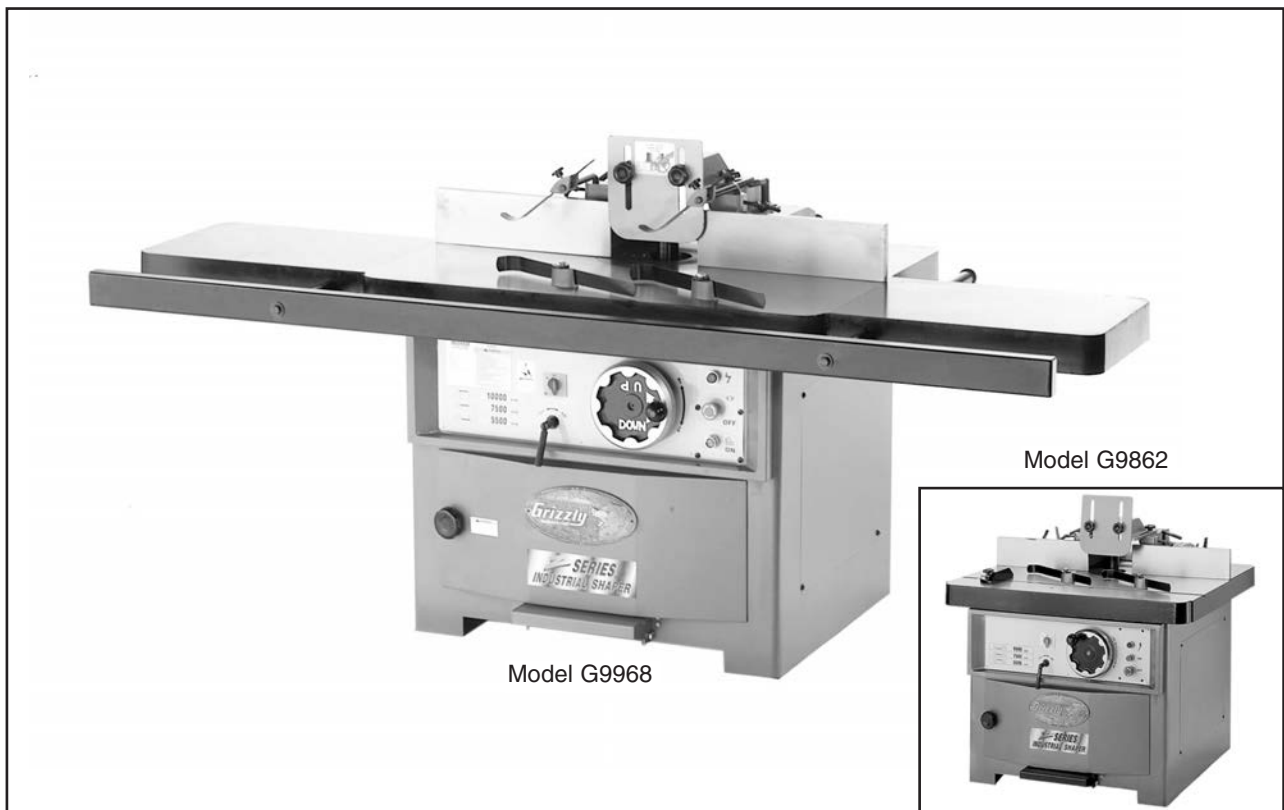




INDUSTRIAL SHAPER

MODEL G9862/G9968

INSTRUCTION MANUAL



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**WARNING: NO PORTION OF THIS MANUAL MAY BE REPRODUCED IN ANY SHAPE
OR FORM WITHOUT THE WRITTEN APPROVAL OF GRIZZLY INDUSTRIAL, INC.**
PRINTED IN TAIWAN

WARNING

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- Lead from lead-based paints.
- Crystalline silica from bricks, cement, and other masonry products.
- Arsenic and chromium from chemically treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

Table Of Contents

	PAGE
1. SAFETY	
SAFETY RULES FOR ALL TOOLS.....	2-3
ADDITIONAL SAFETY INSTRUCTIONS FOR SHAPERS.....	4
2. CIRCUIT REQUIREMENTS	5
220V OPERATION.....	5
440V OPERATION.....	5
GROUNDING.....	6
EXTENSION CORDS.....	6
3. GENERAL INFORMATION	7
COMMENTARY.....	7
UNPACKING.....	8
PIECE INVENTORY.....	8
HARDWARE RECOGNITION CHART.....	9
CLEAN UP.....	10
SITE CONSIDERATIONS.....	11
4. ASSEMBLY	12
BEGINNING ASSEMBLY.....	12
GUARD COVER.....	12
FENCE GUARD.....	13
UPPER HOLD-DOWNS.....	13
5. ADJUSTMENTS	14
SPEED CHANGES.....	14
FENCE ADJUSTMENT.....	15
ALIGNING THE FENCE.....	15
TABLE INSERTS.....	16
HOLD-DOWNS.....	16
CUTTER INSTALLATION.....	17
FOOT BRAKE.....	18
TEST RUN.....	18
6. OPERATION	19
SWITCH.....	19
REVERSE SWITCH.....	20
SPINDLE HEIGHT.....	21
STRAIGHT SHAPING.....	21-22
RUB COLLARS.....	23
TABLE EXTENSION.....	24
PATTERN WORK & JIGS.....	24-25
FREEHAND SHAPING.....	26
SHAPER ACCESSORIES.....	26
7. MAINTENANCE	27
GENERAL.....	27
TABLE.....	27
LUBRICATION.....	27
V-BELT.....	27
SCHEDULE.....	27
MAINTENANCE NOTES.....	28
WIRING DIAGRAMS.....	29-30
8. CLOSURE	31
MACHINE DATA.....	32-33
PARTS BREAKDOWN AND PARTS LISTS.....	34-41

SECTION 1: SAFETY

WARNING

For Your Own Safety Read Instruction Manual Before Operating This Equipment

The purpose of safety symbols is to attract your attention to possible hazardous conditions. This manual uses a series of symbols and signal words which are intended to convey the level of importance of the safety messages. The progression of symbols is described below. Remember that safety messages by themselves do not eliminate danger and are not a substitute for proper accident prevention measures.



Indicates an imminently hazardous situation which, if not avoided, WILL result in death or serious injury.



Indicates a potentially hazardous situation which, if not avoided, COULD result in death or serious injury.



Indicates a potentially hazardous situation which, if not avoided, MAY result in minor or moderate injury. It may also be used to alert against unsafe practices.

NOTICE

This symbol is used to alert the user to useful information about proper operation of the equipment.

WARNING

Safety Instructions For Power Tools

1. **KEEP GUARDS IN PLACE** and in working order.
2. **REMOVE ADJUSTING KEYS AND WRENCHES.** Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning on.
3. **KEEP WORK AREA CLEAN.** Cluttered areas and benches invite accidents.
4. **NEVER USE IN DANGEROUS ENVIRONMENT.** Do not use power tools in damp or wet locations, or where any flammable or noxious fumes may exist. Keep work area well lighted.
5. **KEEP CHILDREN AND VISITORS AWAY.** All children and visitors should be kept a safe distance from work area.
6. **MAKE WORKSHOP CHILD PROOF** with padlocks, master switches, or by removing starter keys.
7. **NEVER FORCE TOOL.** It will do the job better and safer at the rate for which it was designed.
8. **USE RIGHT TOOL.** Do not force tool or attachment to do a job for which it was not designed.

WARNING

Safety Instructions For Power Tools

- 9. USE PROPER EXTENSION CORD.** Make sure your extension cord is in good condition. Conductor size should be in accordance with the chart below. The amperage rating should be listed on the motor or tool nameplate. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. Your extension cord must also contain a ground wire and plug pin. Always repair or replace extension cords if they become damaged.

Minimum Gauge for Extension Cords

AMP RATING	LENGTH		
	25ft	50ft	100ft
0-6	18	16	16
7-10	18	16	14
11-12	16	16	14
13-16	14	12	12
17-20	12	12	10
21-30	10	10	No

- 10. WEAR PROPER APPAREL.** Do not wear loose clothing, gloves, neckties, rings, bracelets, or other jewelry which may get caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair.
- 11. ALWAYS USE SAFETY GLASSES.** Also use face or dust mask if cutting operation is dusty. Everyday eyeglasses only have impact resistant lenses, they are NOT safety glasses.
- 12. SECURE WORK.** Use clamps or a vise to hold work when practical. It's safer than using your hand and frees both hands to operate tool.
- 13. NEVER OVERREACH.** Keep proper footing and balance at all times.

- 14. MAINTAIN TOOLS WITH CARE.** Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.

- 15. DISCONNECT TOOLS** before servicing and changing accessories, such as blades, bits, cutters, and the like.

- 16. REDUCE THE RISK OF UNINTENTIONAL STARTING.** Make sure switch is in off position before plugging in.

- 17. USE RECOMMENDED ACCESSORIES.** Consult the owner's manual for recommended accessories. The use of improper accessories may cause risk of injury.

- 18. CHECK DAMAGED PARTS.** Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.

- 19. NEVER LEAVE TOOL RUNNING UNATTENDED. TURN POWER OFF.** Do not leave tool until it comes to a complete stop.

- 20. NEVER USE UNDER THE INFLUENCE** of alcohol or drugs, or when tired.

- 21. NEVER ALLOW UNSUPERVISED OR UNTRAINED PERSONNEL TO OPERATE THE MACHINE.** Make sure any instructions you give in regards to the operation of the machine are approved, correct, safe,

WARNING

Additional Safety Instructions For Shapers

1. **NEVER ALLOW YOUR HANDS** to come within 12 inches of a spinning cutter. Never pass your hands directly over or in front of a spinning cutter.
2. **BLIND CUT WHENEVER POSSIBLE.** This keeps the knives on the underside of the workpiece and provides a distance guard for the operator.
3. **WHEN SHAPING CONTOURED WORK** and using a rub collar, NEVER start out at a corner. See the “Rub Collar” instructions further on in the manual for more details on the proper procedure.
4. **WITH THE MACHINE UNPLUGGED,** always rotate the spindle by hand with any new setup to ensure proper cutter clearance before starting the machine.
5. **DO NOT SHAPE STOCK SHORTER** than 12 inches without special work holding fixtures or jigs. Where practical, shape longer stock and cut to size.
6. **NEVER ATTEMPT** to remove too much material in one pass. You are far more likely to enjoy safer and higher quality results if you allow the cutter to remove material in multiple passes.
7. **THE DANGER OF** kickback is increased when the stock has knots, holes, or foreign objects in it. Warped stock should be run through a jointer before attempting to run it through a shaper.
8. **KEEP THE UNUSED PORTION** of the cutter below the table surface.
9. **THE USE OF PUSH STICKS** as safety devices in some applications is smart; in others it can be quite dangerous. If the push stick comes in contact with the cutter on the end grain, it can fly out of your hand like a bullet—potentially causing serious injury. We recommend using some type of fixture, jig, or hold-down device as a safer alternative. Use a guard or other type of protective device at all times.
10. **NEVER FORCE MATERIALS** through the shaper. Let the cutters do the work. Excessive force is likely to result in poor cutting results and will cause dangerous kickback conditions.
11. **ALWAYS** ensure that the cutters or bits, the fence, and the spindle elevator knob have been tightened properly before beginning any operation.
12. **ALWAYS** feed the work toward the cutters in the direction opposite of the cutter rotation. Also, using and maintaining a sharp cutterhead will greatly reduce the chance of kickback.
13. **IF AT ANY TIME YOU ARE EXPERIENCING DIFFICULTIES PERFORMING THE INTENDED OPERATION, STOP USING THE SHAPER!** Then contact our service department or ask a qualified expert how the operation should be performed.

WARNING

Like all power tools, there is danger associated with shapers. Accidents are frequently caused by lack of familiarity or failure to pay attention. Use this tool with respect and caution to lessen the possibility of operator injury. If normal safety precautions are overlooked or ignored, serious personal injury may occur.

CAUTION

No list of safety guidelines can be complete. Every shop environment is different. Always consider safety first, as it applies to your individual working conditions. Use this and other machinery with caution and respect. Failure to do so could result in serious personal injury, damage to equipment or poor work results.

SECTION 2: CIRCUIT REQUIREMENTS

Model G9862

The Model G9862 Shaper is prewired with a 5 H.P. single-phase motor. Under normal use, the motor draws approximately 30 amps at 220V. We recommend using a 30 amp circuit. This includes the appropriate wiring and circuit breaker. If frequent circuit failure occurs when using the shaper, contact our service department.

The shaper must be connected to its own dedicated 30A circuit. It should not share a circuit with any other machine. A standard 2-pole breaker is necessary for use with the shaper.

We recommend using a NEMA-style L6-30 plug and outlet similar to that in **Figure 1**. You may also “hard-wire” the shaper directly to your panel, provided you place a disconnect near the machine. Check the electrical codes in your area for specifics on wiring requirements.

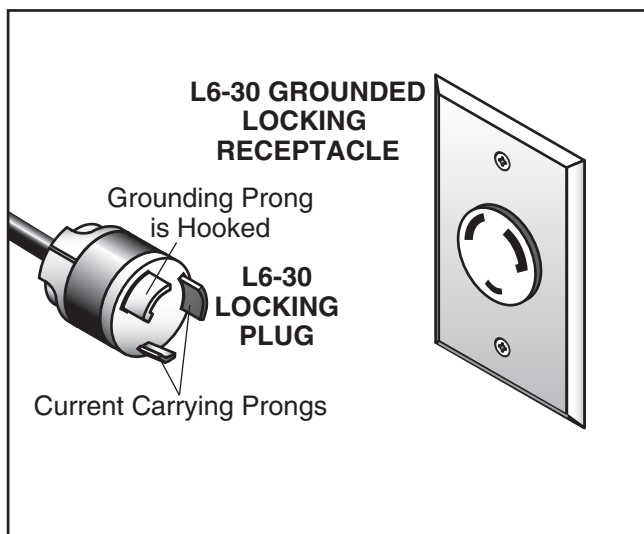


Figure 1. Recommended plug configuration for 220V, single-phase operation.



Model G9968

The Model G9968 Shaper is prewired with a 7½ H.P. three-phase motor. Under normal use, the motor draws approximately 20 amps at 220V. We recommend using a 20 amp circuit. This includes the appropriate wiring and circuit breaker. If frequent circuit failure occurs when using the shaper, contact our service department.

The shaper must be connected to its own dedicated 20A circuit. It should not share a circuit with any other machine. A standard 3-pole breaker is necessary for use with the shaper.

We recommend using a NEMA-style L15-30 plug and outlet similar to that in **Figure 1**. You may also “hard-wire” the shaper directly to your panel, provided you place a disconnect near the machine. Check the electrical codes in your area for specifics on wiring requirements.

