Henrytools
Industrial Tools at Work

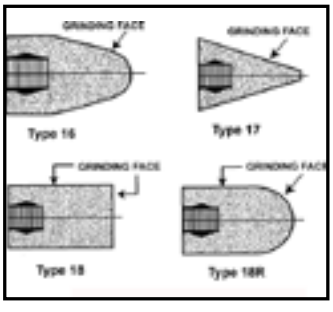
General Safety and Maintenance Manual

MODELS
511 HLS
511 HKS
511 HGS
511 BHL





CONE WHEELS





COMPATIBILITY

*** All PARTS 100% COMPATIBLE WITH MODEL 511BHL except for handle that differs slightly.**

CAPACITY

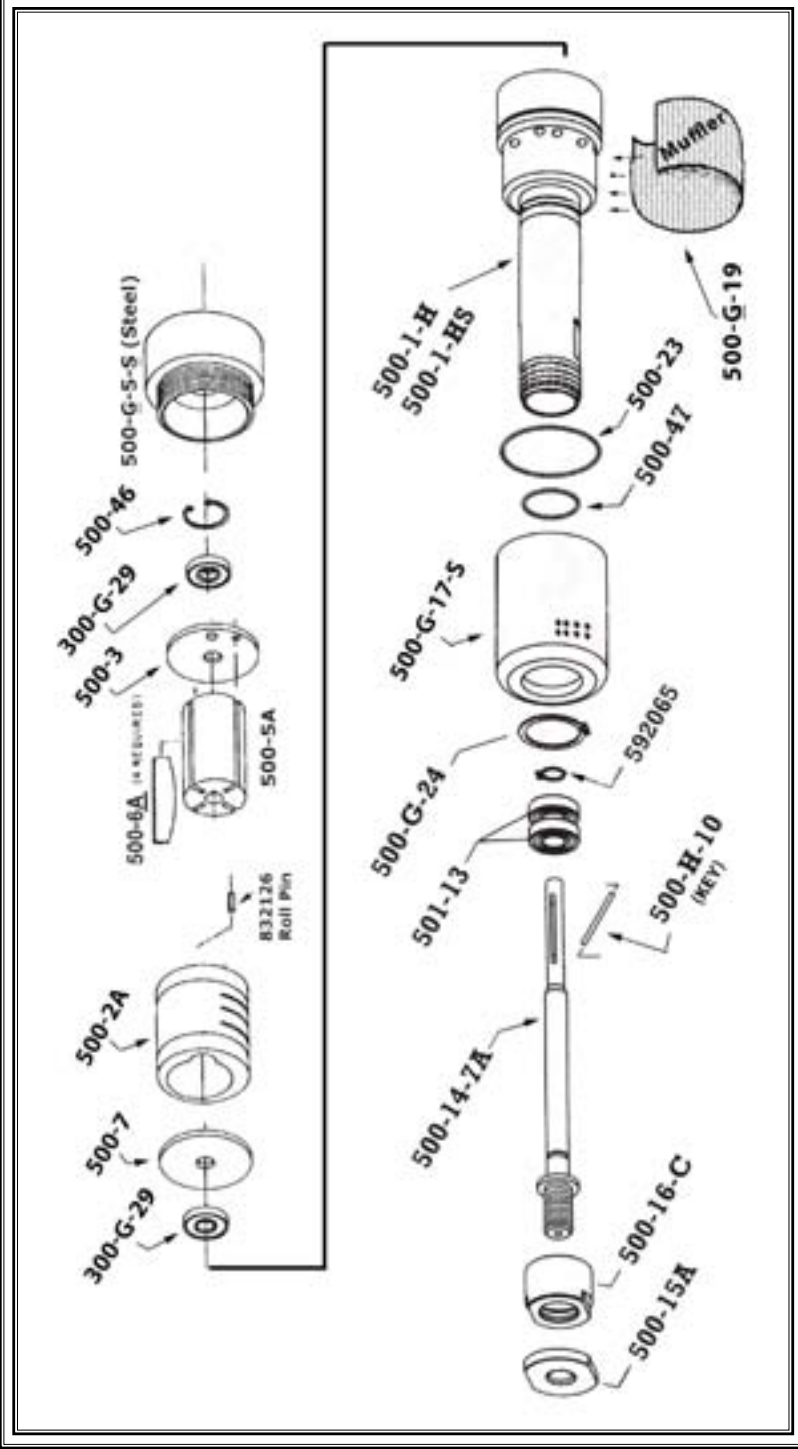
Any Type 16, 17, 17R, 18 or 18R Cone Wheels w/ 5/8-11 threadedMounting (2 inch maximum)

