

# Henrytools

Industrial Tools at Work

## MODELS

52 HL

52 HS

52 HSJ

## General Safety and Maintenance Manual 52 HG



**MODEL 52H HORIZONTAL GRINDER WITH 6" GUARD**



**MODEL 52HG HORIZONTAL GRINDER WITH 6" GUARD**



**MODEL 52HSJ HORIZONTAL GRINDER WITH CONE WHEEL INSTALLED.**



## 2 H.P. HORIZONTAL GRINDERS

Model	Throttle Type	Rated Speed	Power Output	Case Material	Weight	Overall Length	Working Air Consumption	Spindle Length & Thread
					STEEL			
52HL	(L) Lever or (K) Safety Lever (G) Spade Grip Handle	6000,9000. or 12,000 R.P.M.	2.0 H.P. (1.5 KW)	(S) Steel or Aluminum	8.3 Lbs (3.8 Kg)	21.3 Inches (546 mm)	40 cfm (18.9 L/s)	T1 - 5/8-11 X 2.1 Inch (53.3 mm)
52HS								
52HSJ								
52HG					9.3 Lbs (4.2 Kg)			

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

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Model 52H grinder with 6" Guard.



Model 52HSJ grinder with Cone Wheel installed.

## MODELS

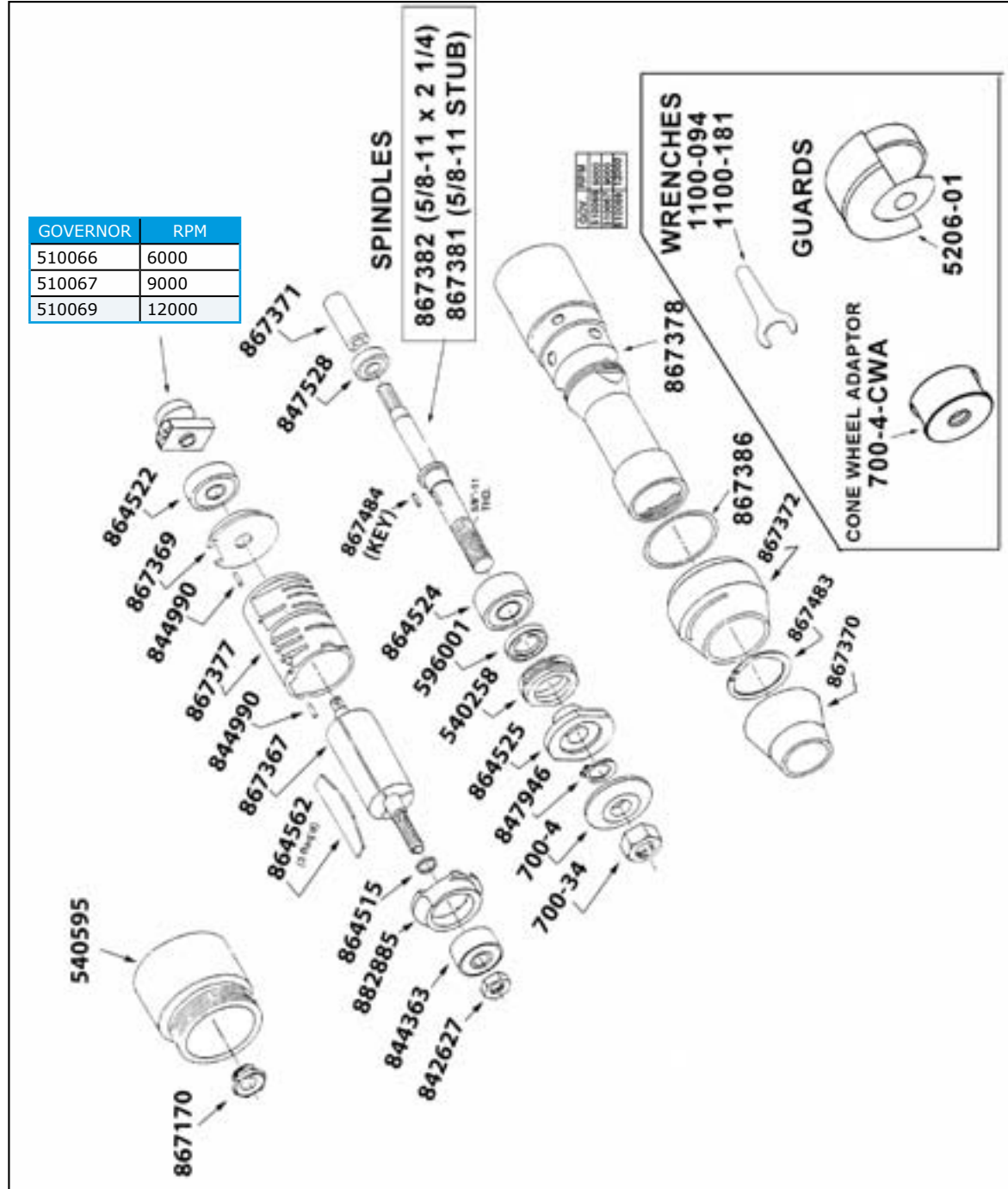
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GOVERNOR	RPM
510066	6000
510067	9000
510069	12000



