

Grizzly *Industrial, Inc.*®

4" JOINTER MODEL H2801 INSTRUCTION MANUAL



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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.



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.



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 knives, 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 Jointers

1. **JOINTING SAFETY BEGINS** with your lumber. Inspect your stock carefully before you feed it over the cutterhead. If you have any doubts about the stability or structural integrity of your stock, **DO NOT JOINT IT!**
2. **MAINTAIN PROPER RELATIONSHIPS** of infeed and outfeed table surfaces and cutterhead knife path.
3. **ALWAYS USE A PUSH BLOCK** when jointing. Never place your hands directly over the cutterhead.
4. **SUPPORT THE WORKPIECE** adequately at all times during operation, maintain control over the work at all times.
5. **WHEN JOINTING**, do not stand directly at the end of either table. Position yourself just to the side of the infeed table to avoid possible kickbacks.
6. **NEVER JOINT A BOARD** that has loose knots. All defects should be cut out of the board before it is planed or jointed.
7. **NEVER JOINT** end grain.
8. **NEVER MAKE JOINTING CUTS** deeper than $\frac{1}{8}$ ".
9. **JOINT WITH THE GRAIN.** Jointing against the grain is dangerous and could produce chatter or excessive chip out.
11. **NEVER BACK THE WORK** toward the infeed table.
12. **HABITS – GOOD AND BAD** – are hard to break. Develop good habits in your shop and safety will become second-nature to you.
13. **“KICKBACK”** is when the workpiece is thrown off the jointer table by the force of the cutterheads. Always use pushblocks and safety glasses to reduce the likelihood of injury from “kickback.” If you do not understand what kickback is, or how it occurs, **DO NOT** operate this machine.
14. **BE AWARE THAT CERTAIN WOODS MAY CAUSE AN ALLERGIC REACTION** in people and animals, especially when exposed to fine dust. Make sure you know what type of wood dust you will be exposed to and always wear an approved respirator.

WARNING

Like all power tools, there is danger associated with jointers. 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

110V Operation

The Model H2801 is wired for 110V operation. The motor will safely draw 5 amps at 110V. If you operate this machine on any circuit that is already close to its capacity, it might blow a fuse or trip a circuit breaker. However, if an unusual load does not exist and the circuit still trips, contact a qualified electrician or our service department.

A 10 amp fuse or circuit breaker should be used when fusing this jointer. Circuit breakers rated any higher may not be adequate to protect the circuit from power surges.



Extension Cords

If you find it necessary to use an extension cord with the Model H2801, make sure the cord is rated Hard Service (grade S) or better. Refer to the chart in the standard safety instructions 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.



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 a power cord having an equipment-grounding conductor. See **Figure 1**. The outlet must be properly installed and grounded in accordance with all local codes and ordinances.

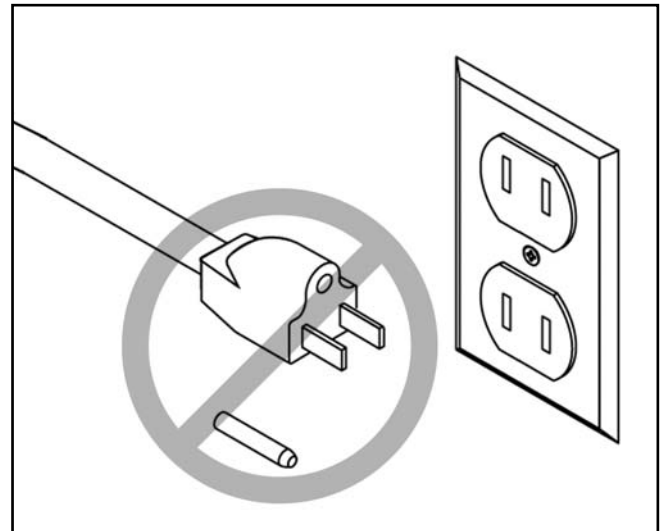
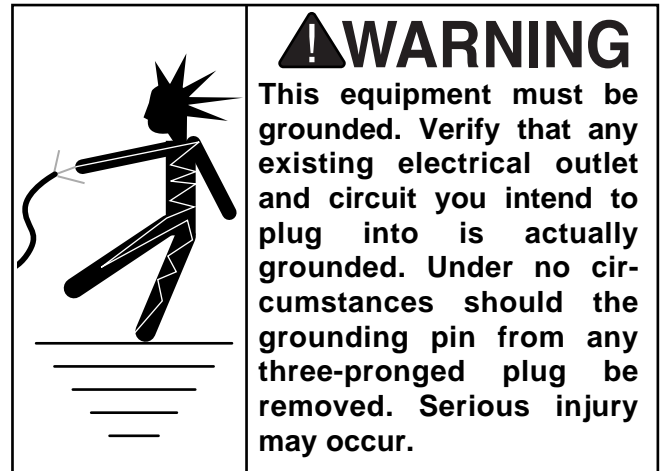


Figure 1A. Do not remove grounding pin.

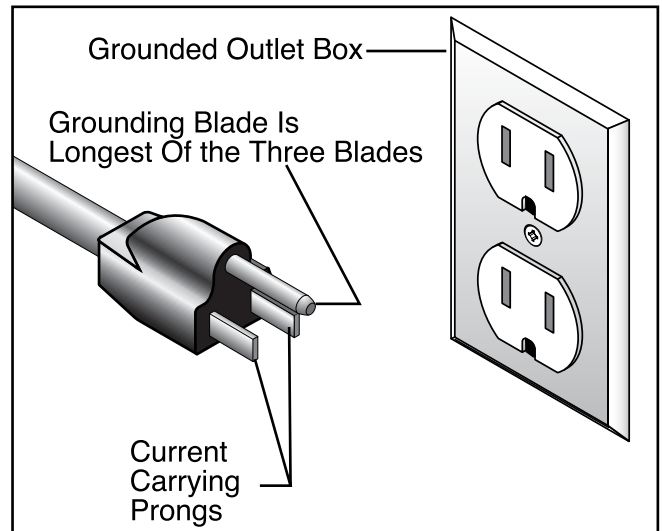


Figure 1. Typical 110V 3-prong plug and outlet.

SECTION 3: GENERAL INFORMATION

Commentary

Grizzly Industrial, Inc. is proud to offer the Model H2801 4" Jointer. This jointer is part of Grizzly's growing family of fine woodworking and metal-working machinery. When used according to the guidelines stated in this manual, you can expect years of trouble-free, enjoyable operation.

The Model H2801 offers a ½ H.P., 110V, 8000 R.P.M. motor, a 2 knife cutterhead, and a 45° tilting fence.