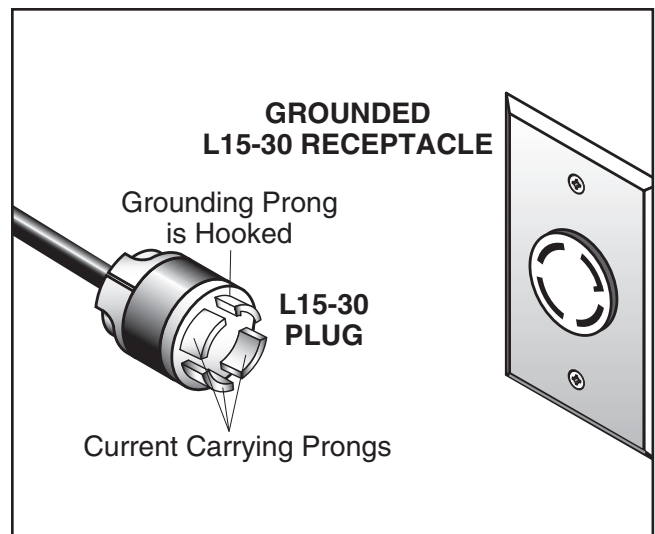


Figure 1. Recommended plug configuration for 220V, three-phase operation.



440V Operation

The Model G9968 Shaper is furnished with a 7½ H.P. three-phase motor that can be wired to 440V. Under normal use, the motor draws approximately 10 amps at 440V. We recommend using a 10 amp circuit. This includes the appropriate wiring and circuit breaker. If frequent circuit failures occur when using the shaper, contact our service department.

The shaper must be connected to its own dedicated 10A circuit. It should not share a circuit with any other machine. A standard 3-pole breaker is necessary for 440V use.

We recommend using a NEMA-style L20-30 plug and outlet similar to that in **Figure 2**. You may also “hard-wire” the shaper directly to your panel, provided you place a disconnect near the machine. Check the electrical codes in your area for specifics on wiring requirements.

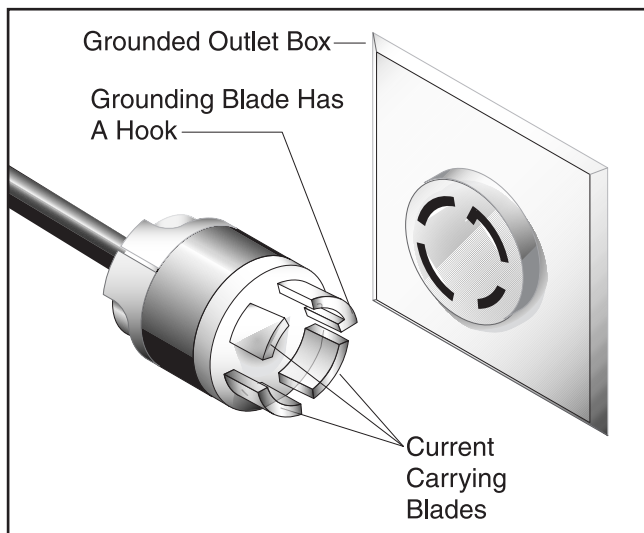


Figure 2. Recommended plug configuration for 440V, three-phase operation.

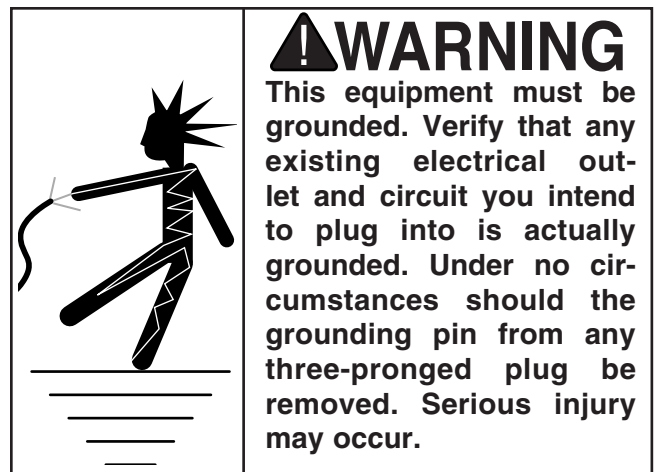


Grounding

In the event of an electrical short, grounding reduces the risk of electric shock by providing a path of least resistance to disperse electric current.

This tool is equipped with an electric cord that has an equipment-grounding conductor which must be properly connected to a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.

Improper connections of the electrical-grounding conductor can result in the risk of electric shock. The conductor with green or green and yellow striped insulation is the electrical-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment grounding conductor to a live terminal.



Extension Cords

We do not recommend the use of extension cords on 220V or 440V equipment. It is much better to arrange the placement of your equipment and the installed wiring to eliminate the need for extension cords. Should it be necessary to use an extension make sure the cord is rated Hard Service (grade S) or better. Refer to the chart in **Section 1: Safety** to determine the minimum gauge for the extension cord. The extension cord must also contain a ground wire and plug pin. Always repair or replace extension cords when they become worn or damaged.



SECTION 3: GENERAL INFORMATION

Commentary

Grizzly Industrial, Inc. is proud to offer the Model G9862/G9968 Shaper. This shaper is part of Grizzly's growing family of fine woodworking and metalworking machinery. When used according to the guidelines stated in this manual, you can expect years of trouble-free, enjoyable operation.

The Model G9862 and the Model G9968 are the same machine with the exception of the motor size/phase difference and the absence/presence of table extension wings. These shapers are intended for heavy-duty professional use and feature a 1¼" spindle. The Model G9862 offers a 5 H.P., 220V, Single-Phase motor. The Model G9968 offers a 7½ H.P., 220V, three-phase motor. Both machines feature magnetic power switching, a Forward/Reverse switch and are capable of operating at 5500, 7500 and 10,000 R.P.M. The current Grizzly catalog contains many different profiles of cutterheads available for the Model G9862/G9968, as well as power-feeders.

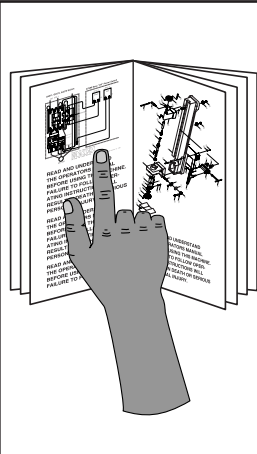
We are also pleased to provide this manual with the Model G9862/G9968. It was written to guide you through assembly, review safety considerations, and cover general operating procedures. It represents our latest effort to produce the best documentation possible. If you have any criticisms that you feel we should address in our next printing, please write to us at the address below:

Grizzly Industrial, Inc.
% Technical Documentation
P.O. Box 2069

Most important, we stand behind our machines. We have an excellent service department at your disposal should the need arise. If you have any service questions or parts requests, please call or write to us at the location listed below.

Grizzly Industrial, Inc.
1203 Lycoming Mall Circle
Muncy, PA 17756
Phone:(570) 546-9663
Fax:(800) 438-5901
E-Mail: techsupport@grizzly.com
Web Site: <http://www.grizzly.com>

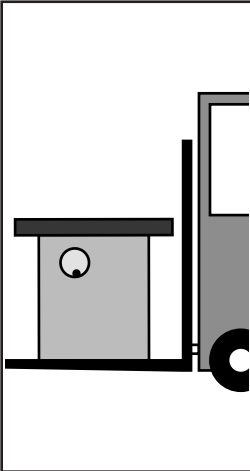
The specifications, drawings, and photographs illustrated in this manual represent the Model G9862/G9968 as supplied when the manual was prepared. However, owing to Grizzly's policy of continuous improvement, changes may be made at any time with no obligation on the part of Grizzly. Whenever possible, though, we send manual updates to all owners of a particular tool or machine. Should you receive one, we urge you to insert the new information with the old and keep it for reference.


 An illustration of a hand with the index finger pointing to a specific page in a multi-page manual. The manual is open, showing text and a technical drawing of a machine component.	<p>!WARNING</p> <p>Read the manual before assembly and operation. Become familiar with the machine and its operation before beginning any work. Serious personal injury may result if safety or operational information is not understood or followed.</p>
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Unpacking

The shaper base unit (shown in **Figure 3**) and hardware (shown in **Figure 4**) is shipped from the manufacturer in a carefully packed carton. If you discover the machine is damaged after you have signed for delivery, and the truck and driver are gone, you will need to file a freight claim with the carrier. Save the containers and all packing materials for possible inspection by the carrier or its agent. Without the packing materials, filing a freight claim can be difficult. *If you need assistance determining whether you need to file a freight claim, or with the procedure to file one, please contact our Customer Service.*





WARNING

The Model G9862/G9968 is a heavy machine, 1600 lbs. shipping weight. DO NOT over-exert yourself while unpacking or moving your machine—use power equipment to move the machine. Serious personal injury may occur if safe moving methods are not followed.



Figure 3. Model G9968 base unit w/wings.

When you are completely satisfied with the condition of your shipment, you should inventory its parts.



Piece Inventory

After all the parts have been removed from the carton, you should have:

Part	Qty
• Shaper Unit	1
• Fence Guard Attachment	1
• Cutter Guard	1
• Star Knobs 3/8"-1"	2
• Star Knobs 3/8"-7/8"	2
• Washers 3/8"	4
• Combo Wrench 27/24mm	1
• Combo Wrench 21/19mm	1
• Combo Wrench 19/17mm	1
• Combo Wrench 14/12mm	1
• Combo Wrench 12/10mm	1
• Allen® Wrench 12mm	1
• Hold-Downs w/Bars & Knobs	2
• Table Hold-Downs (G9862)	2
• Miter Gauge (G9862)	1

In the event that any nonproprietary parts are missing (e.g. a nut or a washer), we would be glad to replace them, or, for the sake of expediency, replacements can be obtained at your local hardware store.

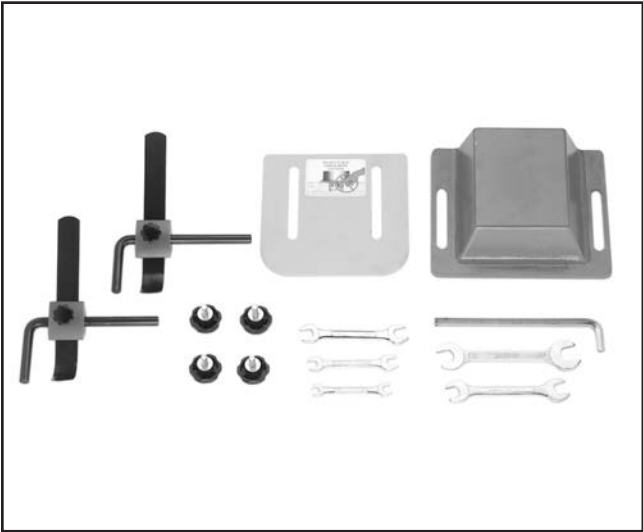



Figure 4. Model G9968 Hardware. (Model G9862 miter gauge and hold-down assemblies not shown.)

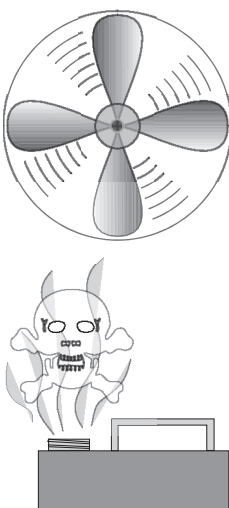


Clean Up

The unpainted surfaces are coated with a waxy oil to protect them from corrosion during shipment. Remove this protective coating with a solvent cleaner or citrus-based degreaser such as Grizzly's G7895 Degreaser. To clean thoroughly, some parts may need to be removed. Avoid chlorine-based solvents as they may damage painted surfaces should they come in contact. Always follow the manufacturer's instructions when using any type of cleaning product.

	<p>! WARNING</p> <p>Do not use gasoline or other petroleum-based solvents to clean with. They have low flash points which make them extremely flammable. A risk of explosion and burning exists if these products are used. Serious personal injury may occur.</p>
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	<p>! WARNING</p> <p>Do not smoke while using solvents. A risk of explosion or fire exists and may result in serious personal injury.</p>
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	<p>! CAUTION</p> <p>Many of the solvents commonly used to clean machinery can be toxic when inhaled or ingested. Always work in well-ventilated areas far from potential ignition sources when dealing with solvents. Use care when disposing of waste rags and towels to be sure they do not create fire or environmental hazards.</p>
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In order to thoroughly clean the waxy oil from the shaper, the guard assembly needs to be removed as shown in **Figure 5**. Also, the fence halves and other components can be cleaned easier if they are removed from the mounting brackets.



Figure 5. Components removed for cleaning.

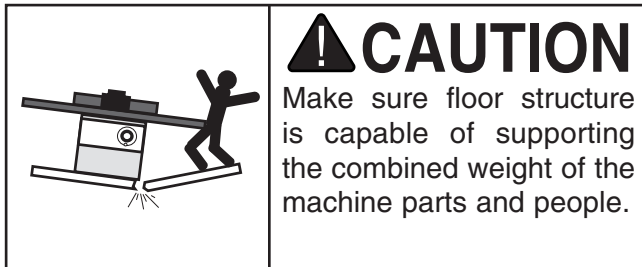
After all the waxy oil has been removed from the shaper table, the guard assembly, the fence halves, the rub collars and the spindle, lightly oil all of the parts (especially the mating surfaces) with a protective lubricant. Replace each piece in the same manner as it was removed. If desired, the rub collars can be set aside until you are ready to install a cutter.



Site Considerations

FLOOR LOAD

Your Model G9862/G9968 Shaper represents a very large weight load in a moderate sized footprint. Most commercial shop floors will be adequate for the 1600 lb. weight of the Model G9862/G9968. Some floors may require additional support. Contact an architect or structural engineer if you have any question about the ability of your floor to handle the weight.



WORKING CLEARANCES

Working clearances can be thought of as the distances between machines and obstacles that allow safe operation of every machine without limitation. Consider existing and anticipated machine needs, size of material to be processed through each machine, and space for auxiliary stands and/or work tables. Also consider the relative position of each machine to one another for efficient material handling. Be sure to allow yourself sufficient room to safely run your machines in any foreseeable operation.

LIGHTING AND OUTLETS

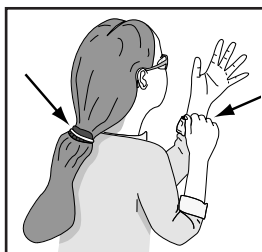
Lighting should be bright enough to eliminate shadow and prevent eye strain. Electrical circuits should be dedicated or large enough to handle combined motor amp loads. Outlets should be located near each machine so power or extension cords are not obstructing high-traffic areas. Be sure to observe local electrical codes for proper installation of new lighting, outlets or circuits.



SECTION 4: ASSEMBLY

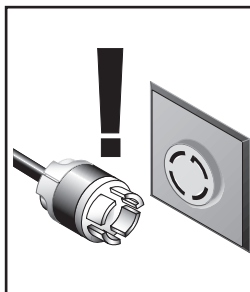
Beginning Assembly

Most of your Model G9862/G9968 Shaper has been assembled at the factory, but some parts must be assembled or installed after delivery. We have organized the assembly process into steps. Please follow along in the order presented in this section.



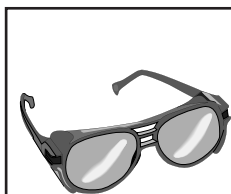
WARNING

Keep loose clothing out of the way of machinery and keep hair pulled back.



WARNING

Disconnect power to the machine when performing any maintenance or assembly. Failure to do this may result in serious personal injury.



WARNING

Wear safety glasses during the entire assembly process. Failure to comply may result in serious personal injury.



