

Grizzly *Industrial, Inc.*®

MODEL G5394 STROKE SANDER OWNER'S MANUAL



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

#JB11315 PRINTED IN TAIWAN



WARNING!

This manual provides critical safety instructions on the proper setup, operation, maintenance, and service of this machine/tool. Save this document, refer to it often, and use it to instruct other operators.

Failure to read, understand and follow the instructions in this manual may result in fire or serious personal injury—including amputation, electrocution, or death.

The owner of this machine/tool is solely responsible for its safe use. This responsibility includes but is not limited to proper installation in a safe environment, personnel training and usage authorization, proper inspection and maintenance, manual availability and comprehension, application of safety devices, cutting/sanding/grinding tool integrity, and the usage of personal protective equipment.

The manufacturer will not be held liable for injury or property damage from negligence, improper training, machine modifications or misuse.



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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Identification

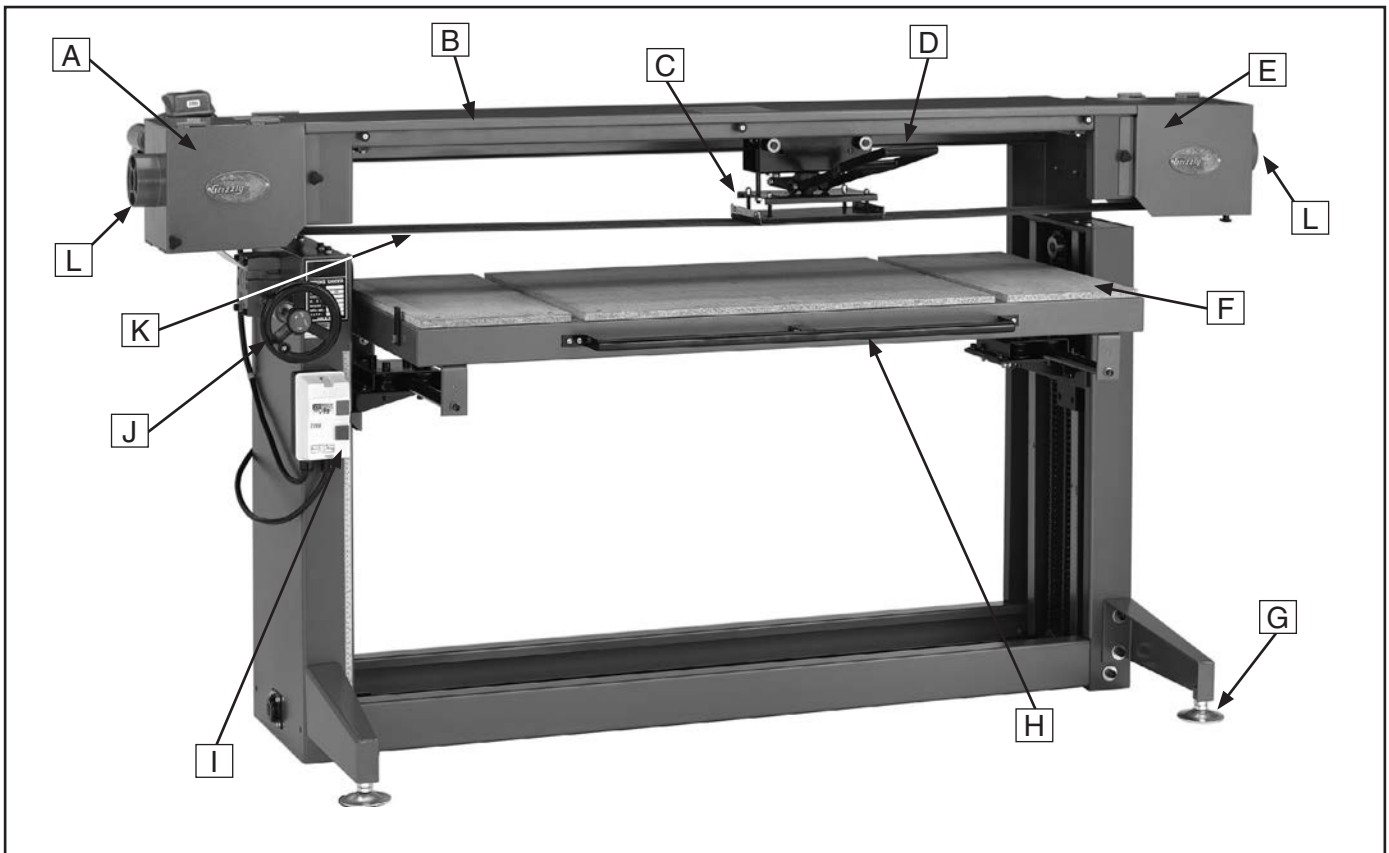
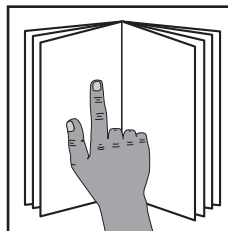


Figure 1. Identification.

- A. Drive Wheel Cover
- B. Sanding Belt Cover
- C. Platen Press
- D. Platen Press Handle
- E. Idler Wheel Cover
- F. Table
- G. Leveling Foot
- H. Table Handle
- I. Magnetic Switch
- J. Table Elevation Handwheel
- K. Sanding Belt
- L. Dust Port 4"



⚠️ WARNING

To reduce your risk of serious injury, read this entire manual **BEFORE** using machine.





MACHINE DATA SHEET

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

MODEL G5394 STROKE SANDER

Product Dimensions:

Weight..... 608 lbs.
Width (side-to-side) x Depth (front-to-back) x Height..... 93-3/4 x 38 x 50 in.
Footprint (Length x Width)..... 70 x 30-1/2 in.

Shipping Dimensions:

Type..... Cardboard Box & Wood Frame
Content..... Machine
Weight..... 690 lbs.
Length x Width x Height..... 28 x 74 x 26 in.
Must Ship Upright..... Yes

Electrical:

Power Requirement..... 220V, Single-Phase, 60 Hz
Prewired Voltage..... 220V
Full-Load Current Rating..... 17A
Minimum Circuit Size..... 20A
Connection Type..... Cord & Plug
Power Cord Included..... Yes
Power Cord Length..... 6 ft.
Power Cord Gauge..... 14 AWG
Plug Included..... No
Recommended Plug Type..... 6-20
Switch Type..... Magnetic Switch w/Overload Protection

Motors:

Main

Horsepower..... 3 HP
Phase..... Single-Phase
Amps..... 17A
Speed..... 1725 RPM
Type..... TEFC Capacitor-Start Induction
Power Transfer Direct Drive
Bearings..... Shielded & Permanently Lubricated
Centrifugal Switch/Contacts Type..... External

Main Specifications:

Operation Information

Sanding Belt Speed..... 3500 FPM
Sanding Belt Length..... 186 in.
Sanding Belt Width..... 6 in.

Table Information

Table Length..... 58 in.
Table Width..... 23-3/4 in.
Table Thickness..... 2-3/4 in.
Table Travel..... 18 in.
Floor To Table Height..... 16-40 in.



Platen Information

Platen Type..... Graphite/Steel
Platen Length..... 10-1/2 in.
Platen Width..... 6 in.
Platen Travel..... 59 in.

Construction

Table..... Steel Foundation with Particle Board Work Surface
Frame..... Steel
Base..... Steel
Drive Roller..... Aluminum
Idler Roller..... Aluminum
Paint Type/Finish..... Powder Coated

Other Related Information

Number of Dust Ports..... 2
Dust Port Size..... 4 in.
Drive Roller Size..... 6-3/4 x 8 in.
Idler Roller Size..... 6-3/4 x 8 in.

Other Specifications:

Country of Origin Taiwan
Warranty 1 Year
Approximate Assembly & Setup Time 3 Hours
Serial Number Location ID Label Above On/Off Switch
ISO 9001 Factory Yes
Certified by a Nationally Recognized Testing Laboratory (NRTL) No

Features:

- 24" Maximum Workpiece Thickness
- Handwheel Belt Tension
- 8" Aluminum Belt Drive Drums
- Sliding Ways Travel on Ball Bearings
- Platen Handle Swivels Left and Right
- Table Elevation is Manually Operated
- Fully Adjustable Belt Tracking and Tension




SECTION 1: SAFETY

For Your Own Safety, Read Instruction Manual Before Operating This Machine

The purpose of safety symbols is to attract your attention to possible hazardous conditions. This manual uses a series of symbols and signal words 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. Always use common sense and good judgment.

 **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 machine.

Safety Instructions for Machinery

WARNING

OWNER'S MANUAL. Read and understand this owner's manual **BEFORE** using machine.

TRAINED OPERATORS ONLY. Untrained operators have a higher risk of being hurt or killed. Only allow trained/supervised people to use this machine. When machine is not being used, disconnect power, remove switch keys, or lock-out machine to prevent unauthorized use—especially around children. Make your workshop kid proof!

DANGEROUS ENVIRONMENTS. Do not use machinery in areas that are wet, cluttered, or have poor lighting. Operating machinery in these areas greatly increases the risk of accidents and injury.

MENTAL ALERTNESS REQUIRED. Full mental alertness is required for safe operation of machinery. Never operate under the influence of drugs or alcohol, when tired, or when distracted.

ELECTRICAL EQUIPMENT INJURY RISKS. You can be shocked, burned, or killed by touching live electrical components or improperly grounded machinery. To reduce this risk, only allow qualified service personnel to do electrical installation or repair work, and always disconnect power before accessing or exposing electrical equipment.

DISCONNECT POWER FIRST. Always disconnect machine from power supply **BEFORE** making adjustments, changing tooling, or servicing machine. This prevents an injury risk from unintended startup or contact with live electrical components.

EYE PROTECTION. Always wear ANSI-approved safety glasses or a face shield when operating or observing machinery to reduce the risk of eye injury or blindness from flying particles. Everyday eyeglasses are **NOT** approved safety glasses.



WARNING

WEARING PROPER APPAREL. Do not wear clothing, apparel or jewelry that can become entangled in moving parts. Always tie back or cover long hair. Wear non-slip footwear to reduce risk of slipping and losing control or accidentally contacting cutting tool or moving parts.

HAZARDOUS DUST. Dust created by machinery operations may cause cancer, birth defects, or long-term respiratory damage. Be aware of dust hazards associated with each workpiece material. Always wear a NIOSH-approved respirator to reduce your risk.

HEARING PROTECTION. Always wear hearing protection when operating or observing loud machinery. Extended exposure to this noise without hearing protection can cause permanent hearing loss.

REMOVE ADJUSTING TOOLS. Tools left on machinery can become dangerous projectiles upon startup. Never leave chuck keys, wrenches, or any other tools on machine. Always verify removal before starting!

USE CORRECT TOOL FOR THE JOB. Only use this tool for its intended purpose—do not force it or an attachment to do a job for which it was not designed. Never make unapproved modifications—modifying tool or using it differently than intended may result in malfunction or mechanical failure that can lead to personal injury or death!

AWKWARD POSITIONS. Keep proper footing and balance at all times when operating machine. Do not overreach! Avoid awkward hand positions that make workpiece control difficult or increase the risk of accidental injury.

CHILDREN & BYSTANDERS. Keep children and bystanders at a safe distance from the work area. Stop using machine if they become a distraction.

GUARDS & COVERS. Guards and covers reduce accidental contact with moving parts or flying debris. Make sure they are properly installed, undamaged, and working correctly BEFORE operating machine.

FORCING MACHINERY. Do not force machine. It will do the job safer and better at the rate for which it was designed.

NEVER STAND ON MACHINE. Serious injury may occur if machine is tipped or if the cutting tool is unintentionally contacted.

STABLE MACHINE. Unexpected movement during operation greatly increases risk of injury or loss of control. Before starting, verify machine is stable and mobile base (if used) is locked.

USE RECOMMENDED ACCESSORIES. Consult this owner's manual or the manufacturer for recommended accessories. Using improper accessories will increase the risk of serious injury.

UNATTENDED OPERATION. To reduce the risk of accidental injury, turn machine **OFF** and ensure all moving parts completely stop before walking away. Never leave machine running while unattended.

MAINTAIN WITH CARE. Follow all maintenance instructions and lubrication schedules to keep machine in good working condition. A machine that is improperly maintained could malfunction, leading to serious personal injury or death.

DAMAGED PARTS. Regularly inspect machine for damaged, loose, or mis-adjusted parts—or any condition that could affect safe operation. Immediately repair/replace BEFORE operating machine. For your own safety, DO NOT operate machine with damaged parts!

MAINTAIN POWER CORDS. When disconnecting cord-connected machines from power, grab and pull the plug—NOT the cord. Pulling the cord may damage the wires inside. Do not handle cord/plug with wet hands. Avoid cord damage by keeping it away from heated surfaces, high traffic areas, harsh chemicals, and wet/damp locations.

EXPERIENCING DIFFICULTIES. If at any time you experience difficulties performing the intended operation, stop using the machine! Contact our Technical Support at (570) 546-9663.



WARNING

Additional Safety for Stroke Sanders

- 1. RESPIRATOR AND SAFETY GLASSES.** Always wear a respirator and safety glasses while operating the machine. Dust and chips are created when sanding. Some debris will be ejected, becoming hazards to the eyes and lungs.
- 2. DUST COLLECTION SYSTEM.** Never operate the sander without an adequate dust collection system in place and running.
- 3. HAND PROTECTION.** DO NOT place hands near, or in contact with, sanding belt during operation. DO NOT allow fingers to get pinched between the workpiece and the table. This may pull the operator's hand into the machine and cause serious injury!
- 4. SANDING CORRECT MATERIAL.** Only sand natural wood stock with this sander. We do not recommend sanding MDF, particle board, laminates, plastics, metal, glass, ceramics, and any other synthetic products, or products containing asbestos or lead paint. Many of these products contain hazardous dust, or will greatly reduce the life of your sanding paper.
- 5. UNATTENDED OPERATION.** Never leave the machine running unattended.
- 6. CLOTHING.** DO NOT wear loose clothing while operating this machine. Roll up or button sleeves at the cuff.
- 7. REPLACING SANDPAPER.** Replace sanding belt when it becomes worn. DO NOT operate the sander with a damaged or badly worn sanding belt.
- 8. MAINTENANCE AND ADJUSTMENTS.** Perform machine inspections and maintenance service promptly when called for. Disconnect power before performing maintenance or adjustments on the sander.
- 9. EXPERIENCING DIFFICULTIES.** Any problem, with the exception of conveyor belt tracking that is concerned with any moving parts or accessories, must be investigated and corrected with the power disconnected, and after all moving parts have come to a complete stop.