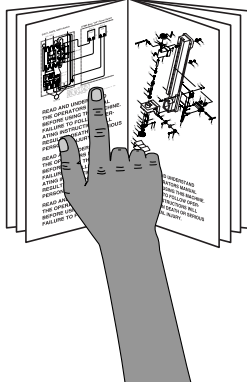
We are also pleased to provide this manual with the Model H2801. It was written to guide you through assembly, review safety considerations, and cover general operating procedures. It represents our latest effort to produce the best documentation possible. If you have any criticisms that you feel we 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 H2801 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.

| | |
|--|--|
|  | <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> |
|--|--|



Unpacking

The jointer and hardware (shown in **Figure 2**) are 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.*

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

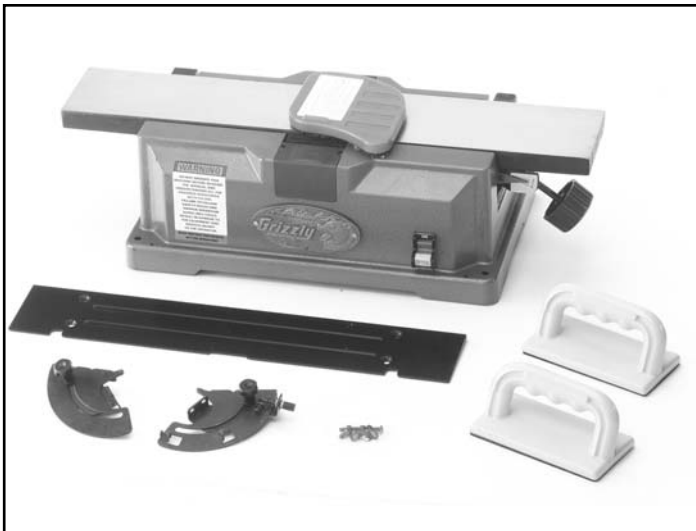


Figure 2. Model H2801 base unit and assembly parts.

Piece Inventory

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

| Part | Qty |
|-----------------------------|-----|
| • Jointer Unit | 1 |
| • Fence | 1 |
| • Push Blocks | 2 |
| • Left Trunnion | 1 |
| • Right Trunnion | 1 |
| • Cap Screws M5-.8 x 8 | 4 |
| • Lock Washers 5mm | 4 |
| • Slotted Screws M5-.8 x 10 | 4 |

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.



Hardware Recognition Chart

Use this chart to match up hardware pieces during the assembly process!

MEASURE BOLT DIAMETER BY PLACING INSIDE CIRCLE

○ 10/24
○ 1/4
○ 5/16
○ 3/8
○ 7/16
○ 1/2
○ 5/8
4mm ○
6mm ○
8mm ○
10mm ○
12mm ○
16mm ○

Thumb Screw
Phillips Head Screw
Countersunk Phillips Head Screw
Slotted Screw
Cap Screw
Carriage Bolt
Flange Bolt
Button Head Screw
Setscrew
Hex Head Bolt
Phillips Head Hex Bolt
Phillips Head Sheet Metal Screw

Lock Nut
Wing Nut
Washer
Lock Washer
Hex Nut

WASHER DIAMETER
5/8
9/16
1/2
7/16
12mm
3/8
5/16
10mm
8mm
10-24

MEASURE BOLT LENGTH BY THE INSIDE DIAMETER

LINES ARE 1MM APART
5mm
10mm
15mm
20mm
25mm
30mm
35mm
40mm
45mm
50mm
55mm
60mm
65mm
70mm
75mm

LINES ARE 1/16 INCH APART
1/4
3/8
1/2
5/8
10/24
5/16
7/16
9/16
3/4
7/8
1
1-1/4
1-1/2
1-3/4
2
2-1/4
2-1/2
2-3/4
3


WASHERS ARE MEASURED BY THE INSIDE DIAMETER

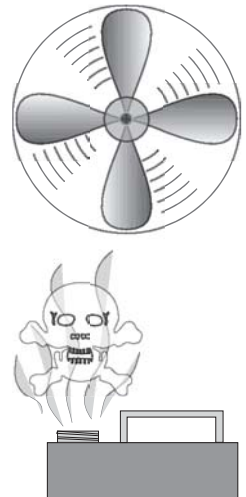
4mm
6mm

Clean Up

The unpainted surfaces may be 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 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> |
|---|---|

| | |
|---|---|
|  | <p>⚠️ WARNING Do not smoke while using solvents. A risk of explosion or fire exists and may result in serious personal injury.</p> |
|---|---|

| | |
|---|--|
|  | <p>⚠️ 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.</p> |
|---|--|

Site Considerations

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.

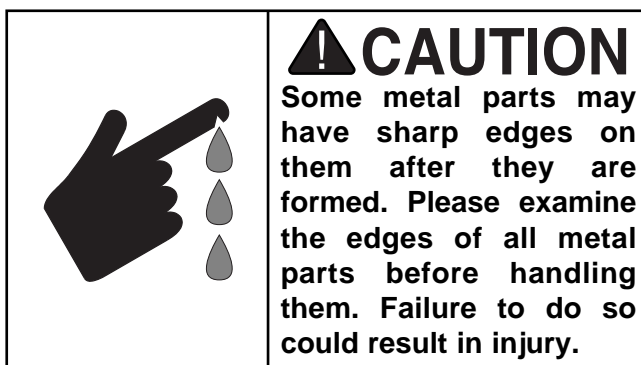
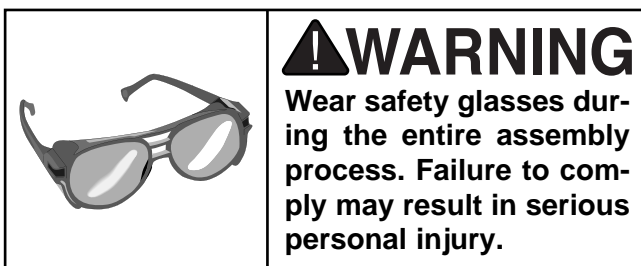
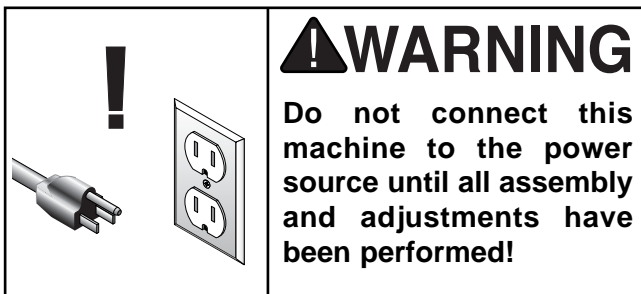
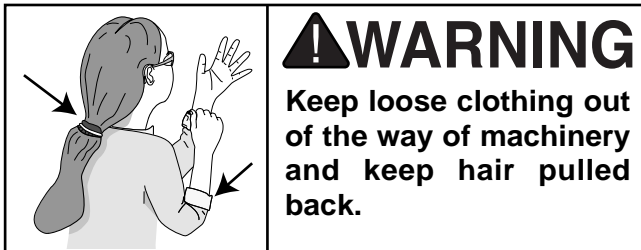
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|--|---|
|  | <p>⚠️ CAUTION Make your shop "child safe." Ensure that your workplace is inaccessible to children by closing and locking all entrances when you are away. Never allow visitors in your shop when assembling, adjusting or operating equipment.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



SECTION 4: ASSEMBLY

Beginning Assembly

Most of your Model H2801 4" Jointer 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.



Trunnions

The plunger trunnion and the scale trunnion need to be attached to the rear of the fence. To attach the trunnions:

1. Attach the scale trunnion to the left end of the fence with two M5-.8 x 10 countersunk screws from the front of the fence.
2. Attach the plunger trunnion to the right end of the fence with the other two M5-.8 x 10 countersunk screws from the front of the fence.
3. Ensure that the trunnions are mounted tight and the screw heads are below the surface of the fence. Your assembly should look similar to **Figure 3**.

