Grizzly Industrial, Inc.®

5 or 7½ H.P. HEAVY-DUTY SHAPER

MODEL G5912Z/G7214Z

INSTRUCTION MANUAL

REVISED OCTOBER, 2002. PRINTED IN TAIWAN

ONLINE MANUAL DISCLAIMER

THE INFORMATION IN THIS MANUAL REPRESENTS THE CONFIGURATION OF THE MACHINE AS IT IS CURRENTLY BEING SHIPPED. THE MACHINE CONFIGURATION CAN CHANGE AS PRODUCT IMPROVEMENTS ARE INCORPORATED. IF YOU OWN AN EARLIER VERSION OF THE MACHINE, THIS MANUAL MAY NOT EXACTLY DEPICT YOUR MACHINE . CONTACT CUSTOMER SERVICE IF YOU HAVE ANY QUESTIONS ABOUT DIFFERENCES. PREVIOUS VERSIONS ARE NOT AVAILABLE ONLINE.

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.

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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.

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

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

⚠CAUTION — **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

	LENGTH		
AMP RATING	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, and clearly understood.

⚠WARNING
Additional Safety Instructions For Shapers

1. **NEVER ALLOW YOUR HANDS** to come within 12 inches of the cutters. Never pass your hands directly over or in front of the 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.

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 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. Always use the guard as described in the manual.

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, fence, and 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. **NEVER REACH BEHIND CUTTER** to grab the workpiece. Your hand may suddenly be pulled into the cutter in the event of a kickback.

14. **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

G5912Z Operation

The Model G5912Z Heavy-Duty Shaper is furnished with a 3450 R.P.M., 5 H.P., single-phase 220V motor, push-button ON/OFF magnetic starter switch, forward-reverse switch and a cord set. Under normal use, the motor draws approximately 25 amps @ 220V. We recommend a 30 amp circuit breaker. If frequent circuit failures occur when using the shaper, contact our service department.

The shaper motor must be connected to its own dedicated 30A circuit. The shaper should not share a circuit with any other machine, and the wires in the circuit should be rated for 30A. A standard 2-pole breaker is also necessary for use with the shaper.

We recommend using a NEMA-style L6-30 plug and outlet similar to that in **Figure 1A.** 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.

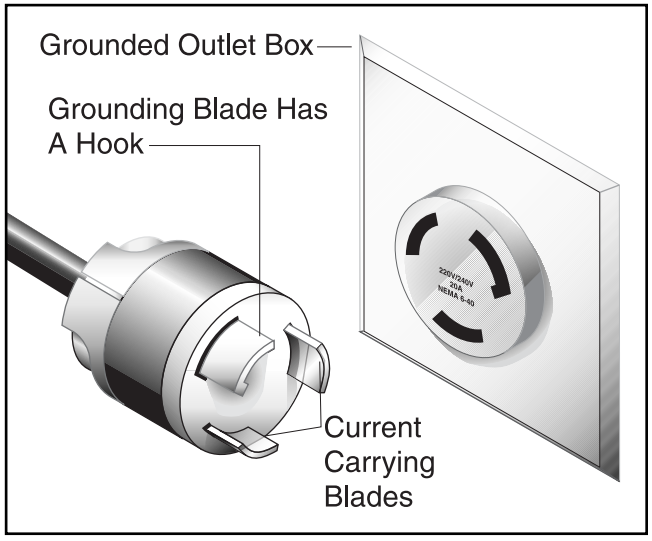


Figure 1A. 220V Single-Phase

G7214Z Operation

The Model G7214Z Heavy-Duty Shaper is furnished with a 3450 R.P.M., 7½ H.P., three-phase 220V motor, push-button ON/OFF magnetic starter switch, forward-reverse switch and a cord set. Under normal use, the motor draws slightly over 20 amps @ 220V. We recommend a 25 amp circuit breaker. If frequent circuit failures occur when using the shaper, contact our service department.

The shaper motor must be connected to its own dedicated 25 amp 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 1B.** 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.

Three-phase electrical power is normally found only in commercial buildings and requires special care during hook-up. Three-phase installation is best done by a qualified industrial electrician. Please contact our Customer Service if you have any questions on three-phase installations.

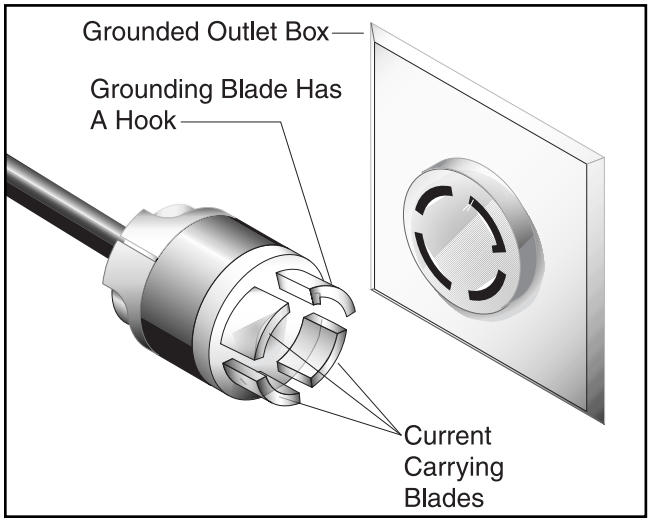
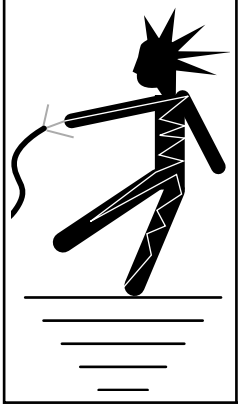


Figure 1B. 220V Three-Phase

Grounding

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



⚠WARNING

This equipment must be grounded. Verify that any existing electrical outlet and circuit you intend to plug into is actually grounded. Under no circumstances should the grounding pin from any three-pronged plug be removed. Serious injury may occur.

Extension Cords

We do not recommend the use of extension cords on 220V 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.

Wiring Diagram

A wiring diagram is provided at the back of this manual should it be necessary to repair or revise the wiring. Always utilize a qualified electrician when doing any electrical work on this equipment.

⚠CAUTION

We have covered some basic electrical requirements for the safe operation of your machine. These requirements are not necessarily comprehensive. You must be sure that your particular electrical configuration complies with local and state codes. Ensure compliance by checking with your local municipality or a licensed electrician.

SECTION 3: GENERAL INFORMATION

Commentary

Grizzly Industrial, Inc. is proud to offer the Model G5912Z/G7214Z Heavy-Duty Shaper. Both of these shapers are 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 G5912Z/G7214Z is intended for heavy-duty professional use. Specifically, the Model G5912Z features a 5 H.P. single-phase motor, and the Model G7214Z features a 7½ H.P. three-phase motor. Both motors operate at 220V with magnetic power switching and full reversing capabilities. The Model G5912Z/G7214Z features a precision-ground cast iron table, hold-down springs, and three interchangeable spindles. This shaper is capable of operating at four spindle speeds: 3600, 5100, 8000 and 10,000 R.P.M., giving you a versatile shaper with plenty of power.

A number of optional accessories for the Model G5912Z/G7214Z are available. Please refer to the current Grizzly catalog for more information.

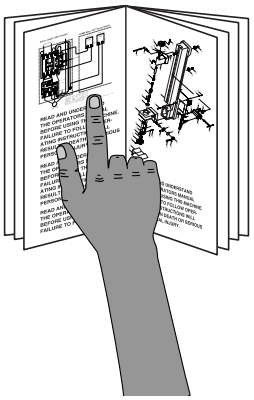
We are also pleased to provide this manual with the Model G5912Z/G7214Z. It was written to guide you through assembly, review safety considerations, and cover general operating procedures. It represents our latest effort to produce the best documentation possible. If you have any criticisms that you 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
Bellingham, WA 98227

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 G5912Z/G7214Z 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.

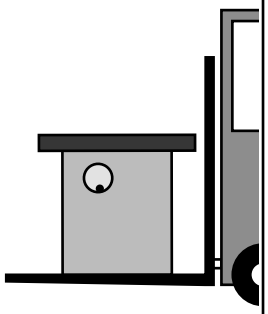


⚠WARNING

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.

Unpacking

The Model G5912Z/G7214Z 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 G5912Z/G7214Z is a heavy machine, 700/770 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.

Piece Inventory

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

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.

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

- Shaper Unit
- Miter Gauge Kit
- Hardware

The Model G5912/7214Z **Hardware** and **Qty**:

¾" Spindle	1
1" Spindle	1
1¼" Spindle	1
¾" Spindle Nut	2
1" Spindle Nut	2
1¼" Spindle Nut	2
Spacer Set	22
Hold-Downs	4
Hold-Down Bars	2
Hold-Down Brackets	4
Fence Pieces	2
Fence Mounts	2
Dust Port	1
Safety Guard	1
Multi Wrench 10, 19, 23, 26, 37mm	1
3mm Allen® Wrench	1
4mm Allen® Wrench	1
1½" Box Wrench	1
1" Box Wrench	1
Stainless Wheel Handles	1
Round Knobs	4
Plastic Adjustment Wheels	2
4" Threaded Stud Knobs	2
4⅞" Threaded Stud Knobs	2
4" Double Threaded-End Bars	2
Draw Bar w/Nut	1
Shaft Guide Bar w/Setscrew	2
Fence-Bracket Adjustment Handles	2
Hold-Down Adjustment Handles	2
Adjustment Guide Bar	2
Threaded Spacers	2
5⁄16" Lock Washers	6
5⁄16"-18 x 1 5⁄16" Flat Head Screws	6
5⁄16" Flat Washers	8
½" Flat Washers	4
5⁄16" Hex Nuts	6
Table Inserts	3

Figure 2. Shaper hardware.

Clean Up

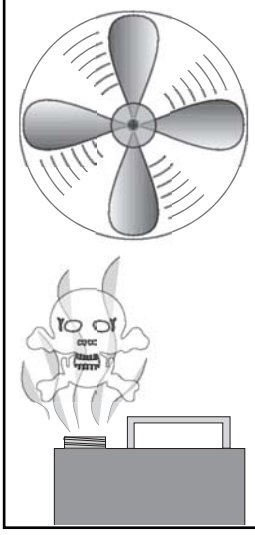
The unpainted surfaces are coated with a waxy oil to protect them from corrosion during shipment. Remove this protective coating with a solvent cleaner or citrus-based degreaser such as Grizzly's G7895 Degreaser. Avoid chlorine-based solvents as they may damage painted surfaces should they come in contact. Always follow the usage instructions on the product you choose to clean.

⚠WARNING

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.

⚠WARNING

Do not smoke while using solvents. A risk of explosion or fire exists and may result in serious personal injury.



⚠CAUTION

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.

Site Considerations

FLOOR LOAD

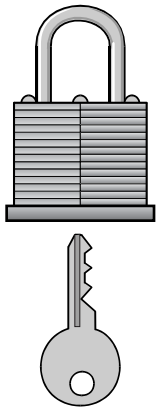
Your Model G5912Z/G7214Z represents a moderately large weight load in a small footprint. Most commercial shop floors will be adequate for the 700/770 lb. weight of the Model G5912Z/G7214Z. Some floors may require additional support. Contact an architect or structural engineer if you have any question 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.