WARNING

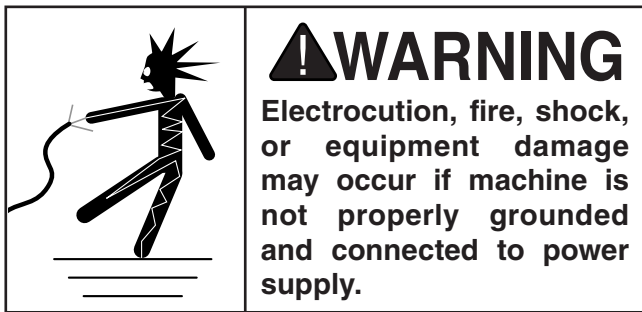
Like all machinery there is potential danger when operating this machine. Accidents are frequently caused by lack of familiarity or failure to pay attention. Use this machine with respect and caution to decrease the risk of operator injury. If normal safety precautions are overlooked or ignored, serious personal injury may occur.



SECTION 2: CIRCUIT REQUIREMENTS

Availability

Before installing the machine, consider the availability and proximity of the required power supply circuit. If an existing circuit does not meet the requirements for this machine, a new circuit must be installed. To minimize the risk of electrocution, fire, or equipment damage, installation work and electrical wiring must be done by an electrician or qualified service personnel in accordance with all applicable codes and standards.



Full-Load Current Rating

The full-load current rating is the amperage a machine draws at 100% of the rated output power. On machines with multiple motors, this is the amperage drawn by the largest motor or sum of all motors and electrical devices that might operate at one time during normal operations.

Full-Load Current Rating at 220V 17 Amps

The full-load current is not the maximum amount of amps that the machine will draw. If the machine is overloaded, it will draw additional amps beyond the full-load rating.

If the machine is overloaded for a sufficient length of time, damage, overheating, or fire may result—especially if connected to an undersized circuit. To reduce the risk of these hazards, avoid overloading the machine during operation and make sure it is connected to a power supply circuit that meets the specified circuit requirements.

Circuit Requirements for 220V

This machine is prewired to operate on a power supply circuit that has a verified ground and meets the following requirements:

Nominal Voltage 208V, 220V, 230V, 240V
Cycle.....60 Hz
Phase..... 1-Phase
Power Supply Circuit 20 Amps
Plug/Receptacle NEMA 6-20
Cord “S”-Type, 3-Wire, 14 AWG, 300 VAC

A power supply circuit includes all electrical equipment between the breaker box or fuse panel in the building and the machine. The power supply circuit used for this machine must be sized to safely handle the full-load current drawn from the machine for an extended period of time. (If this machine is connected to a circuit protected by fuses, use a time delay fuse marked D.)



Note: *Circuit requirements in this manual apply to a dedicated circuit—where only one machine will be running on the circuit at a time. If machine will be connected to a shared circuit where multiple machines may be running at the same time, consult an electrician or qualified service personnel to ensure circuit is properly sized for safe operation.*



Grounding Instructions

This machine **MUST** be grounded. In the event of certain malfunctions or breakdowns, grounding reduces the risk of electric shock by providing a path of least resistance for electric current.

The power cord and plug specified under “Circuit Requirements for 220V” on the previous page has an equipment-grounding wire and a grounding prong. The plug must only be inserted into a matching receptacle (outlet) that is properly installed and grounded in accordance with all local codes and ordinances (see figure below).

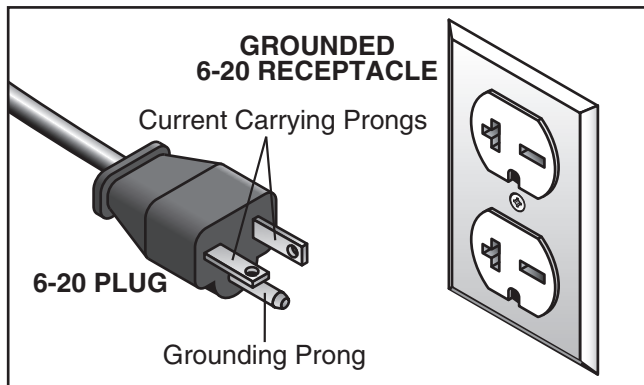
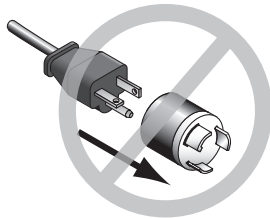


Figure 2. Typical 6-20 plug and receptacle.

⚠️ WARNING

Serious injury could occur if you connect machine to power before completing setup process. DO NOT connect to power until instructed later in this manual.

⚠️ CAUTION



No adapter should be used with plug. If plug does not fit available receptacle, or if machine must be reconnected for use on a different type of circuit, reconnection must be performed by an electrician or qualified service personnel, and it must comply with all local codes and ordinances.

⚠️ WARNING

Serious injury could occur if you connect machine to power before completing setup process. DO NOT connect to power until instructed later in this manual.

Improper connection of the equipment-grounding wire can result in a risk of electric shock. The wire with green insulation (with or without yellow stripes) is the equipment-grounding wire. If repair or replacement of the power cord or plug is necessary, do not connect the equipment-grounding wire to a live (current carrying) terminal.

Check with a qualified electrician or service personnel if you do not understand these grounding requirements, or if you are in doubt about whether the tool is properly grounded. If you ever notice that a cord or plug is damaged or worn, disconnect it from power, and immediately replace it with a new one.

Extension Cords

We do not recommend using an extension cord with this machine. If you must use an extension cord, only use it if absolutely necessary and only on a temporary basis.

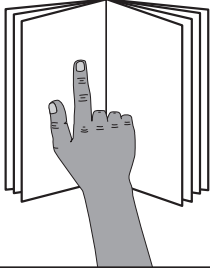
Extension cords cause voltage drop, which can damage electrical components and shorten motor life. Voltage drop increases as the extension cord size gets longer and the gauge size gets smaller (higher gauge numbers indicate smaller sizes).

Any extension cord used with this machine must be in good condition and contain a ground wire and matching plug/receptacle. Additionally, it must meet the following size requirements:

**Minimum Gauge Size12 AWG
Maximum Length (Shorter is Better).....50 ft.**



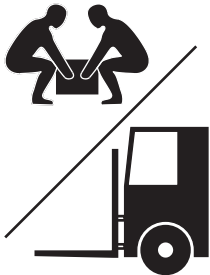
SECTION 3: SETUP



!WARNING
This machine presents serious injury hazards to untrained users. Read through this entire manual to become familiar with the controls and operations before starting the machine!



!WARNING
Wear safety glasses during the entire setup process!



!WARNING
HEAVY LIFT!
Straining or crushing injury may occur from improperly lifting machine or some of its parts. To reduce this risk, get help from other people and use a forklift (or other lifting equipment) rated for weight of this machine.

Items Needed for Setup

The following items are needed, but not included, for the setup/assembly of this machine.

| Description | Qty |
|---|-------|
| • Assistant..... | 1 |
| • Safety Glasses (For Each Person)..... | 1 |
| • Square..... | 1 |
| • Dust Collection System..... | 1 |
| • 4" Flexible Dust Hoses..... | 2 |
| • 4" Hose Clamps..... | 2 |
| • Wrenches 10, 12mm, 3/4"..... | 1 Ea. |
| • Phillips Screwdriver..... | 1 |

Unpacking

This machine was carefully packaged for safe transport. When unpacking, separate all enclosed items from packaging materials and inspect them for shipping damage. ***If items are damaged, please call us immediately at (570) 546-9663.***

IMPORTANT: Save all packaging materials until you are completely satisfied with the machine and have resolved any issues between Grizzly or the shipping agent. *You MUST have the original packaging to file a freight claim. It is also extremely helpful if you need to return your machine later.*



!WARNING
SUFFOCATION HAZARD!
Keep children and pets away from plastic bags or packing materials shipped with this machine. Discard immediately.



Inventory

The following is a list of items shipped with your machine. Before beginning setup, lay these items out and inventory them.

If any non-proprietary parts are missing (e.g. a nut or a washer), we will gladly replace them; or for the sake of expediency, replacements can be obtained at your local hardware store.

NOTICE

If you cannot find an item on this list, carefully check around/inside the machine and packaging materials. Often, these items get lost in packaging materials while unpacking or they are pre-installed at the factory.

| Uprights: (Figure 3) | Qty |
|--------------------------------|-----|
| A. Left Upright Assembly | 1 |
| B. Right Upright Assembly..... | 1 |

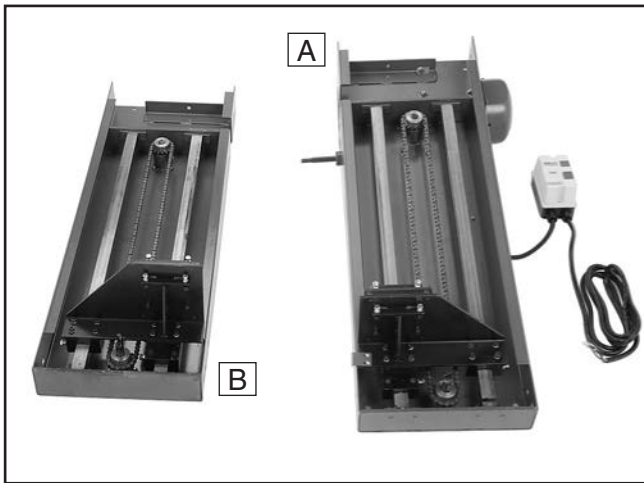


Figure 3. Uprights.

| Frame Components: (Figure 4) | Qty |
|------------------------------|-----|
| C. Platen Assembly..... | 1 |
| D. Elevation Rod | 1 |
| E. Top Frame Rail..... | 1 |
| F. Bottom Frame Rails..... | 2 |
| G. Right Foot..... | 1 |
| H. Left Foot | 1 |

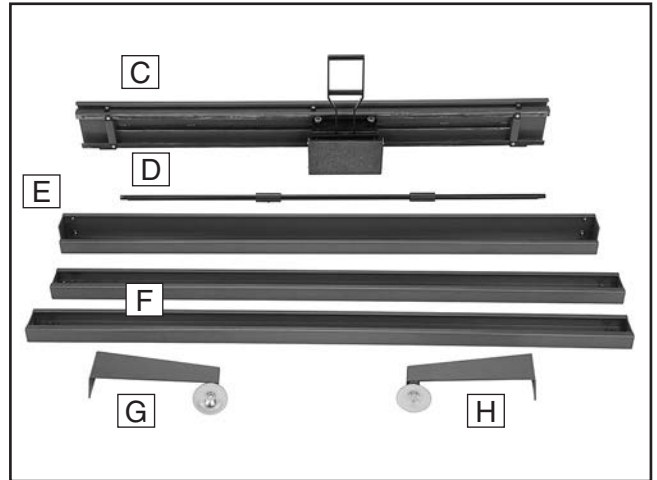


Figure 4. Frame Components.

| Wheel Components: (Figure 5) | Qty |
|-------------------------------|-----|
| I. Idler Wheel Assembly | 1 |
| J. Idler Wheel Cover..... | 1 |
| K. Drive Wheel Cover | 1 |

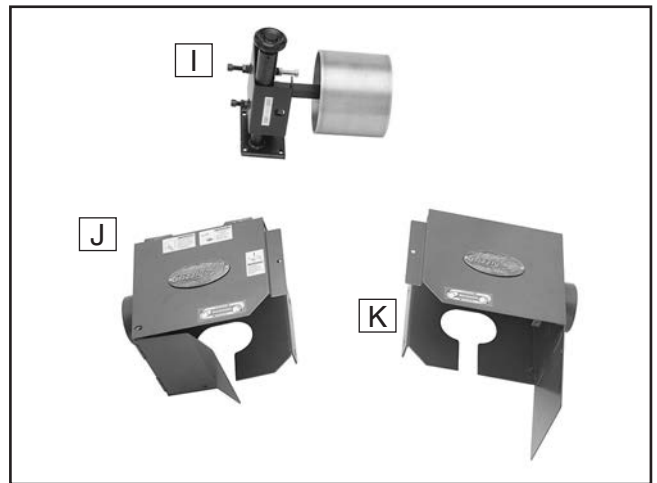


Figure 5. Wheel Components.



| Table Components: (Figure 6) | | Qty |
|-------------------------------------|----------------------|------------|
| A. | Table Assembly | 1 |
| B. | Table Handle | 1 |
| C. | Table Rods | 2 |

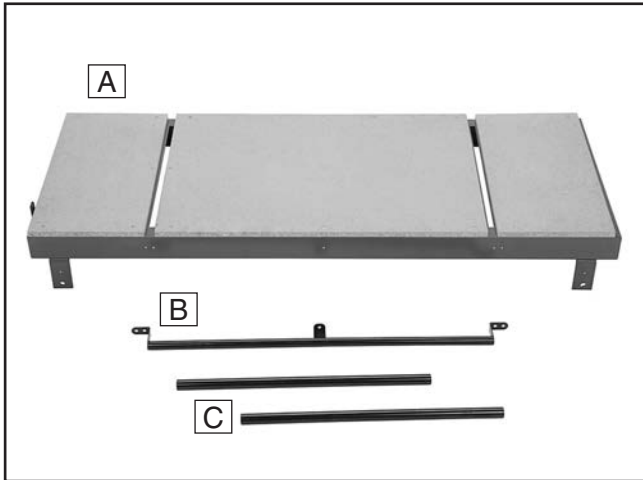


Figure 6. Table Components.

| Additional Components: (Figure 7) | | Qty |
|--|------------------------------|------------|
| D. | Sanding Belt 6" x 186" | 1 |
| E. | Elevation Handwheel..... | 1 |

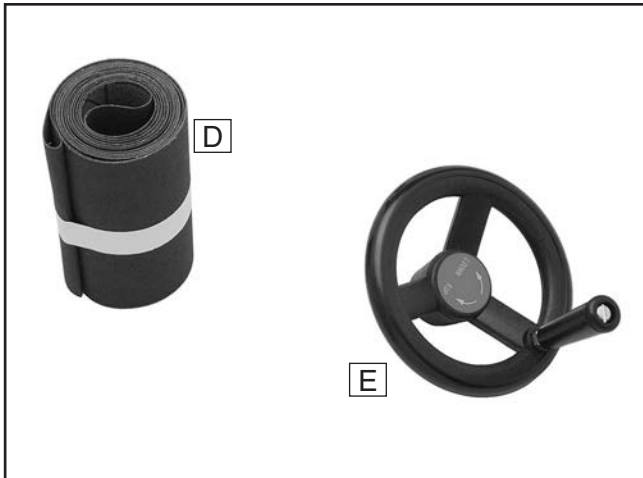


Figure 7. Additional Components.