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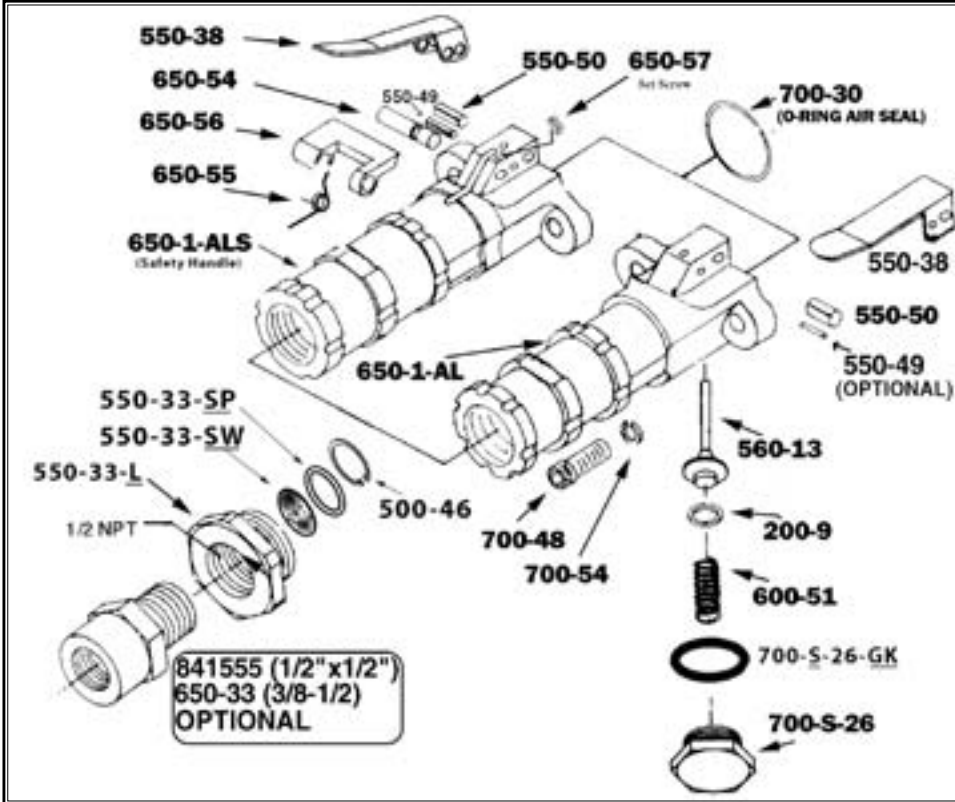
Model 52H grinder with 6" Guard.



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**LIVE HANDLE ASSEMBLY**



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)
650-33	Screen Bushing(1/2x3/8)
650-54	Safety Lock Pin
650-55	Safety Lock Spring
650-56	Safety Lock Lever

Part Number	Description
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)
<b>ASSEMBLIES</b>	
AA-650-1-AL	Handle Assembly (Complete)(Non-lockout handle)
AA-650-1-ALS	Safety Lock Handle Assembly (Complete)



Model 52H grinder with 6" Guard.