⚠CAUTION

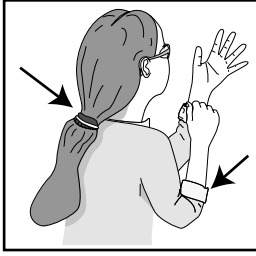
Make your shop "child safe." Ensure that your workplace is inaccessible to children by closing and locking all entrances when you are away. Never allow visitors in your shop when assembling, adjusting, or operating equipment.

SECTION 4: ASSEMBLY

Beginning Assembly

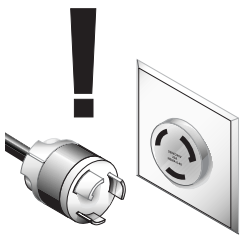
Most of your Model G5912Z/G7214Z has been assembled at the factory, but some parts must be assembled or installed after delivery. We have organized the assembly process into steps. Please follow along in the order presented here.

TOOLS REQUIRED: You will need a straight-edge, 12mm, 14mm, 15 mm open-end wrenches, and a 3mm Allen® wrench.



⚠WARNING

Keep loose clothing rolled up and 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.

Handwheel

The handwheel, pre-installed at the factory, is made of cast iron. It is used to raise and lower the spindle to accommodate the height required by your cutter.

Thread the crank handle onto the handwheel.

Figure 3. Handwheel mounted to shaper.

Spindle

The Model G5912Z/G7214Z comes with three interchangeable spindles like those in **Figure 4**. The spindles must be inserted correctly and remain stable in order to produce quality work. When installing and changing spindles, make sure the spindle seats snugly and that there is enough drawbar threaded into the bottom of the spindle to safely secure it in place. To install a spindle:

1. You should not have your machine connected to a power source at this time. If you do, **UNPLUG** it before you begin.

Figure 4. ½", ¾", & 1" spindles.

2. Thread the drawbar approximately 10-15 turns into the bottom of the spindle. The drawbar has two threaded ends. One of them will remain exposed.

3. Drop the spindle/drawbar into the spindle cartridge at the top of the table. Line up the notches at the top of the spindle cartridge with those in the spindle as shown in **Figure 5.** You will feel the spindle seat itself.

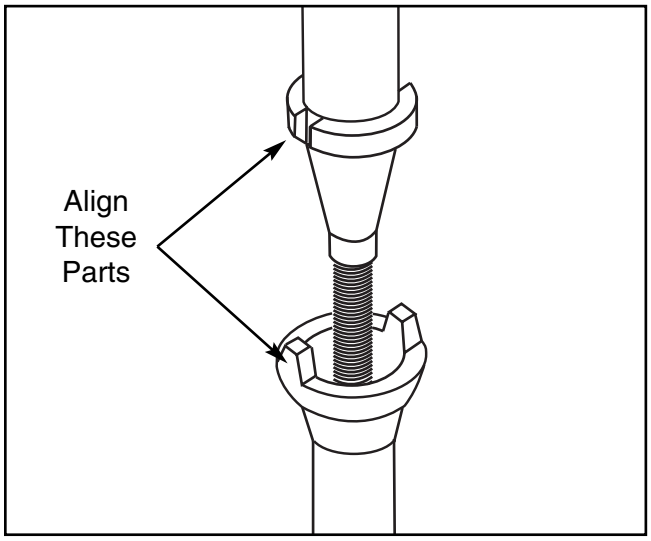


Figure 5. Installing spindle into the cartridge.

4. Thread the drawbar nut, tapered side up, onto the bottom of the drawbar, as illustrated in **Figure 6.**

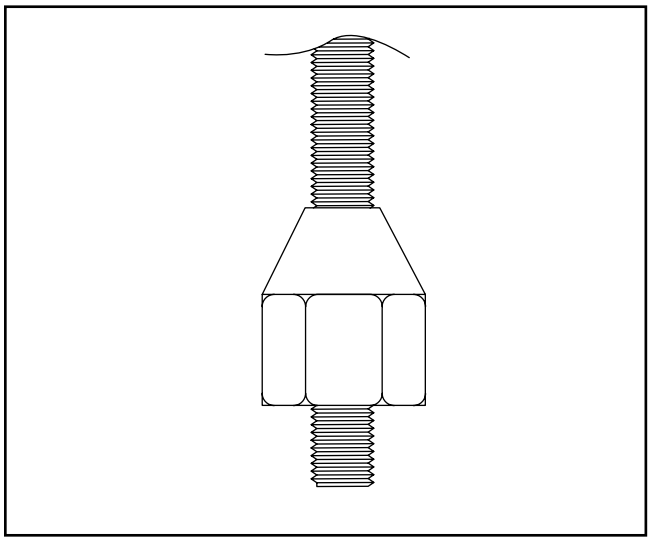


Figure 6. Drawbar nut on spindle.

5. Place the spindle wrench on top of the spindle, so it fits over the head of the spindle. Place a 15mm wrench on the drawbar nut.

6. Hold the spindle in place and tighten the drawbar nut. **DO NOT** use excessive force.

Handles

The guard adjuster is used to secure the guard to the table and to allow the guard to be loosened for adjustment. To assemble the guard adjuster:

1. Install the bar into the shaft guide as shown in **Figure 7**.

2. Line up the groove in the bar with the setscrew.

Figure 7. Bar into shaft guide.

3. Tighten the shaft setscrew into the groove to lock the bar in place as shown in **Figure 8**.

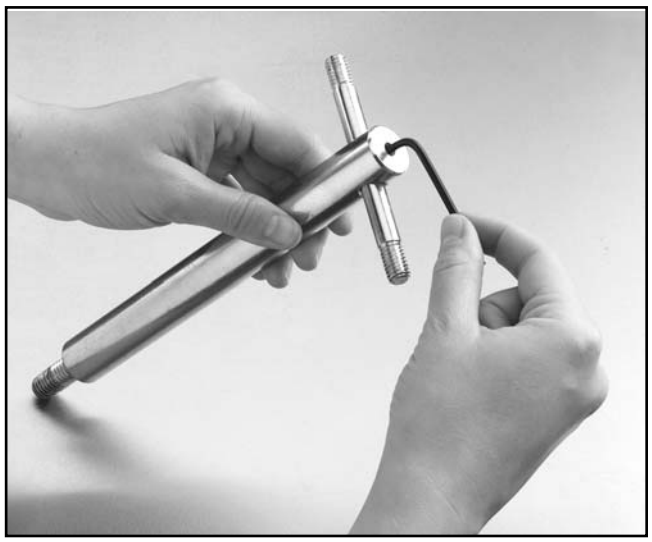


Figure 8. Tightening setscrew with hex key.

4. Install the round knobs shown in **Figure 9** onto both ends of the bar.

Figure 9. Round knobs onto bar.

The wheel shown in **Figure 10** fits on the adjustment shaft. This locks in place by tightening the setscrew into the groove on the shaft. There is a threaded hole on the wheel that allows for the optional installation of a crank (not included).

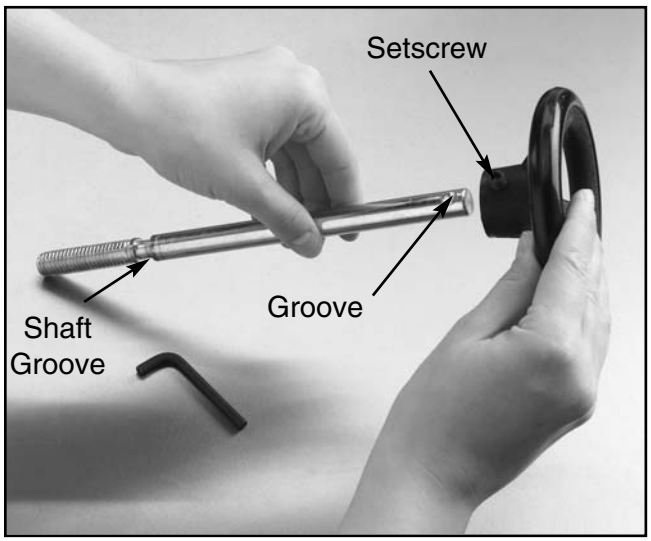


Figure 10. Wheel onto adjustment guide.

Guard

To mount the cutter guard to the table:

1. Place the guard over the threaded holes on the table.

2. Insert the shaft guide with a washer into the guard as shown in **Figure 11**, and thread the shaft guide clockwise to secure the guard to the table.

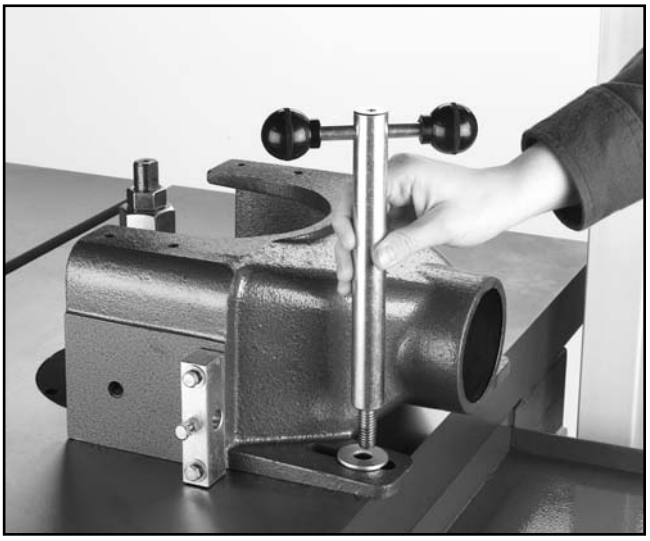


Figure 11. Inserting shaft guide into guard.

3. Insert the adjustment guide into the screw bracket. Line up the shaft groove shown in **Figure 10** with the center bolt and screw the bolt into the groove as shown in **Figure 12**. Do not completely tighten the bolt. This will allow the shaft to spin without coming out.

Figure 12. Tightening bolt into shaft groove.

Fence Assembly

To mount the fence brackets to the guard body:

1. Thread the adjustment shaft into the fence bracket as shown in **Figure 13**.

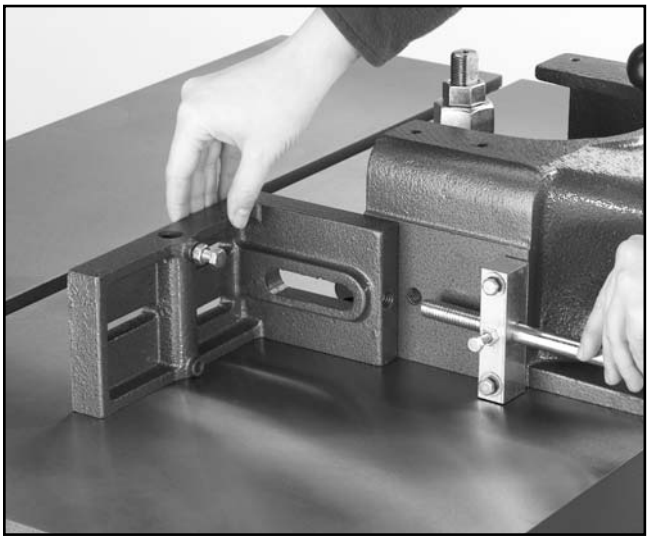


Figure 13. Adjustment guide to fence bracket.