| Hardware/Tools: (Figure 8) | | Qty |
|-----------------------------------|--|------------|
| F. | Cap Screws $\frac{3}{8}$ "-16 x $\frac{3}{4}$ " (Frame, Table) ... | 12 |
| G. | Cap Screws $\frac{1}{2}$ "-13 x 1" (Frame) | 10 |
| H. | Flat Washers $\frac{1}{2}$ " (Frame) | 10 |
| I. | Lock Washers $\frac{3}{8}$ " (Frame, Table)..... | 12 |
| J. | Flat Washers $\frac{3}{8}$ " (Frame, Table) | 4 |
| K. | Flat Washers $\frac{1}{4}$ " (Table Handle) | 6 |
| L. | Lock Washers $\frac{1}{4}$ " (Table Handle)..... | 6 |
| M. | Flat Washers $\frac{5}{16}$ " (Wheel Covers)..... | 4 |
| N. | Fender Washers $\frac{1}{4}$ " (Knobs) | 6 |
| O. | Hex Wrenches $\frac{5}{32}$ ", $\frac{3}{16}$ ", $\frac{7}{32}$ ", $\frac{5}{16}$ ", $\frac{3}{8}$ ".. | 1 Ea. |
| P. | Flange Bolts $\frac{1}{4}$ "-20 x $\frac{1}{2}$ " (Platen)..... | 6 |
| Q. | Phillips Head Screws $\frac{1}{4}$ "-20 x $\frac{3}{8}$ " (Handle) 5 | |
| R. | Flange Bolt $\frac{5}{16}$ "-18 x $\frac{3}{4}$ " (Motor Mount) | 1 |
| S. | Flange Bolts $\frac{5}{16}$ "-18 x 1" (Idler Wheel) | 4 |
| T. | Flange Bolts $\frac{5}{16}$ "-18 x $\frac{1}{2}$ " (Wheel Covers) . | 4 |
| U. | Knobs $\frac{1}{4}$ "-20 x $\frac{1}{2}$ " (Wheel Covers) | 6 |

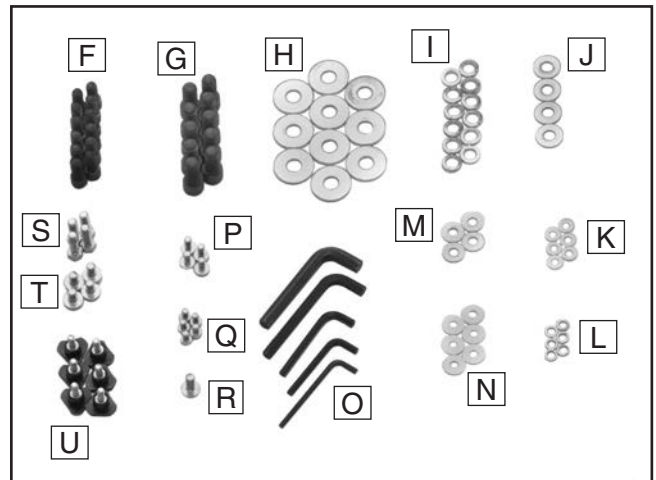


Figure 8. Hardware/tools.

Note: Extra fasteners are included with the machine. You may be left with extra hardware after assembly is complete.



Clean Up

The unpainted surfaces of your machine are coated with a heavy-duty rust preventative that prevents corrosion during shipment and storage. This rust preventative works extremely well, but it will take a little time to clean.

Be patient and do a thorough job cleaning your machine. The time you spend doing this now will give you a better appreciation for the proper care of your machine's unpainted surfaces.

There are many ways to remove this rust preventative, but the following steps work well in a wide variety of situations. Always follow the manufacturer's instructions with any cleaning product you use and make sure you work in a well-ventilated area to minimize exposure to toxic fumes.

Before cleaning, gather the following:

- Disposable rags
- Cleaner/degreaser (WD-40 works well)
- Safety glasses & disposable gloves
- Plastic paint scraper (optional)

Basic steps for removing rust preventative:

1. Put on safety glasses.
2. Coat the rust preventative with a liberal amount of cleaner/degreaser, then let it soak for 5–10 minutes.
3. Wipe off the surfaces. If your cleaner/degreaser is effective, the rust preventative will wipe off easily. If you have a plastic paint scraper, scrape off as much as you can first, then wipe off the rest with the rag.
4. Repeat **Steps 2–3** as necessary until clean, then coat all unpainted surfaces with a quality metal protectant to prevent rust.

NOTICE

Avoid chlorine-based solvents, such as acetone or brake parts cleaner, that may damage painted surfaces.

Site Considerations

Workbench Load

Refer to the **Machine Data Sheet** for the weight and footprint specifications of your machine. Some workbenches may require additional reinforcement to support the weight of the machine and workpiece materials.

Placement Location

Consider anticipated workpiece sizes and additional space needed for auxiliary stands, work tables, or other machinery when establishing a location for this machine in the shop. Below is the minimum amount of space needed for the machine.

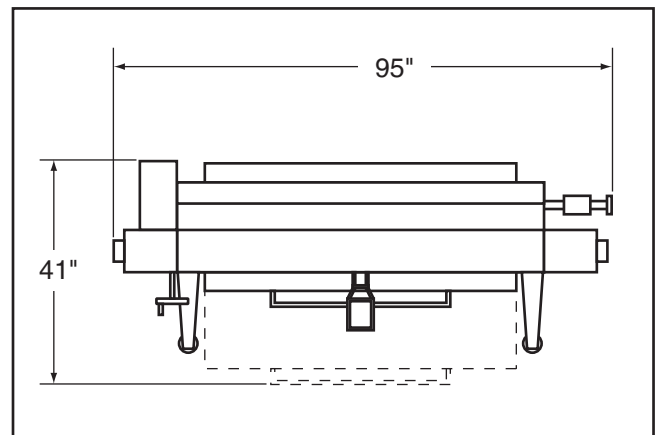
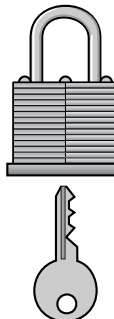


Figure 9. Minimum working clearances.

| | |
|--|--|
|  | <p>CAUTION</p> <p>Children and visitors may be seriously injured if unsupervised around this machine. Lock entrances to the shop or disable start switch or power connection to prevent unsupervised use.</p> |
|--|--|



Assembly

The machine must be fully assembled before it can be operated. Before beginning the assembly process, refer to **Needed for Setup** and gather all listed items. To ensure the assembly process goes smoothly, first clean any parts that are covered or coated in heavy-duty rust preventative (if applicable).

To assemble your machine:

1. Attach the left foot assembly to the left upright with (1) $\frac{3}{8}$ "-16 x $\frac{3}{4}$ " cap screw and (1) $\frac{3}{8}$ " flat washer, as shown in **Figure 10**. Do not yet fully tighten the cap screw.

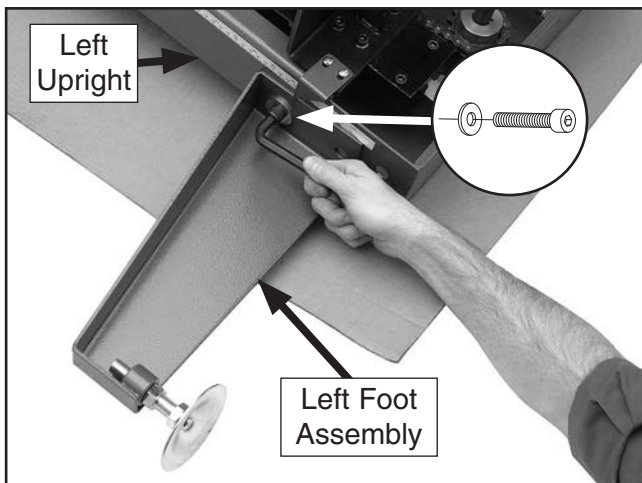


Figure 10. Foot assembly attachment.

2. Repeat **Step 1** for the right foot assembly and right upright.

3. Lay the left upright on a piece of cardboard, as shown in **Figure 11**. Attach the two bottom frame rails with (4) $\frac{3}{8}$ "-16 x $\frac{3}{4}$ " cap screws and (4) $\frac{3}{8}$ " flat washers.

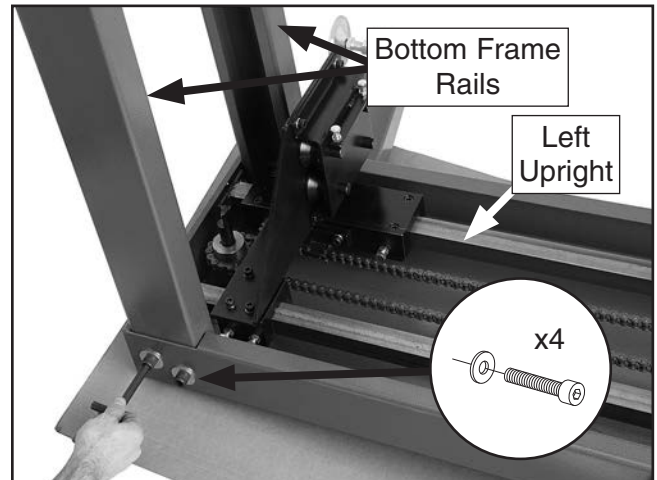


Figure 11. Second upright assembly.

4. Lift the left upright so it stands vertically with the frame rails against the floor, and attach the right upright with the remaining (4) $\frac{3}{8}$ "-16 x $\frac{3}{4}$ " cap screws and (4) $\frac{3}{8}$ " flat washers (**Figure 12**).

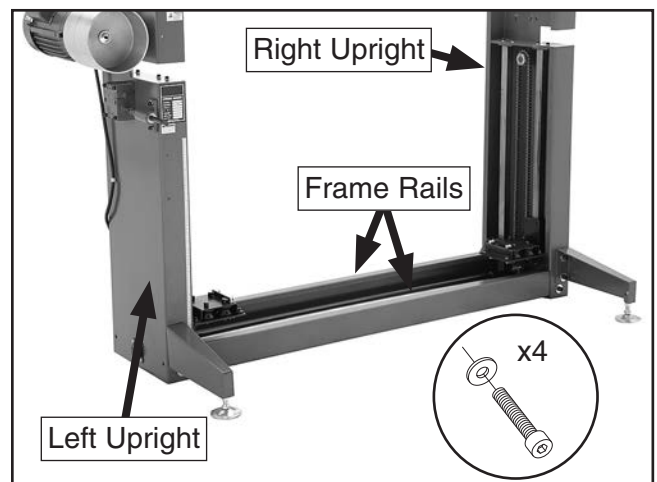


Figure 12. Third cross brace.



- Attach the top frame rail to the top of the uprights with (4) $\frac{3}{8}$ "-16 x $\frac{3}{4}$ " cap screws and (4) $\frac{3}{8}$ " lock washers, as shown in **Figure 13**. Do not yet fully tighten the cap screws.

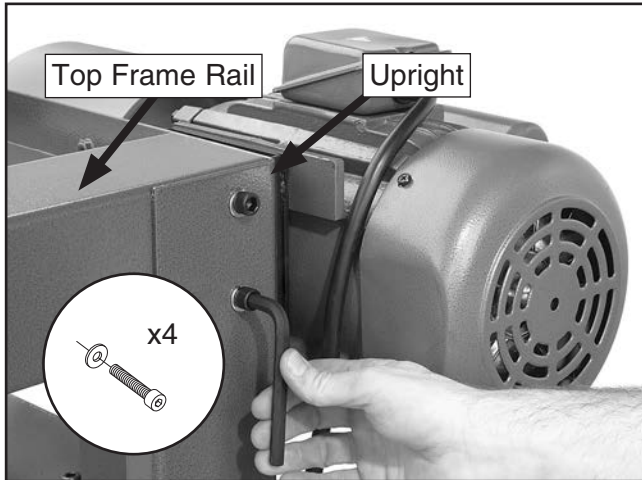


Figure 13. Top rail attachment.

- Insert the $\frac{5}{16}$ "-18 x $\frac{3}{4}$ " flange bolt through the motor bracket, upright frame, and into the top rail, as shown in **Figure 14**. Do not yet fully tighten the flange bolt.

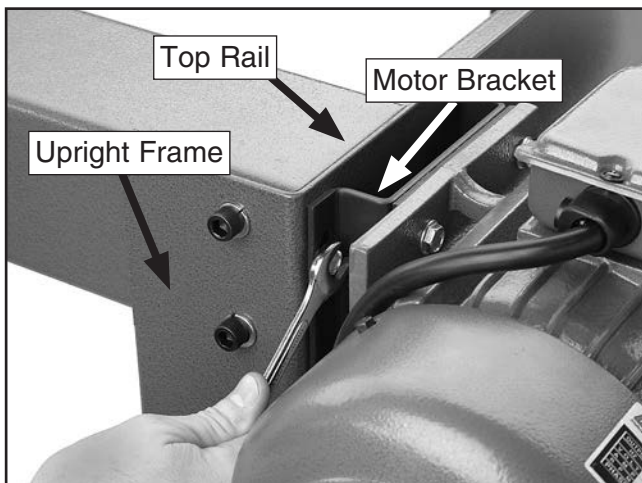


Figure 14. Motor bolt.

- With the help of an assistant, place the platen assembly onto the assembled frame, then secure it with (4) $\frac{1}{4}$ "-20 x $\frac{1}{2}$ " flange bolts and (4) $\frac{1}{4}$ " flat washers, as shown in **Figure 15**. Do not yet fully tighten the flange bolts.