CAUTION

Some metal parts may have sharp edges on them after they are formed. Please examine the edges of all metal parts before handling them. Failure to do so could result in injury.



Guard Cover

To install the guard cover:

1. Place the guard cover on the guard assembly.
2. Thread the (2) $\frac{3}{8}$ "-16 x $\frac{7}{8}$ " star knobs through the guard cover and into the holes in the guard assembly as shown in **Figure 6**.



Figure 6. Installing the cutter guard.

3. Adjust to the desired position and tighten the knobs.



Fence Guard

The Model G9862/G9968 comes with a fence guard to reduce operator exposure to the spinning cutter. To install the fence guard:

1. Place the fence guard against the face of the guard assembly and thread the (2) $\frac{3}{8}$ "-16 x 1" star knobs through the guard and into their respective holes as shown in **Figure 7**.
2. Adjust the height of the fence guard as needed to keep the clearance above the cutter to a minimum.



Figure 7. Mounting clearance guard.



Upper Hold-Downs

The upper hold-downs are meant to be mounted across from those hold-downs already installed on the table. To install the hold downs:

1. Insert the upper hold-down shafts into the holes on the guard assembly as shown in **Figure 8**.
2. Tighten the shaft bolt to lock the shaft into place.
3. Position the upper hold-downs where desired and tighten the hold-down knobs that secure the hold-down bars into place.

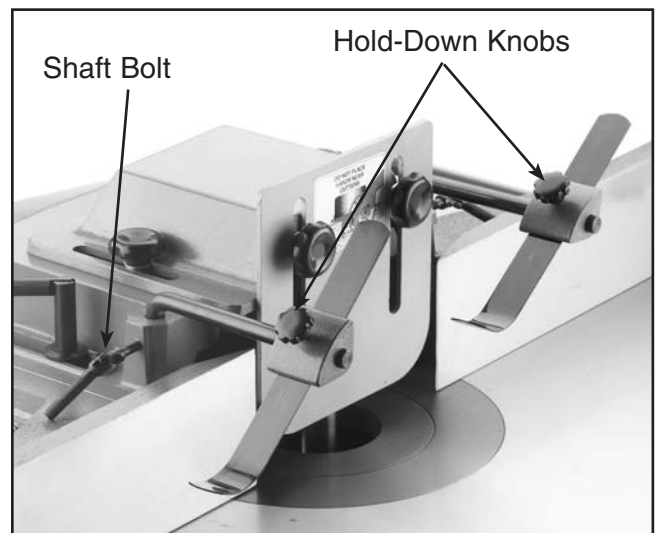
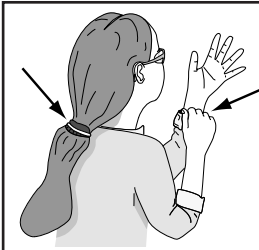


Figure 8. Mounting hold-downs.

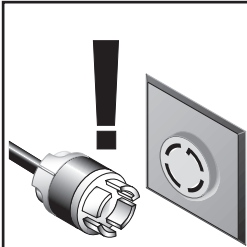


SECTION 5: ADJUSTMENTS



!WARNING

Keep loose clothing out of the way of machinery and keep hair pulled back.



!WARNING

Disconnect power to the machine when performing any adjustments or maintenance. Failure to do this may result in serious personal injury.



!WARNING

Wear safety glasses during the entire adjustment process. Failure to comply may result in serious personal injury.

Speed Changes

The Model G9862/G9968 Shaper is equipped with three groove pulleys that control the speed of the spindle. To change spindle speeds:

1. Unplug the machine.
2. Turn the belt tensioning lever (shown in **Figure 9**) counterclockwise to loosen the adjustment bracket.
3. Pull the motor toward the spindle pulley to loosen the V-belt.

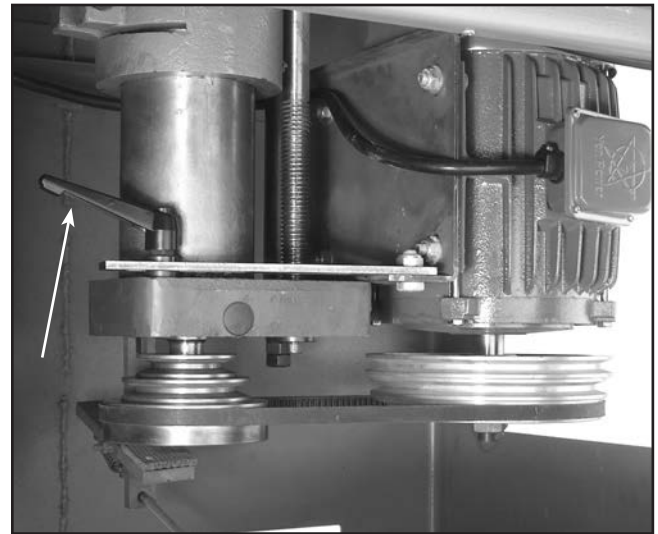


Figure 9. Belt tensioning lever.

4. Select the desired speed. There are three speeds for the spindle: 5500, 7500 and 10,000 R.P.M. **Figure 10** shows the belt position for each available speed.

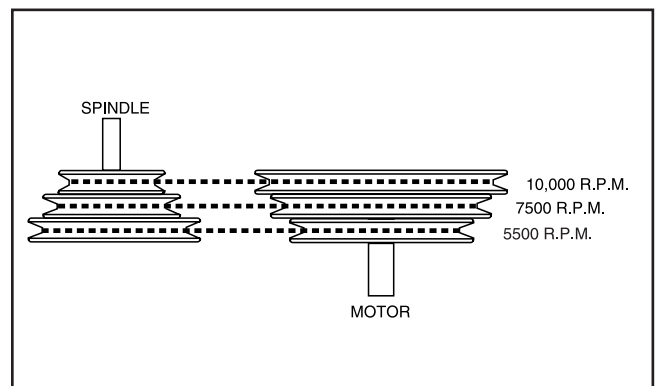


Figure 10. Spindle speed adjustment.

5. Align the belt along the appropriate pulley groove.
6. Swing the motor away from the spindle pulley so the belt is tight.
7. Tighten the belt tensioning lever.
8. Spin the pulley to ensure proper tracking.



Fence Adjustment

The fence is a two-piece adjusting system. Each fence is independently adjustable to compensate for different cutting thicknesses and special shaping applications. Each fence moves toward the front and back of the shaper and to the left and right. To adjust the front-to-back controls of the fence, see the control location in **Figure 11** and follow the instructions below:

1. Loosen the fence lock handle.
2. Turn the fence adjustment knob until the fence is set to the desired position.
3. Tighten the fence lock handle.

More detailed information concerning these fence adjustments is covered in the “Straight Shaping” instructions.

To change the fence spindle opening (move the fence pieces left or right) use the lateral movement lock handle shown in **Figure 11** to move the fence. Always be sure to adjust the fences so there is as little clearance around the cutter as possible. Narrow clearance around the cutter provides more support and not as much operator exposure to the cutter.

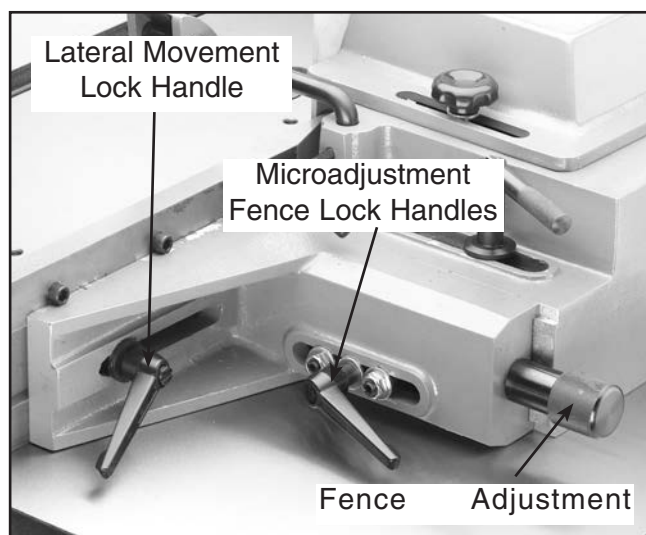


Figure 11. Fence controls.



Aligning The Fence

The following procedure ensures that the fence pieces are properly aligned.

1. Check that the fence pieces are tightly secured to the fence housing.
2. Adjust one or both fence halves so they are in close alignment. Micro-adjust and check the alignment with a straightedge as shown in **Figure 12**.
3. If the fences are not coplanar with each other, correct the appropriate fence by placing shim stock or paper between the back of the fence and the fence housing.

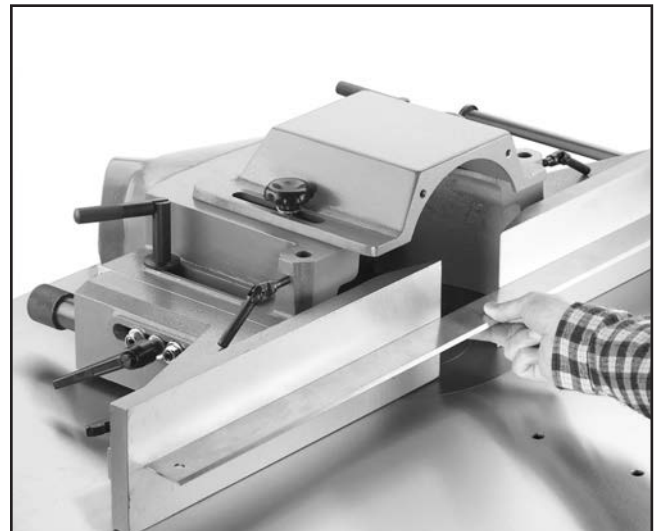


Figure 12. Aligning fences with straightedge.



Table Inserts

The Model G9862/G9968 is supplied with two inserts (shown in **Figure 13**). Use the smallest opening that a particular cutter will allow. This offers more support for the workpiece and reduces the amount of chips that can fall into the machine. The correct spindle opening also allows any unused portion of the cutter to remain below the table surface, thus, increasing operator protection. The table inserts have been machined flush with the surface of the table.

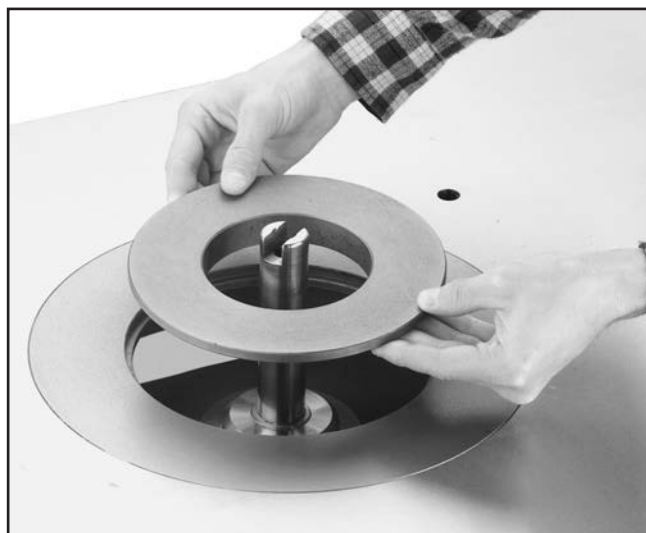
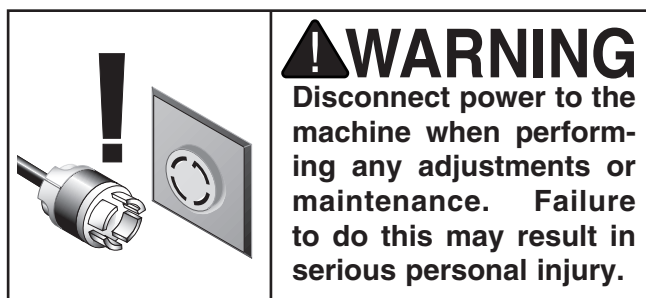


Figure 13. Table inserts
(guard removed for clarity).



! WARNING
Disconnect power to the machine when performing any adjustments or maintenance. Failure to do this may result in serious personal injury.



Hold-Downs

Hold-downs are used to hold the workpiece flat on the table and snug against the fence as shown in **Figure 14**.

Periodically check the knob that secures the hold-down bar to the guard to make sure that it remains tight.



Figure 14. Hold-downs in place.





Cutter Installation

Your shaper operates at speeds of 5500, 7500 and 10,000 R.P.M. 3½" or larger cutters must be operated at the slowest speed. Always use the largest spindle size possible. "Stacking" two bushings inside each other in order to use a cutter two sizes bigger than the spindle will result in a malfunction of cutter operation, which may damage your equipment. To install a cutter:

1. Unplug the shaper.
2. Place the Allen® wrench over the spindle cap screw, and place a combo wrench on the spindle nut.
3. Loosen the spindle nut.

4. Install the cutterhead onto the spindle. Use spacers or collars so the configuration suits your particular task. Refer to the "Rub Collar" instructions in this manual for ideas on the safest setup.
5. Thread the spindle nut onto the spindle and thread the spindle cap screw back into its hole.
6. Tighten the nut and the cap screw as shown in **Figure 15**. Use a wrench on the notches at the top of the spindle for leverage.



Figure 15. Tightening spindle nuts.



Foot Brake

The Model G9862/G9968 comes with a foot brake to stop or slow the cutter immediately after use. To ensure proper function and wear, this brake should be inspected and/or adjusted. To inspect the foot brake:

1. Locate the brake pad shown in **Figure 16**.

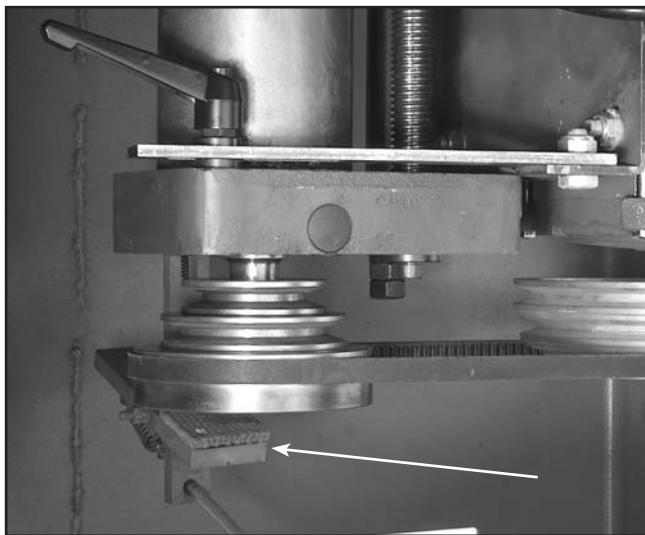


Figure 16. Brake pad.

2. Press the brake pedal (shown in **Figure 17**) to visually inspect how the brake pad hits the spindle pulley.



Figure 17. Brake pedal.

The flat surfaces of the brake pad and the underside of the pulley should meet evenly for proper wear. If these surfaces do not meet evenly, then you need to adjust the bracket that mounts the foot brake.