2. Insert the adjustment handle (**Figure 14**) into the fence bracket, and thread it into the guard body.

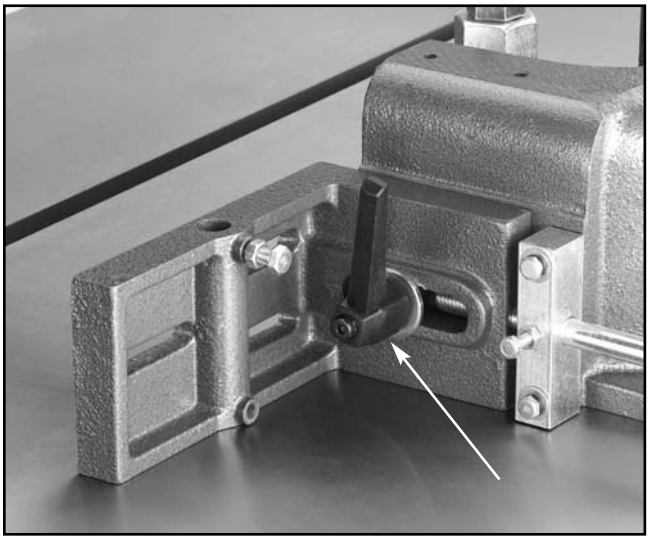


Figure 14. Adjustment handle.

To install the wood facing:

1. Secure the wooden fence pieces (as shown in **Figure 15**) with the 5/16"- 18 x 1" Phillips® head screws, washers, and hex nuts provided.

2. If using your own wood pieces, make sure the countersunk holes in your fence material are deep enough so the entire screw head is below the fence surface.

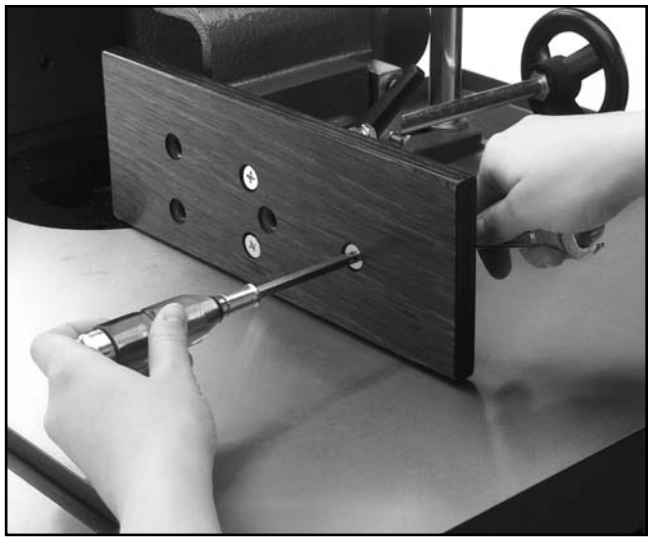


Figure 15. Attach wooden fence assembly.

Guard Cover

To mount the guard cover:

1. Place the guard cover over the threaded holes on top of the guard body as shown in **Figure 16**.

2. Thread the knobs into the guard body and secure the cover.

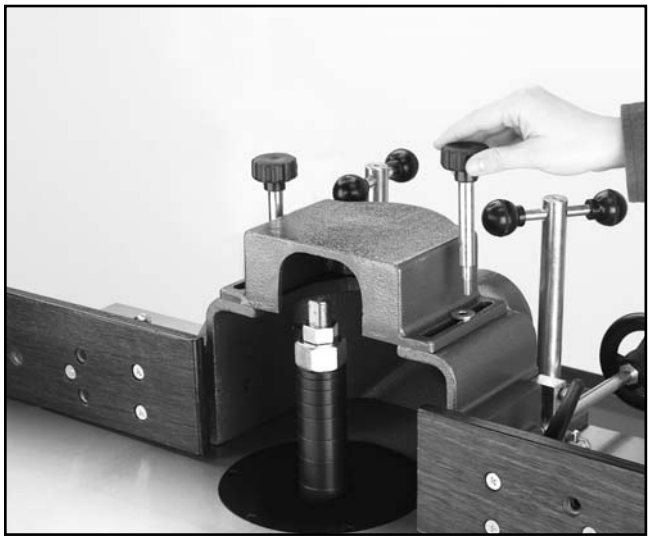


Figure 16. Guard cover.

Hold-Downs

Hold-downs are used to hold the workpiece flat on the table and snug against the fence as shown in **Figure 17.** To assemble the hold-downs:

1. Slide a hold-down bar into each of the cast iron hold-down brackets.

2. Insert the bracket pole into the fence bracket and hold-down bracket.

3. Partially screw the handle into the hold-down brackets.

4. Slide two hold-down brackets into the miter slot. Position these so they are across from the fence mounted hold-downs similar to those in **Figure 18**. Tighten these in place with the knob on top of each miter hold-down.

5. Position the hold-downs according to the size of your workpiece.

6. Tighten the handles to secure the hold-downs.

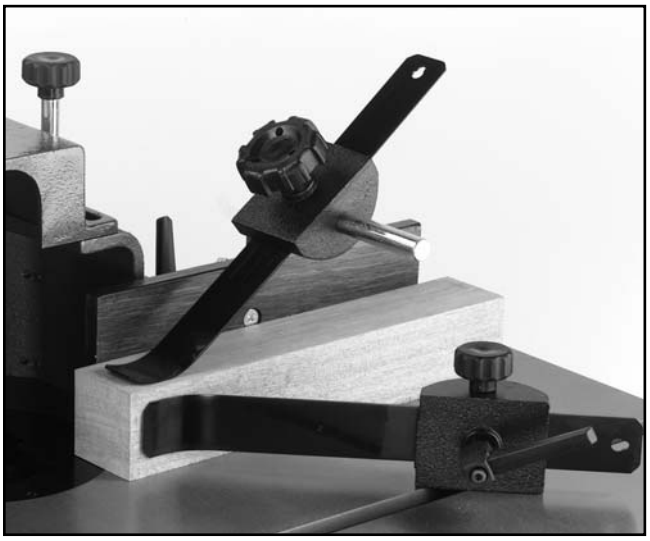


Figure 17. Hold-downs on workpiece.

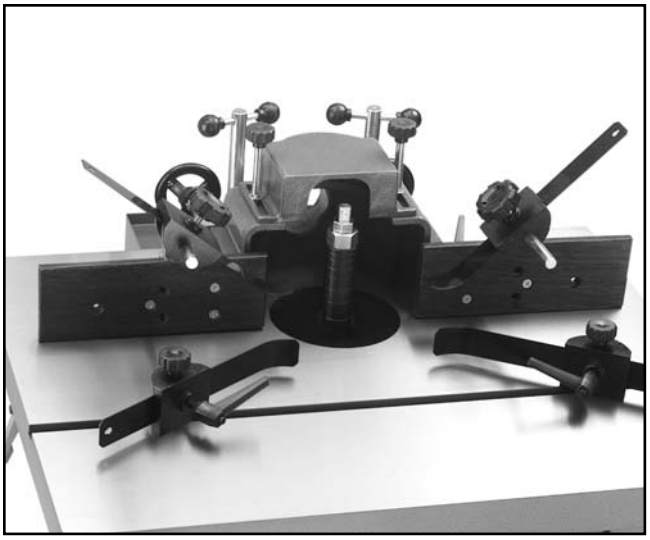
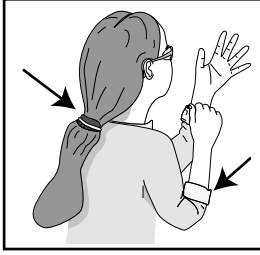


Figure 18. Overview of hold-downs in place.

SECTION 5: ADJUSTMENTS



⚠WARNING

Keep clothing rolled up and 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.

Pulleys & V-Belt

Improper pulley alignment sharply reduces the effectiveness of power transmission and belt life expectancy. To align the pulleys:

1. Remove the motor cover from the back of the shaper cabinet to expose the motor and pulleys.

2. Check the alignment with a straightedge. If the pulleys are in alignment, the straightedge should touch two sides of each pulley evenly as in **Figure 19**.

3. If the pulleys are parallel with each other, but not in line, the motor needs to be adjusted.

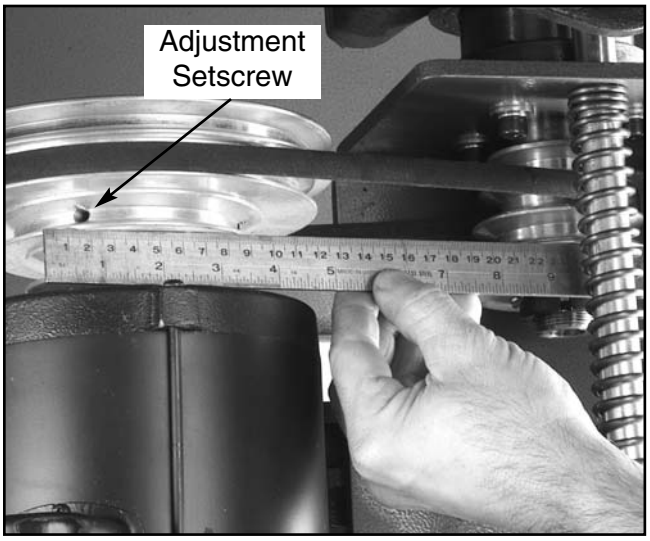


Figure 19. Inspecting pulley alignment.

4. This process is easiest with the help of another person. Loosen the four bolts that attach the motor to the motor base. One person should slide the motor either up or down while the other person measures the alignment of the motor pulley and the spindle pulley with a straightedge.

5. When the motor pulley and the spindle pulley alignment are correct, tighten the motor to the motor base.

6. Inspect your results. If satisfactory, double-check that the mounting bolts are tight.

7. You can also make small adjustments in the motor pulley alignment by raising or lowering it along the motor shaft. To do this, loosen the two setscrews (one is shown in **Figure 19**) which are in the lowest groove of the motor pulley and move the pulley into position. Tighten the setscrews when the alignment is satisfactory.

V-Belt Tension

You should be able to deflect the belt ¼" with moderate finger pressure. This may seem tight compared to most other V-belts, but since the belt is small and runs fast, this amount of tension is necessary. The V-belt will slip if too loose, and will squeal or cause vibration if too tight. Adjust the tension if necessary. To adjust V-belt tension:

1. Make sure the pulleys are properly aligned.

2. Loosen the two motor mount plate bolts and slide the motor left or right to modify the belt tension. Keep the pulleys aligned.

3. Tighten the motor mount plate bolts, test the tension, and check the pulleys.

4. Repeat **steps 2-3** until tension is correct and the pulleys are aligned.

WARNING

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

Speed Changes

The Model G5912Z/G7214Z is equipped with a V-belt drive system that controls the speeds. To change spindle speeds:

1. Unplug the machine.

2. Loosen the two motor plate bolts, and slide the motor toward the spindle assembly. DO NOT take the bolts out.

3. Select the desired speed. There are four speeds: 3600 R.P.M., 5100 R.P.M., 8000 R.P.M., 10,000 R.P.M. **Figure 20** shows the belt positions for each available speed.