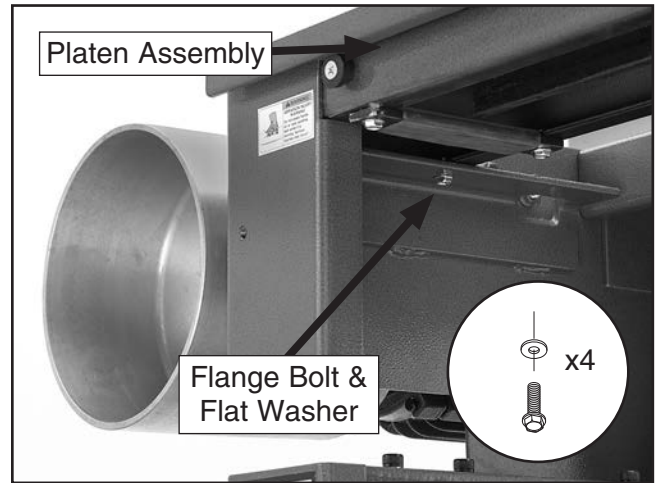


Figure 15. Platen assembly.

- Use a precision square to square the machine both vertically and horizontally, then tighten all of the hardware.
- Attach the table elevation rod to both upright assemblies by aligning the rods, then sliding the coupler over the joint and securing the set screw.

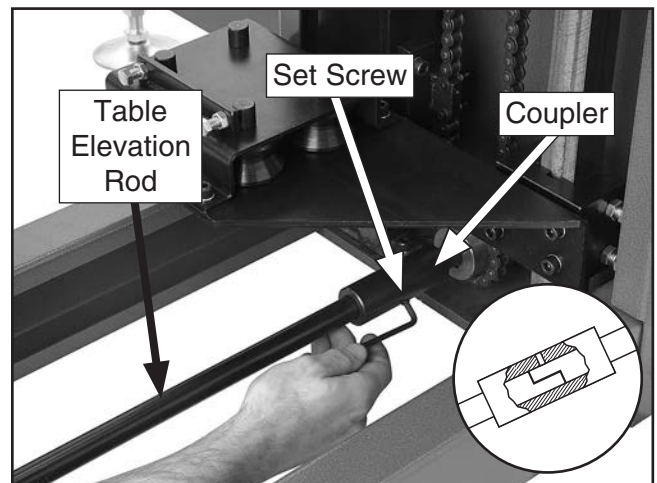


Figure 16. Table elevation rod.

Note: To make sure both sides are set evenly, fully lower both before connecting the table elevation rod.



10. Slide the table rods into the table rollers, as shown in **Figure 17**.

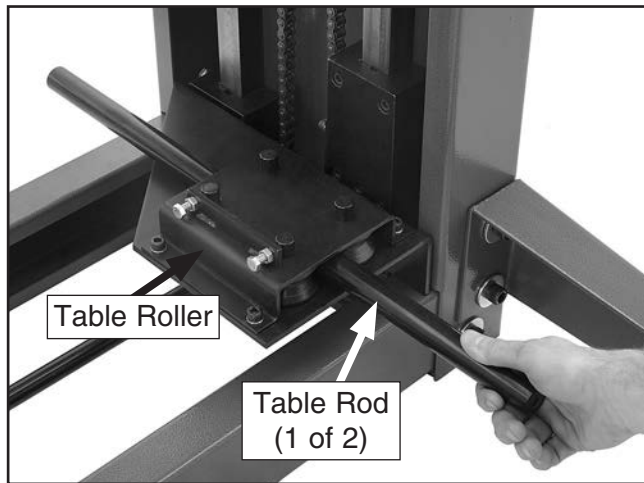


Figure 17. Inserting table rods.

11. Place the table assembly over the table rods, then attach it with (4) $\frac{3}{8}$ "-16 x $\frac{3}{4}$ " cap screws, (4) $\frac{3}{8}$ " lock washers and (4) $\frac{3}{8}$ " flat washers, as shown in **Figure 18**.

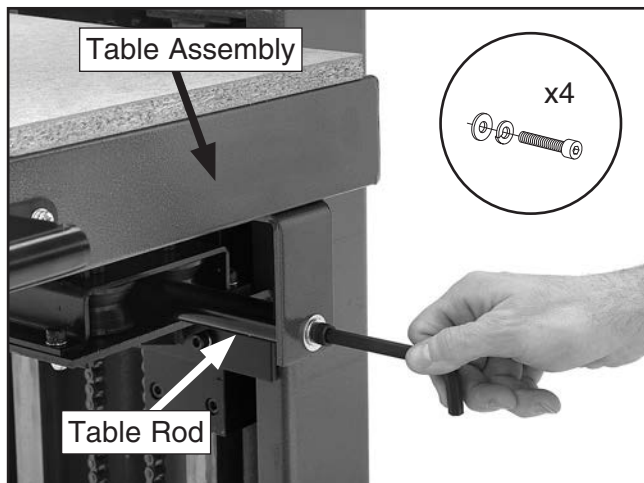


Figure 18. Attaching table.

12. Connect the idler wheel assembly to the right upright with (4) $\frac{5}{16}$ "-18 x 1" flange bolts, as shown in **Figure 19**.

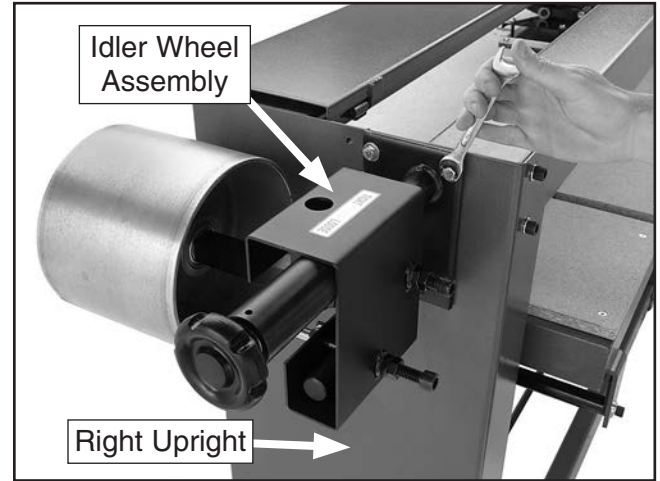


Figure 19. Idler wheel assembly.

13. Place the belt over both wheels, orienting it so the arrow printed on the back indicates that the surface nearest the table will move from right to left. Use the tension knob to tension the belt so it sags less than $\frac{1}{2}$ ".

14. Put on gloves, then check the tracking by spinning the idler wheel.

—If the belt stays centered on the idler wheel, no further action is necessary.

—If the belt wanders to either side of the idler wheel, loosen the jam nut and turn the cap tracking cap screw (**Figure 20**) until the belt tracks centered on the idler wheel, then tighten the jam nut.

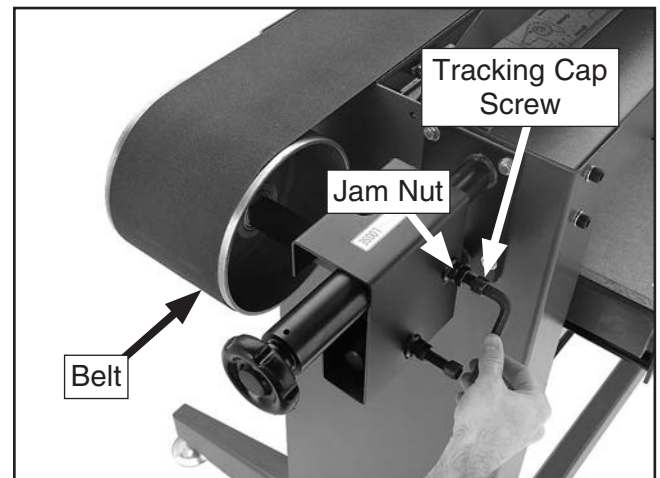


Figure 20. Belt tracking.



15. Attach the idler wheel cover to the right upright with (2) $\frac{5}{16}$ "-18 x $\frac{1}{2}$ " flange bolts and (2) $\frac{5}{16}$ " flat washers (**Figure 21**).

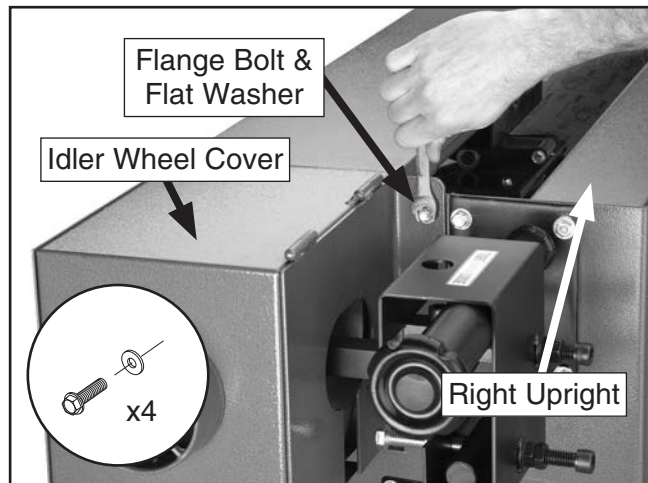


Figure 21. Idler wheel cover.

16. Close the idler wheel cover doors and secure them with (3) $\frac{1}{4}$ "-20 x $\frac{1}{2}$ " knobs and $\frac{1}{4}$ " flat washers (**Figure 22**).

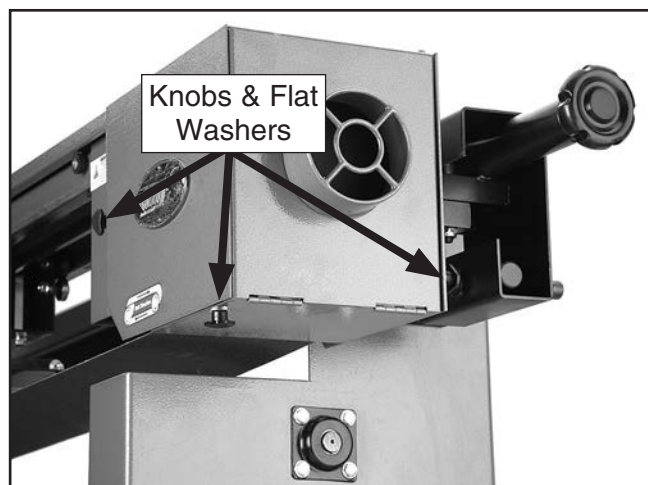


Figure 22. Knob placement.

17. Repeat **Steps 15–16** for the drive wheel cover on the left side of the machine.

18. Remove the gearbox shaft bracket by unthreading the (2) cap screws, sliding it over the shaft, then attaching it with the removed cap screws (**Figure 23**).

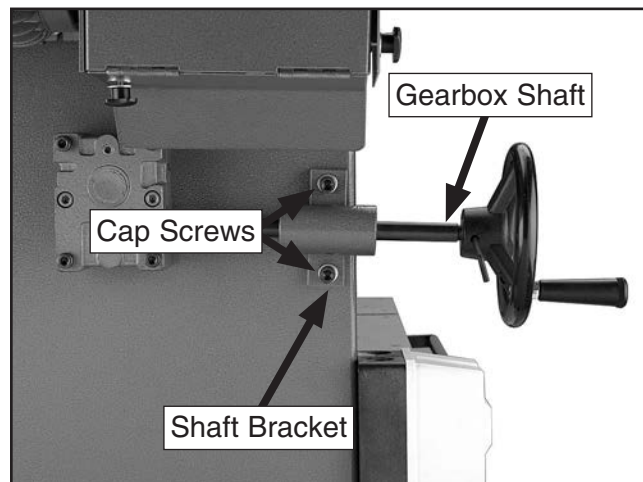


Figure 23. Gearbox shaft.

19. Attach the elevation handwheel by aligning the flat portion of the shaft with the set screw on the handwheel, then sliding the handwheel over the shaft and tightening the set screw (**Figure 24**).

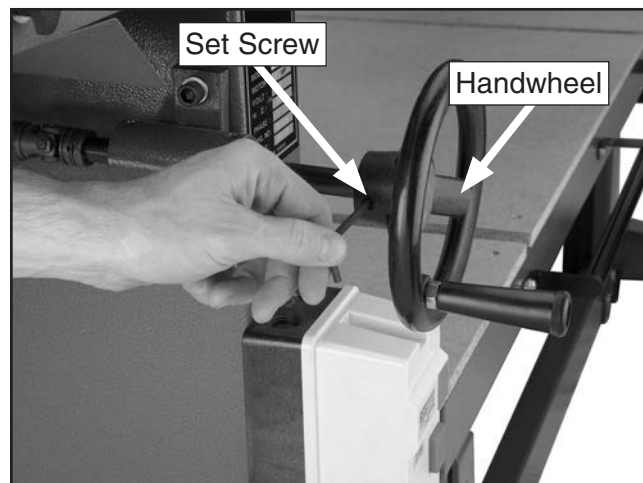


Figure 24. Handwheel placement.



20. Remove the plastic screws that secure the switch box cover, then use the pre-installed screws to attach the switch box to the left upright, as shown in **Figure 25**.

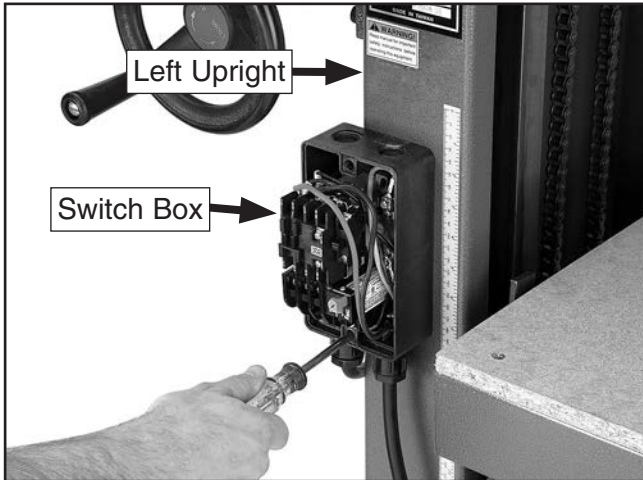


Figure 25. Switch box mounting.

21. Replace the switch box cover with the plastic screws removed in the previous step (**Figure 26**).



Figure 26. Replacing cover.

22. Attach the table handle to the table with (5) 1/4"-20 x 1/2" Phillips head screws, (5) 1/4" lock washers and (5) 1/4" flat washers (**Figure 27**).