Model Number	Exhaust Direction	Throttle Type	Rated Speed	Power Output	Case Material	Weight		Overall Lenght	Body Diam-eter	Working Air Consump-tion	Spindle Length & Thread
						ALUM	STEEL				
511HL	Side Exhaust	(L) Lever or (K) Safety Lever	12000 - 18000 R.P.M. (18000RPM is standard)	1.5 H.P .1130 W	(S) Steel or Alumi-num	5.9 Lb./2.9 Kg	7.2 Lb./3.3 Kg	17.1 Inch/ 434mm	2.5 Inch (63.5 mm)	35 cfm (16.5 L/s)	5/8-11 X 0.9 Inch (5/8-11 X 23 mm)
511H S											
511HK											
511HG						6.9 Lb./3.1 Kg	8.2 Lb./3.7 Kg				
*511BHL	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.
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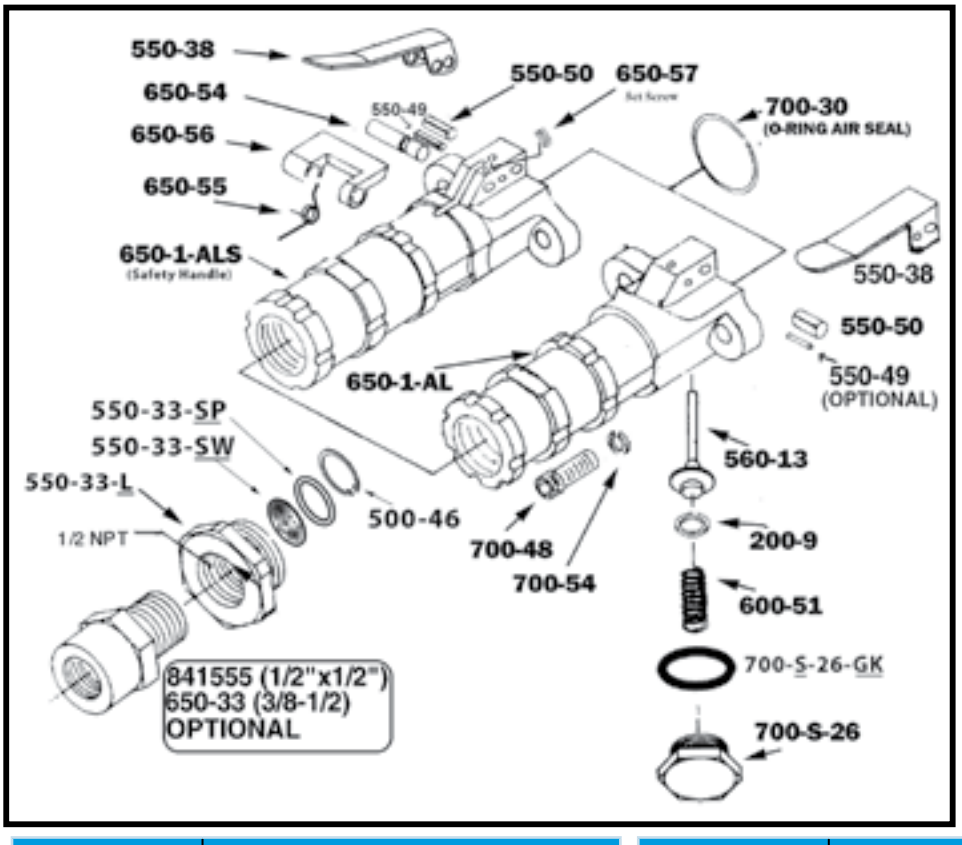


PART	DESCRIPTION
300-G-29	BEARING (2 REQ PER TOOL)
500-G-5	ALUMINUM BACKHEAD
500-G-5-S	STEEL BACKHEAD (STANDARD)
500-G-17-S	EXHAUST DEFLECTOR
500-G-19	MUFFLER
500-G-24	LOCK RING
500-H-10	KEY
500-1-H	ALUMINUM CASE
500-1-HS	STEEL CASE (SPECIFY SPEED)
500-2A	CYLINDER
500-3	REAR ENDPLATE
500-5A	ROTOR
500-6A	BLADE (4 REQ)
500-7	FRONT ENDPLATE
500-14-7A	5/8-11 CONE WHEEL SPINDLE
500-15A	SPINDLE WHEEL FLANGE
500-16-C	CAP
500-23	O-RING
500-46	LOCK RING
500-47	O-RING
501-13	BEARING PAIR
700-37C	ROLL PIN (same as 832126)
592065	SNAP RING
832126	ROLL PIN
REPAIR KIT	
510110	REPAIR KIT: INCLUDES ALL BEARINGS, ROTOR BLADES, SNAP RINGS AND O-RINGS