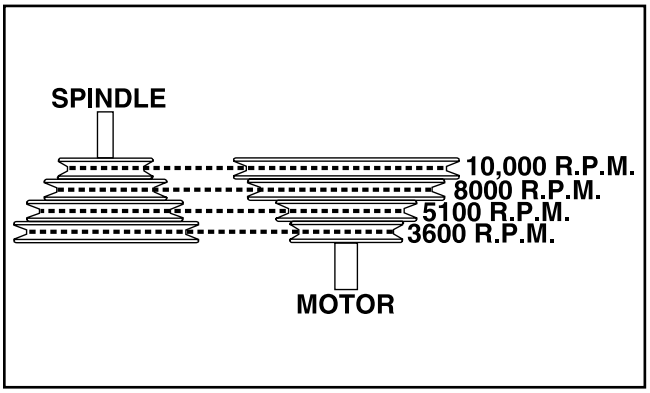


Figure 20. Spindle speed adjustment.

4. Align the belt along the appropriate pulley grooves.

5. Slide the motor back into position and tighten the belt. When the belt is properly tensioned, there should be approximately ¼" of deflection in the center of the belt when you press it with moderate pressure.

6. Tighten all the adjusting bolts.

7. 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. Without any play, one turn of the knob moves the split fence approximately 5/64" (.078"). To adjust the fence:

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 fence adjustments is covered in the “Straight Shaping” instructions.

Aligning The Fences

The following procedure ensures that the fence is parallel with itself and square with the table.

1. Check that the bolts through the wood facing are tight on each side and adequately countersunk.

2. To align the wood facing, 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 22**.

3. If the wood fences are not parallel with each other, shim the incorrect side with electrical washers. Normal washers may work, but electrical washers allow for fine adjustments.

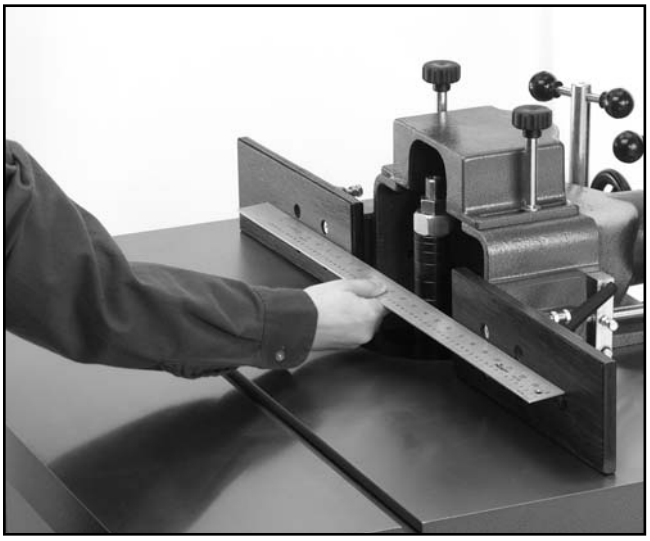


Figure 22. Aligning fences with straightedge.

Table Inserts

The Model G5912Z/G7214Z is supplied with two inserts which give you three possible opening diameters in the shaper table surface. 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—increasing operator protection.

The cast iron table insert must be flush with the top of the table. To adjust the insert:

1. Remove the three Phillips® head screws that hold the cast iron insert in place.

2. By using a straightedge and a screwdriver, turn the barrel screws clockwise or counterclockwise to level the larger table insert with the table. **See Figure 23.**

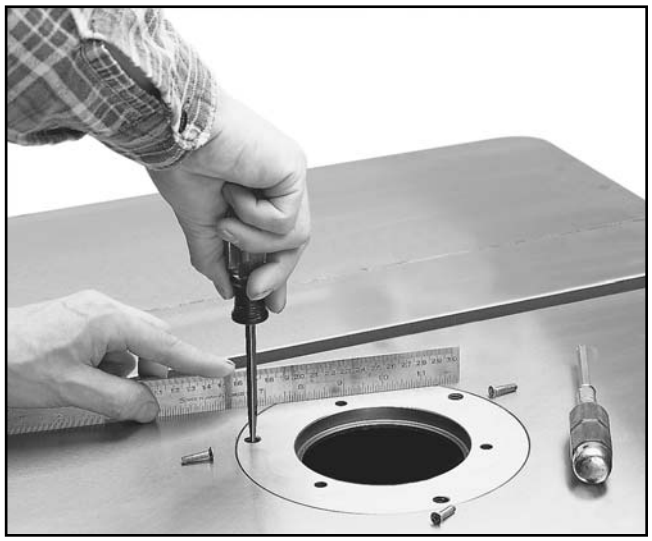


Figure 23. Leveling table insert.

3. Inspect the table insert with the straightedge from both side-to-side and front-to-back to ensure it is flush with the table. Replace and secure the Phillips® head screws.

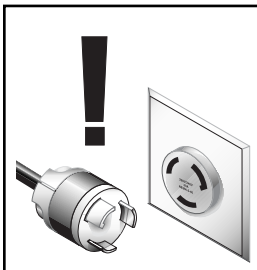
Test Run

Once assembly is complete and adjustments are done to your satisfaction, inspect the machine for loose nuts, bolts, tools or any unsafe condition. Correct as necessary and you are ready to start the machine.

DO NOT have a cutter installed when you test run the shaper. 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 is 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.

If the shaper seems to be running correctly, check the directional switch. The spindle should be rotating in a counterclockwise direction when the switch is in the FORWARD position. Run the Model G5912Z/G7214Z 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, immediately contact our service department for help.



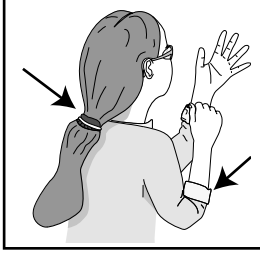
⚠WARNING

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

⚠WARNING

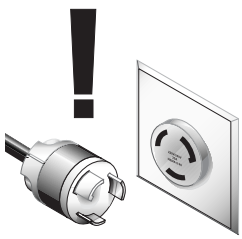
Never use the Model G5912Z/G7214Z for applications other than those for which it was intended. DO NOT overload the machine or use excessive force when shaping materials. Severe personal injury, damage to the machine, or damage to your workpiece could occur.

SECTION 6: OPERATION



⚠WARNING

Keep loose clothing rolled up and 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.

Rotation

Your shaper is equipped with a FORWARD/REVERSE switch as shown in **Figure 24.** In many instances, you will find it 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 method does a better job and is safer for the operator.

⚠CAUTION

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

Figure 24. FORWARD/REVERSE switch.

NOTICE

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

Cutter Installation

Your shaper operates at speeds of 3600, 5100, 8000 and 10,000 R.P.M. 3½" or larger cutters must be operated at the slowest speed.

Always use the largest spindle size possible, and never use more than one bushing size to gain two spindle sizes. "Stacking" two cutter bushings to decrease the inside diameter of the cutter will cause the cutter to perform incorrectly when placed under a load.

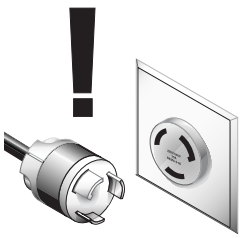
To install a cutter:

1. Unplug the shaper.
2. Place an appropriate spacer or collar at the base of the spindle for support.
3. Place the cutter on the spindle. Make sure the rotation is correct for your application.
4. Use spacers or collars to suit your particular application.
5. Place the spindle washer under the nut. Screw on the nut and locknut.
6. Tighten the nuts while holding the spindle stationary. Use a wrench on the notches at the top of the spindle for leverage as shown in **Figure 25.**

⚠WARNING

Always use a spindle lock nut during operation. If this warning is ignored, the cutter may fly off the spindle during use and cause severe personal injury.

Figure 25. Tightening spindle nuts.



⚠WARNING

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

Spindle Height

To adjust the cutter height:

1. Loosen the spindle lock shown in **Figure 26.**

2. Move the spindle up or down with the handwheel until the desired position is obtained.

3. Lock the spindle into position.

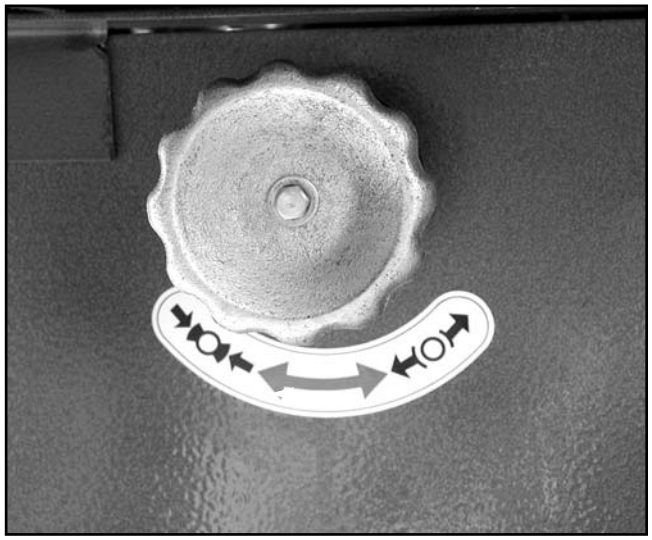
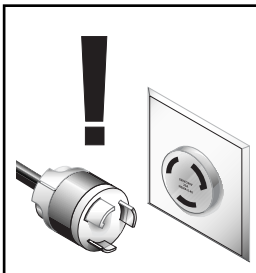


Figure 26. Location of spindle lock.

NOTICE

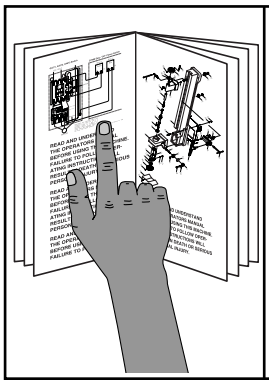
The lock knob keeps the spindle in a fixed position during shaper operation. Do not over-tighten the lock knob. A snug fit is all that is needed to keep the spindle from moving during shaper use.



⚠WARNING

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

Straight Shaping



⚠WARNING

Read the entire manual before making any cuts with your shaper. Serious personal injury may result if safety or operational information is not understood or followed.

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. The outfeed fence can also 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 26** that hold the fences in place.

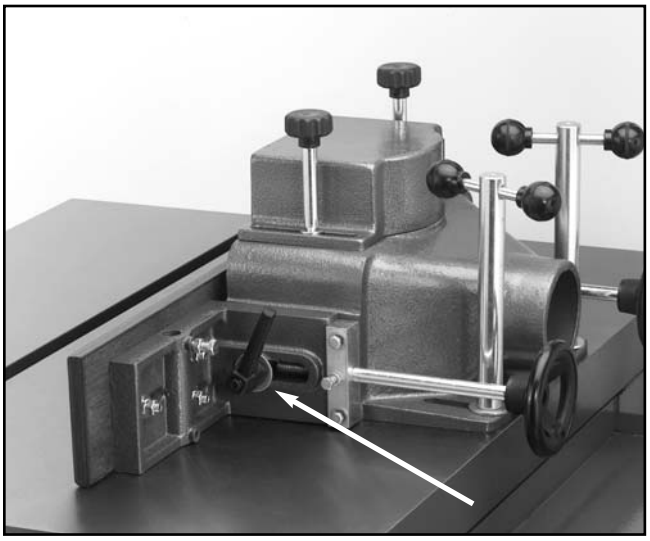


Figure 26. Location of fence locking handles.