To adjust the brake pad bracket:

1. Locate the two mounting bolts that mount the bracket to the spindle seat assembly.
2. Loosen the two bolts with the 17mm wrench provided with the shaper.
3. Slide the bracket in the desired direction then tighten the bolts enough to inspect the brake pad function. If the brake pad meets the spindle pulley evenly, as described before, then snug the mounting bolts tight. If the brake pad still does not meet the underside of the spindle evenly, then repeat **steps 1-3**.



Test Run

Once assembly is complete and adjustments are done to your satisfaction, you are ready to start the machine.

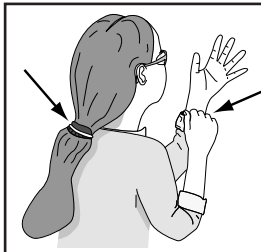
Turn on the power supply at the main panel. Press the *START* button. Make sure that your finger is poised on the *STOP* button, just in case there's a problem. The shaper should run smoothly with little or no vibration or rubbing noises. Strange or unnatural noises should be investigated and corrected before operating the machine further.

Run the Model G9862/G9968 for a short time to ensure that the moving parts are working properly with no excessive vibration. If any problem develops, correct it before attempting to use the machine.

If you cannot locate the source of unusual noises or cannot fix any problems that arise, immediately contact our service department for help.

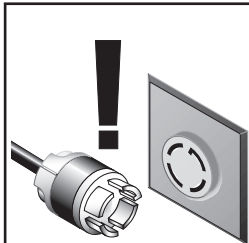


SECTION 6: OPERATIONS



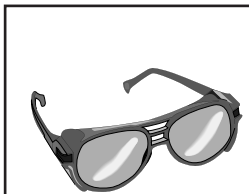
!WARNING

Keep loose clothing out of the way of machinery and keep hair pulled back.



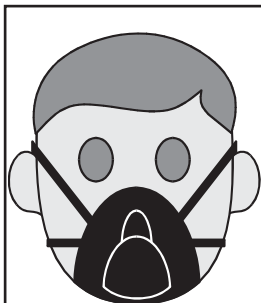
!WARNING

Disconnect power to the machine when performing any adjustments or maintenance. Failure to do this may result in serious personal injury.



!WARNING

Wear safety glasses during all operations on the shaper. Failure to comply may result in serious personal injury.



!CAUTION

Always wear a dust mask when operating the shaper. Using this machine produces sawdust which may cause allergic reactions or respiratory problems.

NOTICE

The following section was designed to give instructions on the basic operations of this shaper. However, it is in no way comprehensive of every shaper application. There are many different jigs that can be built to increase safety, accuracy, and types of cuts. **WE STRONGLY RECOMMEND** that you read books, trade magazines, or get formal training to maximize the potential of your shaper.

Switch

Your shaper is equipped with a START/STOP switch as shown in **Figure 18**. Always feed the workpiece against the rotation of the cutter. Whenever possible, mount the cutter so the board is milled on the bottom side. This method does a better job, and it is safer for the operator.

!CAUTION

Always check the direction of cutter rotation before beginning any shaping operation.



Figure 18. ON/OFF switches.



Reverse Switch

Your shaper is equipped with a FORWARD/REVERSE switch as shown in **Figure 18A**. In many instances, it will be necessary to flip the cutter over and reverse cutter rotation. Whenever possible, mount the cutter so the board is milled on the bottom side. This does a better job, and it is safer for the operator.

CAUTION

Always check the direction of cutter rotation before beginning any shaping operation.

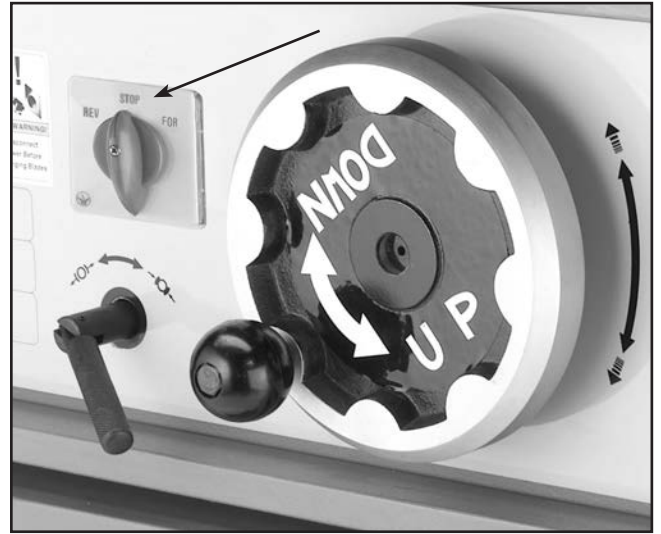


Figure 18A. Forward/reverse switch.

NOTICE

This machine was designed to be started and stopped with the START/STOP buttons—not the reversing switch.



Spindle Height

To adjust the cutter height:

1. Loosen the spindle lock knob shown in **Figure 19**.
2. Move the spindle up or down with the handwheel until the desired position is obtained.

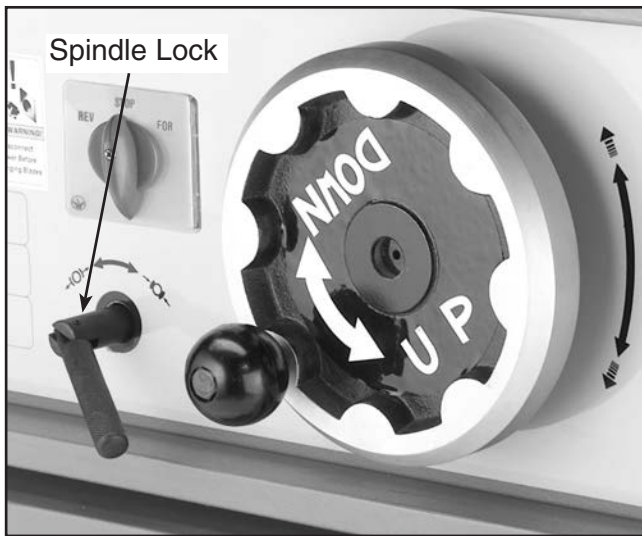


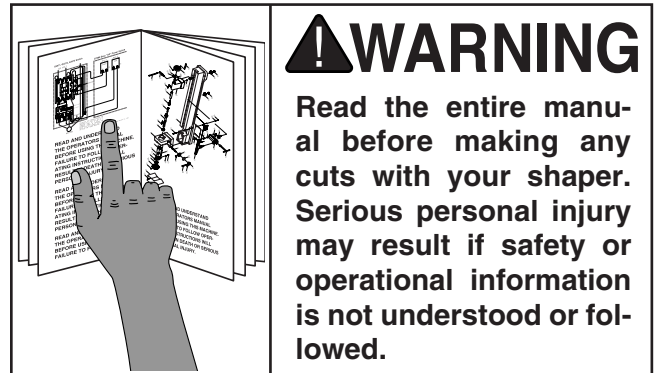
Figure 19. Spindle height adjustment wheel and spindle lock.

NOTICE

The lock knob keeps the spindle in a fixed position during shaper operation. Do not over-tighten the lock knob. A snug fit is all that is needed to keep the spindle from moving during shaper



Straight Shaping



The fence assembly is a two-piece, independently adjustable system. When removing material from the whole face of your workpiece, the outfeed fence can be adjusted to provide support for the workpiece as it passes over the cutter, or it can be set in-line for partial face removal.

If removing material from the whole face, observe the following steps:

1. Loosen the locking handles shown in **Figure 20** that hold the fences in place.

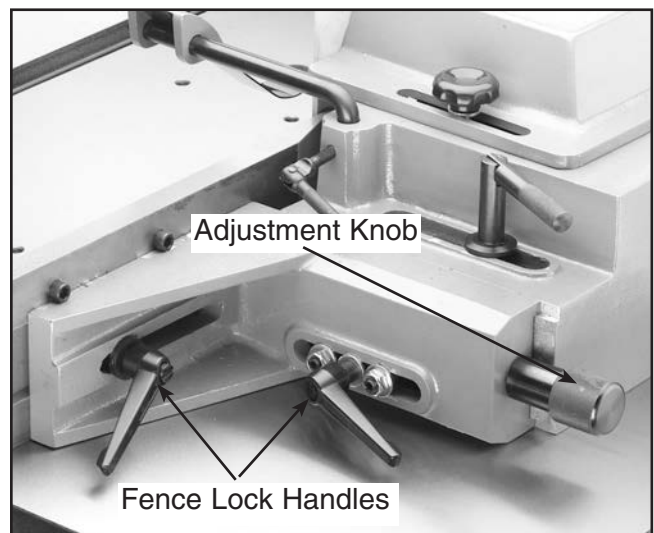


Figure 20. Location of fence locking handles.

2. Adjust the infeed fence by turning the adjustment knobs (shown in **Figure 20**) until the workpiece contacts the cutter in the desired location.
3. Lock the infeed fence in position with the locking handle. Use a test piece to determine the best setting.

4. Set the right and left cast iron fences to barely clear the cutter. This allows the maximum support possible. Remember to tighten down the fence before starting the shaper.
5. When removing the entire face of the workpiece, a test sample of the desired cut should be advanced about 8" then stopped.
6. Once the shaper is turned off and the cutter has come to a complete stop, adjust the outfeed fence to support the new profiled edge as shown in **Figure 21**.

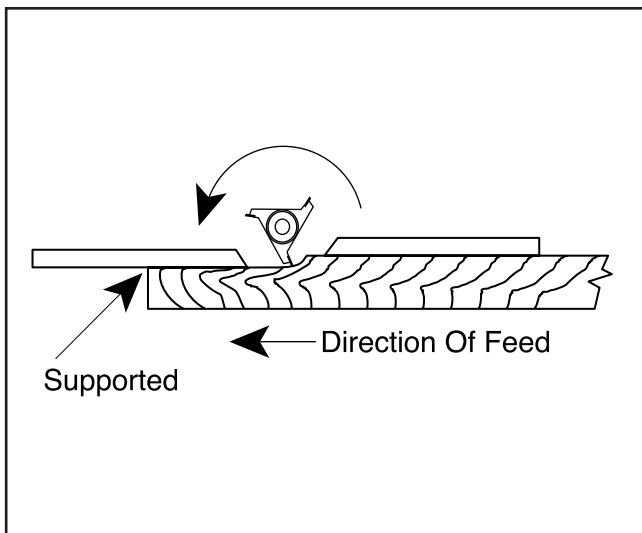


Figure 21. Fence adjusted to support workpiece.

If the face of the workpiece will only be partially removed, observe the following steps:

1. Adjust the infeed fence to approximately the desired depth of cut. Lock the infeed fence.
2. Use a straightedge to adjust the outfeed fence to the same plane as the infeed fence. Lock the outfeed fence.
3. Set the right and left cast iron fence ends so they barely clear the cutter. This allows the maximum support possible for the workpiece. Remember to tighten down the fence before starting the shaper.

4. Run a test piece through the shaper as shown in **Figure 22**.

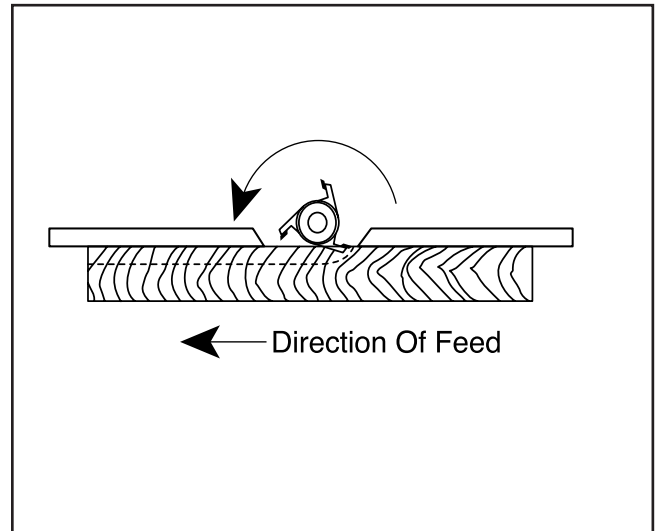


Figure 22. Fence adjustment for blind cuts.

5. Always cut the end grain first (as shown in **Figure 23**) when putting an edge around the perimeter of your workpiece.

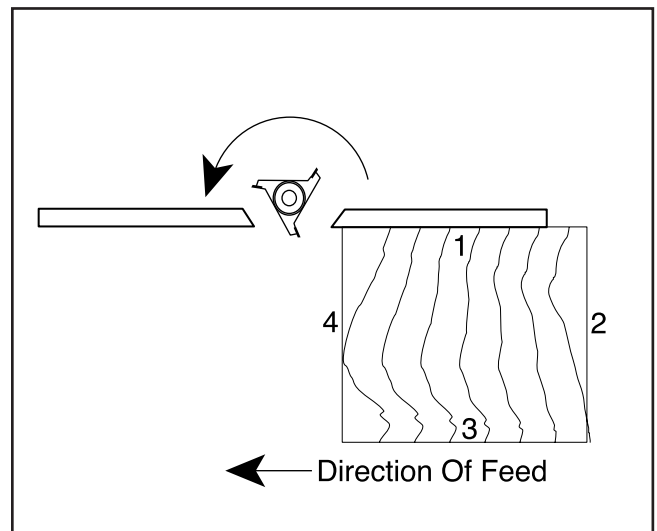


Figure 23. Sequence for multiple cuts.



Rub Collars

Rub collars are used when shaping curved or irregular workpieces, such as arched doors or round table tops. Rub collars also limit the depth of your cut.

There are two types of rub collars—solid and ball-bearing. We recommend against the use of solid rub collars. Grizzly carries an extensive line of ball bearing rub collars designed for use with Grizzly shapers. See the current catalog for listings.

It is possible to use the rub collars in any of the following positions:

1. **Rub collar below the cutter:** When the rub collar is used below the cutter as shown in **Figure 24**, the progress of the cut can be observed. However, any unintentional movement may lift the workpiece into the cutter, damaging your work and possibly kicking the workpiece back toward you with great force. We do not recommend this position.

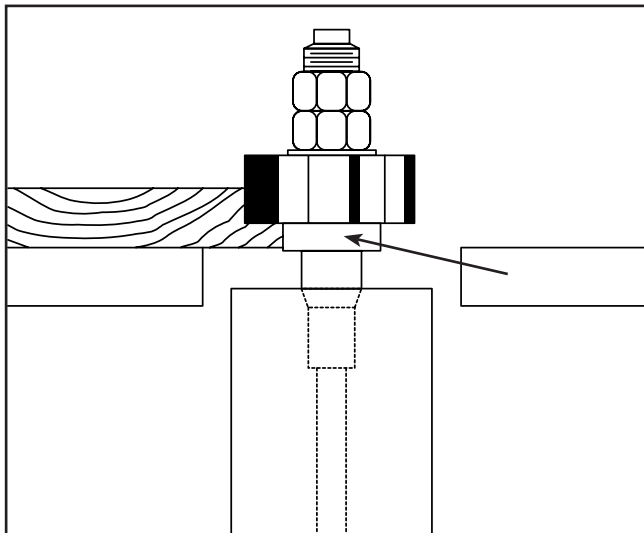


Figure 24. Rub collar installed below cutter.