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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)

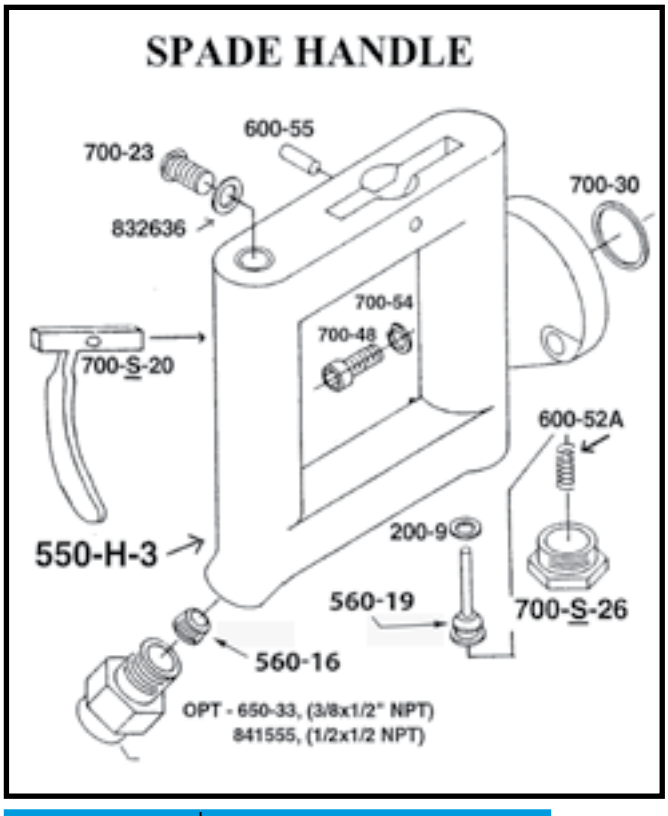
Part Number	Description
AA-650-1-ALS	Safety Lock Handle Assembly (Complete)
650-33	Screen Bushing(1/2x3/8)
650-54	Safety Lock Pin
650-55	Safety Lock Spring
650-56	Safety Lock Lever
650-57	Set Screw
700-30	O-Ring
700-48	Cap Screw
700-54	Lock Washer
700-S-26	Plug
700-G-26-GK	Gasket
841555	Screen Bushing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

This tool is designed to operate on 90 psig(6.2 bar) maximum air pressure with 1/4"(8mm) hose. Do not use any wheel having an operating speed lower than the actual free speed on grinder.

SAFETY

1. Check speed of tool with tachometer before every wheel & burr change. If RPM excees rated speed stamped on tool, servicing is required.
2. Inspect cone wheels for bends, chips, nicks, cracks or severe wear. If the Cone wheel has any of these, or has been soaked in liquids do not use. Start new 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.
3. Model 511H grinders are designed for use with cone wheels only.
4. Before mounting or removing a cone wheel disconnect grinder from air supply. The wheel should fit properly on arbor; do not use bushings or wheel flanges to adapt a wheel to any arbor unless recommended by manufacturer. (Wheel flanges should be at least 1/3 the diameter of the wheel.)
5. Wear safety goggles and other protective clothing. Continuous exposure to vibration may cause injury to hands and arms.
6. Properly maintained air tools are less likely to fail or cause accidents. If tool vibrates unusually or produces an unusual noise, repair immediately.

LUBRICATION

Check for wet or dirty air. Excessive moisture in the air supply tends to wash lubricant away from the working parts of the tool and rust or corrode the interior. Grit will damage the interior by scoring closely fitted parts, and impede the action of the tool.

If the above are found in order, disconnect tool and pour a liberal amount of recommended oil or an SAE #10 oil cut with an equal quantity of kerosene into the air inlet. Operate the tool to allow lubricant to flush accumulated gum and grit out the exhaust.

If outside factors are not to blame, dissassemble the tool, clean and inspect all parts and replace those worn or broken. Coat parts with airtool oil and reassemble. Pour about 1/2 oz. in air inlet and run tool to allow oil to be carried to interior.