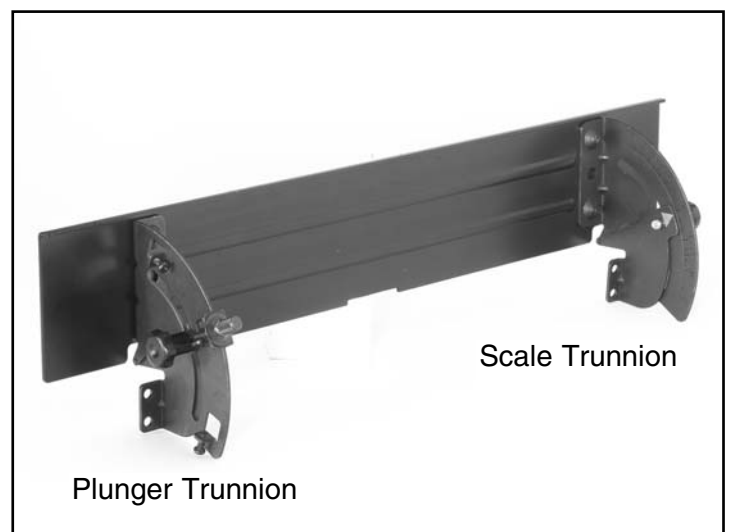


Figure 3. Trunnions mounted to fence.



Fence

To attach the fence to the jointer table:

1. Mount the fence assembly as shown in **Figure 4** with the four M5-.8 x 10 cap screws and lock washers.
2. Verify that the fence is secure.



Figure 4. Attaching fence to jointer.



Mounting Jointer

The Model H2801 weighs approximately 22 lbs. Make sure that the workbench on which you plan to mount the jointer is sturdy enough to hold the combined weight of the machine and the wood stock being processed. The workbench should have a level surface and be heavy enough, or attached to the floor, so it will not move during operation. To mount the jointer:

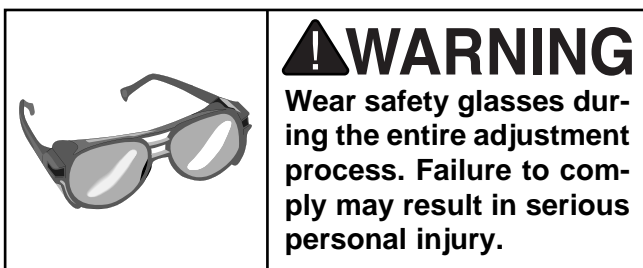
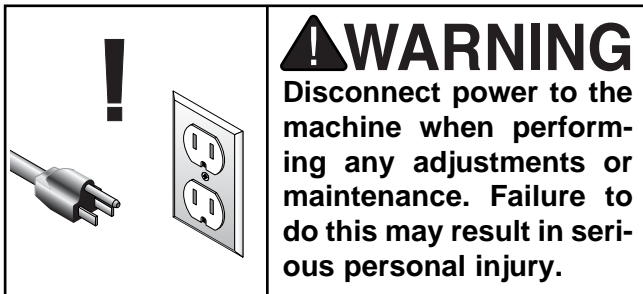
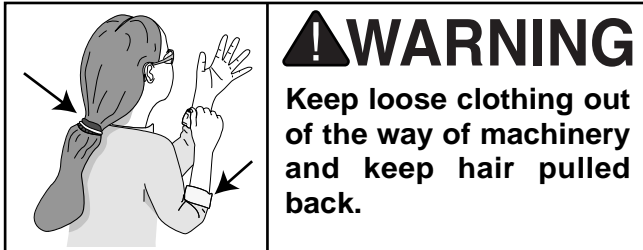
1. Pick a spot on the workbench that will allow enough room to move the workpiece through the entire cut. The operator (and possibly bystanders) should have enough room to stand out of the line of the cut in the event that a kickback occurs.
2. Mount the jointer to the workbench with bolts that are long enough to exceed the thickness of your workbench and the jointer base. Secure these bolts with a flat washers, a lock washer and a hex nut. *Because sizes vary for each individual situation, the hardware in this step is not included with the Model H2801.*



Figure 5. Jointer mounted to workbench.



SECTION 5: ADJUSTMENTS



Cutting Depth

Cutting depth is controlled by moving the infeed table up/down in relation to the cutterhead and outfeed table. The infeed table can be controlled by turning the adjustment knob beneath the infeed table. To adjust the cutting depth:

1. Place a straightedge evenly on the surface of the outfeed table so the straightedge extends over the cutterhead and across the infeed table as shown in **Figure 6**.
2. Measure the distance from the infeed table to the bottom of the straightedge as shown in **Figure 7**. This measurement will be the depth of cut.
3. Adjust the infeed table to the desired depth of cut. The maximum depth of cut for this machine is $\frac{5}{64}$ ". However, we recommend cutting at $\frac{1}{16}$ " depths for increased safety.



Figure 6. Straightedge across outfeed table.

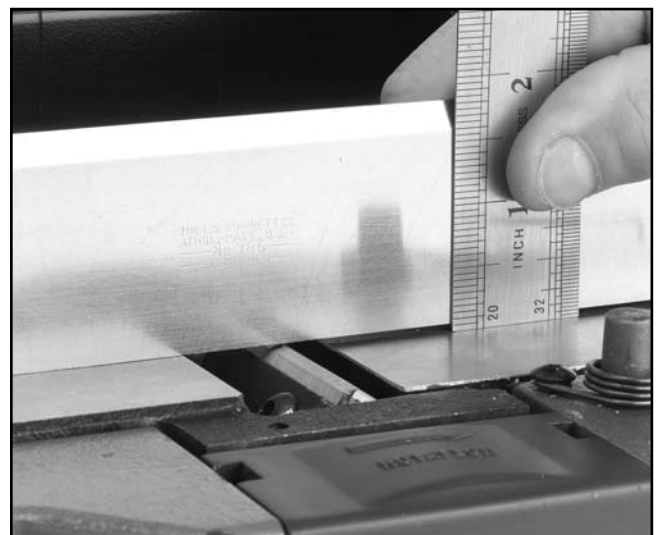


Figure 7. Measuring cutting depth.



Fence

The fence on the Model H2801 can be adjusted to cut various angles from -45° to 45° . The fence can be tilted -45° toward the cutterhead for better stability with narrow workpieces, or the fence can be tilted to 45° away from the cutterhead for cutting large angles. To adjust the fence angle:

1. Loosen the lock knobs on both sides of the fence.
2. The angle gauge shown in **Figure 8** is behind the left end of the fence.
3. Behind the right end of the fence is a positive stop pin (shown in **Figure 9**) to stop the fence at 45° , 0° , and -45° .
4. To set the positive stops, use a protractor to set the fence at each point. Adjust the screw on each stop point so the head of the screw rests on the positive stop pin.
5. To tilt the fence, pull the positive stop pin and tilt the fence to the desired angle.
6. To lock the fence, tighten the fence lock knobs.