⚠ CAUTION

Whenever the cutterhead is above the workpiece, or you can see it spinning during use, you must take extreme caution to keep your hands away from the cutterhead. Failure to do so may cause serious personal

2. **Above the cutter (preferred method—safer):** When the rub collar is used above the cutter as seen in **Figure 25**, the cut cannot be seen. This offers some advantage: the stock is not affected by slight variations in thickness and accidental lifting will not damage the workpiece. If lifting occurs, simply correct the mistake by repeating the operation.

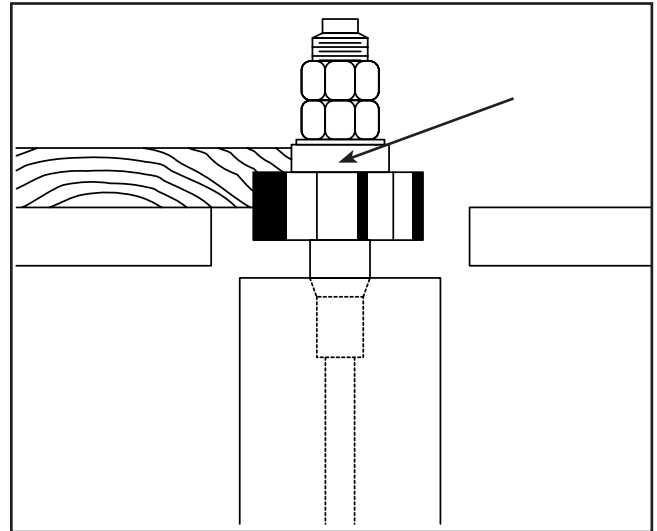


Figure 25. Rub collar installed above cutter.

3. **Between two cutters:** Using a rub collar between two cutters, as in **Figure 26**, has the distinct advantage of performing two cuts at once or eliminating the need to change cutters for two different operations. Notice that part of the edge is left uncut. The uncut portion rides on the rub collar.

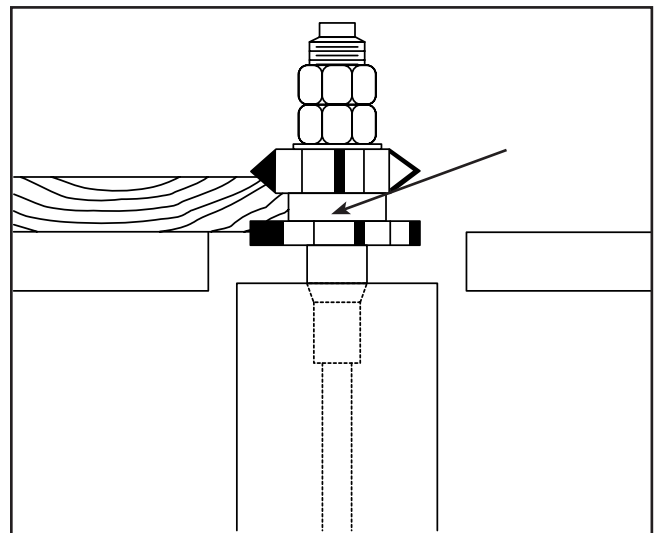


Figure 26. Rub collar between two cutters.



Table Extension

The table extension can support stock 36" away from the spindle. To adjust the table extension:

1. Loosen the star knobs (shown in **Figure 27**) located on the underside of both sides of the shaper.

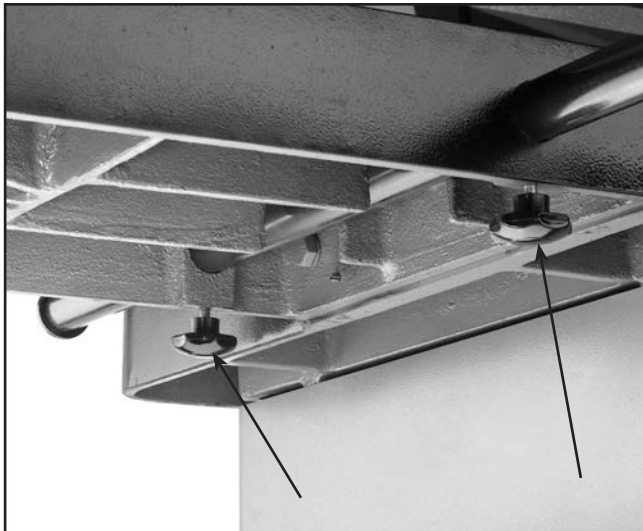


Figure 27. Table extension knobs.

2. Slide the table extension to the desired width of needed support.
3. Tighten the star knobs shown in **Figure 27**.



Pattern Work & Jigs

When using a pattern, the rub collar can be positioned either above, below or between cutters.

The pattern is usually used when the entire edge is to be shaped or when many duplicate pieces are needed. Pattern work is particularly useful when rough cutting irregular or oversize pieces and then shaping the edge in a simple two-step operation. A pattern can be incorporated into a jig by way of adding toggle clamps, hand holds or other safety devices.

You have greater flexibility when choosing the correct diameter rub collar for pattern work than for non-pattern work. If you look at **Figure 28**, you will notice that the position of the pattern determines the depth of cut. In other words, your pattern size is dependent upon the interrelationship of the cutting circle, the desired amount of material removed, and the rub collar size. Changing one or more of these will change the amount of material removed. Planning ahead, you can most effectively decide which rub collars are best suited for your application.

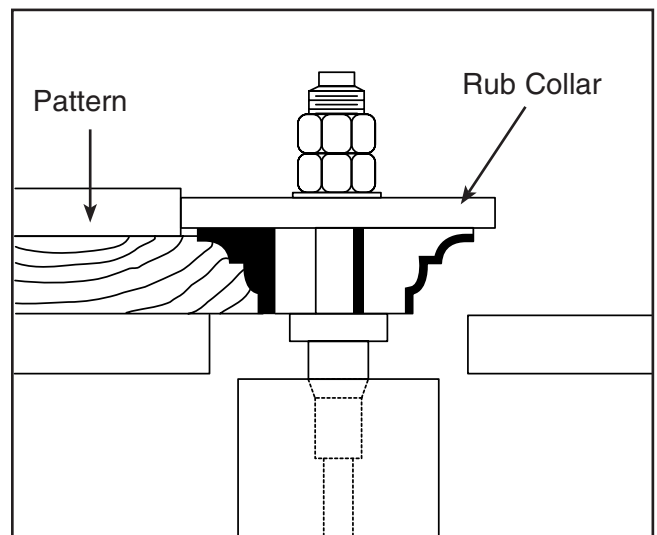


Figure 28. Rub collar determines depth of cut.

When making a pattern jig here are a few things to consider:

1. Build your jig from a material that will smoothly follow the rub collar or fence.
2. Make the jig stable, using proven methods and materials, and fasten the hand holds for operator comfort and safety.
3. Secure your workpiece on the three sides that will not be cut with toggle clamps, or fasten the workpiece to the jig with wood screws. Ensure that clamps and hidden screws do not come into contact with the cutter.
4. Design your jig so that all cutting occurs underneath the workpiece as shown in **Figure 29**. Notice the operator is not exposed to the cutting edge of the cutter!



Figure 29. Pattern jig for making curved pieces (guard removed for clarity).

5. Always consider the cutting circle and rub collar diameter for the correct cutting depth when designing your pattern.
6. Make sure the workpiece rests flat on the table, not on the fixture.

CAUTION

Workpieces must be solid, stable, and secured to the jig; or kickback may occur,

Irregular shaping takes a high degree of skill and dexterity. The fence assembly is not used during irregular shaping, so rub collars must be used. Also, unless your jig is designed to touch the rub collar before contacting the blade, a starting fixture must be used to begin your cut.

About starting fixtures:

The purpose of the starting fixture is to support the workpiece during the beginning of the cut. The workpiece is typically placed in the starting position using the starting fixture for support, Then swung into the cutter while holding the workpiece firmly against the starting fixture. After the cut has been started, the work is swung away from the starting fixture and is supported only by the rub collar. **Always feed against the rotation of the cutter and do not start cuts at corners.**

To use your pattern jig:

1. Remove the fence assembly. Choose the appropriate cutter and rub collar for your application and lock them in place. Secure your workpiece to the pattern jig.
2. Check cutter rotation, and adjust the spindle height to align the cutter to your workpiece. Clamp a starting fixture to the table surface, using the location that best supports your work.
3. If everything is correct and the cutter is tight. Turn the shaper on.



Freehand Shaping

Freehand methods are one of the most dangerous operations performed on a shaper. Although this machine is capable of performing freehand operations, we do not recommend that you attempt to do so. If you **MUST** perform freehand operations, get formal training and read a book that details freehand operations, their inherent dangers, and ways to avoid those dangers!



Shaper Accessories

There are many accessories that can be built or purchased to increase the safety of the operator. Many experienced shaper users regularly use proven shop-made fences and safety guards to augment their shaping operations. In addition, many production shops routinely use power feeders with their shapers to streamline their operations.

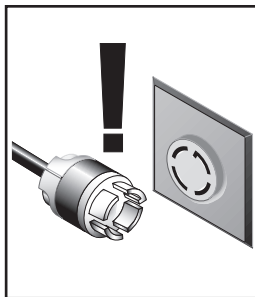
Here are some basic accessories and their uses:

- **Zero Clearance Fence** — A shop-made fence with an opening only as large as the cutter, so that only the part of the cutter being used is exposed.
- **Box Fence** — A shop-made box that completely surrounds the cutter. A one-piece fence is attached that allows only the thickness of the board to pass underneath, thereby completely shielding the operator from exposure to the spinning cutter. A clear plexiglass window on top of the box allows the operator to view the workpiece during cutting.
- **Power Feeder** — A motorized unit that can be clamped or permanently mounted to the table of a shaper. A power feeder pulls the workpiece through the cut, reducing the risk of operator contact with the spinning cutter and reducing any injuries due to kickback. Because of the steady feed rate, power feeders can also produce cleaner, more consistent cuts. We highly recommend using a power feeder with your shaper! Check the current Grizzly catalog for available power feeders.

Because of the wide range of fences and guards that can be built in the shop, explaining their construction is beyond the scope of this manual. We strongly recommend that you read shaper books magazines, or get formal training to learn more



SECTION 7: MAINTENANCE



! WARNING

Disconnect power to the machine when performing any adjustments or maintenance. Failure to do this may result in serious personal injury.

General

Regular periodic maintenance on your Model G9862/G9968 Shaper ensures its optimum performance. Make a habit of inspecting your shaper each time you use it.

Check for the following conditions and repair or replace when necessary.

- Loose mounting bolts.
- Worn switch.
- Worn or damaged cords and plugs.
- Damaged V-belt.
- Any other condition that could hamper the safe operation of this machine.



Table

The table and other non-painted surfaces on the Model G9862/G9968 should be protected against rust and pitting. Wiping the table clean after every use ensures that wood dust isn't allowed to trap moisture against bare metal surfaces.

Tables can be kept rust-free with regular applications of products like Boeshield® T-9. For long term storage you may want to consider products like Kleen Bore's Rust Guardit™.



Lubrication

The only parts on this machine that require periodic lubrication are the ways where the cartridge slide rides on the elevation housing and where the worm gears and bushings are located. Use a light grease or anti-seizing compound on the ways and worm gear, and give the shaft mount a shot of light oil.



V-Belt

Avoid getting grease or oil on the V-belts or pulleys. Check the V-belts, as part of a monthly inspection for proper tension and belt condition. Cracking and glazing could result in belt failure. Replace the belt if such conditions appear.



Schedule

Regularly blow out cabinet with compressed air (always wear a dust mask when doing this) and keep dust port clear.

For every **8 hours** of use, clean and spray an application of Boeshield® T-9:

- Table
- Fence faces

For every **24 hours** of use, clean and oil:

- Spindle columns and cartridges
- Offset adjustment mechanisms on fence
- All worm drive and other gears

Once a year, replace the V-belt.