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DISASSEMBLY

1. Disconnect air and remove all wheels and accessories.
2. Secure tool in vise vertically with spindle of tool oriented in 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 everything from vise.
4. Remove snap ring (500-46) from groove in rear endplate (500-3).
5. Rap sharply on the rear O.D. of the motor housing with a plastic hammer. The rear end plate, cylinder (500-2A) and blades (500-6A) will dislodge and can be removed.
6. Remove rotor (500-5A) and (500-H-10).
7. Remove the front endplate (500-7).
8. Re-install key and slide rotor (500-5A) PARTIALLY over the key. Clamp protruding rotor in vise vertically and remove front flange (500-15A) (RIGHT HAND THREAD).
9. Remove from vise. Remove rotor and key.
10. Secure the housing assembly in vise vertically with spindle of tool oriented toward downward direction. Clamp vise onto flats of bearing cap (500-16C) in center of vise.
11. Loosen and unscrew housing (LEFT HAND THREAD). Remove from vise.
12. Secure the housing assembly in vise vertically with spindle of tool oriented toward the downward direction. Clamp vise on NECK of housing (500-1-HS) in center of vise.
13. Use a 3/16 inch punch to drive the spindle through the center bearing (300-G-29). Remove from vise.
14. Remove the center bearing from case by tapping the bearing toward the back of the tool with long rod or suitable driver.
15. Remove snap ring (592065) from spindle with snap ring pliers.
16. Support the spindle assembly on a suitable drill block. Press the spindle through the front bearings.

REASSEMBLY

1. All parts should be clean.
2. Install o-rings (500-47 and 500-23) on housing (500-1-H[S]). Oil inside of exhaust deflector (500-G-17-S) and slide over case. Install snap ring (500-G-24).
3. Support the front bearings (501-13) on a suitable drill block. Press the spindle (500-14-7A) through the bearings up to shoulder with an arbor press.
4. Install snap ring (592065) into groove on spindle.
5. Secure the housing assembly in a vise vertically with the spindle of tool oriented toward the upward direction. (CLAMP ONTO FLATS ON THE NECK OF THE HOUSING).
6. Slide spindle into front of housing. Use a plastic hammer and LIGHTLY tap the spindle on threaded end until seated.
7. Place rear bearing (300-G-29) on spindle. Press bearing until it bottoms on shoulder in housing with a suitable bearing driver .
8. Screw on front cap (500-16-C) (LEFT HAND THREAD) and clamp in center of vise. Tighten down (500-16-C) onto housing with flats provided.
9. Slide front end plate (500-7) over the spindle and into the housing. Remove from vise.
10. Place key (500-H-10) in key slot and slide on rotor. Slide rotor PARTIALLY onto spindle. Clamp the exposed rotor in vise firmly. Tighten flange (500-15A).
11. Slide rotor (500-5A) all the way down into housing over key.
12. Install cylinder (500-2A) with locating pin towards rear of tool.
13. Drop in 4 blades (500-6A).
14. Install rear end plate (500-3). Align small locating hole in end plate with cylinder pin.
15. Secure flange nut in vise and drive bearing (300-G-29) into endplate (500-3).
16. Install snap ring (500-46).
17. Place a few drops of oil in the motor assembly. Screw on the back-head (500-G-5-S).
18. Place wrench on the housing flats (500-1-HS).
19. Attach air supply and run tool in short bursts. Tighten backhead (500-G-5-S) firmly.
20. Reinstall all safety devices and accessories
21. Check RPM with a reliable tachometer. Tool must run at or below speed stamped on tool.

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 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 . Danger!! or spindle is bent.	Disconnect tool from the air supply. *Immediate* servicing is required.

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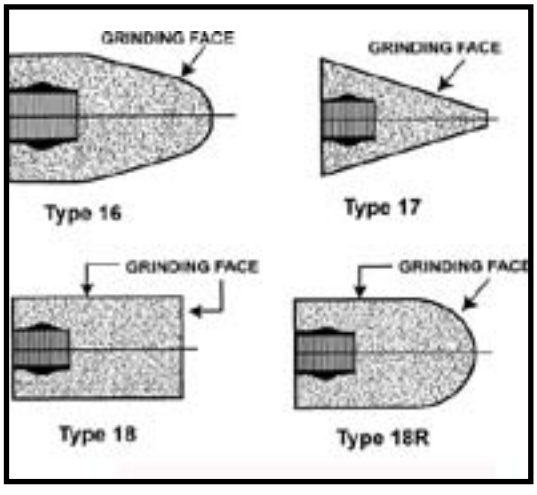
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CONE WHEEL MOUNTING POSSIBILITIES





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