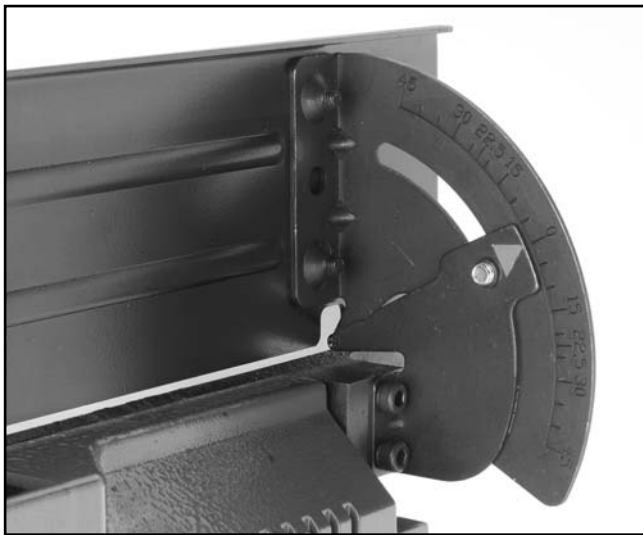


Figure 8. Angle gauge.

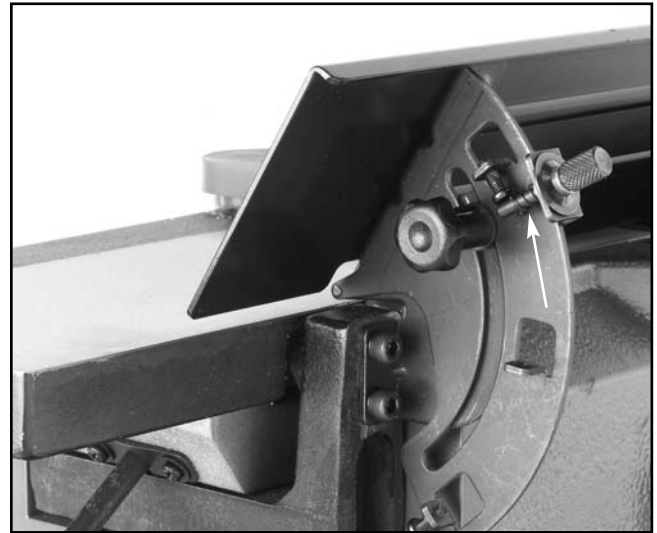


Figure 9. Positive stop pin.



Cutterhead Guard

The cutterhead guard (shown in **Figure 10**) protects the operator from the moving cutterhead when the machine is running. Always keep the cutterhead guard working properly and in good, working condition. To check the cutterhead guard:

1. Slide a $\frac{1}{4}$ " thick piece of wood over the cutterhead and between the guard and the fence. The guard should open and allow the piece of wood to slide through. When the piece of wood clears the guard, the guard must then automatically return to its original position.
2. Completely open the cutterhead guard until it stops, then release it. The cutterhead guard should always spring back to its original position.

CAUTION

If the cutterhead guard does not operate properly, the spring must be replaced or adjusted! If this caution is ignored, personal injury may result.

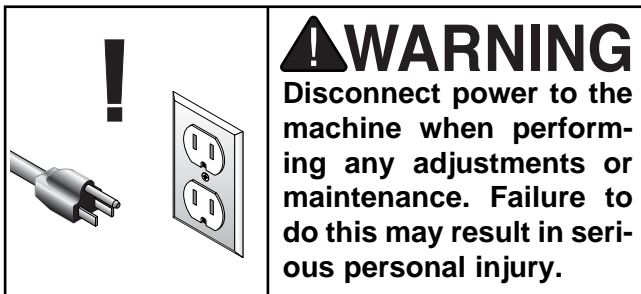


Figure 10. Cutterhead guard.

To adjust the cutterhead guard:

1. **Unplug the power from the machine!**
2. Lay the Model H2801 on its back so the switch is facing up.
3. Remove the screw from the base where it secures the cutterhead guard.
4. Slide the cutterhead guard off the jointer.
5. Position the cutterhead guard so that the long arm of the spring is against the cutterhead guard wall. Secure the cutterhead guard with the screw.
6. Check the cutterhead guard to make sure it functions properly.

If the cutterhead guard still does not function properly, the spring may need to be replaced. For replacement instructions, turn to the **Section 6: Maintenance**.



Knife Adjustment

To ensure accurate cutting, the knives must be .003" higher than the outfeed table at the highest point. To check or adjust the knife height:

1. **Unplug the power from the machine!**
2. Block the cutterhead guard from closing with a scrap piece of wood between the fence and the cutterhead guard, or remove the cutterhead guard.
3. Rotate the cutterhead so that one of the knives is at the highest position.
4. Place a straightedge over the outfeed table and the knife, so it evenly touches the outfeed table at both ends of the knife. Rotate the cutterhead slowly to see if the knife barely touches the straightedge. Check the knife height at each end of the knife.
5. If the knife raises the straightedge, loosen the knife clamp screws and gently tap the knife with a small piece of wood. If the knife does not touch the straightedge, loosen the knife clamp screws and carefully pry the knife up from the bottom edge with a flat-head screwdriver. See the diagram in **Figure 11** to identify the cutterhead parts.
6. Properly align both ends of the knife with the outfeed table and tighten the knife clamp screws. Recheck the knife alignment after the screws are tight and adjust if necessary.

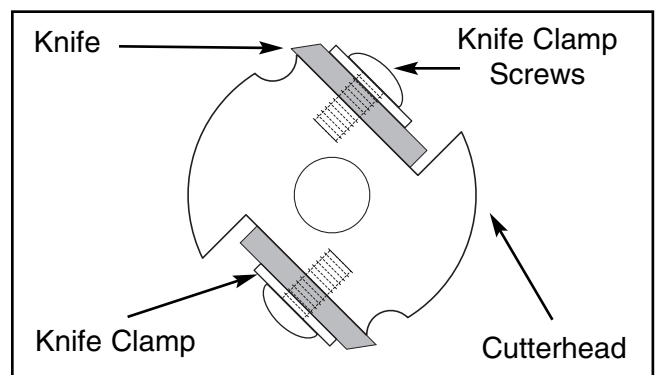
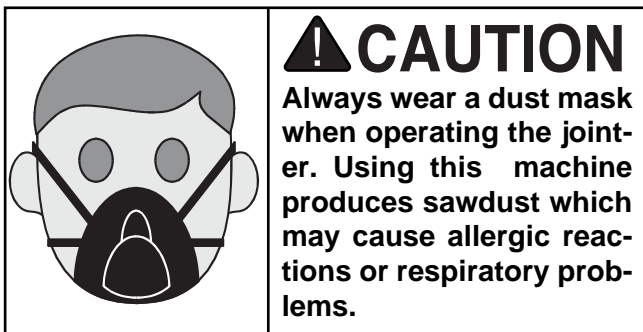
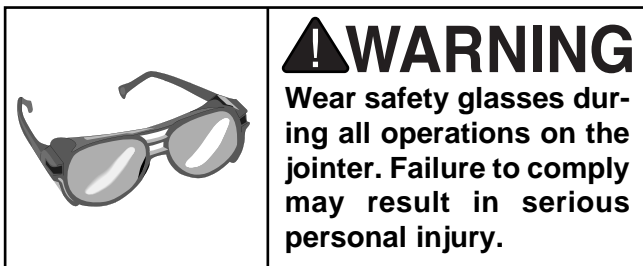
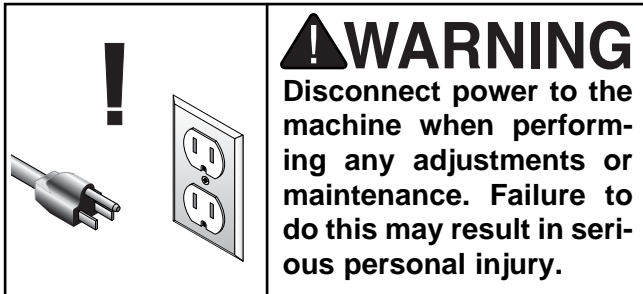
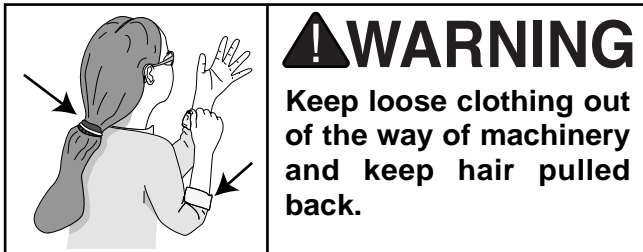