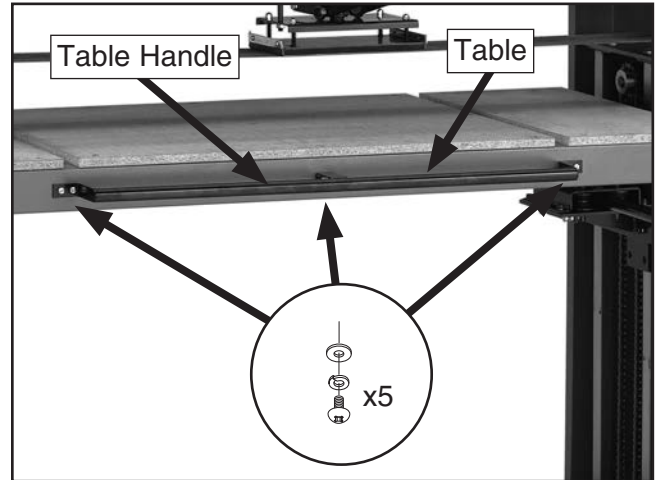


Figure 27. Attaching handle.

Machine Leveling

Once assembly is complete, move your machine into position, then level it. Use a level to check from side-to-side and front-to-back.

To adjust for level from side-to-side, use shims under the uprights of the machine.

To level from front-to-back, use the leveling feet. Thread each foot in or out as necessary, then tighten the jam nut to secure it in position (**Figure 28**).

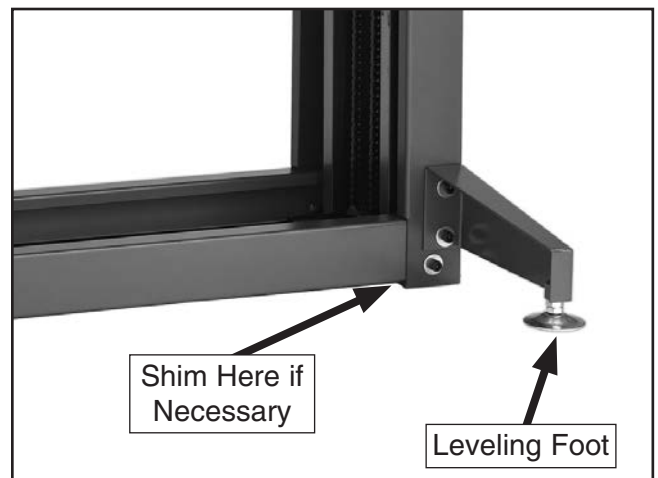


Figure 28. Machine leveling.



Dust Collection

⚠ CAUTION

This machine creates a lot of wood chips/dust during operation. Breathing airborne dust on a regular basis can result in permanent respiratory illness. Reduce your risk by wearing a respirator and capturing the dust with a dust collection system.

Minimum CFM at Dust Port: 400 CFM

Do not confuse this CFM recommendation with the rating of the dust collector. To determine the CFM at the dust port, you must consider these variables: (1) CFM rating of the dust collector, (2) hose type and length between the dust collector and the machine, (3) number of branches or wyes, and (4) amount of other open lines throughout the system. Explaining how to calculate these variables is beyond the scope of this manual. Consult an expert or purchase a good dust collection "how-to" book.

To connect the dust collection hoses:

1. Fit 4" flexible dust hoses over the dust ports located at each end of the belt assembly, as shown in **Figure 29**, and secure them in place with hose clamps.



Figure 29. Dust hose attached to dust port.

2. Tug the hoses to make sure they do not come off. A tight fit is necessary for proper performance.

Test Run

Once assembly is complete, test run the machine to ensure it is properly connected to power and safety components are functioning correctly.

If you find an unusual problem during the test run, immediately stop the machine, disconnect it from power, and fix the problem **BEFORE** operating the machine again. The **Troubleshooting** table in the **SERVICE** section of this manual can help.

⚠ WARNING

Serious injury or death can result from using this machine **BEFORE** understanding its controls and related safety information. **DO NOT** operate, or allow others to operate, machine until the information is understood.

⚠ WARNING

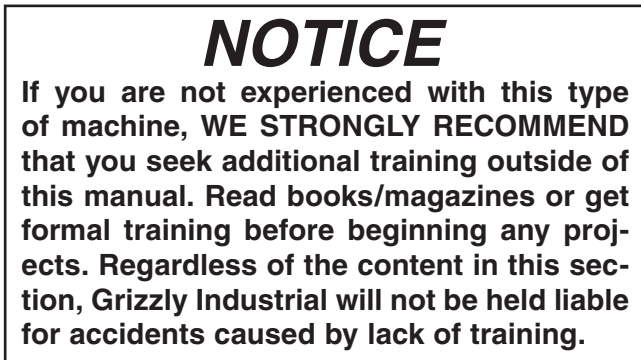
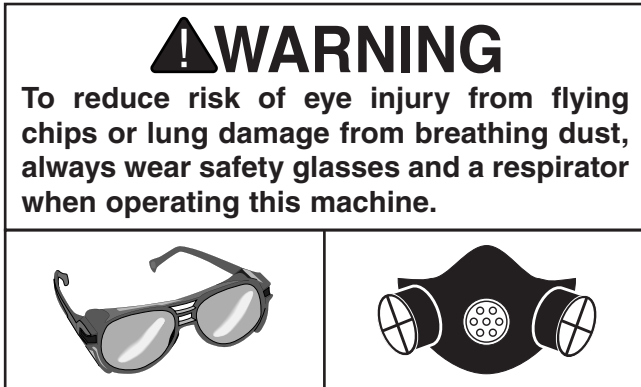
DO NOT start machine until all preceding setup instructions have been performed. Operating an improperly set up machine may result in malfunction or unexpected results that can lead to serious injury, death, or machine/property damage.

To test run the machine:

1. Make sure all tools and objects used during setup are cleared away from the machine.
2. Connect the machine to the power source.
3. Use the tension handwheel to tension the belt so that there is less than 1/2" of sag along its length.
4. Turn the machine **ON**.
5. Listen and watch for abnormal noises or actions. The machine should run smoothly with little or no vibration or rubbing noises.
6. Turn the machine **OFF**.



SECTION 4: OPERATIONS



Basic Controls

Use **Figures 30–31** and the descriptions below to become familiar with the basic controls of the machine.

ON/OFF Switch: Turns the motor ON/OFF.

Table Elevation Handwheel: Raises and lowers the table to allow for different size workpieces.

Table Work Stop: Can be raised to provide workpiece stability and prevent kickback, and can be lowered for larger workpieces.

Table Depth Indicator: Displays the distance between the table surface and the belt.

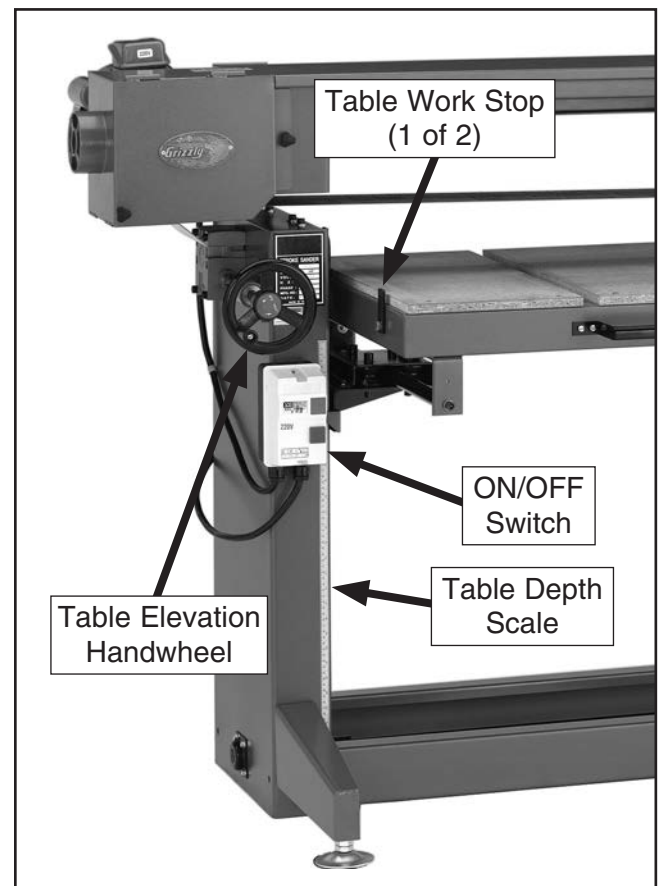


Figure 30. Basic controls.



Belt Tension Handwheel: Adjusts the amount of tension that is placed on the sanding belt.

Platen Press Handle: Used to exert platen pressure through the sanding belt and against the workpiece. Slides along the length of the table to allow complete sanding coverage.

Table Movement Handle: Allows for easy and safe movement of the table forward and backward to provide complete sanding coverage.

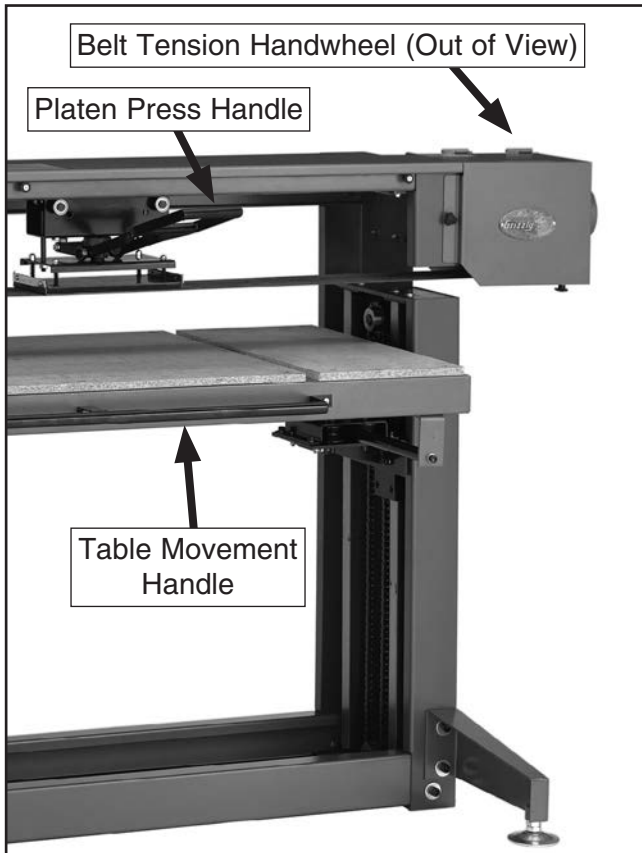


Figure 31. Basic controls (continued).

Table Movement

The table on the Model G5394 can be moved both vertically and horizontally.

Vertical movement is used to accommodate workpieces of different thicknesses, and once set for a specific workpiece, doesn't need to be changed.

To move the table vertically:

1. Place the workpiece on the table.
2. Turn the table elevation handwheel to raise the table until the workpiece is $\frac{1}{4}$ "– $\frac{1}{2}$ " below the sanding belt (**Figure 32**).

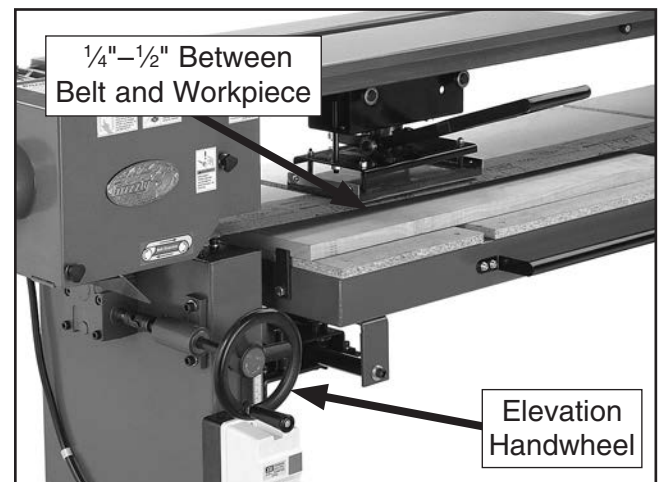


Figure 32. Vertical table movement.

Note: Due to the locking nature of the worm-drive gearbox, no lock is needed to prevent vertical table movement.

Horizontal table movement is used together with the platen press movement to allow complete sanding of workpieces with large surface areas.

To move the table horizontally:

1. Push or pull the table handle to move the table forward and backward.



Workstops

The Model G5394 is equipped with table workstops that prevent the workpiece from sliding off the table when sanding pressure is applied.

⚠️ WARNING

The belt speed on the Model G5394 is 3500 FPM, or nearly 40 MPH. A workpiece ejected at this speed could cause serious personal injury and property damage. Always use the workstops and be sure they are in the correct position and secured before using the machine.

To position the workstops:

1. Loosen the flange bolts that hold the workstops to the table (**Figure 33**).
2. Rotate the workstops so they protrude above the surface of the table, then re-tighten the flange bolts.

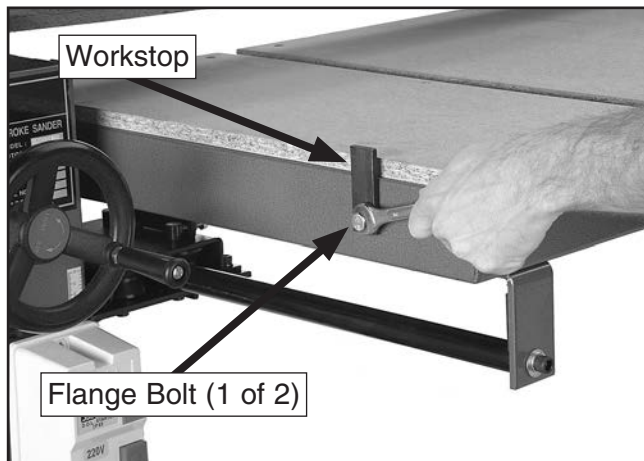


Figure 33. Table workstop.

Platen Press

The platen press handle on the Model G5394 can be rotated and locked in position depending on your sanding needs and personal preferences.

To rotate the platen press handle:

1. Loosen the lock knob shown in **Figure 34**.

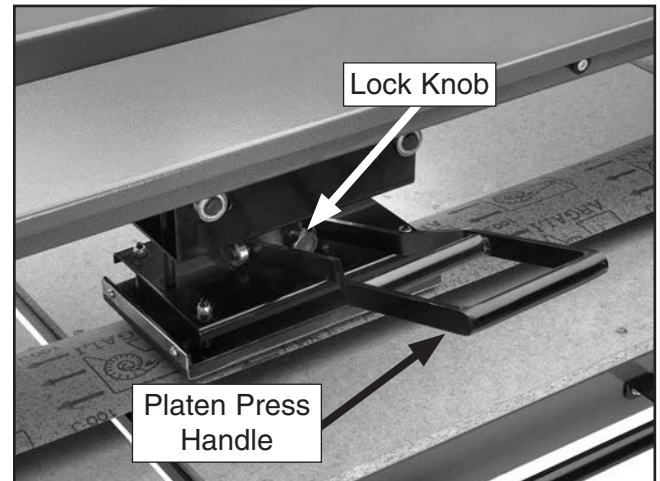


Figure 34. Platen press.

