

# HENRY AIRTOOLS

AMERICAN MADE INDUSTRIAL  
TOOLS

**MODELS**  
65 HL  
65 HS  
65 HG  
65 HL+2"  
65 HL+3"

## General Safety and Maintenance Manual



### 4 H.P HORIZONTAL GRINDERS



CAPACITY
-6 Inch (150 mm) or 8 Inch (200 mm) Type 1 Wheels
-Any Type 16, 17, 17R, 18 or 18R Cone Wheels w/ 5/8-11 Mounting

### 65H Series 4 H.P HORIZONTAL GRINDERS

Model No.	Rated Power	Throttle Type	Rated Speed	Spindle Type and Thread	Weight		Overall Length	Working Air Consumption	Spindle Length & Thread
					ALUM				
65H	4.0 H.P 3.0 KW	(L) Lever or (K) Safety Lever	4500 - 8000RPM	T1 - 5/8-11 X 1.9	12.5 Lbs (5.7 Kg)		22.1 Inches (561 mm)	50 cfm (23.6 L/s)	5/8-11 X 0.9 Inch (5/8-11 X 23 mm)
65HS		(K) Safety Lever							
65HK		(K) Safety Lever							
65HG		(G) Spade Handle			13.5 Lbs (6.1 Kg)				

**THE HENRY TOOL CO., MANUFACTURED BY HENRY TOOLS**

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

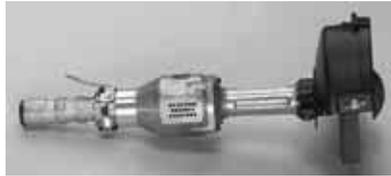
**PH: (216) 291-1011 OR (800) 826-5257 • FAX: (216) 291-5949 OR (800) 303-2800**

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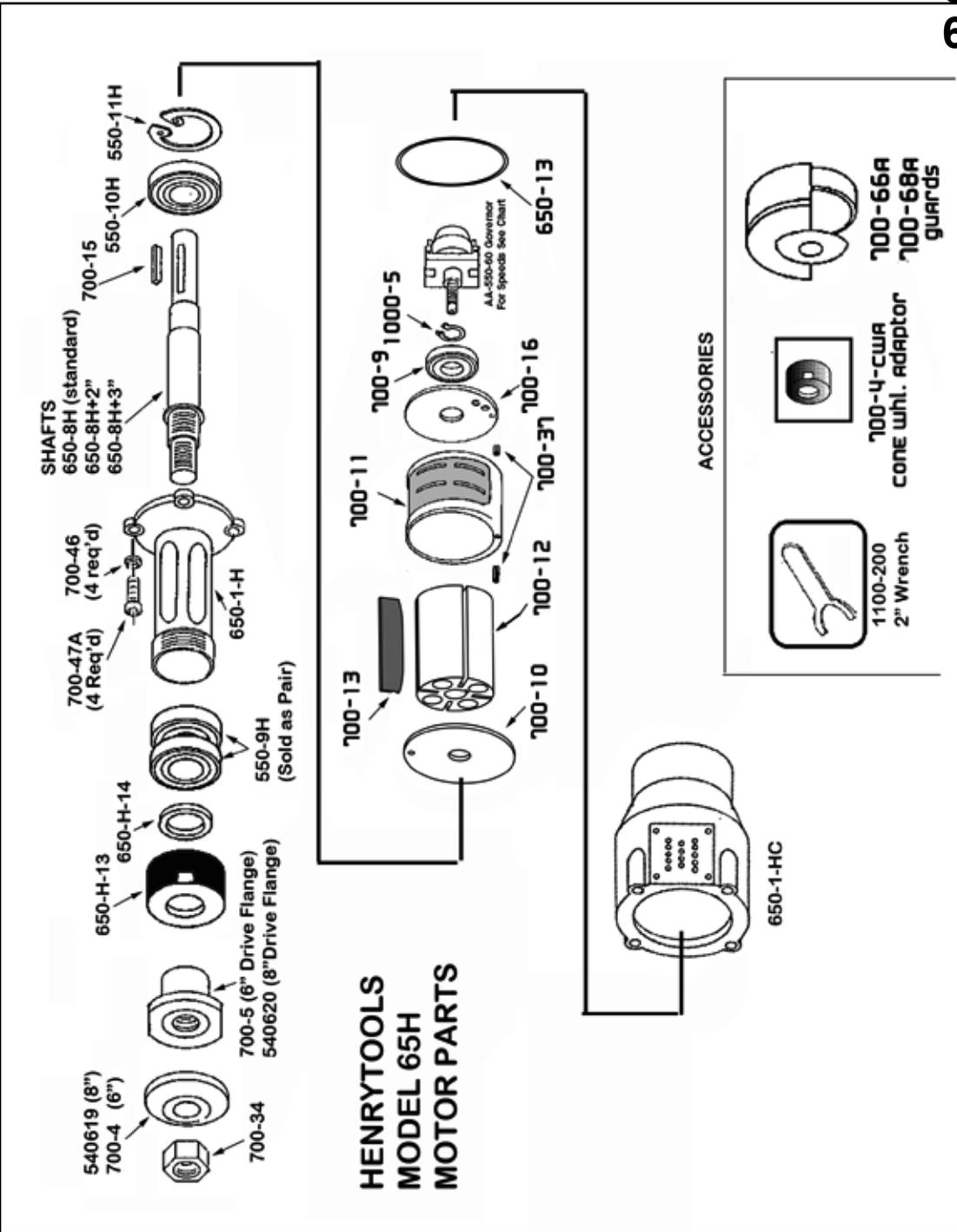
Model 65H Horizontal grinder shown with cone wheel adaptor.