Figure 11. Cutterhead breakdown.

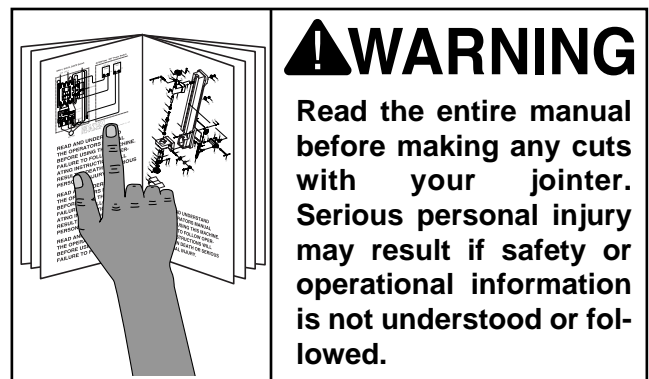


SECTION 6: OPERATIONS



NOTICE

The following section was designed to give instructions on the basic operations of this jointer. However, it is in no way comprehensive of every jointer 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 jointer.



Test Run

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

Plug the machine into the power supply. Flip the switch up to the start position. Make sure that your finger is poised over the switch in case you need to turn the jointer off. The jointer 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 H2801 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.



Lock-Out Switch

To ensure the safety of your work place, a lock - out switch has been provided with the Model H2801. To use the lock-out feature, simply pull the lock-out key when the switch is in the OFF position, as shown in **Figure 12**.

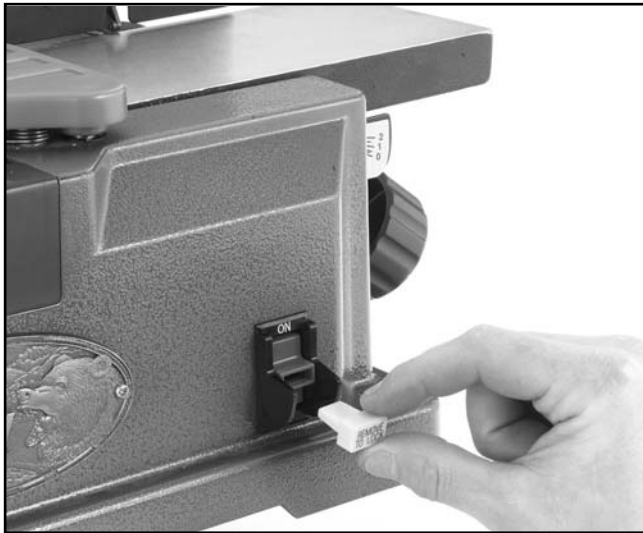


Figure 12. Removing lock-out key from switch.

To replace the lock-out key, push it in the switch opening until it snaps in place.



Stock Inspection

Carefully inspect the stock before using it with the jointer. Nails, staples, paint, or other foreign objects should be removed from the stock. Stock should be clean; dirty stock will quickly dull knives and may cause feeding problems. Also, if the stock has large or loose knots, consider finding another workpiece. Knots in a workpiece can be dangerous to the operator, as well as destructive to equipment.

When jointing, always cut with the grain rather than against it. Cutting against the grain (going against the pattern of the wood growth rings) chips the wood instead of cutting it, making the workpiece rough and irregular.

Occasionally, you will find wood that defies all of the rules. In those rare cases, feed the workpiece slowly and take several shallow cuts. A few extra passes will hurt much less than a ruined workpiece.



Feeding Workpiece

Feeding the workpiece over the cutterhead at the proper rate is essential to getting quality results from you Model H2801. Using an even and steady feed rate will prolong the life of your knives and will produce more consistent cuts. Always feed **WITH** the grain whenever possible. **Figure 13** details grain direction and feed rate.

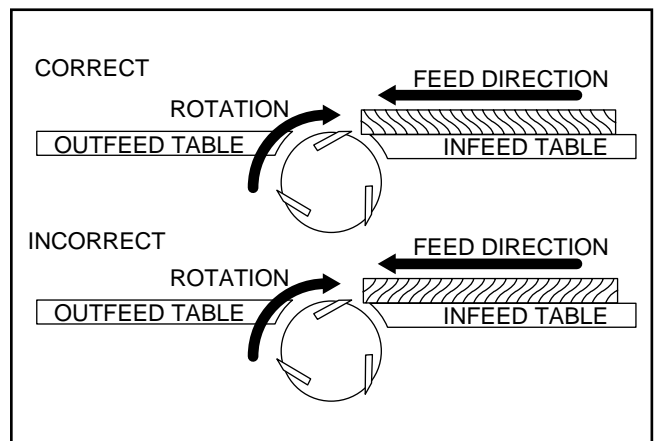


Figure 13. Feed direction diagram.

Push Blocks

To feed the workpiece:

1. Hold the board firmly down on the infeed table and against the fence. Use push blocks if you are surface planing or your situation requires it.
2. Feed the board toward/over the cutterhead at a consistent and even rate of speed. Do not force the board into the cut. Also, any hesitation or stopping could cause uneven cuts or cutting inconsistencies on your workpiece.
3. Use a hand-over-hand action to “walk” the workpiece over the cutterhead. Repeat this hand-over-hand action until the entire length of the board is cut.
4. Follow through with the cut until the workpiece clears the cutterhead and the cutter guard springs back into its original position over the cutterhead.

If the nature of the workpiece forces you to feed against the grain, make very light cuts and feed slowly.

When cutting long workpieces, extra support is needed to avoid injury or a kickback. Use an extension table on the outfeed side or get help from another person to support the workpiece.



Always use push blocks (**Figure 14**) when jointing wood that is narrower than 3" or when jointing a workpiece that cannot be held firmly while feeding, or does not adequately protect your hands from the moving cutterhead. To use the push blocks:

1. Grasp the push blocks firmly, with one in each hand.
2. Place the push blocks flat on top of the workpiece, holding the workpiece with firm pressure on the table and against the fence.
3. Use the hand-over-hand motion described in the “Feeding Workpiece” instructions to maintain control over the workpiece at all times.

When jointing a workpiece that is narrower than the push blocks, tilt the push blocks so they clear the cutterhead guard while feeding.



