. Before mounting or removing a wheel disconnect grinder from air supply.
6. Wear safety goggles and wear protective clothing. Continuous exposure to vibration may cause injury to your hands and arms. (See regulations.)
7. Properly maintained air tools are less likely to fail or cause accidents. If tool vibrates strangely or produces an unusual sound, repair immediately.

MAINTENANCE

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, etc. or an equivalent airtool oil is recommended. Pour about 1/2oz. in air inlet and run tool to allow oil to be carried to the interior.

Additional safety information is available for the American National Standards Institute, Inc., 1430 Broadway, New York, N.Y. 10018 (ANSI B186.1)

SAFETY FIRST!

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.

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!