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PART NO.	DESCRIPTION
540258	RETAINER CAP (52H)
540595	BACKHEAD (Model 52H)
596001	OIL SEAL (52H)
842627	ROTOR LOCK NUT (52H)
844363	FRONT ROTOR BEARING (52H0)
844990	CYLINDER ROLL PIN (52 Series)
847528	BEARING (52H)
847946	COLLAR RETAINER (52H)
864515	ROTOR COLLAR (52H)
864522	REAR ROTOR BEARING (52H)
864524	FRONT ARBOR BEARING (52H)
864525	5/8 ARBOR COLLAR
864562	ROTOR BLADE (52 Series)
867170	GOVERNOR SEAT
867367	ROTOR (52 Series)
867369	REAR BEARING PLATE (52 Series)
867370	RUBBER SLEEVE (52H)
867371	COUPLING (52H)
867372	EXHAUST DEFLECTOR (52H)
867377	CYLINDER WITH ROLL PINS (52 Series)
867378	HOUSING (52H)
867381	SPINDLE (5/8-11 STUB SPINDLE) for MOUNTING CONE WHEELS APPLICATIONS (52H)
867382	SPINDLE (5/8-11 x 2 1/4") LONG (52H)
867386	O-RING (52H)
867483	SNAP RING (52H)
867484	KEY
882885	FRONT END PLATE (52H)
700-34	NUT
700-4	6" WHEEL WASHER
700-4-CWA	CONE WHEEL ADAPTOR
<b>GUARDS</b>	
5206-1	GUARD 6" (52H series)
<b>WRENCHES</b>	
1100-094	15/16" WRENCH
110-181	1 13-16" WRENCH

GOVERNORS	
510066	GOVERNOR (6000RPM)STANDARD
510067	GOVERNOR (9000 RPM)
510069	GOVERNOR (12000RPM)
REPAIR KITS	
510112	REPAIR KITS INCLUDES ALL BEARINGS, ROTOR BLADES and SNAP RINGS

**OPERATION**

The 52H series horizontal grinder is designed to operate on 90 psig maximum air pressure. The tool is equipped with a 1/2" NPT air inlet bushing and will operate satisfactorily on a 1/2" hose up to 8' in length.

**OPERATING SAFETY**

**CAUTION**

ALWAYS HAVE THE PROPER WHEEL GUARD ATTACHED TO THE GRINDER. **NEVER MODIFY ANY PART OF THIS GRINDER OR IT'S ACCESSORIES.**

Read, understand, and practice the requirements of A.N.S.I. B186.1-1975, Safety Code for Portable Air Tools. This standard is available from the American National Standards Institute, Inc., 1430 Broadway, New York, New York 19918 .

**ALWAYS WEAR IMPACT-RESISTANT EYE AND FACE PROTECTION WHEN INVOLVED IN OR NEAR THE OPERATION OF ABRASIVE TOOLS.** (SEE THE LATEST EDITION OF ANSI Z84.4, AMERICAN NATIONAL STANDARD FOR OCCUPATIONAL AND EDUCATIONAL EYE AND FACE PROTECTION.

The Grinder free speed should be checked daily (before beginning operations) with a dependable tachometer with the grinding wheel removed. The rated rpm of the tool is stamped on the tool name plate. Check each new wheel or disc for maximum safe speed and soundness. Keep all persons out of line with wheel or disc whenever starting tool.

**IMPORTANT: BEFORE MOUNTING (OR REMOVING) ANY ABRASIVE WHEEL, THE TOOL SHOULD BE DISCONNECTED FROM THE AIR SUPPLY LINE.**

**GRINDING WHEEL SELECTION**

CRACKED OR FAULTY GRINDING WHEELS OR DISCS ARE DANGEROUS AND SHOULD NOT BE USED. Care must be exercised in the installation of the wheel and handling of the tool with grinding wheel attached. We recommend that you exercise caution when selecting the proper grinding wheel for use with your grinder and for work to be performed. Both efficiency and safety depends upon your proper selection of the grinding wheel. Never use a wheel rated below the actual tool free speed.