2. Adjust the infeed fence by turning the adjustment knobs 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. Loosen the mounting screws on the fence faces and set the face ends to barely clear the cutter. This allows the maximum support possible for the workpiece while passing the cutter. Remember to tighten the wood facing before starting the shaper.

5. 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. **See Figure 27.**

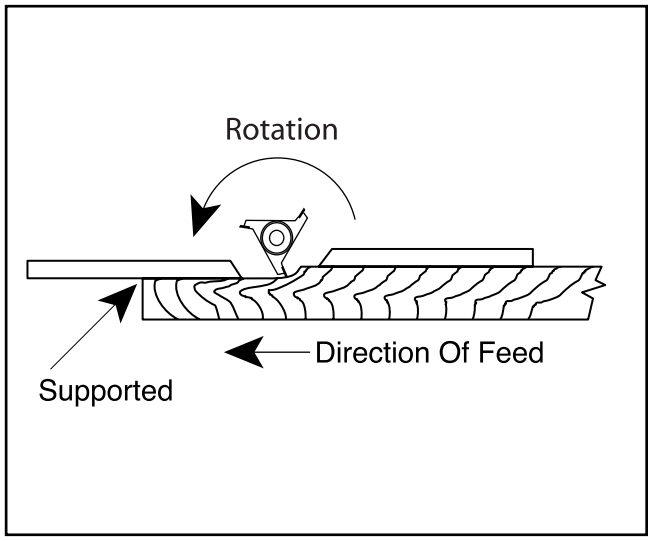


Figure 27. Fence adjusted to support workpiece.

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 in place.

2. Use a straightedge to adjust the outfeed fence to the same plane as the infeed fence. Lock the outfeed fence in place.

3. Set the right and left wood faces so the ends barely clear the cutter. This allows the maximum support possible for the workpiece while passing the cutter. Remember to tighten down the wood facing before starting the shaper.

4. Run a test piece through the shaper as shown in **Figure 28.**

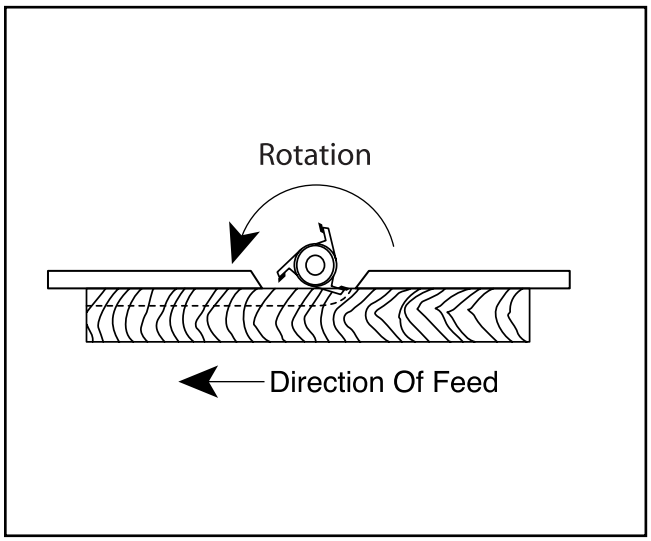


Figure 28. Fence adjustment for blind cuts.

5. Always cut the end grain first when putting an edge around the perimeter of your workpiece. **See Figure 29.**

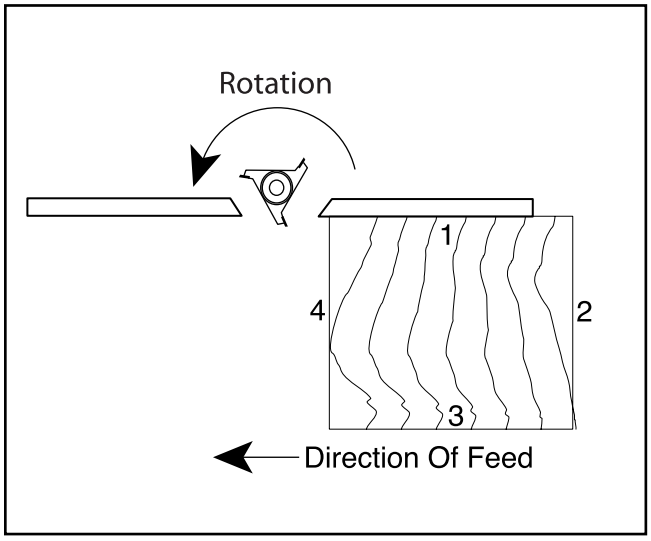


Figure 29. Fence adjustment for multiple cuts.

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.

Rub collars may be used 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 30,** the progress of the cut can be observed. However, any unintentional movement may lift the workpiece into the cutter, damaging your work and creating a dangerous situation.

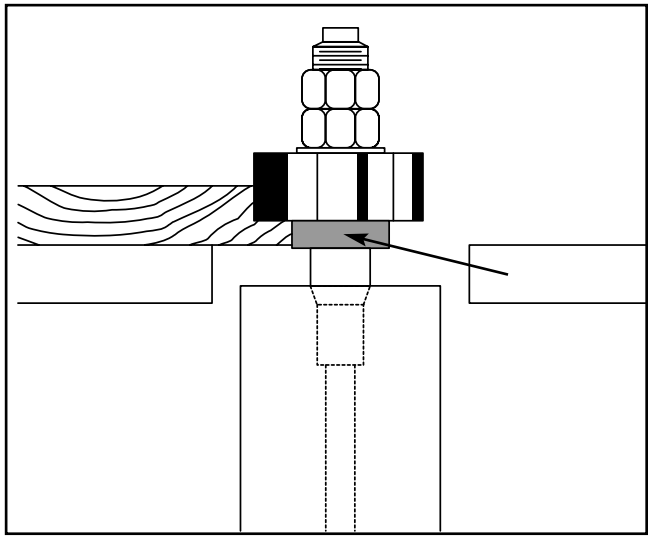


Figure 30. Rub collar installed below cutter.

⚠CAUTION

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

2. **Above the cutter:** When the rub collar is used above the cutter as seen in **Figure 31**, 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.

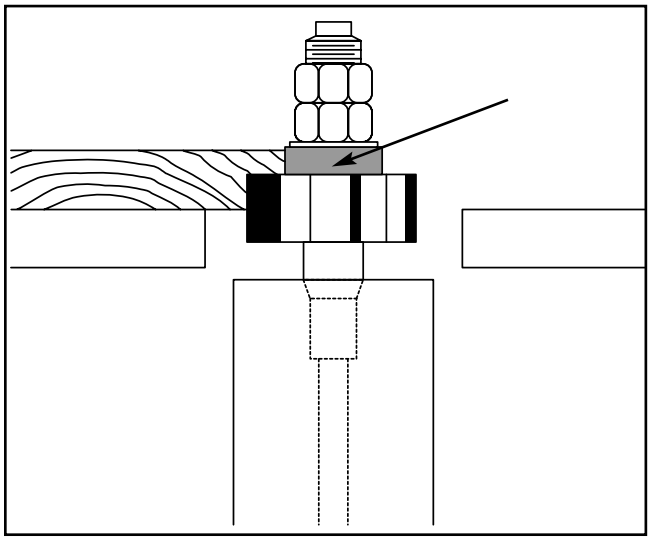


Figure 31. Rub collar installed above cutter.

3. **Between two cutters:** Using a rub collar between two cutters, as in **Figure 32**, 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.

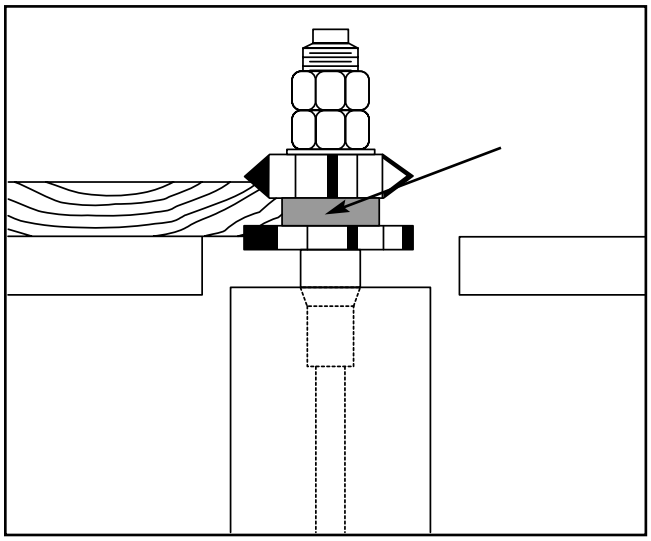


Figure 32. Rub collar between two cutters.

Pattern Work

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 32,** 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.

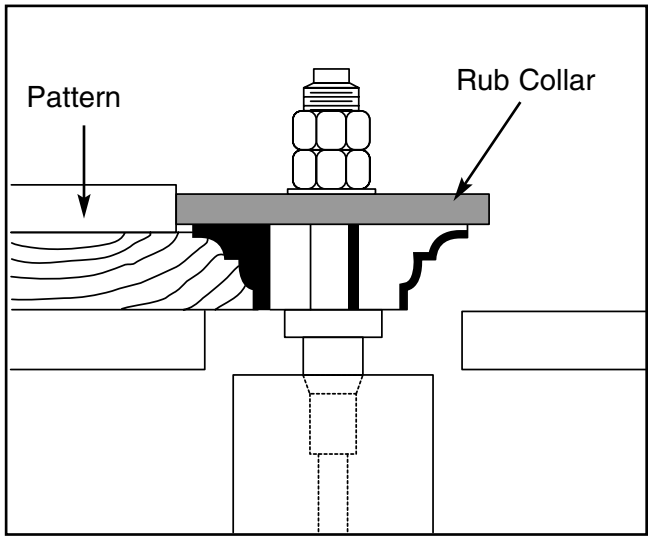


Figure 32. Rub collar determines depth of cut.

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.

4. Ensure that clamps and hidden screws do not come into contact with the cutter.

5. Design your jig so that all cutting occurs underneath the workpiece as shown in **Figure 33**. Notice the operator is not exposed to the cutting edge of the cutter!

6. Always consider the cutting circle and rub collar diameter for the correct cutting depth when designing your pattern.

7. 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, causing personal injury.

Figure 33. Pattern jig for making curved pieces.

Irregular or freehand 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.

4. Place your jig/workpiece against the starting fixture. Using firm pressure, pivot the workpiece into the cutter and make sure the jig is touching the rub collar. Keep your jig in contact with the rub collar and slowly follow the pattern, moving against the cutter rotation.

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:

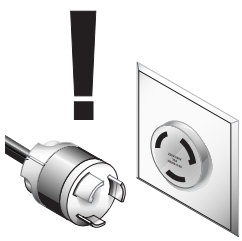
- **Zero Clearance Fence** — A shop-made fence with an opening only as large as the cutter, so that only the part of the cutter being used is exposed.

- **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. 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, trade magazines, or get formal training to learn more about these.

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 G5912Z/G7214Z 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.