Model 65H Horizontal grinder shown with 8" Guard

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**4 H.P HORIZONTAL GRINDERS**



# General Operators Instructions and Service Manual



Model 65H Horizontal grinder shown with cone wheel adaptor.



Model 65H Horizontal grinder shown with 8" Guard

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PART NO.	DESCRIPTION
700-37	Cylinder Pin
650-1-H	FRONT SPINDLE HOUSING
650-1-HC	MOTOR HOUSING
700-11	CYLINDER (PINS INSTALLED)
700-16	REAR ENDPLATE
700-12	ROTOR
700-13	ROTOR BLADE (4 REQ.)
700-10	FRONT ENDPLATE
650-8-H	SPINDLE (STANDARD LENGTH - TYPE 1)
650-8-H+2	Spindle +2" Length
650-8-H+3	Spindle +3" Length
550-9-H	FRONT BEARING PAIR
550-10-H	CENTER BEARING
550-11-H	SNAP RING
700-15	KEY
650-13	GASKET
600-48	GOV. PIN RETAINER
650-H-13	FRONT BEARING CAP
650-H-14	SEAL
700-4	WHEEL FLANGE(6 INCH WHEELS)
700-4D	WHEEL FLANGE(8 INCH WHEELS)
700-5	DRIVE FLANGE(6 INCH WHEELS)
700-5D	DRIVE FLANGE(8 INCH WHEELS)
700-4-CWA	CONE WHEEL ADAPTOR (UN-THREADED I.D.)
700-4-CWB	CONE WHEEL ADAPTOR (THREADED I.D.)
700-9	BEARING
700-34	SPINDLE NUT
700-37	CYLINDER PIN
700-46	WASHER (4 REQ.)
700-47A	SCREW (4 REQ.)
1000-5	LOCK RING
540619	WHEEL FLANGE(8 INCH WHEELS) (same as 700-4D)
540620	DRIVE FLANGE(6 INCH WHEELS) (Same as 700-5D)
GUARDS	
650-HS-56A	6 INCH TYPE 1 WHEEL GUARD(Same as 700-66A)
650-HS-58A	8 INCH TYPE 1 WHEEL GUARD (Same as 700-68A)

PART NO.	DESCRIPTION
700-66A	6 INCH TYPE 1 WHEEL GUARD(Same as 650-HS-56A)
700-68A	8 INCH TYPE 1 WHEEL GUARD (Same as 650-HS-58A)
GOVERNORS	
AA-550-30	GOVERNOR ASSY. (3000 RPM)
AA-550-45	GOVERNOR ASSY. (4500 RPM)
AA-550-60	GOVERNOR ASSY. (6000 RPM) (standard)
AA-550-80	GOVERNOR ASSY. (8000 RPM)
WRENCHES	
1100-200	2" Wrench
REPAIR KITS	
510082	REPAIR KIT: INCLUDES BEARINGS, ROTOR BLADES, SNAP RINGS AND GASKETS.