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**NOTE: ALWAYS CHECK THE RPM BEFORE INSTALLING A NEW GRINDING WHEEL.** Upon mounting the new wheel, the tool should be run at operating speed (minimum one (1) minute) with the safety guard in place making sure that no one is in the unguarded plane of wheel rotation) or in a protective enclosure to insure the balance and integrity of the wheel.

**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 1/2oz. in air inlet and run tool to allow oil to be carried to the interior.

**DISASSEMBLY**

Slip the rubber grip, (867370), forward expose the flats on the housing(867378), Clamp the housing in a soft jawed vise with the handle up and unscrew the handle assembly. The complete motor unit may now be slipped out the rear of the housing. Remove the housing from the vise and unscrew the arbor nut. This will allow the arbor washer, collar retainer, arbor collar, and arbor key to be removed from the the arbor. This completes disassembly of the tool into three (3) major assemblies. See the following paragraphs for complete disassembly instructions.

**HOUSING:** Clamp the housing in the vise and unscrew (left hand threads) the arbor bearing retainer(540258). This will allow the arbor with attached components to be removed from the front of the housing. Remove the coupling(867371), from the rear of the arbor. If replacement of the arbor bearings is necessary, they may be pressed off the arbor shaft.

**MOTOR:** Clamp the rotor lock nut (842627), in the vise with the governor assembly up. Unscrew the governor (867170)(LEFT HAND THREAD).

Remove the motor unit from the vise and clamp on the cylinder with the threaded end of the rotor up. Drive the rotor (867367), out of the rear bearing (864522), being careful not to damage the threads. Remove the cylinder (867377), and three (3) rotor blades (864562), from the rotor. Clamp the body of the rotor in the vise with the splined end up and unscrew the rotor lock nut. This will allow the rotor to be driven out of the front rotor bearing (844363).

**HANDLE:** The only part of the valve which may 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.

**REASSEMBLY**

The tool is reassembled in the reverse order of disassembly. All parts should be thoroughly cleaned and inspected for wear before reassembly. Particular attention should be paid to the rotor blades and all bearings as failure of these parts could cause damage to the more expensive components. Rotor blades should be replaced if they measure less than 5/16" at either end. Ball bearings should be replaced if they are rough or show excessive looseness. Pack bearings with a generous amount of No.2 Moly grease before reassembly. **ALL BEARINGS SHOULD BE INSTALLED WITH THE SHIELDED SIDE TO THE REAR OF THE TOOL.**

**HOUSING:** Install the front arbor bearing(864524) by pressing on to shaft. If you are replacing the seal(596001), press the seal into arbor bearing retainer (540258). When installing the arbor bearing retainer(540258), apply grade "CVV" Loctite (blue) to the threads (left hand) before screwing it into the housing. The retainer should then be torqued to 75-85 ft lbs.

**MOTOR:** During reassembly of the motor, the rotor must be positioned by the rotor collar(864515), so that when assembled the rotor will have .001" to .002" clearance between it and the front bearing plate. To set the rotor collar, assemble the front rotor bearing in to the front bearing plate and measure the depth of the inner race from the face of the bearing plate. Select, or fit by sanding, a rotor collar .001" to .002" larger than this dimension. Clamp the rotor body in the vise (spline end up) and slip the rotor collar, chamfered side first, on the rotor shaft and drive the bearing plate and bearing (DRIVE ON THE INNER RACE) down on the rotor collar. Screw the rotor lock nut (842627), down and torque to 50-60 ft lbs. The governor (left hand thread) should now be installed and torqued to 15-20 ft.lbs. during reassembly.

**AFTER REASSEMBLY OF THE COMPLETE TOOL, THE RPM WILL NEED TO BE CHECKED.**

**CAUTION: BE SURE TO CHECK THE TOOL FOR PROPER SPEED WITH A DEPENDABLE TACHOMETER BEFORE RETURNING THE TOOL TO SERVICE.**

To adjust the rpm, rotate the governor adjusting ring, in a clockwise direction to increase the rpm and counterclockwise direction to lower the rpm.

**Reinstall all safety devices especially the wheel guard before returning the tool to service.**

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