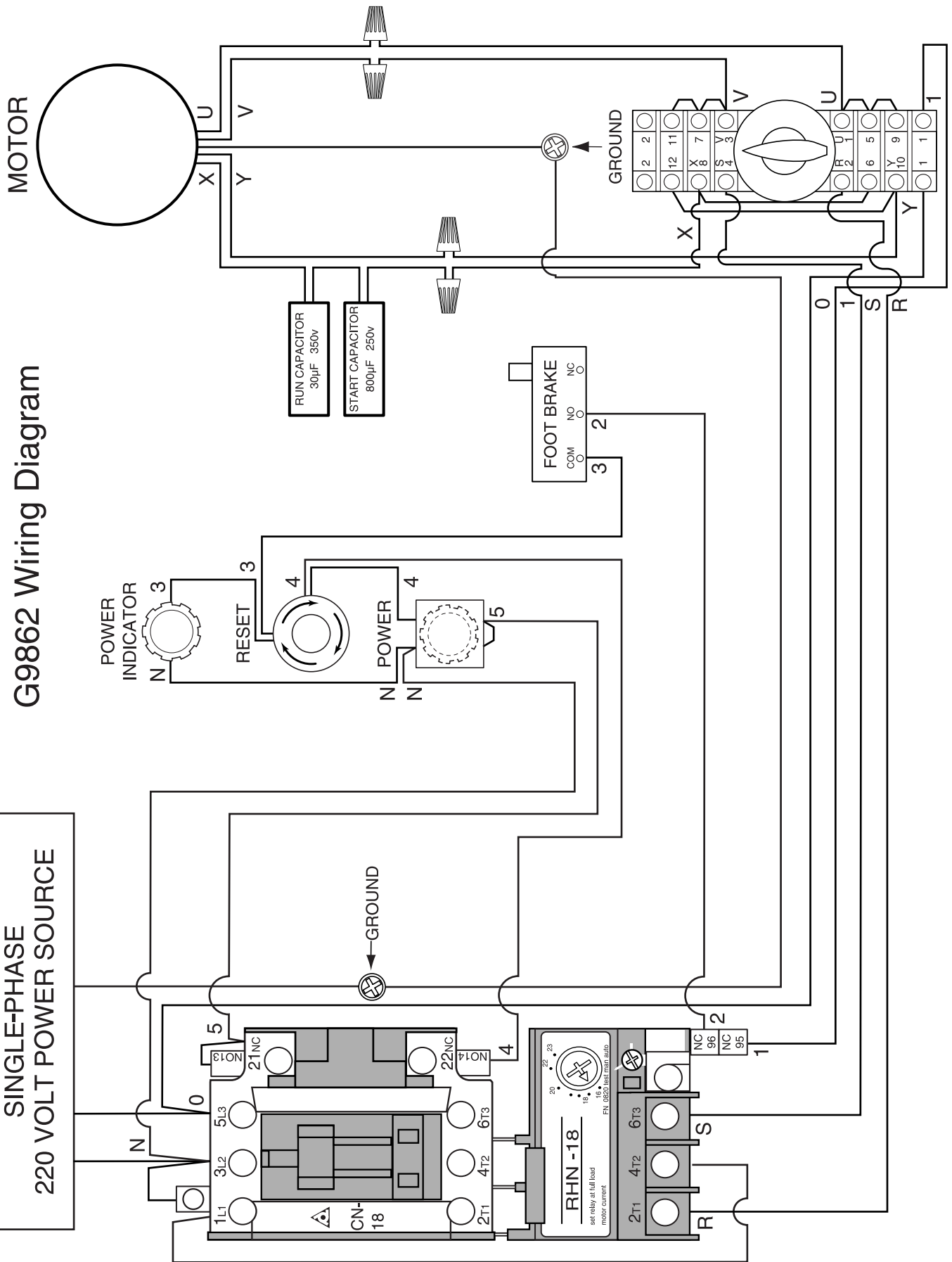


Maintenance Notes

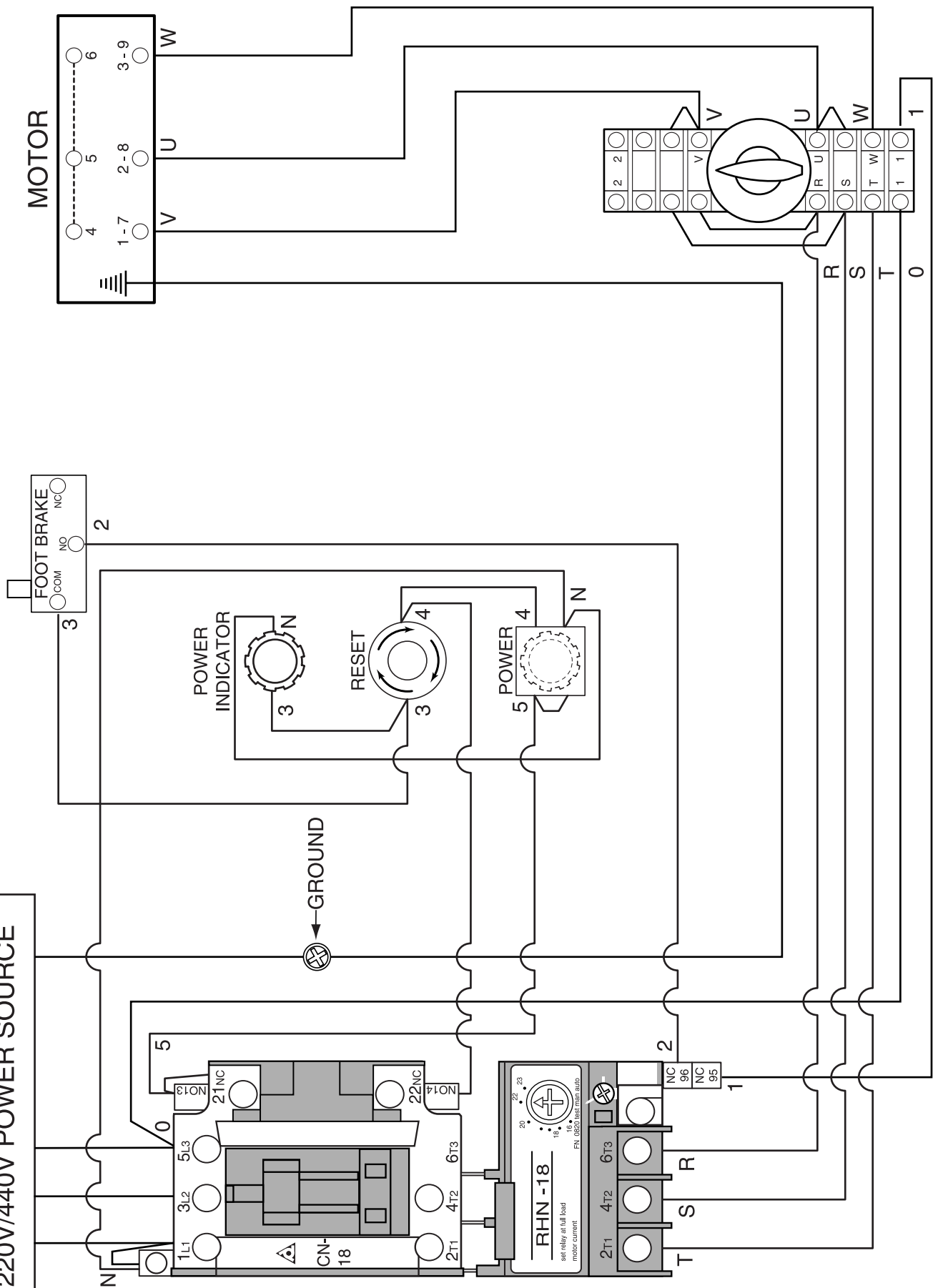
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SINGLE-PHASE
220 VOLT POWER SOURCE

G9862 Wiring Diagram



G9968 Wiring Diagram



SECTION 8: CLOSURE

The following pages contain general machine data, parts diagrams/lists, troubleshooting guide and Warranty/Return information for your Model G9862/G9968 Shaper.

If you need parts or help in assembling your machine, or if you need operational information, we encourage you to call our Service Department. Our trained service technicians will be glad to help you.

If you have comments dealing specifically with this manual, please write to our Bellingham, Washington location using the address in the **General Information** section. The specifications, drawings, and photographs illustrated in this manual represent the Model G9862/G9968 as supplied when the manual was prepared. However, due to Grizzly's policy of continuous improvement, changes may be made at any time with no obligation on the part of Grizzly. Whenever possible, though, we send manual updates to all owners of a particular tool or machine. Should you receive one, add the new information to this manual and keep it for reference.

We have included some important safety measures that are essential to this machine's operation. While most safety measures are generally universal, Grizzly reminds you that each workshop is different and safety rules should be considered as they apply to your specific situation.

WARNING

The Model G9862/G9968 was specifically designed for wood shaping operations only. **DO NOT MODIFY AND/OR USE THIS MACHINE FOR ANY OTHER PURPOSE.** Modifications or improper use of this tool will void the warranty. If you are confused about any aspect of this machine, **DO NOT** use it until all your questions have been answered, or serious personal injury may occur.

We recommend you keep a copy of our current catalog for complete information regarding Grizzly's warranty and return policy. If you need additional technical information relating to this machine, or if you need general assistance or replacement parts, please contact the Service Department listed in the **Introduction** section.

Additional information sources are necessary to realize the full potential of this machine. Trade journals, woodworking magazines and your local library are good places to start.

WARNING

Operating this equipment has the potential for flying debris to cause eye injury. Always wear safety glasses or goggles when operating equipment. Everyday glasses or reading glasses only have impact resistant lenses, they are not safety glasses. Be certain the safety glasses you wear meet the appropriate standards of the American National Standards Institute (ANSI).



WARNING

Like all power tools, there is danger associated with the Model G9862/G9968 Shaper. Accidents are frequently caused by lack of familiarity or failure to pay attention. Use this tool with respect and caution to lessen the possibility of operator injury. If normal safety precautions are overlooked or ignored, serious personal injury may occur.





MACHINE DATA SHEET

Customer Service #: (570) 546-9663 • To Order Call: (800) 523-4777 • Fax #: (800) 438-5901

GRIZZLY MODEL G9862 5 H.P. SHAPER

Design Type Floor Model

Overall Dimensions:

Working Table Size (Each Side) 44³/₈" x 33¹/₄"
Height (Includes Fence) 45"
Height From Table To Floor 33"
Overall Width 44⁵/₈"
Overall Depth 35¹/₄"
Weight (Shipping) 1500 lbs.
Weight (In Place) 1165 lbs.
Crate Size 50"W x 40"D x 43" H
Footprint 35⁵/₈" Max Width x 29" Max Depth

Capacities:

Spindle Sizes 1¹/₄"

Spindle Travel 5"
Exposed Spindle Length 6"
Spindle Openings 4¹/₄", 8" and 13"
Spindle Capacity Under Nut 5¹/₂"
Table Counterbore 13"
Max. Cutter Diameter 8¹/₂"
Spindle Speeds 5,500, 7,500 & 10,000 R.P.M.
Spindle Bearings Shielded & Lubricated Ball Bearings
Dust Port 5"

Construction:

Table Precision Ground Cast Iron
Fence Assembly Polished Cast Iron
Base Heavy-Duty Pre-formed Steel

Motor:

Type TEFC Capacitor-Start Induction
Horsepower 5 H.P.
Phase / Voltage Single-Phase / 220 V
Amps 28
Cycle / R.P.M. 60 Hertz / 3450 R.P.M.
Bearings Shielded & Lubricated Ball Bearings
Switch Magnetic w/ Thermal Overload Protector

Features:

..... 2 Spring Hold-Down Assemblies
..... Quick Release Levers and Knob-Equipped Fence Adjustment
..... 2 Table Inserts
..... Spindles Include Spacers and Nuts
..... Vertical Spindle Lock
..... Spindle Brake
..... Miter Gauge
..... Includes Service Wrenches

Specifications, while deemed accurate, are not guaranteed.



MACHINE DATA SHEET

Customer Service #: (570) 546-9663 • To Order Call: (800) 523-4777 • Fax #: (800) 438-5901

GRIZZLY MODEL G9968 7½" H.P. SHAPER

Design Type Floor Model

Overall Dimensions:

Working Table Size (Each Side) 91¾" x 33¾"
Height (Includes Fence) 45"
Height From Table To Floor 33"
Overall Width 91¾"
Overall Depth 40"
Weight (Shipping) 2000 lbs.
Weight (In Place) 1540 lbs.
Crate Size 93"W x 42"D x 44" H
Footprint 35⅝" Width x 29" Depth

Capacities:

Spindle Sizes 1¼"

Spindle Travel 5"
Exposed Spindle Length 6"
Spindle Openings 4¼", 8" and 13"
Spindle Capacity Under Nut 5½"
Table Counterbore 13"
Max. Cutter Diameter 8½"
Spindle Speeds 5,500, 7,500 & 10,000 R.P.M.
Spindle Bearings Shielded & Lubricated Ball Bearings
Dust Port 5"

Construction:

Table Precision Ground Cast Iron
Fence Assembly Polished Cast Iron
Base Heavy-Duty Pre-formed Steel

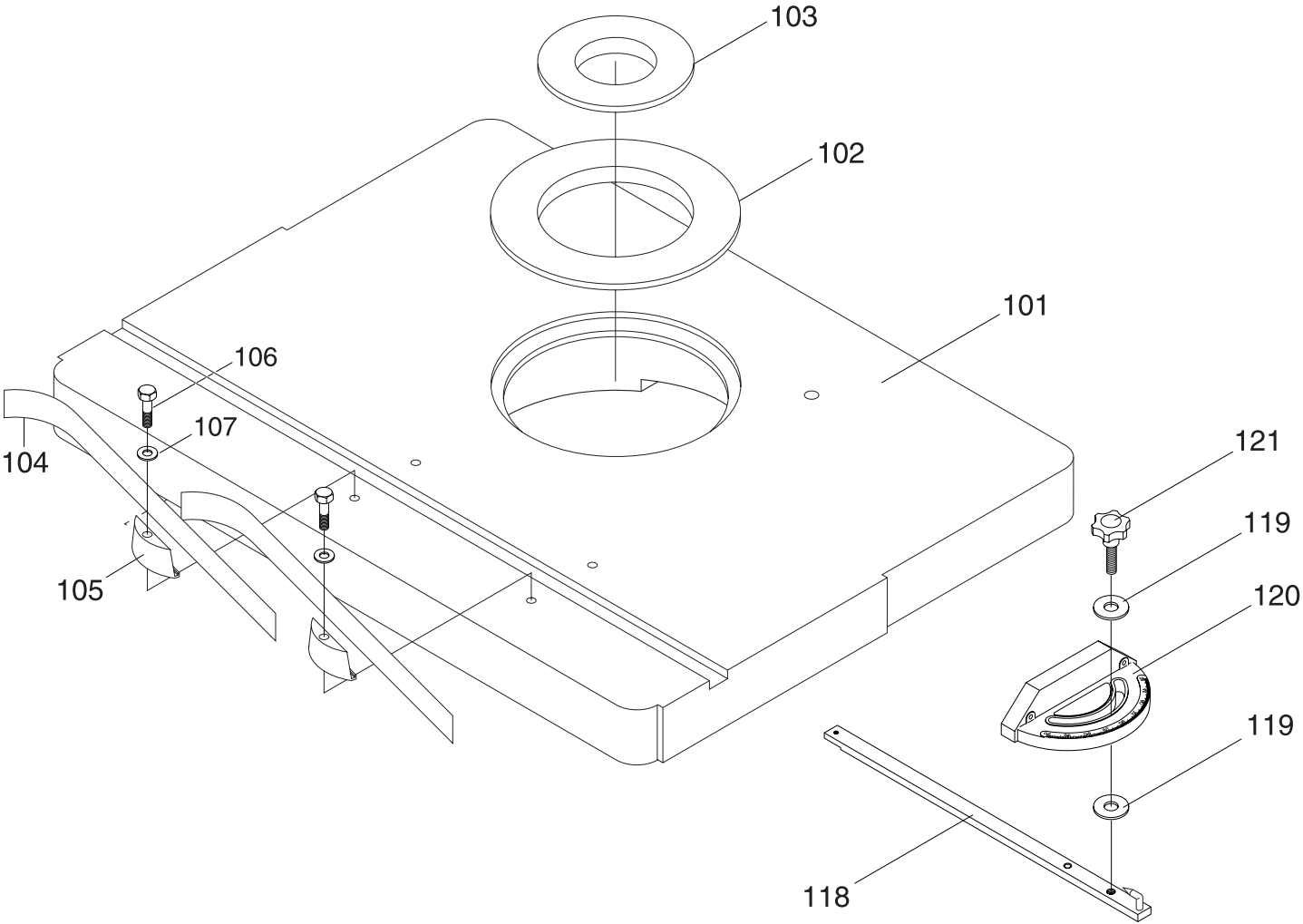
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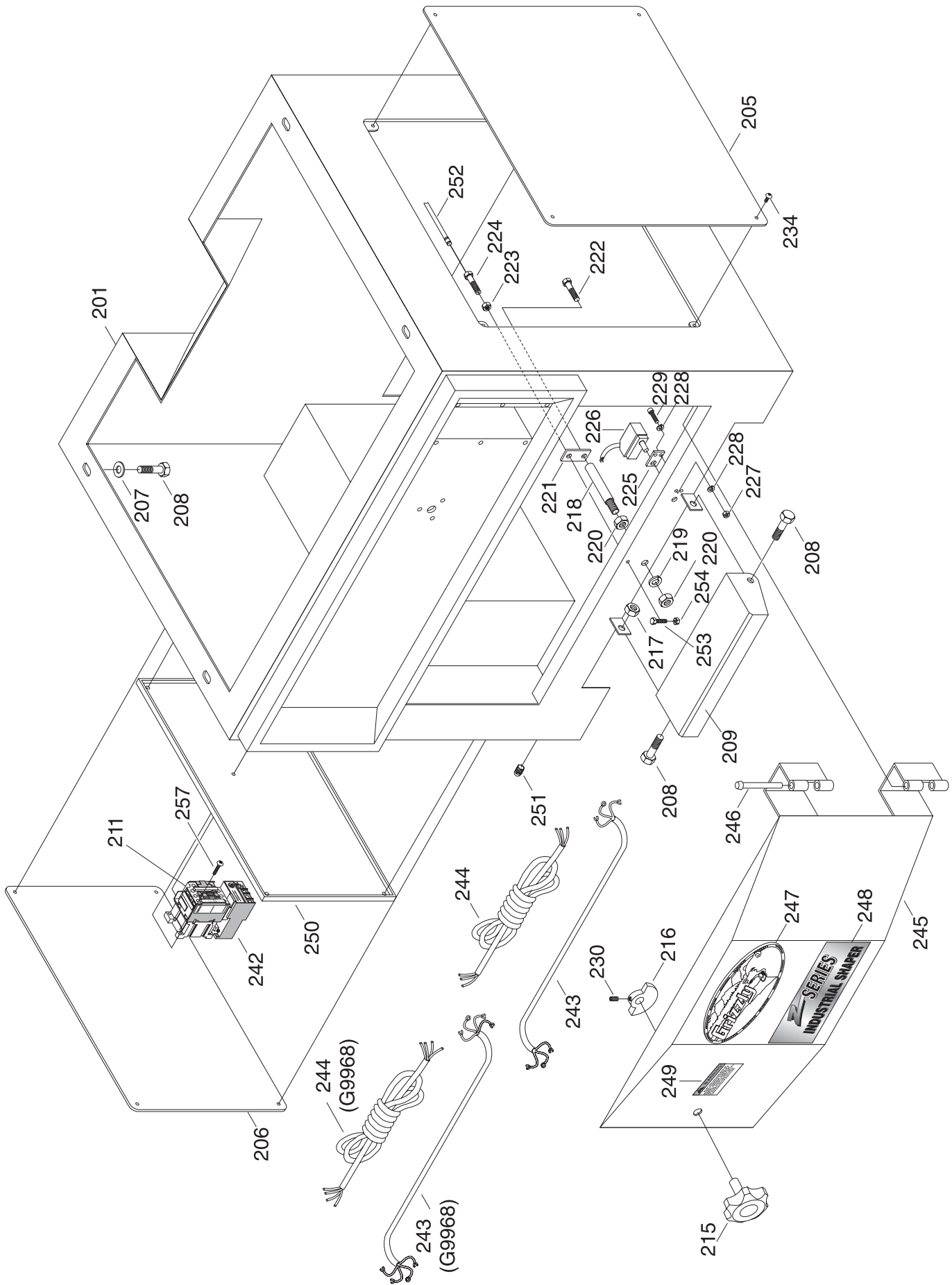
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Horsepower 7½" H.P.
Phase / Voltage Three-Phase, 220/440 V
Amps 20/10
Cycle / R.P.M. 60 Hertz / 3450 R.P.M.
Bearings Shielded & Lubricated Ball Bearings
Switch Magnetic w/ Thermal Overload Protector