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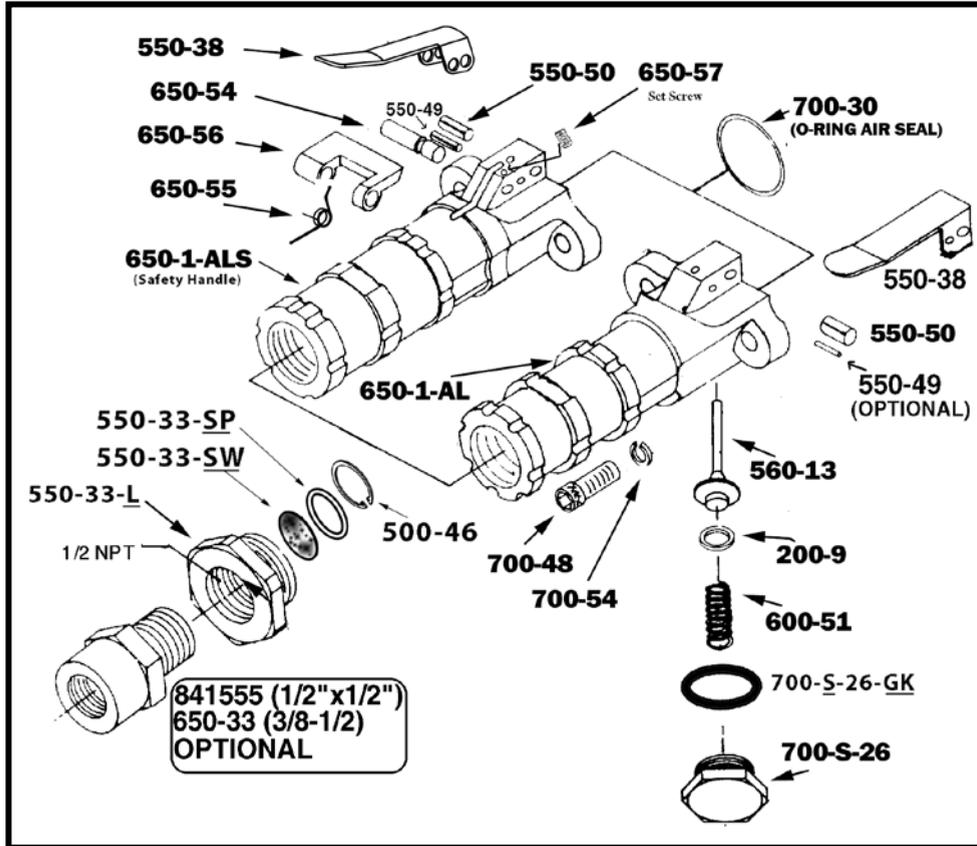
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Model 65H Horizontal grinder shown with cone wheel adaptor.



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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-Lock-out 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)