2. Rotate the handle as needed.
3. When the desired position is achieved, tighten the lock knob to secure the handle in its current position.



Sanding Belt Replacement

Replacing the sanding belt on the Model G5394 is a simple process and must be performed when the sanding belt becomes worn or when a sanding belt of a different grit is desired.

To replace the sanding belt:

1. DISCONNECT SANDER FROM POWER!
2. Use the belt tension knob to release tension from the belt.
3. Open the belt cover, drive wheel cover, and idler wheel cover (**Figure 35**).

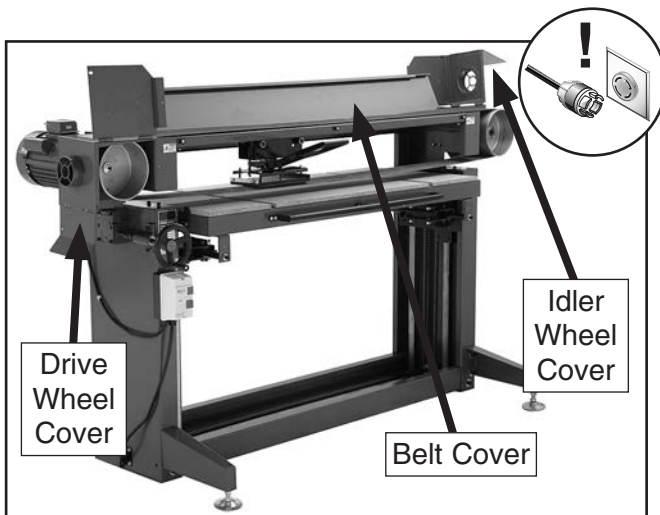


Figure 35. Belt covers open.

4. Slide the belt off of one of the wheels first, then remove the belt entirely.
5. Place the new sanding belt over one of the wheels, making sure the arrows printed on the back of the belt match the belt direction as indicated by the labels on the machine (the lower loop of the belt moves from right to left).

6. Place the belt along the top platen, under the platen press, and over the other wheel, as shown in **Figure 36**.



Figure 36. Installing new belt.

7. Center the belt over both wheels, then close the drive wheel and idler wheel covers.
8. Tension the belt so that the belt sags less than 1/2" across its length, then check the belt tracking, as described in **Belt Tracking** on **Page 32**.



Platen Press Movement

A stroke sander is unique in that it uses a movable platen to apply sanding pressure to the workpiece. This allows the operator to vary the amount of material removed over different areas of the workpiece.

The platen press moves in two different planes. Movement in the vertical plane allows for variations in the amount of pressure applied while movement in the horizontal plane allows the user to sand different areas of the workpiece. This horizontal movement, combined with the horizontal movement of the table allows the entire surface of large workpieces to be sanded (**Figure 37**).

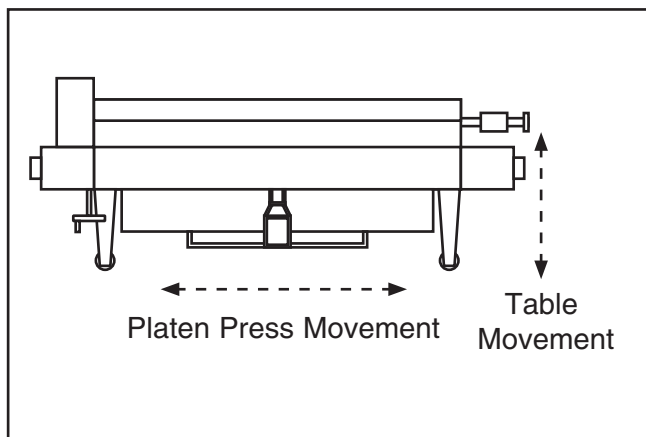


Figure 37. Sanding movements.

To move the platen press:

1. Pull the platen press handle down to apply pressure to the workpiece.
2. Slide the platen press handle side-to-side to move the platen press along the length of the workpiece.

To move the table:

1. Grasp the table handle.
2. Slide the table horizontally to move the workpiece across the width of the sanding-belt.

Basic Operations

To perform sanding operations:

1. Place the workpiece on the table and against the table workstops.
2. Make sure the workstops are secure and that they will not move during operation.
3. Tension the sanding belt.
4. Raise the table until the workpiece is approximately $\frac{1}{4}$ "– $\frac{1}{2}$ " below the surface of the sanding belt.
5. Turn the machine **ON**.
6. Grasp the platen press handle and pull it downward to apply sanding pressure to the workpiece. Move the platen press along the length of the workpiece. If your workpiece is wider than the width of the belt, use the table handle to move the table horizontally to sand across the width of the workpiece.

Note: The proper amount of pressure to apply is dependent on a number of factors, including the grit of sandpaper being used, the type and moisture content of the wood being used, and the condition of the sandpaper. Knowing how much pressure to apply will take practice.

7. When the sanding is completed, turn the machine **OFF**.



SECTION 5: ACCESSORIES

!WARNING

Installing unapproved accessories may cause machine to malfunction, resulting in serious personal injury or machine damage. To reduce this risk, only install accessories recommended for this machine by Grizzly.

NOTICE

Refer to our website or latest catalog for additional recommended accessories.

- G5443—6" x 186"; 60 Grit
- G5444—6" x 186"; 80 Grit
- G5445—6" x 186"; 100 Grit
- G5446—6" x 186"; 120 Grit
- G5447—6" x 186"; 150 Grit
- G5548—6" x 186"; 180 Grit
- G5549—6" x 186"; 220 Grit

These high quality "J" weight cloth-backed belts last longer and sand smoother!

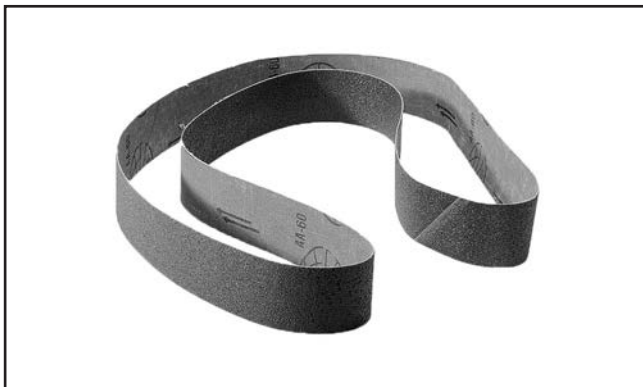


Figure 22. Replacement sanding belts.

PRO-STICK® Abrasive Surface Cleaners

Extend the life of your sanding discs and sleeves! Choose the Pro-Stick® with a handle for greater control or without a handle for more usable area.

| Size | Model |
|---------------------------------|--------------|
| 1½" X 1½" X 8½" | W1306 |
| 2" X 2" X 12"..... | W1307 |
| 1½" X 1½" X 9" with Handle..... | W1308 |
| 2" X 2" X 11" with Handle..... | W1309 |



Figure 38. PRO-STICK® abrasive cleaners.

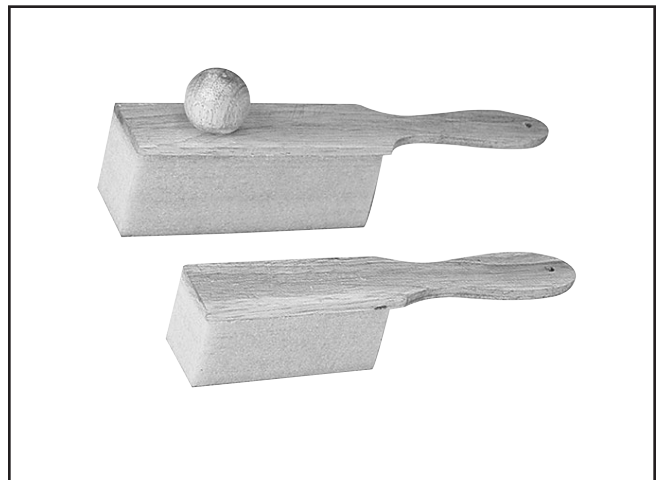


Figure 39. PRO-STICK® cleaners with handles.

order online at www.grizzly.com or call 1-800-523-4777



- H2499—Small Half-Mask Respirator**
- H3631—Medium Half-Mask Respirator**
- H3632—Large Half-Mask Respirator**
- H3635—Cartridge Filter Pair P100**

Wood dust has been linked to nasal cancer and severe respiratory illnesses. If you work around-dust everyday, a half-mask respirator can be a lifesaver. Also compatible with safety glasses!



Figure 40. Half-mask respirator with disposable cartridge filters.

Basic Eye Protection

- T20501—Face Shield Crown Protector 4"**
- T20502—Face Shield Crown Protector 7"**
- T20503—Face Shield Window**
- T20451—"Kirova" Clear Safety Glasses**
- T20452—"Kirova" Anti-Reflective S. Glasses**
- T20456—DAKURA Safety Glasses, Black/Clear**



Figure 41. Our most popular eye protection.

W1039—Universal Adapter

This seven step adapter provides a multitude of dust collection reducing options. Simply cut away unneeded steps with a hacksaw. Outside diameter step sizes include 1", 2", 2.5", 3", 4", 5", and 6". Wall thickness is 1/8".

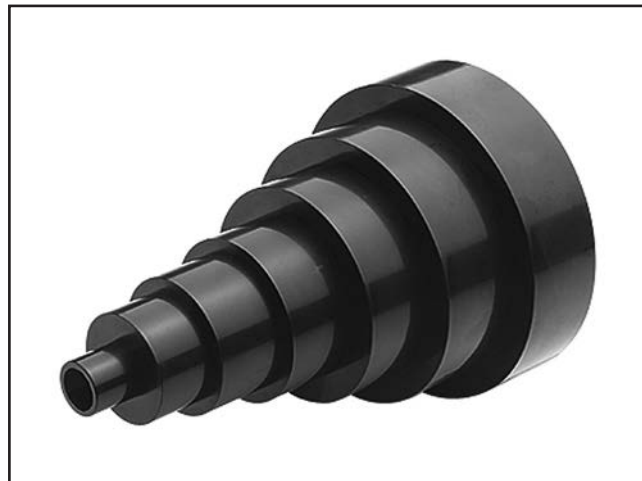


Figure 42. W1039 Universal Adapter.

- T10117—Big Mouth Dust Hood with Stand**
- G2753—4" Bench Attachment**
- G2754—4" Floor Attachment**

These attachments are indispensable for collecting dust at machines without a port. Designed for use with 4" flexible hose (not included).

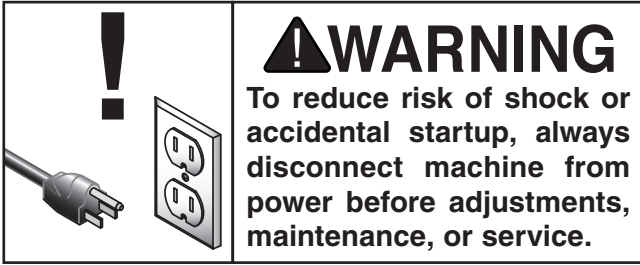


Figure 43. Dust collection attachments.

order online at www.grizzly.com or call 1-800-523-4777



SECTION 6: MAINTENANCE



Schedule

For optimum performance from your machine, follow this maintenance schedule and refer to any specific instructions given in this section.

Daily Check:

- Loose mounting bolts.
- Worn or damaged sanding belt.
- Worn or damaged wires.
- Any other unsafe condition.

Weekly Maintenance:

- Grease table elevation ways.
- Oil table elevation chain.
- Clean/grease hold down shaft.

Every 500 Hours:

- Refill table elevation gearbox oil.

Cleaning

Cleaning the Model G5394 is relatively easy. Vacuum sawdust, and wipe off the remaining dust with a dry cloth. If any resin has built up, use a resin dissolving cleaner to remove it.

Use PRO-STICK® Abrasive Surface Cleaners to keep the sanding belt free from dust buildup. See **Accessories** on **Page 27** for more information.

Lubrication

Lubrication for the Model G5394 consists of greasing the table elevation ways, oiling the table elevation chain, and refilling the table elevation gearbox.

Table Elevation Ways

Clean the table elevation ways with mineral spirits and a rag or brush to remove any grime. Dry the ways, then brush on a thin coat of light multi-purpose grease. Use the table elevation handwheel to move the table up and down several times to disperse the grease (**Figure 44**).

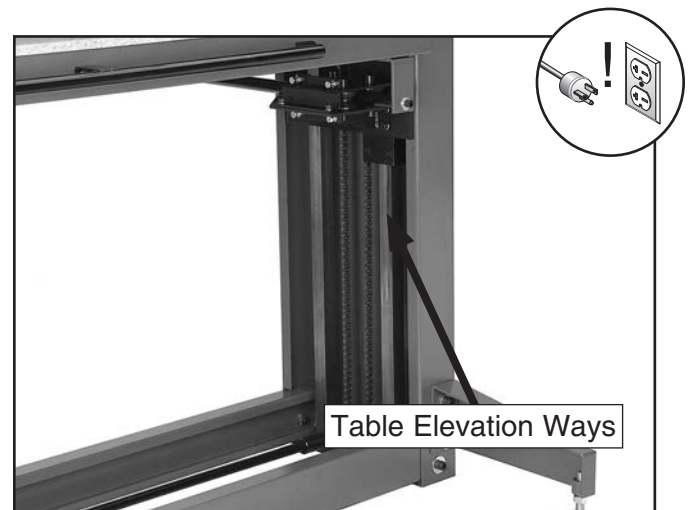


Figure 44. Table elevation ways.



Table Elevation Chain

Clean the table elevation chain with mineral spirits and a rag or brush to remove any grime. To ensure complete cleaning of the chain, raise and lower the table to expose the entire length of chain. Dry the chain, then spray on a chain lubricant. Raise and lower the table several times to disperse the lubricant (**Figure 45**).