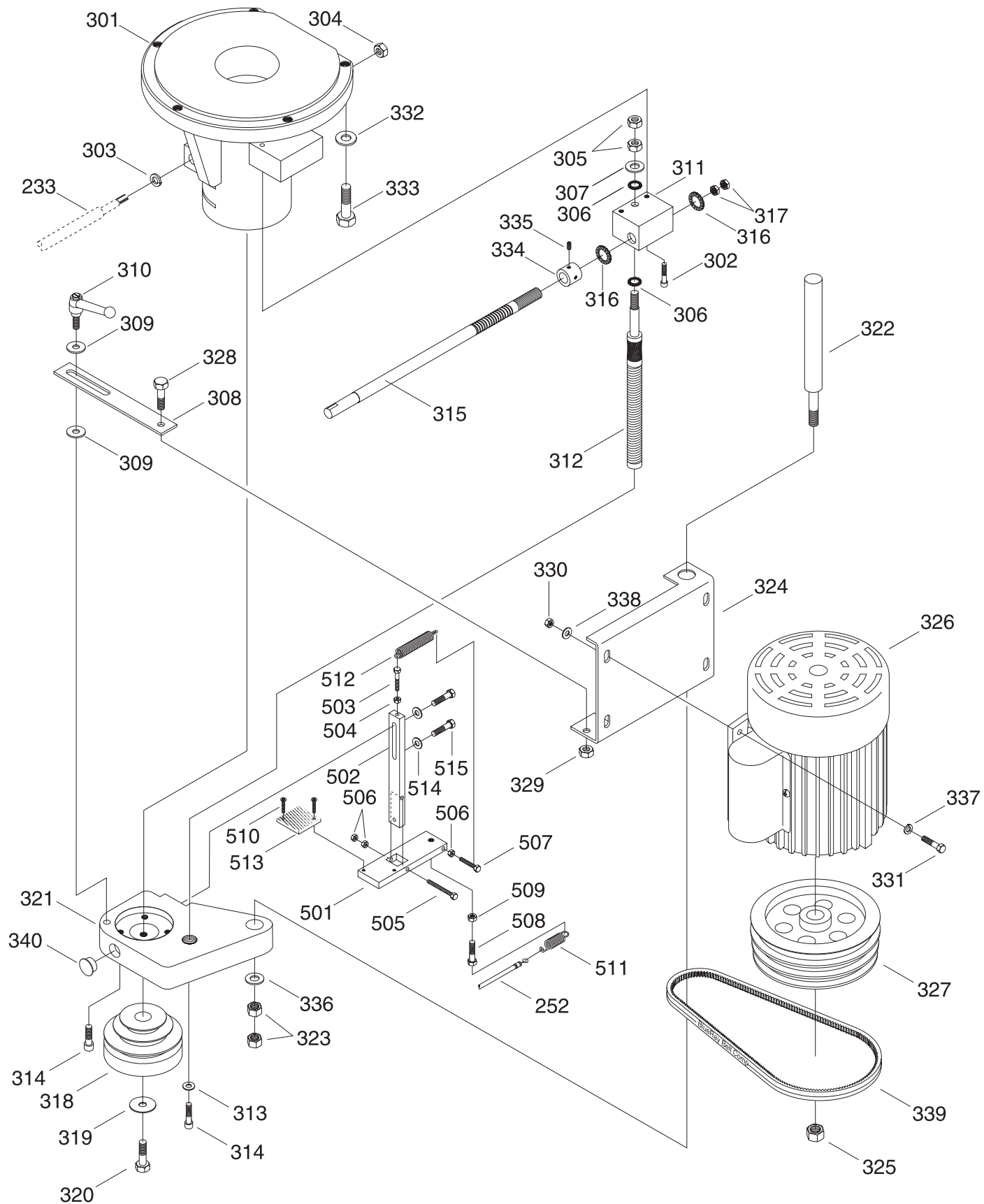
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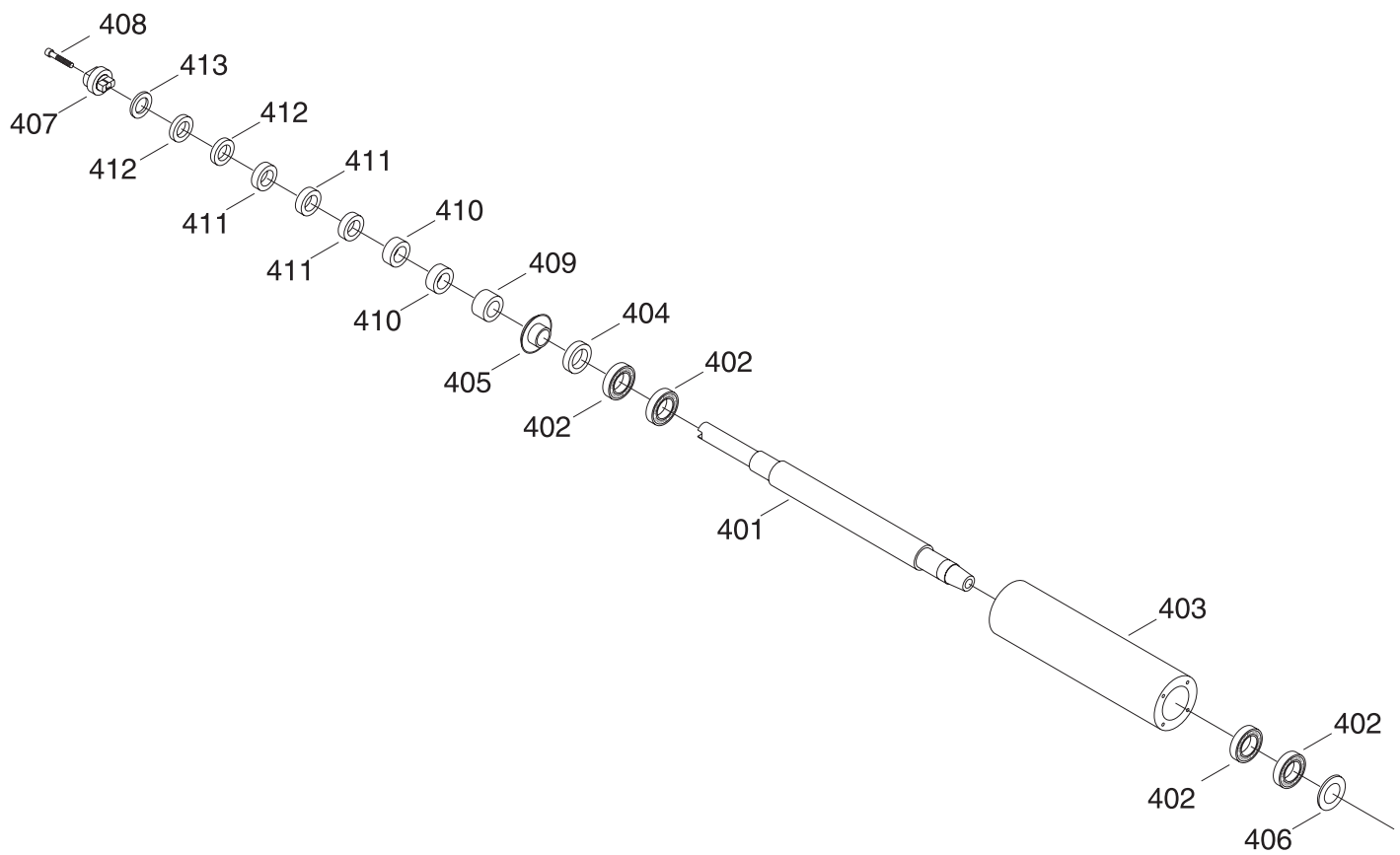
..... 2 Spring Hold-Down Assemblies
..... Quick Release Levers and Knob-Equipped Fence Adjustment
..... 2 Table Inserts
..... Spindles Include Spacers and Nuts
..... Vertical Spindle Lock
..... Spindle Brake
..... Miter Gauge
..... Includes Service Wrenches
..... Table Extension Allows Support 36" From Spindle

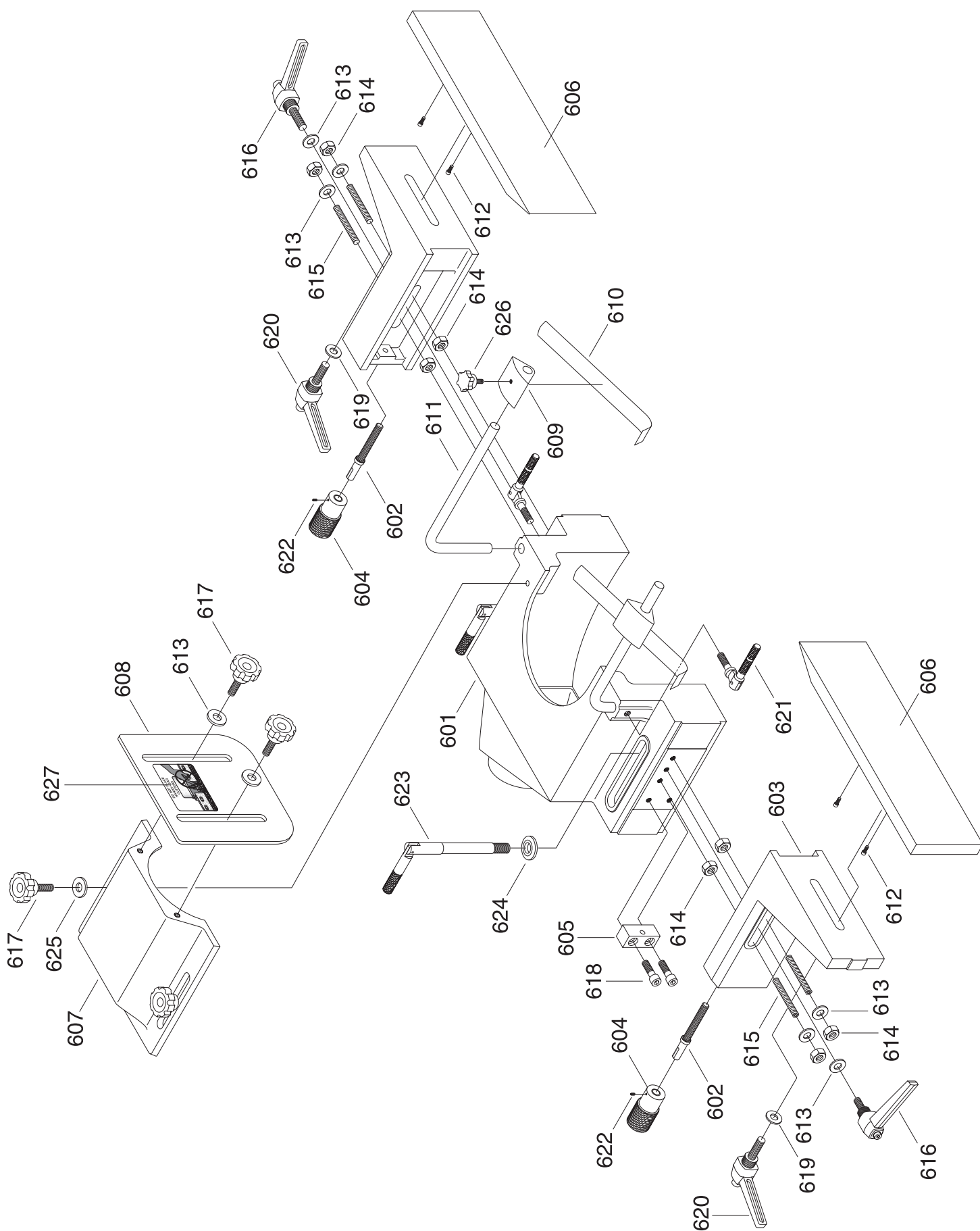












REF	PART #	DESCRIPTION
101	P9968101	TABLE FOR G9968
102	P9968102	TABLE INSERT LARGE
103	P9968103	TABLE INSERT SMALL
104	P9968104	SPRING PLATE
105	P9968105	BRACKET SUPPORT
106	P9968106	HEX BOLT M12-1.75 X 60
107	P9968107	FLAT WASHER 12MM
108	P9968108	EXTENSION TABLE (SET)
109	P9968109	IRON FRAME
110	P9968110	TABLE MOTION BAR
111	P9968111	WASHER
112	P9968112	HEX BOLT M12-1.75 X 50
113	P9968113	FLAT WASHER 1/2
114	P9968114	LOCK WASHER 12MM
115	P9968115	FLAT WASHER 12MM
116	P9968116	CAP SCREW M12-1.75 X 25
117	P9968117	START HANDLE
201	P9968201	BASE
202	P9968202	SWITCH PLATE
203	P9968203	SWITCH PLATE
204	P9968204	FLANGE
205	P9968205	COVER
206	P9968206	COVER
207	P9968207	FLAT WASHER 1/2
208	P9968208	HEX BOLT M12-1.75 X 20
209	P9968209	FOOT PEDAL
210	P9968210	HAND WHEEL
211	P9968211	FWD/REV SWITCH
212	P9968212	POWER SOURCE LIGHT
213	P9968213	BUTTON SWITCH GREEN
214	P9968214	EMERGCY STOP BUTTON
215	P9968215	LOCK KNOB
216	P9968216	LOCK
217	P9968217	HEX NUT M12-1.75
218	P9968218	BOLT
219	P9968219	LOCK WASHER 1/2
220	P9968220	HEX NUT 1/2-12
221	P9968221	FLAT IRON PLATE
222	P9968222	HEX BOLT 3/8-16 X 3/4
223	P9968223	HEX NUT 3/8-16
224	P9968224	HEX BOLT 3/8-16 X 1-3/4
225	P9968225	MICRO SWITCH PLATE
226	P9968226	MICRO SWITCH
227	P9968227	HEX NUT M6-1
228	P9968228	LOCK WASHER 1/4
229	P9968229	CAP SCREW M6-1 X 20
230	P9968230	CAP SCREW M8-1.25 X 10
231	P9968231	HEX BOLT M8-1.25 X 25
232	P9968232	HEX NUT M8-1.25
233	P9968233	LOCKING KNOB
234	P9968234	PHLP HD SCR M6-1 X 10
235	P9968235	ID LABEL-G9968
236	P9968236	UNPLUG LABEL
237	P9968237	SAFETY GLASSES LABEL
238	P9968238	READ MANUAL LABEL
239	P9968239	HANDLE SCREW