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

Table

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 gear and bushing 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-belt or pulleys. Check the V-belt, 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 air vents with compressed air and keep the exhaust port clear. Always wear a dust mask during this operation.

For every **1 hour** of use, clean and wipe down with Boeshield™ T-9:

- Table and miter gauge slide
- Fence faces

For every **5 hours** of use, clean and oil:

- Spindle column and cartridge
- Offset adjustment mechanisms on fence
- All worm drive and other gears

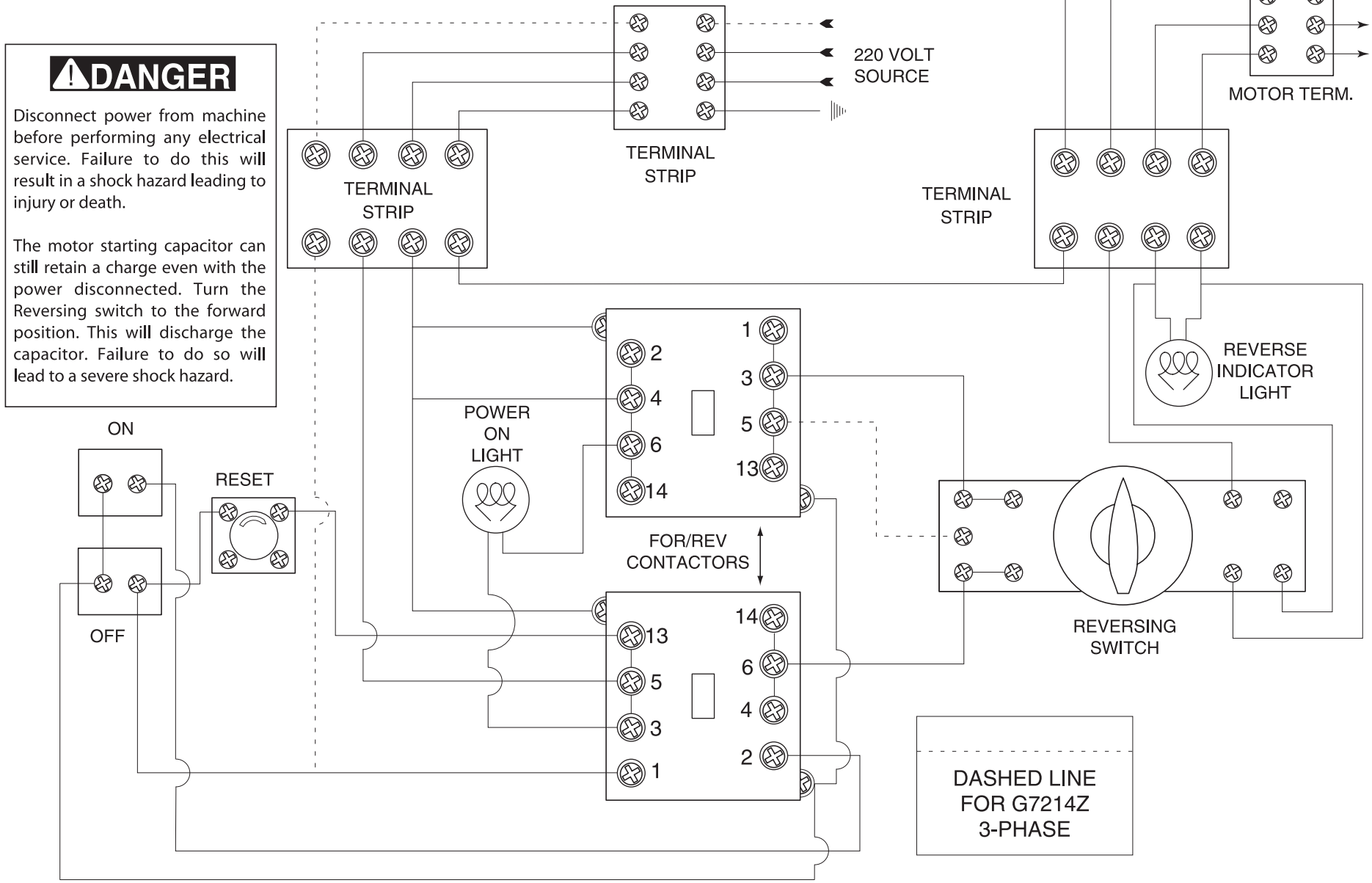
Once a year, replace the V-belt.

G5912Z - G7214Z SHAPER WIRE DIAGRAM

⚠DANGER

Disconnect power from machine before performing any electrical service. Failure to do this will result in a shock hazard leading to injury or death.

The motor starting capacitor can still retain a charge even with the power disconnected. Turn the Reversing switch to the forward position. This will discharge the capacitor. Failure to do so will lead to a severe shock hazard.



SECTION 8: CLOSURE

The following pages contain general machine data, parts diagrams/lists, troubleshooting guide and Warranty/Return information for your Model G5912Z/G7214Z Heavy-Duty 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 G5912Z/G7214Z 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 G5912Z/G7214Z 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 G5912Z/G7214Z 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 G5912Z HEAVY-DUTY SHAPER

Design Type ..... Floor Model

Overall Dimensions:

- Table ..... 35½" x 28"
- Height (Includes Fence) ..... 43"
- Height from Table To Floor ..... 34¾"
- Length ..... 34¾"
- Width ..... 35½"
- Crate Size ..... 39" L x 31" W x 44" H
- Footprint ..... 27" x 26"

Capacities:

- Spindle Sizes ..... ¾", 1", 1¼"
- Spindle Lengths ..... 6" - 7"
- Spindle Capacity Under Nut ..... 4¼", 4⅝", 5⅛"
- Spindle Travel ..... 3¼"
- Dust Port ..... 4"
- Table Counter-bore ..... 7" x ⅝"
- Max. Cutter Diameter ..... 5⅞"
- Spindle Speeds ..... 3600, 5100, 8000, 10000 R.P.M.
- Shipping Weight ..... 720 lbs.

Construction:

- Table ..... Ground Cast Iron
- Fence Assembly ..... Cast Iron / Wood, Independently Micro-Adjustable
- Body Assembly ..... Cast Iron
- Cabinet ..... Formed Steel

Motor:

- Type ..... TEFC Capacitor-Start Induction
- Horsepower ..... 5 H.P.
- Phase / Voltage ..... Single Phase / 220 V
- Switch ..... Push Button On/Off, Emergency Stop, Lever for Forward/Reverse
- Amps ..... 25 A
- Cycle / R.P.M. ..... 60 Hertz / 3450 R.P.M.
- Bearings ..... Shielded & Lubricated Ball Bearing

Features:

- ..... Cast Iron Miter Gauge, Adjustable 60° Left to 60° Right
- ..... 4 Spring Steel Hold-down Assemblies
- ..... Fence Adjustment Includes Built-in Ratchets and Knob-equipped Adjusters
- ..... 3 Table Inserts
- ..... Spindles Include Spacer & Nuts
- ..... Spindle Height Scale in Inches & Millimeters

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 G7214Z HEAVY-DUTY SHAPER

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- Crate Size ..... 39" L x 31" W x 44" H
- Footprint ..... 27" x 26"

Capacities:

- Spindle Sizes ..... ¾", 1", 1¼"
- Spindle Lengths ..... 6" - 7"
- Spindle Capacity Under Nut ..... 4¼", 4⅝", 5⅛"
- Spindle Travel ..... 3¼"
- Dust Port ..... 4"
- Table Counter-bore ..... 7" x ⅝"
- Max. Cutter Diameter ..... 5⅞"
- Spindle Speeds ..... 3600, 5100, 8000, 10000 R.P.M.
- Shipping Weight ..... 785 lbs.

Construction:

- Table ..... Ground Cast Iron
- Fence Assembly ..... Cast Iron / Wood, Independently Micro-Adjustable
- Body Assembly ..... Cast Iron
- Cabinet ..... Formed Steel

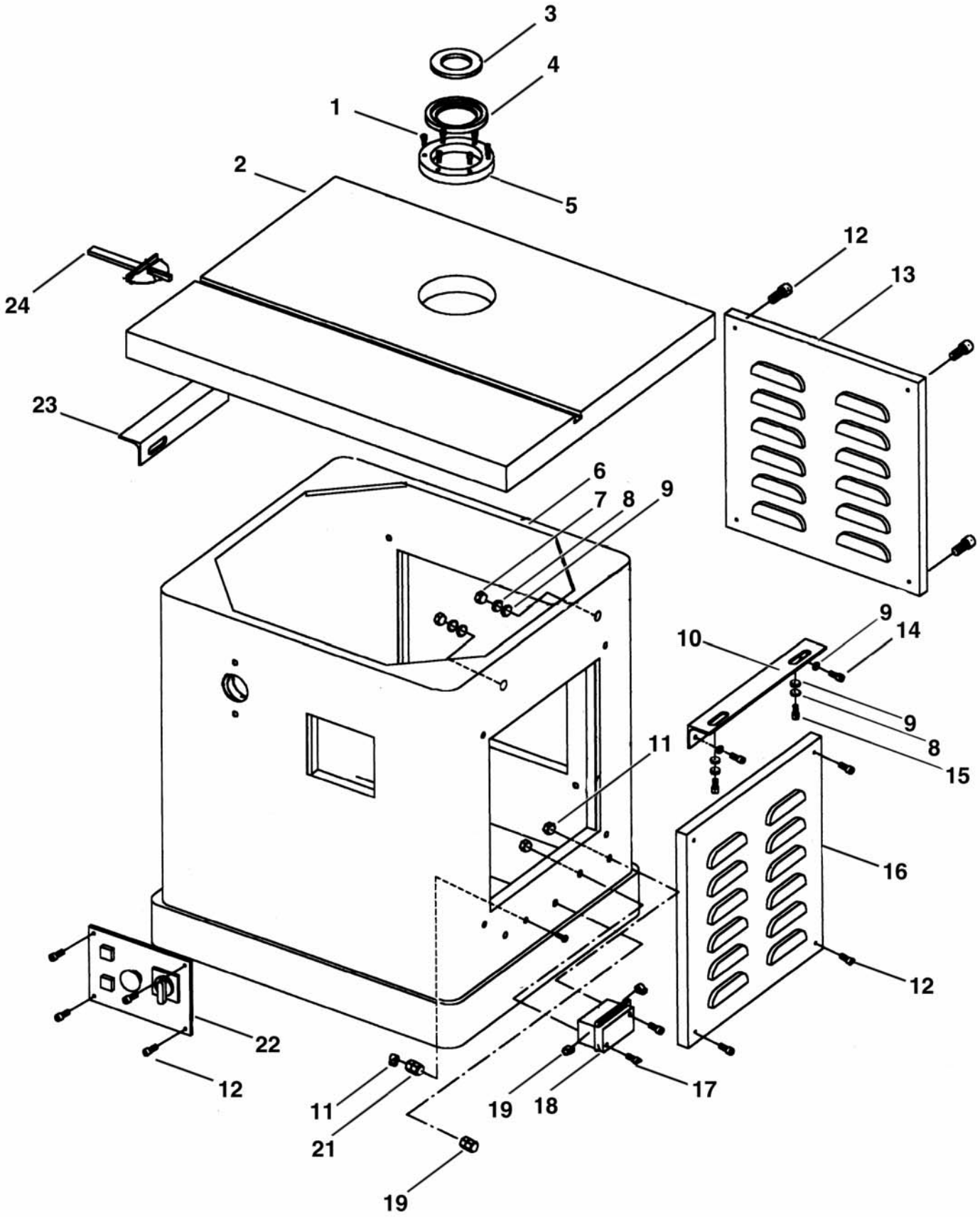
Motor:

- Type ..... TEFC Capacitor-Start Induction
- Horsepower ..... 7½ H.P.
- Phase / Voltage ..... Three-Phase / 220 V
- Switch ..... Magnetic With Thermal Overload Protector
- Amps ..... 20 A
- Cycle / R.P.M. ..... 60 Hertz / 3450 R.P.M.
- Bearings ..... Shielded & Lubricated Ball Bearing

Features:

- ..... Cast Iron Miter Gauge, Adjustable 60° Left to 60° Right
- ..... 4 Spring Steel Hold-down Assemblies
- ..... Fence Adjustment Includes Built-in Ratchets and Knob-equipped Adjusters
- ..... 3 Table Inserts
- ..... Spindles Include Spacer & Nuts
- ..... Spindle Height Scale in Inches & Millimeters

Specifications, while deemed accurate, are not guaranteed.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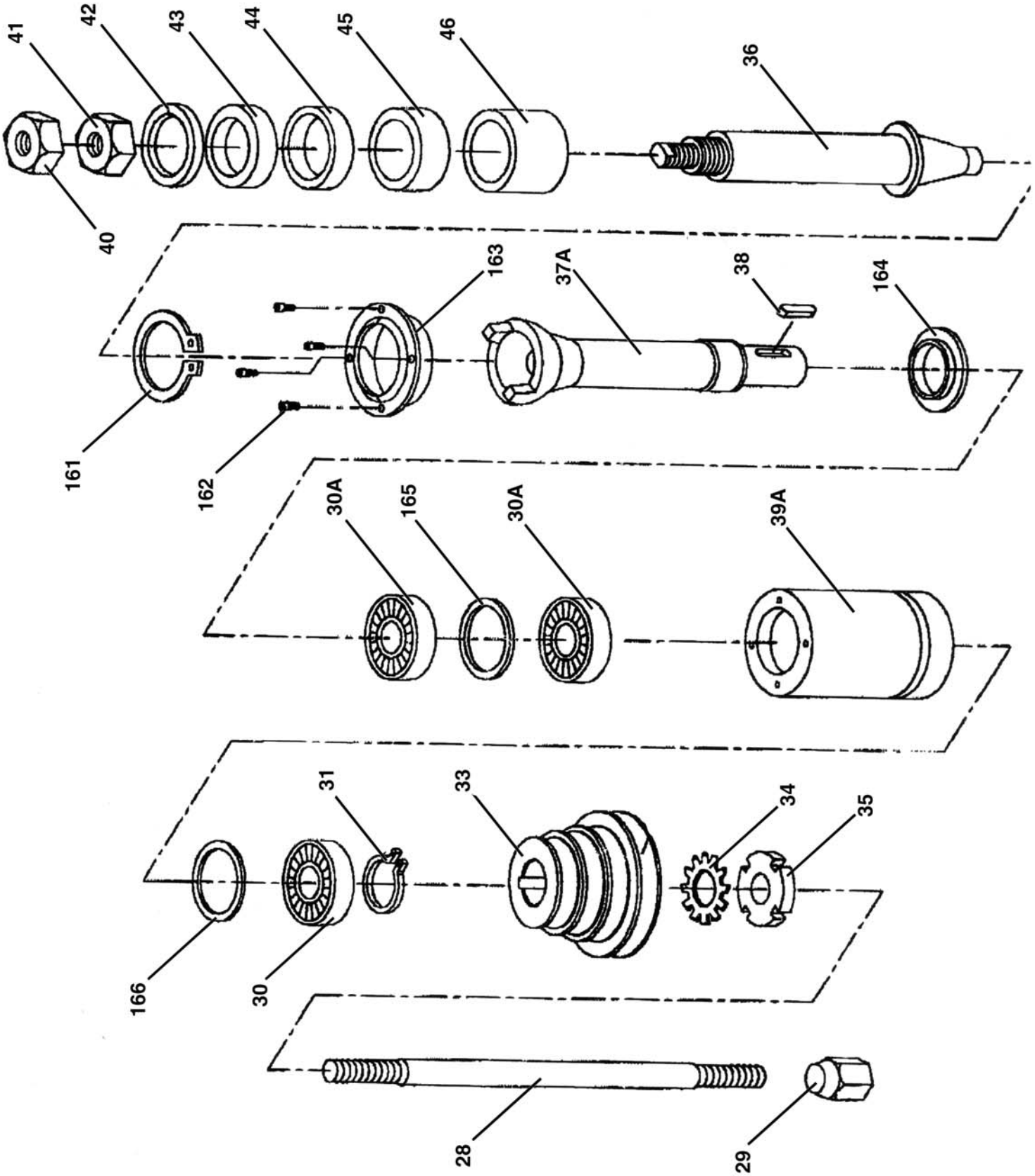
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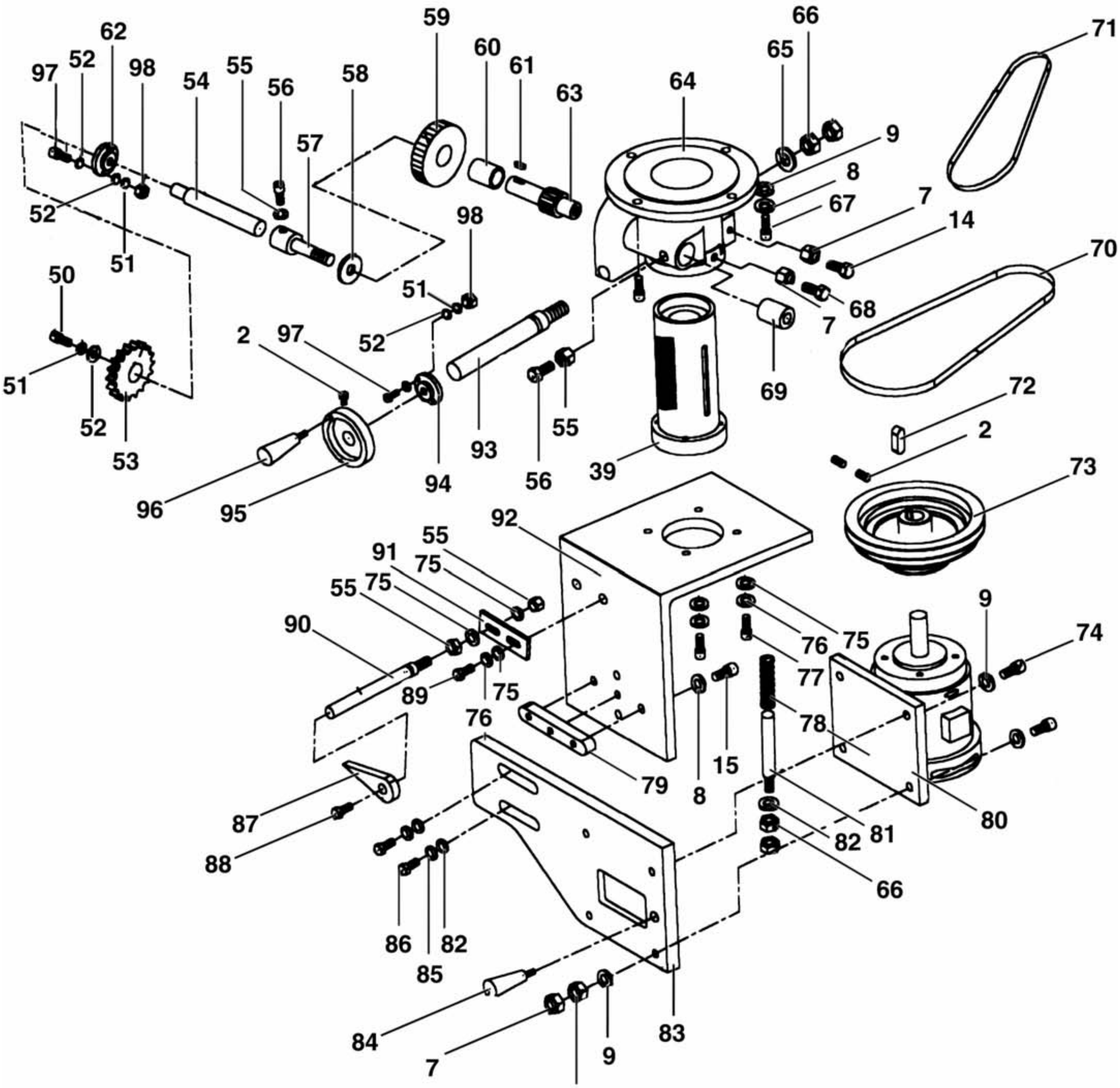