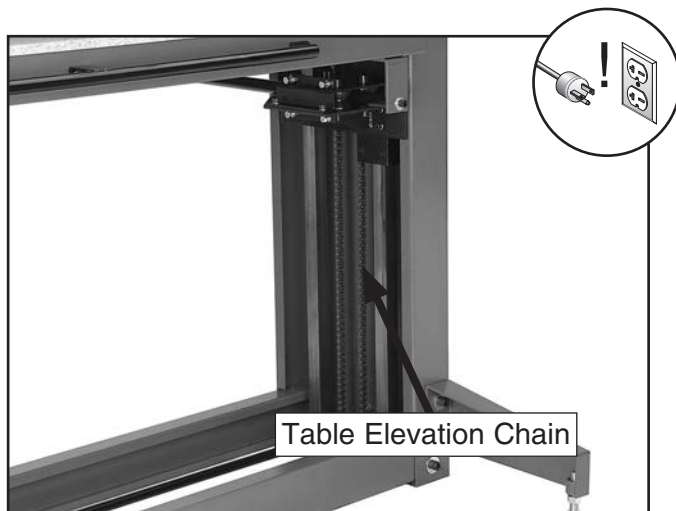


Figure 45. Table elevation chain.

Table Elevation Gearbox

After every 500 hours of use, the table elevation gearbox must be refilled. Use a rag to clean any grime from around the filler plug, then remove the filler plug and use a manual oiler to add SAE 30 or equivalent oil until the gearbox is full. Replace the filler plug (**Figure 46**).

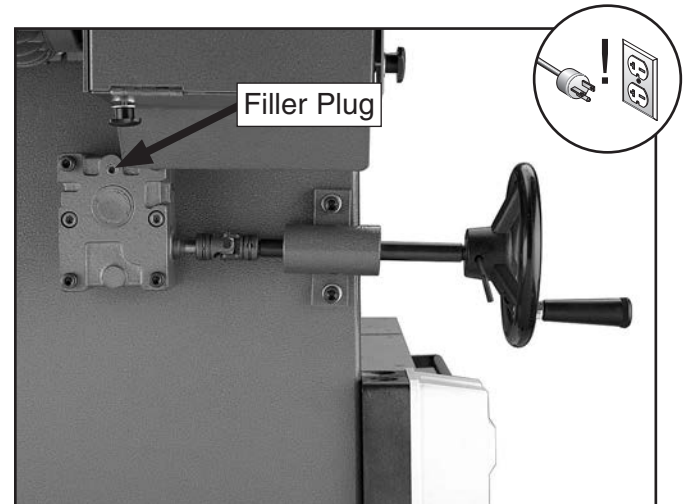


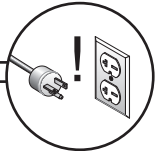
Figure 46. Table elevation gearbox.



SECTION 7: SERVICE

Review the troubleshooting procedures in this section if a problem develops with your machine. If you need replacement parts or additional help with a procedure, call our Technical Support. **Note:** *Please gather the serial number and manufacture date of your machine before calling.*

Troubleshooting

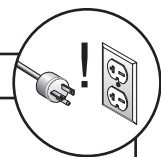


Motor & Electrical

| Symptom | Possible Cause | Possible Solution |
|--|---|---|
| Machine does not start or a breaker trips. | <ol style="list-style-type: none"> 1. Power supply switched OFF or is at fault. 2. Start capacitor is at fault. 3. Motor connection wired incorrectly. 4. Wall fuse/circuit breaker is blown/tripped. 5. Wiring is open/has high resistance. 6. Motor ON/OFF switch is at fault. | <ol style="list-style-type: none"> 1. Ensure power supply is switched ON; ensure power supply has the correct voltage. 2. Test/replace if faulty. 3. Correct motor wiring connections (Page 35). 4. Ensure circuit size is suitable for this machine; replace weak breaker. 5. Check for broken wires or disconnected/corroded connections, and repair/replace as necessary. 6. Replace faulty ON/OFF switch. |
| Machine stalls or is overloaded. | <ol style="list-style-type: none"> 1. Motor connection is wired incorrectly. 2. Motor bearings are at fault. 3. Motor has overheated. 4. Motor is at fault. | <ol style="list-style-type: none"> 1. Correct motor wiring connections (Page 35). 2. Test by rotating shaft; rotational grinding/loose shaft requires bearing replacement. 3. Clean off motor, let cool, and reduce workload. 4. Test/repair/replace. |
| Machine has vibration or noisy operation. | <ol style="list-style-type: none"> 1. Motor or component is loose. 2. Motor mount loose/broken/incorrect. 3. Motor fan is rubbing on fan cover. 4. Motor bearings are at fault. | <ol style="list-style-type: none"> 1. Inspect/replace stripped or damaged bolts/nuts, and re-tighten with thread locking fluid. 2. Tighten/replace/adjust. 3. Replace dented fan cover; replace loose/damaged fan. 4. Test by rotating shaft; rotational grinding/loose shaft requires bearing replacement. |



Operations



| Symptom | Possible Cause | Possible Solution |
|---|---|---|
| Machine vibrates excessively (non-motor related). | <ol style="list-style-type: none"> 1. Stand not stable on floor. 2. Incorrect sanding belt tension. 3. Broken/defective sanding belt. | <ol style="list-style-type: none"> 1. Level machine. 2. Make sure tension is correct (Page 24). 3. Replace sanding belt (Page 24). |
| Deep sanding grooves or scores in workpiece. | <ol style="list-style-type: none"> 1. Sanding belt too coarse for the desired finish. 2. Workpiece sanded across the grain. 3. Too much sanding force on workpiece. 4. Workpiece held still against the belt. | <ol style="list-style-type: none"> 1. Use a finer grit sanding belt. 2. Sand with the grain. 3. Reduce pressure on workpiece while sanding. 4. Keep the platen/workpiece moving while sanding on the belt. |
| Abrasive grit rubs off the belt easily. | <ol style="list-style-type: none"> 1. Sanding belt has been stored in an incorrect environment. 2. Sanding belt has been folded or smashed. | <ol style="list-style-type: none"> 1. Store sanding belt away from extremely dry/hot or damp/wet temperatures. 2. Store sanding belt flat, not folded or bent. |
| Sanding belt surface clogs quickly or burns. | <ol style="list-style-type: none"> 1. Too much pressure applied to workpiece. 2. Sanding softwood, paint, or other finishes. 3. Sanding belt grit too fine. | <ol style="list-style-type: none"> 1. Reduce pressure on workpiece while sanding. 2. Use different stock. Or, accept the characteristics of the stock and plan on cleaning/replacing belts frequently. 3. Use coarser grit sanding belt. |
| Burn marks on workpiece. | <ol style="list-style-type: none"> 1. Using too fine of sanding grit. 2. Using too much pressure. 3. Platen press/workpiece held still for too long. | <ol style="list-style-type: none"> 1. Use a coarser grit sanding belt. 2. Reduce pressure on workpiece while sanding. 3. Do not keep platen press/workpiece in one place for too long. |
| Glazed sanding surfaces. | <ol style="list-style-type: none"> 1. Sanding wet stock. 2. Sanding stock with high residue. 3. Sandpaper is too fine. | <ol style="list-style-type: none"> 1. Dry stock properly before sanding. 2. Use different stock. Or, accept the characteristics of the stock and plan on cleaning/replacing belts frequently. 3. Use a more coarse sandpaper. |
| Belt rubs on machine frame. | <ol style="list-style-type: none"> 1. Tracking incorrect. | <ol style="list-style-type: none"> 1. Adjust belt tracking (Page 32). |



Table Bearings

The table rolls forward and backwards on bearing assemblies. If you notice excessive vertical or side-to-side play in the table, you may need to adjust the bearing assemblies.

The table rods roll between notched bearing wheels. By adjusting the lateral positioning of these wheels, play can be eliminated.

| Tools Needed | Qty |
|------------------|-----|
| Wrench 1/2"..... | 1 |

To adjust the bearing assemblies:

1. Loosen the jam nuts on the bearing adjustment bolts (**Figure 47**).

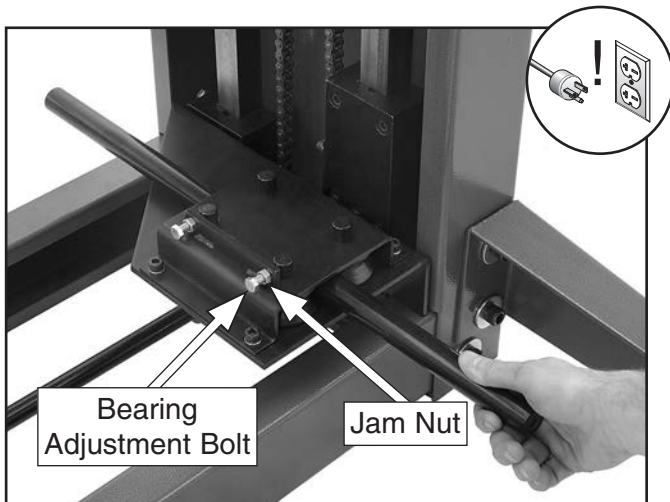


Figure 47. Table bearing adjustment (table removed for clarity).

2. Turn both adjustment bolts evenly until no play exists and the table still moves easily.
3. Without rotating the adjustment bolts, tighten the jam nuts.
4. Repeat **Steps 1–3** on the other side of the table.

Belt Tracking

The sanding belt tracking on the Model G5394 can be adjusted to make sure the belt travels smoothly between the drive and idler wheels without rubbing on the sides of the platen assembly.

| Tools Needed | Qty |
|----------------------|--------|
| Gloves | 1 Pair |
| Hex Wrench 19mm..... | 1 |
| Wrench | 1 |

To adjust the sanding belt tracking:

1. Open the belt cover.
2. Loosen the jam nut on the belt tracking adjustment screw (**Figure 48**).

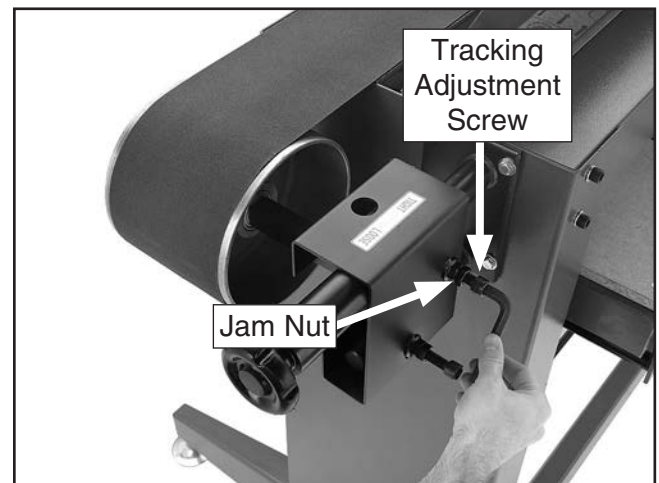


Figure 48. Belt tracking adjustment.

3. Spin the idler pulley by hand several times and observe the belt tracking.
4. Turn the tracking adjustment screw as needed until the belt is centered on the drive and idler wheels, then tighten the outer nut.
5. Spin the idler pulley by hand again to make sure the belt is still tracking properly. Start the machine and let it run to see if it continues tracking correctly.

—If the belt is tracking properly, no further adjustment is needed.

—If the belt is not tracking properly, repeat **Steps 4–5** until the tracking is correct.



Table Elevation Wear Pin Adjustment

The table travels vertically along the table elevation ways. A series of wear pins reduce friction between the table brackets and elevation ways, making it easier to move the table up and down. Over time, these pins will wear, resulting in slop between the table brackets and elevation ways. To compensate for this wear, the wear pins can be adjusted.

| Tools Needed | Qty |
|-------------------|-----|
| Wrench 14mm | 1 |

To adjust the wear pins:

1. DISCONNECT SANDER FROM POWER!
2. Loosen the jam nut shown in (Figure 49).

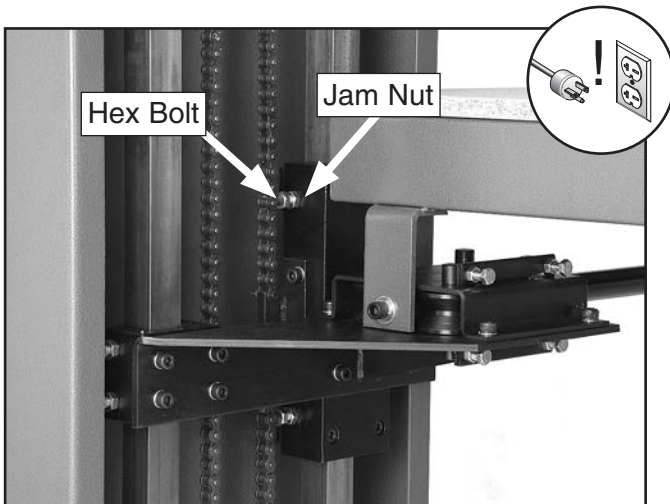


Figure 49. Wear pin adjustment.

3. Tighten the hex bolt until you just begin to feel resistance.
—The goal is to position the wear pins against the ways without applying pressure to the them. The ideal setting will allow easy, slop-free vertical movement of the table.
4. When you are satisfied with the positioning of the hex bolt, keep it from turning and fully tighten the jam nut.
5. Repeat **Steps 2–4** for the remaining seven wear pins.



SECTION 8: WIRING

These pages are current at the time of printing. However, in the spirit of improvement, we may make changes to the electrical systems of future machines. Compare the manufacture date of your machine to the one stated in this manual, and study this section carefully.

If there are differences between your machine and what is shown in this section, call Technical Support at (570) 546-9663 for assistance BEFORE making any changes to the wiring on your machine. An updated wiring diagram may be available. **Note:** *Please gather the serial number and manufacture date of your machine before calling. This information can be found on the main machine label.*

WARNING

Wiring Safety Instructions

SHOCK HAZARD. Working on wiring that is connected to a power source is extremely dangerous. Touching electrified parts will result in personal injury including but not limited to severe burns, electrocution, or death. Disconnect the power from the machine before servicing electrical components!

MODIFICATIONS. Modifying the wiring beyond what is shown in the diagram may lead to unpredictable results, including serious injury or fire. This includes the installation of unapproved after-market parts.

WIRE CONNECTIONS. All connections must be tight to prevent wires from loosening during machine operation. Double-check all wires disconnected or connected during any wiring task to ensure tight connections.

CIRCUIT REQUIREMENTS. You MUST follow the requirements at the beginning of this manual when connecting your machine to a power source.