REF	PART #	DESCRIPTION
240	P9968240	BALL TYPE KNOB
241	P9968241	HEX NUT
242	P9968242	MAG SWITCH
243	P9968243	MOTOR/SWITCH CORD
244	P9968244	SWITCH/POWER CORD
245	P9968245	FRONT COVER
246	P9968246	HINGE SHAFT
247	P9968247	GRIZZLY LOGO PLATE
248	P9968248	INDUST SHAPER LABEL
249	P9968249	DON'T OPEN LABEL
250	P9968250	ELECTRIC BOX BASE
251	P9968251	STRAIN RELIEF
252	P9968252	BRAKE WIRE
253	P9968253	HEX BOLT
254	P9968254	HEX NUT
257	P9968257	MAG SWITCH SCREW
301	P9968301	HOUSING
302	P9968302	CAP SCREW M8-1.25 X 50
303	P9968303	LOCK WASHER 1/2
304	P9968304	HEX NUT M12-1.75
305	P9968305	HEX NUT 1/2-12
306	P9968306	THRUST BEARING 2902ZZ
307	P9968307	FLAT WASHER 5/8
308	P9968308	MOTOR FASTENING
309	P9968309	FLAT WASHER 12MM
310	P9968310	KNOB
311	P9968311	ELEVATION WORM BOX
312	P9968312	ELEVATION SCREW
313	P9968313	FLAT WASHER 3/8
314	P9968314	CAP SCREW M10-1.5 X 40
315	P9968315	BAR
316	P9968316	BEARING 51104ZZ
317	P9968317	HEX NUT
318	P9968318	SPINDLE PULLEY
319	P9968319	WASHER
320	P9968320	HEX BOLT M12-1.75 X 30
321	P9968321	MOTOR MOUNT
322	P9968322	MOTOR FRAME SHAFT
323	P9968323	HEX NUT 5/8-11
324	P9968324	MOTOR MOUNT
325	P9968325	HEX NUT 3/4-10
326	P9968326	MOTOR
327	P9968327	MOTOR PULLEY
328	P9968328	HEX BOLT M12-1.75 X 20
329	P9968329	HEX NUT M12-1.75
330	P9968330	HEX NUT M10-1.5
331	P9968331	HEX BOLT M10-1.5 X 25
332	P9968332	WASHER 16MM
333	P9968333	HEX BOLT M16-2 X 50
334	P9968334	SLEEVE
335	P9968335	SCREW M6-1 X 6
336	P9968336	LOCK WASHER 1/4
337	P9968337	LOCK WASHER 3/8
338	P9968338	FLAT WASHER 3/8
339	P9968339	V-BELT 20 X 10 X 1085MM

REF	PART #	DESCRIPTION
401	P9968401	MAIN SPINDLE
402	P9968402	BEARING 7008C
403	P9968403	SHAFT HOUSING
404	P9968404	SPINDLE COVER (L)
405	P9968405	SPINDLE UP COVER
406	P9968406	SPINDLE DOWN COVER
407	P9968407	SPINDLE NUT
408	P9968408	CAP SCREW M14-2 X 50
409	P9968409	RUB COLLAR 1-1/4 X 1-1/4
410	P9968410	RUB COLLAR 1-1/4 X 3/4
411	P9968411	RUB COLLAR 1-1/4 X 5/8
412	P9968412	RUB COLLAR 1-1/4 X 3/8
413	P9968413	RUB COLLAR
414	P9968414	BALL BEARING 6008-OPEN
501	P9968501	BRAKE PLATE
502	P9968502	BRAKE PLATE SHAFT
503	P9968503	HEX BOLT M6-1 X 25
504	P9968504	HEX NUT M6-1
505	P9968505	HEX BOLT 1/4-20 X 2-1/4
506	P9968506	HEX NUT 1/4-20
507	P9968507	HEX BOLT 1/4-20 X 1-1/2
508	P9968508	HEX BOLT 3/8-16 X 1-1/2
509	P9968509	HEX NUT 3/8-16
510	P9968510	PLATE HEAD BOLT
511	P9968511	SPRING
512	P9968512	SPRING
513	P9968513	BRAKE PAD
514	P9968514	FLAT WASHER 3/8

REF	PART #	DESCRIPTION
515	P9968515	HEX BOLT M10-1.5 X 30
601	P9968601	FENCE HOUSING
602	P9968602	SPECIAL SCREW
603	P9968603	FENCE MOUNT
604	P9968604	SCREW SEAT
605	P9968605	PLATE
606	P9968606	FENCE PLATE
607	P9968607	FENCE FRAME GUARD
608	P9968608	SAFETY COVER
609	P9968609	RETAINER
610	P9968610	HOLD-DOWN
611	P9968611	HOLD-DOWN BAR
612	P9968612	CAP SCREW 3/8-16 X 3/4
613	P9968613	FLAT WASHER 3/8
614	P9968614	HEX NUT M10-1.5
615	P9968615	SET BOLT M10-1.5 X 80
616	P9968616	KNOB
617	P9968617	LOCK KNOB
618	P9968618	HEX BOLT M10-1.5 X 25
619	P9968619	FLAT WASHER 1/2
620	P9968620	KNOB 1/2-12
621	P9968621	MOVABLE BOLT
622	P9968622	CAP SCREW M8-1.25 X 10
623	P9968623	MOVABLE BOLT
624	P9968624	FLAT WASHER 5/8
625	P9968625	FLAT WASHER 1/2
626	P9968626	KNOB
627	P9968627	GUARD LABEL

WARRANTY AND RETURNS

Grizzly Industrial, Inc. warrants every product it sells for a period of **1 year** to the original purchaser from the date of purchase. This warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence, accidents, repairs or alterations or lack of maintenance. This is Grizzly's sole written warranty and any and all warranties that may be implied by law, including any merchantability or fitness, for any particular purpose, are hereby limited to the duration of this written warranty. We do not warrant or represent that the merchandise complies with the provisions of any law or acts unless the manufacturer so warrants. In no event shall Grizzly's liability under this warranty exceed the purchase price paid for the product and any legal actions brought against Grizzly shall be tried in the State of Washington, County of Whatcom.

We shall in no event be liable for death, injuries to persons or property or for incidental, contingent, special, or consequential damages arising from the use of our products.

To take advantage of this warranty, contact us by mail or phone and give us all the details. We will then issue you a "Return Number," which must be clearly posted on the outside as well as the inside of the carton. We will not accept any item without this number. Proof of purchase must accompany the merchandise.

The manufacturers reserve the right to change specifications at any time because they constantly strive to achieve better quality equipment. We make every effort to ensure that our products meet high quality and durability standards and we hope you never need to use this warranty.

Please feel free to write or call us if you have any questions about the machine or the manual.

Thank you again for your business and continued support. We hope to serve you again soon.

WARRANTY CARD

Name _____
Street _____
City _____ State _____ Zip _____
Phone Number _____ E-Mail _____ FAX _____
MODEL # G9862/G9968 Shaper SERIAL# _____ Order # _____

The following information is given on a voluntary basis. It will be used for marketing purposes to help us develop better products and services. Of course, all information is strictly confidential.

1. How did you learn about us?

<input type="checkbox"/> Advertisement	<input type="checkbox"/> Friend
<input type="checkbox"/> Catalog	<input type="checkbox"/> World Wide Web
<input type="checkbox"/> Other _____	
2. Which of the following magazines do you subscribe to.

<input type="checkbox"/> American Woodworker	<input type="checkbox"/> Practical Homeowner
<input type="checkbox"/> Cabinetmaker	<input type="checkbox"/> Shop Notes
<input type="checkbox"/> Family Handyman	<input type="checkbox"/> Today's Homeowner
<input type="checkbox"/> Fine Homebuilding	<input type="checkbox"/> WOOD
<input type="checkbox"/> Fine Woodworking	<input type="checkbox"/> Wooden Boat
<input type="checkbox"/> Home Handyman	<input type="checkbox"/> Woodshop News
<input type="checkbox"/> Journal of Light Construction	<input type="checkbox"/> Woodsmith
<input type="checkbox"/> Old House Journal	<input type="checkbox"/> Woodwork
<input type="checkbox"/> Popular Mechanics	<input type="checkbox"/> Woodworker
<input type="checkbox"/> Popular Science	<input type="checkbox"/> Woodworker's Journal
<input type="checkbox"/> Popular Woodworking	<input type="checkbox"/> Workbench
<input type="checkbox"/> Other _____	
3. Which of the following woodworking/remodeling shows do you watch?

<input type="checkbox"/> Backyard America	<input type="checkbox"/> The New Yankee Workshop
<input type="checkbox"/> Home Time	<input type="checkbox"/> This Old House
<input type="checkbox"/> The American Woodworker	<input type="checkbox"/> Woodwright's Shop
<input type="checkbox"/> Other _____	
4. What is your annual household income?

<input type="checkbox"/> \$20,000-\$29,999	<input type="checkbox"/> \$60,000-\$69,999
<input type="checkbox"/> \$30,000-\$39,999	<input type="checkbox"/> \$70,000-\$79,999
<input type="checkbox"/> \$40,000-\$49,999	<input type="checkbox"/> \$80,000-\$89,999
<input type="checkbox"/> \$50,000-\$59,999	<input type="checkbox"/> \$90,000 +
5. What is your age group?

<input type="checkbox"/> 20-29	<input type="checkbox"/> 50-59
<input type="checkbox"/> 30-39	<input type="checkbox"/> 60-69
<input type="checkbox"/> 40-49	<input type="checkbox"/> 70 +
6. How long have you been a woodworker?

<input type="checkbox"/> 0 - 2 Years	<input type="checkbox"/> 8 - 20 Years
<input type="checkbox"/> 2 - 8 Years	<input type="checkbox"/> 20+ Years
7. How would you rank your woodworking skills?

<input type="checkbox"/> Simple	<input type="checkbox"/> Advanced
<input type="checkbox"/> Intermediate	<input type="checkbox"/> Master Craftsman
8. What stationary woodworking tools do you own? Check all that apply.

<input type="checkbox"/> Air Compressor	<input type="checkbox"/> Panel Saw
<input type="checkbox"/> Band Saw	<input type="checkbox"/> Planer
<input type="checkbox"/> Drill Press	<input type="checkbox"/> Power Feeder
<input type="checkbox"/> Drum Sander	<input type="checkbox"/> Radial Arm Saw
<input type="checkbox"/> Dust Collector	<input type="checkbox"/> Shaper
<input type="checkbox"/> Horizontal Boring Machine	<input type="checkbox"/> Spindle Sander
<input type="checkbox"/> Jointer	<input type="checkbox"/> Table Saw
<input type="checkbox"/> Lathe	<input type="checkbox"/> Vacuum Veneer Press
<input type="checkbox"/> Mortiser	<input type="checkbox"/> Wide Belt Sander
<input type="checkbox"/> Other _____	
9. How many of your woodworking machines are Grizzly? _____
10. Which benchtop tools do you own? Check all that apply.

<input type="checkbox"/> 1" x 42" Belt Sander	<input type="checkbox"/> 6" - 8" Grinder
<input type="checkbox"/> 5" - 8" Drill Press	<input type="checkbox"/> Mini Lathe
<input type="checkbox"/> 8" Table Saw	<input type="checkbox"/> 10" - 12" Thickness Planer
<input type="checkbox"/> 8" - 10" Bandsaw	<input type="checkbox"/> Scroll Saw
<input type="checkbox"/> Disc/Belt Sander	<input type="checkbox"/> Spindle/Belt Sander
<input type="checkbox"/> Mini Jointer	
<input type="checkbox"/> Other _____	
11. How many of the machines checked above are Grizzly? _____
12. Which portable/hand held power tools do you own? Check all that apply.

<input type="checkbox"/> Belt Sander	<input type="checkbox"/> Orbital Sander
<input type="checkbox"/> Biscuit Joiner	<input type="checkbox"/> Palm Sander
<input type="checkbox"/> Circular Saw	<input type="checkbox"/> Portable Planer
<input type="checkbox"/> Detail Sander	<input type="checkbox"/> Saber Saw
<input type="checkbox"/> Drill/Driver	<input type="checkbox"/> Reciprocating Saw
<input type="checkbox"/> Miter Saw	<input type="checkbox"/> Router
<input type="checkbox"/> Other _____	
13. What machines/supplies would you like Grizzly Industrial to carry?

<input type="checkbox"/> 12" Table Saw	<input type="checkbox"/> Radial Arm Saw
<input type="checkbox"/> 12" Jointer	<input type="checkbox"/> Panel Saw
<input type="checkbox"/> Combination Planer/Jointer	<input type="checkbox"/> Brass Hardware
<input type="checkbox"/> Paint & Finishing Supplies	<input type="checkbox"/> Lumber
<input type="checkbox"/> Contractor's Supplies	
<input type="checkbox"/> Other _____	
14. What new accessories would you like Grizzly Industrial to carry?

<input type="checkbox"/> Builders Hardware	<input type="checkbox"/> Hand Tools
<input type="checkbox"/> Fasteners	<input type="checkbox"/> Wood Components
<input type="checkbox"/> Other _____	
15. What other companies do you purchase your tools and supplies from?

16. Do you think your purchase represents good value?
☐ Yes ☐ No
17. Would you recommend Grizzly Industrial to a friend?
☐ Yes ☐ No
18. Would you allow us to use your name as a reference for Grizzly customers in your area? **Note: We never use names more than three times.**
☐ Yes ☐ No
19. Comments: _____

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GRIZZLY INDUSTRIAL, INC.
P.O. BOX 2069
BELLINGHAM, WA 98227-2069



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Send a Grizzly Catalog to a friend:

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Street_____
City_____ State_____ Zip_____

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