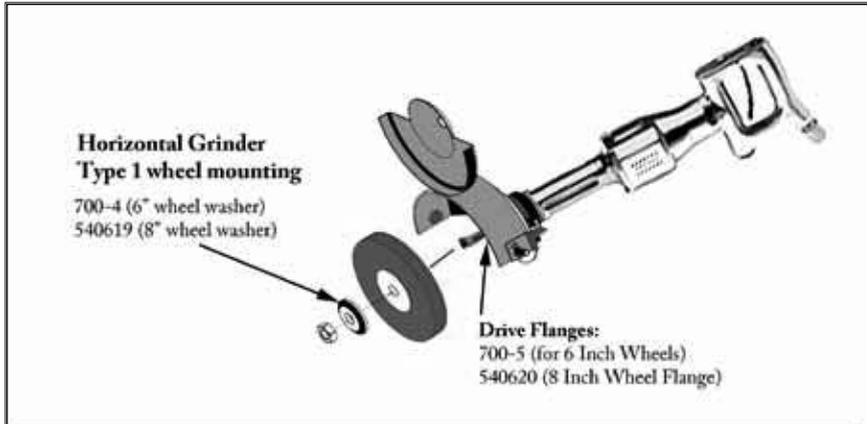
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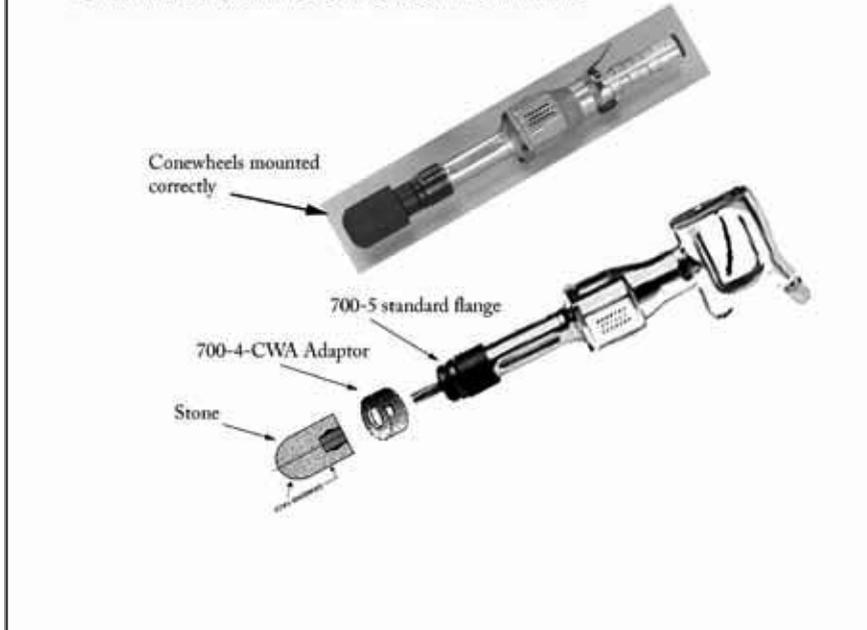
Model 65H Horizontal grinder shown with 8" Guard



such that opening in guard is away from operator.

Before using or after mounting a wheel, the tool must be run for one minute in protected enclosure to check the integrity of the wheel.

**CONE WHEEL MOUNTING ON HORIZONTAL GRINDERS**



**INSPECT THE WHEEL OR ACCESSORY**

Check the maximum safe RPM marked on the wheel or accessory. Never use a wheel or accessory rated below the actual tool speed. Cracked, dropped, faulty, or bent accessories are dangerous. Suspect accessories should not be used and should be disposed of. Inspect wheel for cracks or chips, water stains, or signs of abuse or improper storage. Cracked or faulty grinding wheels are dangerous. They must be destroyed rather than risk their use by someone who may not notice that they are damaged.

Never operate a grinder without a wheel guard. Guard must not be modified, and any guard damaged or bent must be replaced. Grinder must be used

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## DISASSEMBLY

1. Disconnect air & remove all wheels and accessories.
2. Remove the wheel guard by removing the two screws which clamp it to the case.
3. Hold the hand grip portion of the case in a vise and remove the four socket head cap screws (700-47A) and washer (700-46) The governor housing (650-1-HC) can now be removed.
4. Holding the arbor (650-8H) in a vise, unscrew the governor assembly (turn clockwise to remove the governor) (left hand thread).
5. Remove from vise, remove snap ring (1000-5). Using a 1/4 punch tap out spindle where governor was. DO NOT damage internal threads on spindle. This will cause the cylinder (700-11), rotor(700-12) and rear thrust(700-16) to slide out.
6. Next remove key from the arbor, which will allow the front thrust (700-10) to be removed.
7. Replace key in arbor, using brass vise grips, remove flange (700-5/540620) (right hand thread.)
8. Remove from vise and reclamp vise on housing (650-1H). Unscrew bearing cap (650-H-13).
9. Remove from vise and remove snap ring (550-11H) with proper pliers.
10. With arbor press - press out spindle on threaded end of spindle -removing bearing (550-10H). Remove double bearing (550-9H).
11. The only part of the valve which will require replacement is the o-ring (200-9). To replace this ring, unscrew plug (700-S-26) and lift out valve spring (600-51) and plunger (560-13). Remove the o ring with sharp tool and replace with a new ring (200-9).