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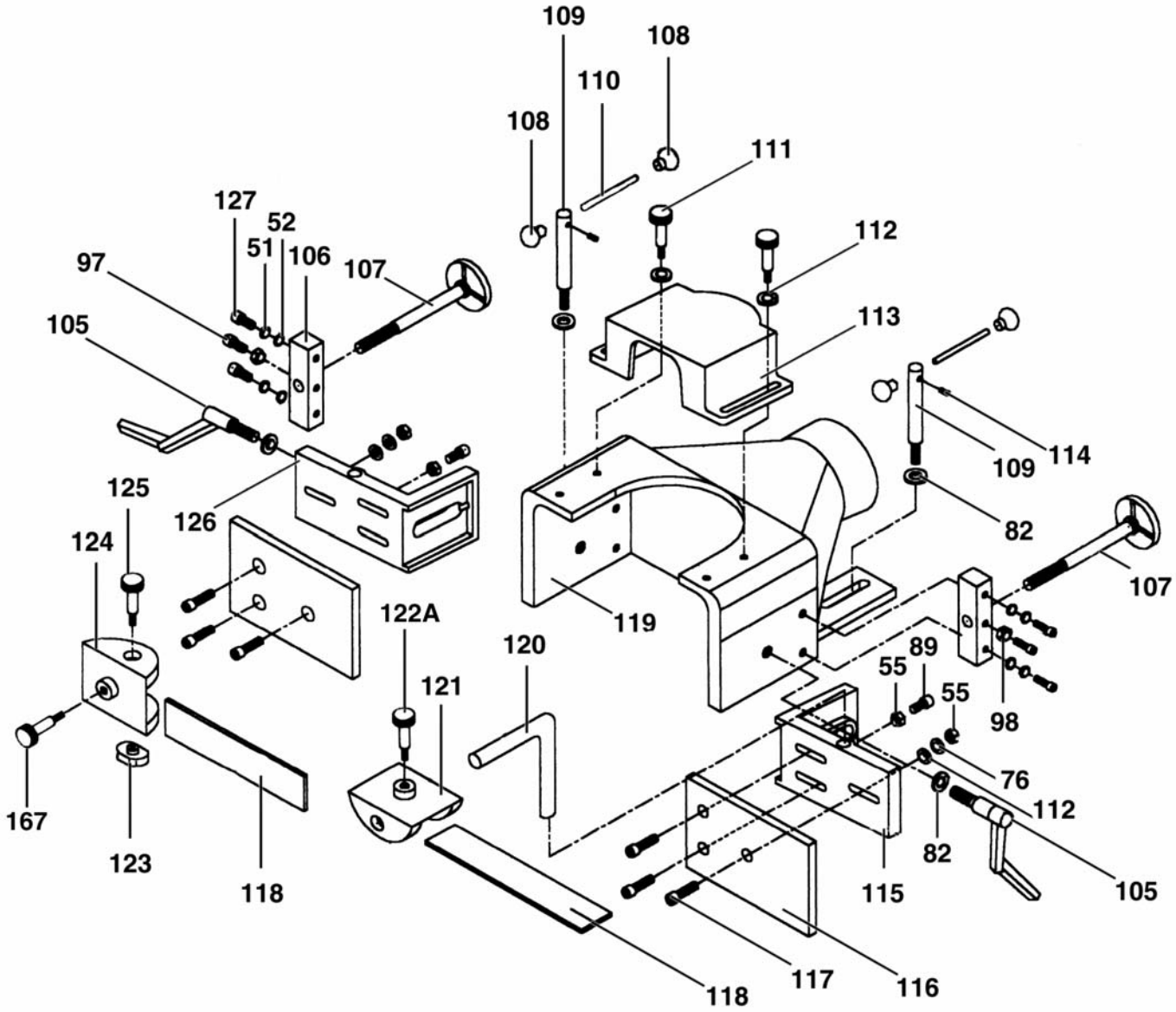
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REF	PART #	DESCRIPTION
001	PSS23	SETSCREW 5/16"-24 X 5/8"
002	P5912Z002	TABLE
003	P5912Z003	INSERT (SMALL)
004	P5912Z004	INSERT (MID)
005	P5912Z005	INSERT (BIG)
006	P5912Z006	STAND ASSY
007	PN08	HEX NUT 3/8"-16
008	PLW04	LOCK WASHER 3/8"
009	PW02	WASHER 3/8"
010	P5912Z010	TABLE BRACE (R)
011	PN07	HEX NUT 10-24
012	PS12	PHLP HD SCR 1/4"-20 X 5/8"
013	P5912Z013	DUST DOOR
014	PB24	HEX HD BOLT 3/8"-16 X 1 1/4"
015	PB21	HEX HD BOLT 3/8"-16 X 3/4"
016	P5912Z016	COVER MOTOR
017	PS08	SCREW RD HD10-24 X 3/4"
018	P5912Z018	ELECTRICAL BOX ASSY
019	P5912Z019	CONNECTOR
021	P5912Z021	CONNECTOR
022	P5912Z022	ELECTRICAL BOX ASSY
023	P5912Z023	TABLE BRACE (L)
024	P5912Z024	MITER GAUGE
028	P5912Z028	BOLT LOCK
029	P5912Z029	NUT LOCK
030	P6008ZZ	BEARING 6008ZZ-K
031	P5912Z031	SNAP RING C40
032	P5912Z032	SNAP RING R80
033	P5912Z033	PULLEY SPINDLE
034	P5912Z034	WASHER
035	P5912Z035	NUT LOCK
036	P5912Z036	SPINDLE 1 1/4"

REF	PART #	DESCRIPTION
37A	P5912Z037	SPINDLE CRTRIDGE V2.0
038	P5912Z038	KEY 7MM
39A	P5912Z039	QUILL V2.0
040	P5912Z040	SPINDLE NUT 3/4" (LH)
041	P5912Z041	HEX NUT 1" (RH)
042	P5912Z042	COLLAR 1 1/4" X 1/4" 1PC
043	P5912Z043	COLLAR 1 1/4" X 3/8" 1PC
044	P5912Z044	COLLAR 1 1/4" X 1/2" 2PC
045	P5912Z045	COLLAR 1 1/4" X 3/4" 2PC
046	P5912Z046	COLLAR 1 1/4" X 1" 2PC
050	PB02	HEX HD BOLT1/4"-20 X 5/8"
051	PLW02	LOCK WASHER 1/4"
052	PW06	WASHER 1/4"
053	P5912Z053	HANDWHEEL
054	P5912Z054	BAR LOCK
055	PN02	HEX NUT 5/16"-18
056	PB03	HEX HD BOLT 5/16"-18 X 1"
057	P5912Z057	SCREW LOCK
058	P5912Z058	WASHER GEAR
059	P5912Z059	GEAR
060	P5912Z060	COLLAR
061	P5912Z061	KEY 3MM
062	P5912Z062	BASE GEAR SHAFT
063	P5912Z063	SHAFT GEAR
064	P5912Z064	BASE SPINDLE
065	PW01	WASHER 1/2"
066	PN06	HEX NUT 1/2"
067	PSB19	CAP SCREW 3/8"-16 X 1 1/4"
068	P5912Z068	SCREW
069	P5912Z069	COLLAR
070	PVA30	V-BELT A-30 4L300
071	PVA28	V-BELT A-28 4L280

REF	PART #	DESCRIPTION
072	P5912Z072	KEY 8MM
073	P5912Z073	PULLEY MOTOR
074	PB16	HEX HD BOLT 3/8"-16X 1 1/2"
075	PW07	WASHER 5/16"
076	PLW01	LOCK WASHER 5/16"
077	PSB03	CAP SCR 5/16"-18 X 1"
078	P5912Z078	SPRING
079	P5912Z079	KEY
080	P5912Z080	MOTOR
081	P5912Z081	SHAFT SPRING
082	PW01	WASHER 1/2"
083	P5912Z083	BASE MOTOR
084	P5912Z084	KNOB
085	PLW07	LOCK WASHER 1/2"
086	PB39	HEX HD BOLT 1/2"-12X 1 1/2"
087	P5912Z087	POINTER
088	PS06	SCREW 10-24 X 3/8"
089	PB07	HEX HD BOLT 5/16"-18 X 3/4"
090	P5912Z090	SHAFT GUIDE
091	P5912Z091	PLATE
092	P5912Z092	MOTOR PLATE
093	P5912Z093	SHAFT GEAR
094	P5912Z094	BASE GEAR SHAFT
095	P5912Z095	HANDWHEEL
096	P1023009	HANDLE
097	PB31	HEX HD BOLT 1/4"-20 X 1"
098	PN05	HEX NUT 1/4"-20
105	P5912Z105	RATCHET LOCK HANDLE
106	P5912Z106	BRACKET SCREW GUIDE
107	P5912Z107	SCREW GUIDE
108	P5912Z108	NUT
109	P5912Z109	SHAFT GUIDE

REF	PART #	DESCRIPTION
110	P5912Z110	BAR
111	P5912Z111	KNOB
112	PW07	WASHER 5/16"
113	P5912Z113	PLATE GUARD
114	P5912Z114	SETSCREW CUP PT 1/4"
115	P5912Z115	BRCKT ASSY FENCE RH
116	P5912Z116	FENCE WOODEN
117	P5912Z117	SCREW
118	P5912Z118	TENSION
119	P5912Z119	GUARD
120	P5912Z120	BAR
121	P5912Z121	RETAINER (L)
122A	P5912Z122A	KNOB BOLT
123	P5912Z123	NUT
124	P5912Z124	RETAINER (S)
125	P5912Z125	KNOB
126	P5912Z126	BRCKT ASSY FENCE LH
127	PB26	BOLT HEX HD 1/4"-20X 1 1/2"
128	P5912Z128	RESET SWITCH
129	P5912Z129	REVERSE LIGHT
161	P5912Z161	SNAP RING C-50
162	P5912Z162	CAP SCREW 4 X 10
163	P5912Z163	OUTER DUST COVER
164	P5912Z164	INNER DUST COVER
165	P5912Z165	ALTERNATING RING
166	P5912Z166	WAVY RING
167	P5912Z167	KNOB BOLT
319	P5912Z319	HOOD
400	P5912Z400	WARNING LABEL
401	PLABEL-10	GRIZZLY NAME PLATE
402	P86211002	PULLEY LABEL
403	P5912Z403	SPEED CHANGE 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 # G5912Z/G7214Z Shaper 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?

___Advertisement ___Friend
___Catalog ___World Wide Web

___Other_____

2. Which of the following magazines do you subscribe to.

___American Woodworker ___Practical Homeowner
___Cabinetmaker ___Shop Notes
___Family Handyman ___Today's Homeowner
___Fine Homebuilding ___WOOD
___Fine Woodworking ___Wooden Boat
___Home Handyman ___Woodshop News
___Journal of Light Construction ___Woodsmith
___Old House Journal ___Woodwork
___Popular Mechanics ___Woodworker
___Popular Science ___Woodworker's Journal
___Popular Woodworking ___Workbench

___Other_____

3. Which of the following woodworking/remodeling shows do you watch?

___Backyard America ___The New Yankee Workshop
___Home Time ___This Old House
___The American Woodworker ___Woodwright's Shop

___Other_____

4. What is your annual household income?

___$20,000-$29,999 ___$60,000-$69,999
___$30,000-$39,999 ___$70,000-$79,999
___$40,000-$49,999 ___$80,000-$89,999
___$50,000-$59,999 ___$90,000 +

5. What is your age group?

___20-29 ___50-59
___30-39 ___60-69
___40-49 ___70 +

6. How long have you been a woodworker?

___0 - 2 Years ___8 - 20 Years
___2 - 8 Years ___20+ Years

7. How would you rank your woodworking skills?

___Simple ___Advanced
___Intermediate ___Master Craftsman

8. What stationary woodworking tools do you own? Check all that apply.

___Air Compressor ___Panel Saw
___Band Saw ___Planer
___Drill Press ___Power Feeder
___Drum Sander ___Radial Arm Saw
___Dust Collector ___Shaper
___Horizontal Boring Machine ___Spindle Sander
___Jointer ___Table Saw
___Lathe ___Vacuum Veneer Press
___Mortiser ___Wide Belt Sander

___Other_____

9. How many of your woodworking machines are Grizzly? _____

10. Which benchtop tools do you own? Check all that apply.

___1" x 42" Belt Sander ___6" - 8" Grinder
___5" - 8" Drill Press ___Mini Lathe
___8" Table Saw ___10" - 12" Thickness Planer
___8" - 10" Bandsaw ___Scroll Saw
___Disc/Belt Sander ___Spindle/Belt Sander
___Mini Jointer

___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.

___Belt Sander ___Orbital Sander
___Biscuit Joiner ___Palm Sander
___Circular Saw ___Portable Planer
___Detail Sander ___Saber Saw
___Drill/Driver ___Reciprocating Saw
___Miter Saw ___Router

___Other_____

13. What machines/supplies would you like Grizzly Industrial to carry?

_____

_____

_____

_____

_____

14. What new accessories would you like Grizzly Industrial to carry?

_____

_____

_____

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:_____

_____

_____

_____

_____

CUT ALONG DOTTED LINE

FOLD ALONG DOTTED LINE

Place
Stamp
Here

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

FOLD ALONG DOTTED LINE

Send a Grizzly Catalog to a friend:

Name_____

Street_____

City_____State_____Zip_____

TAPE ALONG EDGES--PLEASE DO NOT STAPLE