Figure 14. Push blocks.



Dust Collection

Any standard dust collection hose can be attached to the 2½" dust port (**Figure 15**) on the back of the Model H2801. To attach a dust collecting system:

1. Insert the dust collection hose on the exhaust port at the rear of the jointer. If your hose is larger than the 2½" dust port, adapters can be found in the current Grizzly catalog.
2. Turn the dust collecting system ON.
3. Turn the jointer ON and continue with normal jointing operations.

Remember to replace or empty the bag in the dust collection system as necessary for proper function.

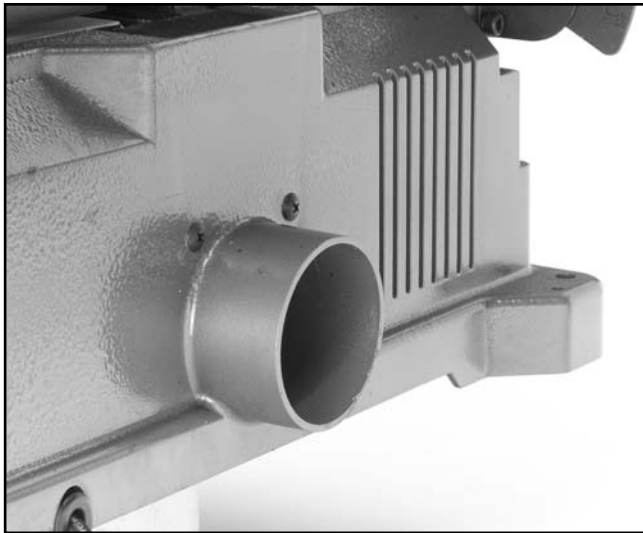


Figure 15. Dust port.

! CAUTION

Use ear protection when using the jointer with a shop vacuum. The combined noise of the two operating universal motors may cause hearing loss over a long period of time.



Surface Planing

The purpose of planing on a jointer is to produce one flat surface. Once you have one flat surface on a board, it can then more readily be milled to precise, final dimensions on a thickness planer. It is nearly impossible to surface plane both sides of a board effectively because the two surfaced sides will not be parallel to each other.

1. Inspect your lumber for soundness and grain direction.
2. If the stock is cupped (warped), place the concave side down and slowly feed it over the cutterhead as shown in **Figure 16**.

! WARNING

Always use a push block(s) when planing the surface of a board. Failure to comply may result in serious personal injury.



Figure 16. Typical surface planing operation.

3. Inspect your results. Most likely, many passes will be necessary before your lumber has a flat surface.
4. If the stock has large or loose knots, consider finding another workpiece. Knots in a workpiece can be dangerous to the operator, as well as destructive to equipment.



Edge Joining

The purpose of edge joining is to produce a finished, flat-edged surface that is suitable for joinery or finishing. Edge joining is also a necessary step prior to ripping stock to width on a table saw or radial arm saw.

1. Make sure the fence is set to 90°. Double check with a try square or machinist's square.
2. Inspect stock for soundness and grain direction.
3. If the board is bowed (curved), place the concave edge down on the infeed table.
4. Holding the stock firmly against the fence and table. Feed the stock slowly and evenly over the cutterhead. **See Figure 17.**

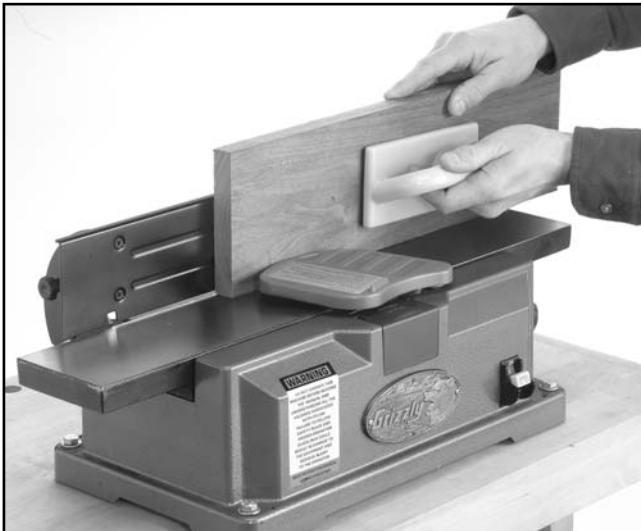


Figure 17. Operator position for edge joining.



Beveling

Beveling an edge is essentially the same operation as edge joining, except that the fence is tilted to a specified angle. Use extra care to ensure that the edge makes solid contact with the infeed and outfeed tables at all times.

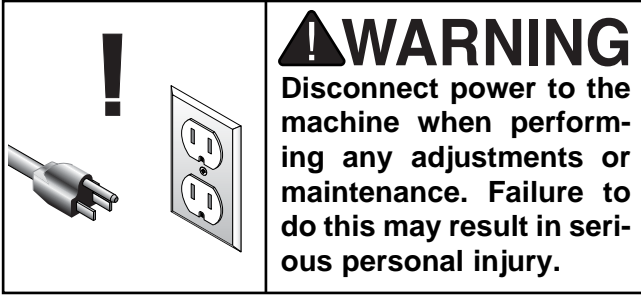
1. Use a bevel gauge to determine the desired angle. Then use the bevel to transfer this angle to the fence.
2. Tilt the fence by loosening the lock handle and moving the fence to the desired angle.
3. Inspect stock for soundness and grain direction.
4. Slowly and evenly feed stock through the cutterhead as shown in **Figure 18**. Make sure the face of the stock is completely flat against the fence and the edge is making solid contact on the infeed and outfeed tables.
5. Achieving the full bevel will probably take several passes. Remember not to take more than $\frac{5}{64}$ " in one pass.



Figure 18. Operator and fence position for beveling an edge.



SECTION 7: MAINTENANCE



General

Regular periodic maintenance on your Model H2801 4" Jointer ensures its optimum performance. Make a habit of inspecting your jointer 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

The table and other non-painted surfaces on the Model H2801 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

Since all bearings are sealed and permanently lubricated, simply leave them alone until they need to be replaced. Do not lubricate them.

Table ways and the fence assembly should not be lubricated. If the tables appear to be stuck, disassemble and clean any foreign materials from the ways.



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.



Sharpening Knives

The cutterhead knives can be individually honed with a fine sharpening stone. Make sure the oil-stone is flat and you have the experience and equipment to properly sharpen knives. Even the slightest nick or uneven honing can result in poor quality cutting during operation.

Consider taking your knives to a professional sharpener. This will guarantee that you get good results. Often the costs of getting your knives sharpened by a professional will offset any costs related to sharpening problems (i.e. ruined stock).



Replacing Knives

To replace the cutterhead knives:

1. **Unplug the power from the jointer!**
2. Block the cutterhead guard so it stays open, or remove the cutterhead guard. Lift the knife and knife clamp from the cutterhead and clean any sawdust and resin buildup from the cutterhead and knife clamp.
3. Position the knife clamp against the replacement knife and install the assembly in the cutterhead.
4. Secure the knife and knife clamp with the three knife clamp screws. Do not completely tighten the knife clamp screws yet.
5. Check and adjust the knife height as described in the “Knife Adjustment” instructions. Tighten the knife clamp screws.
6. Recheck the knife height and make sure knife is still level with the outfeed table.
7. Repeat these procedures with the other knife, then make sure that all of the knife clamp screws are tight. **Replace the guard!**



Replacing Belt

To replace the belt:

1. **Unplug the power from the jointer!**
2. Lay the Model H2801 on its back so the switch is facing up, and remove the belt by turning the pulley while applying outward pressure.
3. Install the new belt by turning the pulley while applying inward pressure.