## REASSEMBLY

1. Slip the two bearings (550-9H) into housing (650-1-H). Screw on the cap (650-H-13).
2. Invert housing and press arbor (650-8H) into the housing, being careful to fully support front double bearing. Press on bearing (550-10H) until it bottoms on shoulder of the housing. Replace snap ring (550-11H).
3. Clamp housing (650-1-H) in vise and screw on bearing cap (650-H-13) with wrench.
4. Place key (700-15) in arbor. Grip arbor and key in vise jaws to protect surfaces. Screw down and tighten flange (700-5/540620) (Right hand threads).
5. Remove from vise. Remove key. Place front thrust(700-10) on arbor. Replace key.
6. Place housing in vise-locating on the flats of the flange (700-5/540620).
7. Slip rotor (700-12) on arbor aligning keyway with key in arbor. Drop in blades (700-13).
8. Drop in cylinder (700-11), making sure that the long dowel(700-37) goes through the hole in front thrust and the small hole in housing. Install rear thrust(700-16) placing small hole over pin (700-37A).
9. Press bearing (700-9) into rear endplate with bearing suitable bearing driver.
10. Install lock ring (1000-5) onto spindle with use of snap ring pliers.

(There is no groove.)

11. Prior to reassemble inspect governor for gouges, nicks or dents. Oil the governor and inside of motor. Screw governor (AA-550-XX) into end of spindle and tighten with wrench. (left handthread).
12. Assemble live handle/spade handle if this was inspected or repaired.
13. Install live and dead handles to case (650-1-HC).
14. Secure motor housing in a vise with handle toward downward direction. Clamp vise onto the live handle (AA-650-1-AL) or spade handle (AA-550-H-3).
15. Place gasket (650-13) in rear face of case.
16. Slide the motor lightly and STRAIGHT into case. The motor assembly must be kept straight to install into the case easily.
17. Install 4 bolts (700-47A) and lock washers (700-46). Tighten bolts down until snug then back off 1/2 turn.
18. Connect tool to air supply and apply air in several short bursts.
19. Now run tool and tighten down bolts evenly. (Alternating from corner to corner.)
20. Attach Guard to the tool. **DO NOT OPERATE your model 65H grinder without a wheel guard.**

Check RPM with a reliable tachometer. Tool must run at or below speed stamped on the tool. This tool is designed to operate on 90 psig (6.2 bar) maximum air pressure with 1/2" (12.7mm) hose.

Do not use a grinder without recommended wheel guard. **Do not use any wheel for which the operating speed listed is lower than the actual free speed on the grinder.**

## SAFETY

1. Before operation check spindle speed with a tachometer. If the RPM's exceed the rated speed stamped on tool, servicing is required.
2. Inspect grinding wheels for bends, chips, nicks, cracks or severe wear. If the wheel has any of these, or has been soaked in liquids do not use. On brushes check for loose wires that may fly off in operation.
3. Start new grinding 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, al-



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#### **SAFETY (continued)**

low wheel to warm up gradually.

4. Safety lock levers are available from the manufacturer (650-1-ALS).
5. Before mounting or removing a 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 grinding wheel.)
6. Wear safety goggles and other protective clothing (when necessary). (See regulations.)
7. Properly maintained air tools are less likely to fail or cause accidents. If tool vibrates or produces an unusual sound, repair immediately.

#### **WARNING**

Do not disassemble the governor. The governor is guaranteed for the life of the tool if it is not abused. Prior to reassembly inspect governor for gouges, nicks or dents.

#### **LUBRICATION**

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, Atlantic Richfield's Duro 55, Gulf's Gulfspin 10 or an equivalent is recommended. Pour about 1 tablespoon in air inlet and run tool to allow oil to be carried to the interior.

Additional safety information is available from the American National Standards Institute, Inc., 1430 Broadway, New York, N.Y. 10013 (ANSI B186.1)

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