H2801 4" Jointer

Replacing Spring

If the guard spring loses its tension, it must be replaced. To replace the guard spring:

1. **Unplug the power from the jointer!**
2. Follow the “Guard Adjustment” instructions for removing the knife guard.
3. Remove the spring from the dimple and get a new spring from the Grizzly service department.
4. Follow the “Guard Adjustment” instructions for replacing the spring and guard cover.



Motor Brushes

After prolonged use, the motor brushes may eventually wear out. Call the Grizzly parts department to obtain replacement brushes. To inspect/replace these brushes:

1. **Unplug the power from the jointer!**
2. Under the outfeed table, there are four bolts that attach the motor to the jointer base. Remove these bolts and remove motor from the jointer.
3. The brush caps are visible from the side of the motor. They look like the head of a large slotted (flat-head) screw. Use a flat-head screwdriver to remove the brush caps.
4. Remove the brush cap assembly and replace the old brush with the new brush. Make sure the brushes are clean and slide freely in their guides.
5. Replace the brush assemblies and brush caps. Re-install the motor to the jointer.



SECTION 8: CLOSURE

The following pages contain general machine data, parts diagrams/lists, troubleshooting guide and Warranty/Return information for your Model H2801 4" Jointer.

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 H2801 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

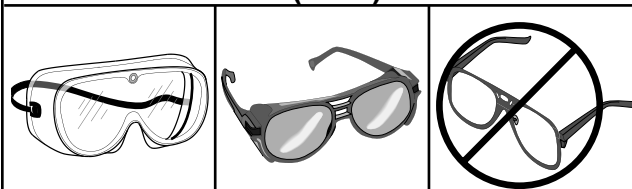
The Model H2801 was specifically designed for cutting wood only. **DO NOT MODIFY AND/OR USE THIS MACHINE FOR ANY OTHER PURPOSE.** Modifications or improper use of this tool will void the warranty. If you are confused about any aspect of this machine, **DO NOT** use it until all your questions have been 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 H2801 4" Jointer. 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 H2801 4" JOINTER

Design TypeBench Model

Capacities:

Maximum Depth of Cut $\frac{5}{64}$ "
Maximum Width of Cut4"
Cutterhead Speed8,000 R.P.M.
Cuts Per Minute16,000 C.P.M.

Overall Dimensions:

Table Size4 " W x 23" L
Height (from Bench to Table) $9\frac{1}{2}$ "
Overall Length23"
Overall Width10"
Shipping Weight28 lbs.
Net Weight22 lbs.
Footprint $16\frac{1}{2}$ " x $9\frac{5}{8}$ "

Construction:

Table Cast Iron
Fence Assembly Sheet Steel
Body Assembly Cast Iron
Base ABS Plastic
Knives 2 HSS
Cutterhead 2 Knife Slots w/ Sealed Ball Bearings
Guard Nylon

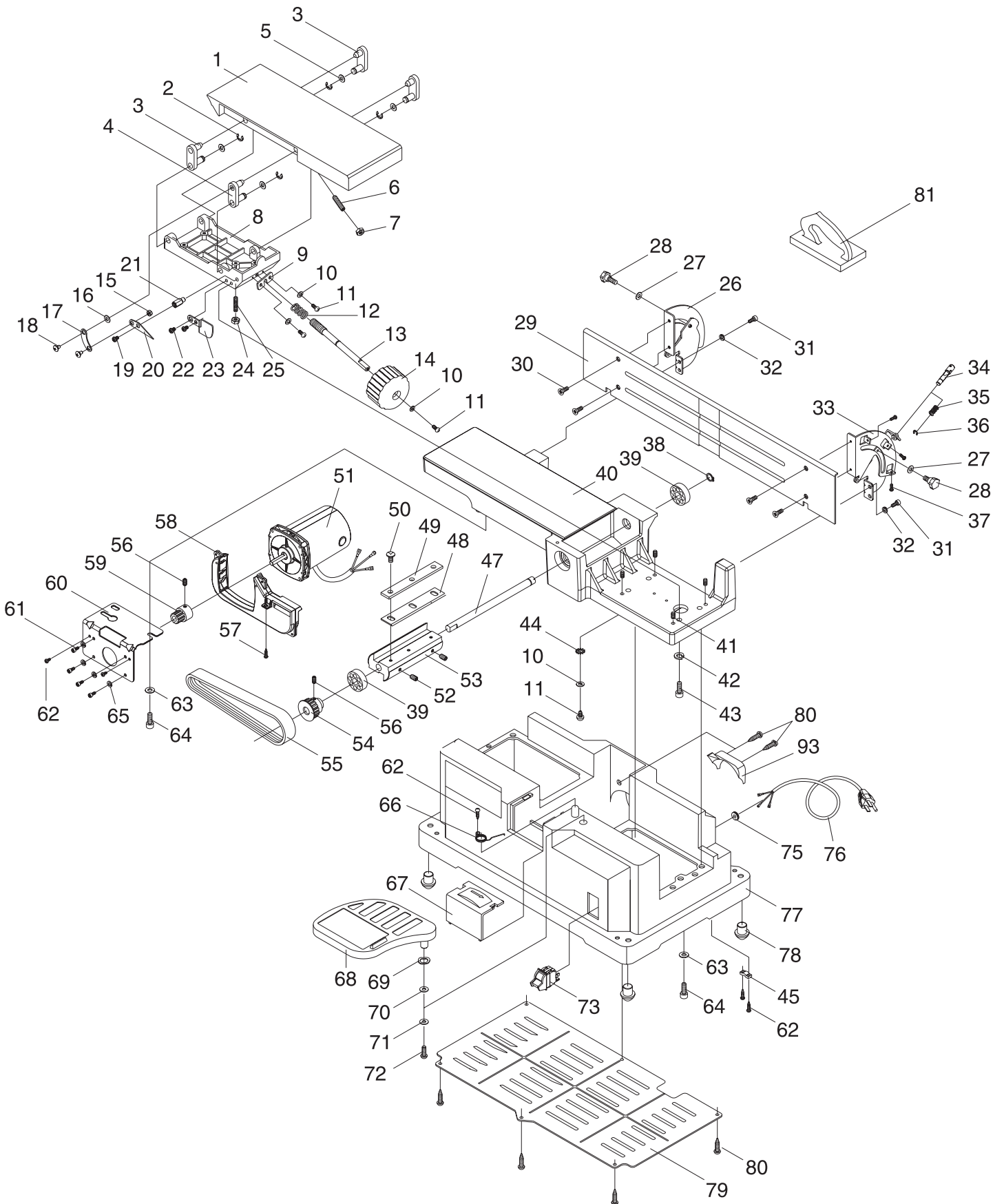
Motor:

Type Universal Motor
Horsepower $\frac{5}{8}$ H.P.
Phase / Voltage Single-Phase / 110V
Amps 5A
Cycle / R.P.M. 60 Hertz / 21,000 R.P.M.
Switch Toggle Safety Switch
Power Transfer Belt Drive
Bearings Sealed & Lubricated Ball

Features:

Fence Positive Stops at 45° and 90°
Table Movement Hand Knob

Specifications, while deemed accurate, are not guaranteed.



| REF | PART # | DESCRIPTION |
|-----|-----------|------------------------|
| 01 | PH2801001 | INFEED TABLE |
| 02 | PH2801002 | E-RING 6MM |
| 03 | PH2801003 | BRACKET |
| 04 | PH2801004 | BRACKET |
| 05 | PH2801005 | FLAT WASHER M5 |
| 06 | PH2801006 | SETSCREW M5-.8 X 30 |
| 07 | PH2801007 | HEX NUT M5-.8 |
| 08 | PH2801008 | TABLE FRAME |
| 09 | PH2801009 | SUPPORT PLATE |
| 10 | PH2801010 | FLAT WASHER M6 |
| 11 | PH2801011 | PHLP HD SCR M4-.7 X 10 |
| 12 | PH2801012 | SPRING |
| 13 | PH2801013 | ELEVATION SCREW |
| 14 | PH2801014 | KNOB |
| 15 | PH2801015 | HEX NUT M4-.7 |
| 16 | PH2801016 | FLAT WASHER M6 |
| 17 | PH2801017 | BRACKET |
| 18 | PH2801018 | SCREW |
| 19 | PH2801019 | PHLP HD SCR M5-.8 X 10 |
| 20 | PH2801020 | POINTER ASSY |
| 21 | PH2801021 | BOLT |
| 22 | PH2801022 | PHLP HD SCR M5-.8 X 8 |
| 23 | PH2801023 | SCALE |
| 24 | PH2801024 | HEX NUT M6-1.0 |
| 25 | PH2801025 | SETSCREW M6-1.0 X 30 |
| 26 | PH2801026 | LEFT TRUNNION |
| 27 | PH2801027 | FLAT WASHER M6 |
| 28 | PH2801028 | KNOB |
| 29 | PH2801029 | FENCE |
| 30 | PH2801030 | COSUNK SCR M5-.8 X 10 |
| 31 | PH2801031 | CAP SCREW M5-.8 X 12 |
| 32 | PH2801032 | LOCK WASHER M5 |
| 33 | PH2801033 | RIGHT TRUNNION |
| 34 | PH2801034 | PLUNGER |
| 35 | PH2801035 | SPRING |
| 36 | PH2801036 | E-RING 3MM |
| 37 | PH2801037 | PHLP HD SCR M4-.7 X 10 |
| 38 | PH2801038 | RETAINING RING 10M |
| 39 | PH2801039 | BEARING 6200ZZ |
| 40 | PH2801040 | OUTFEED TABLE |

| REF | PART # | DESCRIPTION |
|-----|-----------|--------------------------|
| 41 | PH2801041 | SETSCREW M6-1.0 X 16 |
| 42 | PH2801042 | LOCK WASHER M6 |
| 43 | PH2801043 | CAP SCREW M6-1.0 X 16 |
| 44 | PH2801044 | TOOTH WASHER |
| 45 | PH2801045 | POWER CORD |
| 47 | PH2801047 | SHAFT |
| 48 | PH2801048 | KNIFE |
| 49 | PH2801049 | KNIFE CLAMP |
| 50 | PH2801050 | BTN HD SCR M6-1.0 X 12 |
| 51 | PH2801051 | MOTOR ASSY |
| 52 | PH2801052 | SETSCREW M6-1.0 X 12 |
| 53 | PH2801053 | CUTTERHEAD |
| 54 | PH2801054 | DRIVE PULLEY |
| 55 | PH2801055 | TIMING BELT 3/8" X 130XL |
| 56 | PH2801056 | SETSCREW M6-1.0 X 6 |
| 57 | PH2801057 | SHT MTL SCREW M4 X 6 |
| 58 | PH2801058 | DUST PORT |
| 59 | PH2801059 | MOTOR PULLEY |
| 60 | PH2801060 | MOTOR BRACKET |
| 61 | PH2801061 | CAP SCREW 5/32" X 3/8" |
| 62 | PH2801062 | SHT MTL SCREW M4 X 10 |
| 63 | PH2801063 | FLAT WASHER M6 |
| 64 | PH2801064 | CAP SCREW M6-1.0 X 16 |
| 65 | PH2801065 | LOCK WASHER M6 |
| 66 | PH2801066 | TORSION SPRING |
| 67 | PH2801067 | ACCESS TAB |
| 68 | PH2801068 | KNIFE GUARD |
| 69 | PH2801069 | WAVY WASHER M10 |
| 70 | PH2801070 | BUSHING |
| 71 | PH2801071 | FLAT WASHER M6 |
| 72 | PH2801072 | SCREW M5-.8 X 8 |
| 73 | PH2801073 | SWITCH |
| 75 | PH2801075 | WIRE CLIP |
| 76 | PH2801076 | POWER CORD |
| 77 | PH2801077 | BASE |
| 78 | PH2801078 | FOOT PAD |
| 79 | PH2801079 | COVER |
| 80 | PH2801080 | SHT MTL SCREW M4 X 12 |
| 81 | PH2801081 | PUSH BLOCK |
| 93 | PH2801093 | PLATE |

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 # H2801 4" Jointer 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.

- How did you learn about us?
 Advertisement Friend
 Catalog World Wide Web
 Other _____
- 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 _____
- 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 _____
- 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 +
- What is your age group?
 20-29 50-59
 30-39 60-69
 40-49 70 +
- How long have you been a woodworker?
 0 - 2 Years 8 - 20 Years
 2 - 8 Years 20+ Years
- How would you rank your woodworking skills?
 Simple Advanced
 Intermediate Master Craftsman
- What stationary woodworking tools do you own? Check all that apply.
 Air Compressor Panel Saw
 Band Saw Jointer
 Drill Press Power Feeder
 Drum Sander Radial Arm Saw
 Dust Collector Jointer
 Horizontal Boring Machine Spindle Sander
 Jointer Table Saw
 Lathe Vacuum Veneer Press
 Mortiser Wide Belt Sander
 Other _____
- How many of your woodworking machines are Grizzly? _____
- 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 Jointer
 8" - 10" Bandsaw Scroll Saw
 Disc/Belt Sander Spindle/Belt Sander
 Mini Jointer
 Other _____
- How many of the machines checked above are Grizzly? _____
- Which portable/hand held power tools do you own? Check all that apply.
 Belt Sander Orbital Sander
 Biscuit Joiner Palm Sander
 Circular Saw Portable Jointer
 Detail Sander Saber Saw
 Drill/Driver Reciprocating Saw
 Miter Saw Router
 Other _____
- What machines/supplies would you like Grizzly Industrial to carry?

- What new accessories would you like Grizzly Industrial to carry?

- What other companies do you purchase your tools and supplies from?

- Do you think your purchase represents good value?
 Yes No
- Would you recommend Grizzly Industrial to a friend?
 Yes No
- 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
- Comments: _____

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BELLINGHAM, WA 98227-2069**



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|----------------------------------|
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| Street _____ |
| City _____ State _____ Zip _____ |

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