WIRE/COMPONENT DAMAGE. Damaged wires or components increase the risk of serious personal injury, fire, or machine damage. If you notice that any wires or components are damaged while performing a wiring task, replace those wires or components.

MOTOR WIRING. The motor wiring shown in these diagrams is current at the time of printing but may not match your machine. If you find this to be the case, use the wiring diagram inside the motor junction box.















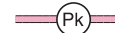
CAPACITORS/INVERTERS. Some capacitors and power inverters store an electrical charge for up to 10 minutes after being disconnected from the power source. To reduce the risk of being shocked, wait at least this long before working on capacitors.

EXPERIENCING DIFFICULTIES. If you are experiencing difficulties understanding the information included in this section, contact our Technical Support at (570) 546-9663.

NOTICE

The photos and diagrams included in this section are best viewed in color. You can view these pages in color at www.grizzly.com.

COLOR KEY

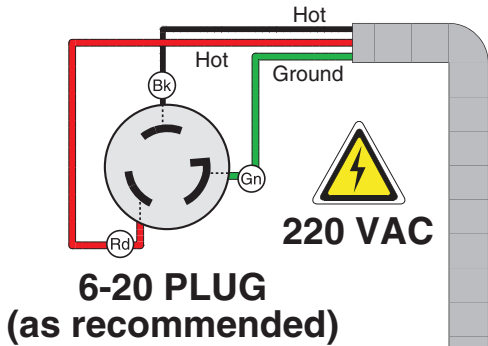
| | | | |
|---|--|--|--|
| BLACK  | BLUE  | YELLOW  | LIGHT BLUE  |
| WHITE  | BROWN  | YELLOW GREEN  | BLUE WHITE  |
| GREEN  | GRAY  | PURPLE  | TURQUOISE  |
| RED  | ORANGE  | PINK  | |



Wiring Diagram



View this page in color at www.grizzly.com.



220V MOTOR

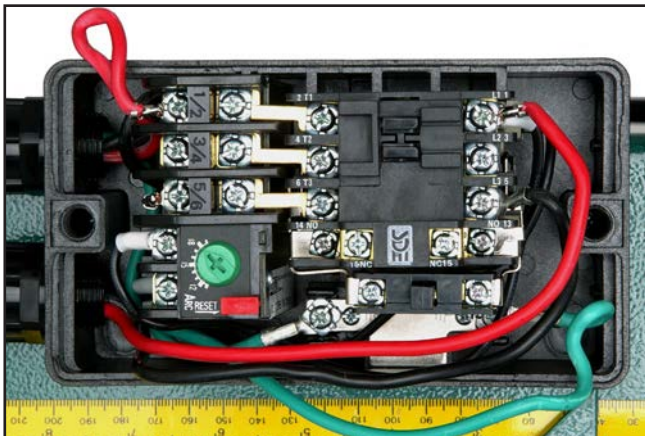
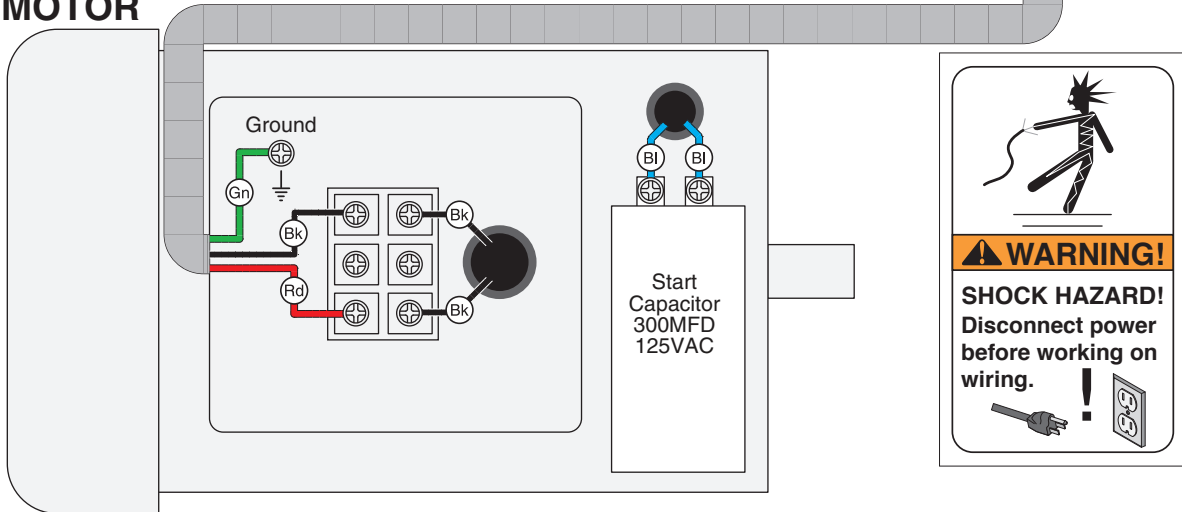


Figure 50. Switch wiring.

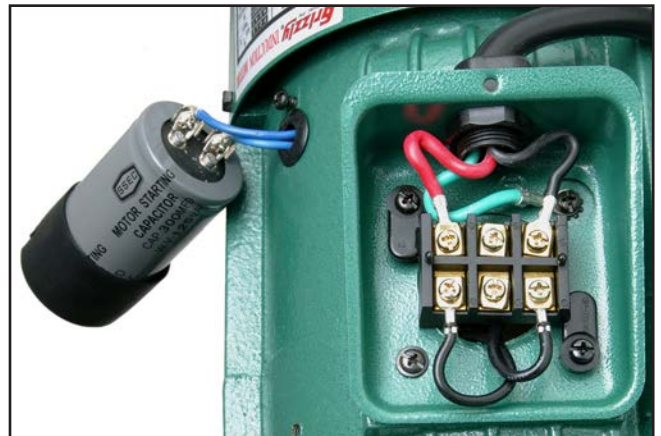
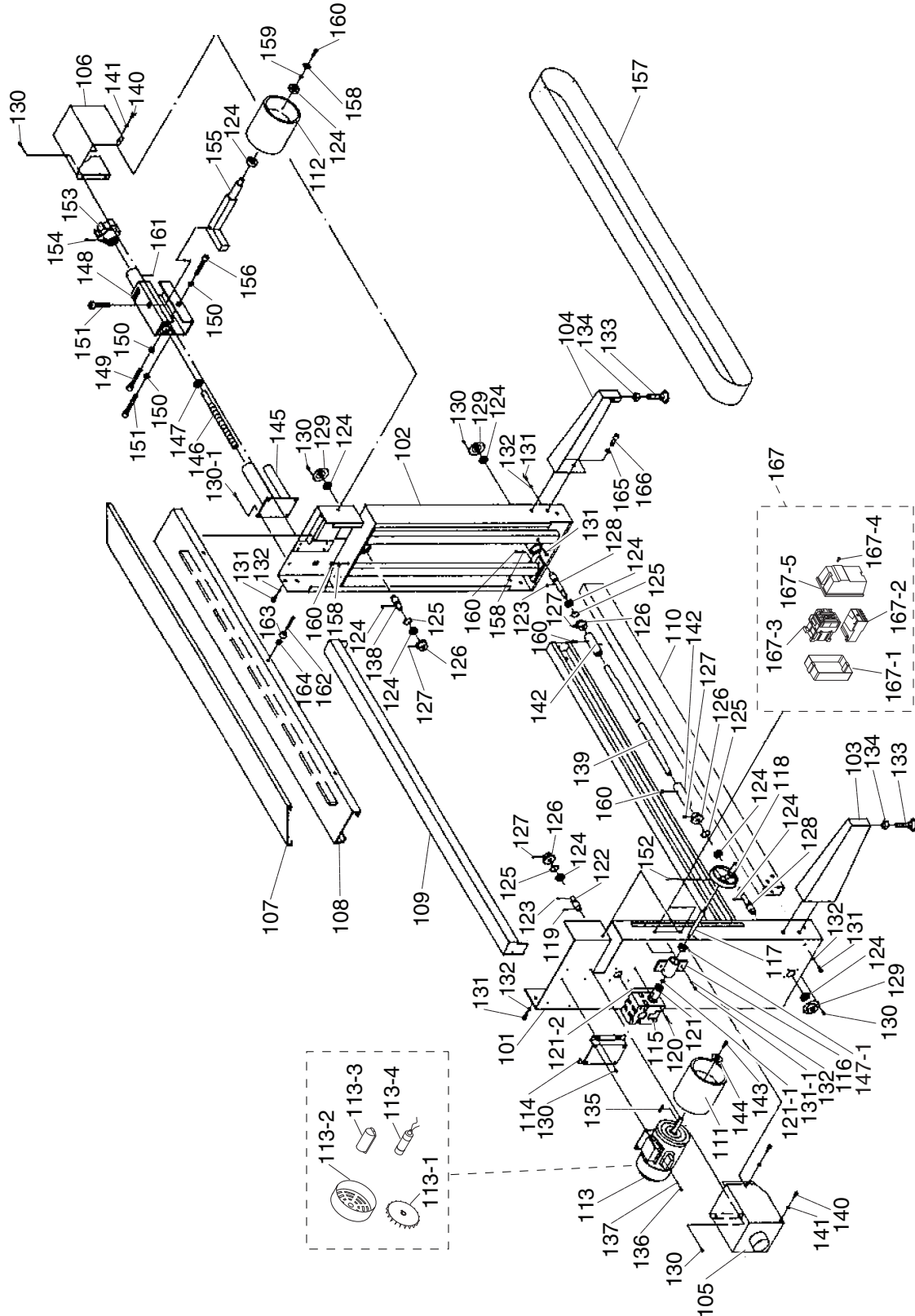


Figure 51. Motor wiring.



SECTION 9: PARTS

Main Breakdown



Main Parts List

| REF | PART # | DESCRIPTION |
|-------|------------|-------------------------------------|
| 101 | P5394101 | LEFT FOOT |
| 102 | P5394102 | RIGHT FOOT |
| 103 | P5394103 | LEFT AUXILIARY FOOT |
| 104 | P5394104 | RIGHT AUXILIARY FOOT |
| 105 | P5394105 | LEFT PROTECTION COVER |
| 106 | P5394106 | RIGHT PROTECTION COVER |
| 107 | P5394107 | SANDER TABLE PROTECTION COVER |
| 108 | P5394108 | SANDER TABLE |
| 109 | P5394109 | TOP BEAM |
| 110 | P5394110 | BOTTOM BEAM |
| 111 | P5394111 | DRIVING WHEEL |
| 112 | P5394112 | FOLLOWING WHEEL |
| 113 | P5394113 | MOTOR 3HP 220V 1PH |
| 113-1 | P5394113-1 | MOTOR FAN |
| 113-2 | P5394113-2 | MOTOR FAN COVER |
| 113-3 | P5394113-3 | CAPACITOR COVER |
| 113-4 | P5394113-4 | S CAPACITOR 300M 125V 1-7/8 X 3-3/8 |
| 114 | P5394114 | MOTOR SEAT |
| 115 | P5394115 | GEAR BOX |
| 116 | P5394116 | SLEEVE BEARING MOUNT |
| 117 | P5394117 | HAND WHEEL SPINDLE |
| 118 | P5394118 | HANDWHEEL |
| 119 | P5394119 | PIN |
| 120 | P5394120 | CAP SCREW M8-1.25 X 80 |
| 121 | P5394121 | UNIVERSAL JOINT |
| 121-1 | P5394121-1 | FIXING RING OF UNIVERSAL JOINT |
| 121-2 | P5394121-2 | FIXING PIN OF UNIVERSAL JOINT |
| 122 | P5394122 | CHAIN WHEEL ADAPTER |
| 123 | P5394123 | KEY 7 X 7 X 50 |
| 124 | P5394124 | BALL BEARING 6204ZZ |
| 125 | P5394125 | EXT RETAINING RING 20MM |
| 126 | P5394126 | CHAIN WHEEL |
| 127 | P5394127 | SET SCREW 5/16-18 X 3/8 |
| 128 | P5394128 | CHAIN WHEEL ADAPTER |
| 129 | P5394129 | BALL BEARING MOUNT |
| 130 | P5394130 | HEX BOLT 5/16-18 X 1/2 |
| 130-1 | P5394130-1 | HEX BOLT 5/16-18 X 1 |
| 131 | P5394131 | CAP SCREW 3/8-16 X 3/4 |
| 131-1 | P5394131-1 | CAP SCREW 3/8-16 X 1 |
| 132 | P5394132 | LOCK NUT 3/8-16 |
| 133 | P5394133 | FOOT CUSHION |

| REF | PART # | DESCRIPTION |
|-------|------------|-------------------------------|
| 134 | P5394134 | LOCK NUT 5/8-11 |
| 135 | P5394135 | KEY 7 X 7 X 50 |
| 136 | P5394136 | HEX BOLT 5/16-18 X 1 |
| 137 | P5394137 | FLAT WASHER 5/16 |
| 138 | P5394138 | CHAIN WHEEL ADAPTER |
| 139 | P5394139 | CONNECTING ROD |
| 140 | P5394140 | TRIANGULAR SCREW 1/4-20 X 1/2 |
| 141 | P5394141 | FLAT WASHER 1/4 |
| 142 | P5394142 | SLEEVE COUPLING |
| 143 | P5394143 | CAP SCREW M6-1 X 20 (LH) |
| 144 | P5394144 | FLAT WASHER 6MM |
| 145 | P5394145 | FOLLOWING WHEEL SUPPORT |
| 146 | P5394146 | ADJUSTING SCREW 3/4-10 |
| 147 | P5394147 | SLEEVE BEARING 16 X 32 X 15.5 |
| 147-1 | P5394147-1 | SLEEVE BEARING 14 X 32 X 15.5 |
| 148 | P5394148 | ADJUSTING SUPPORT |
| 149 | P5394149 | ADJUSTING SCREW 1/2-12 X 3 |
| 150 | P5394150 | HEX NUT 1/2-12 |
| 151 | P5394151 | ADJUSTING SCREW 1/2-12 X 2 |
| 152 | P5394152 | SET SCREW 5/16-18 X 3/8 |
| 153 | P5394153 | HANDLE |
| 154 | P5394154 | SET SCREW 5/16-18 X 3/8 |
| 155 | P5394155 | FOLLOWING WHEEL AXLE |
| 156 | P5394156 | ADJUSTING SCREW 1/2-12 X 2 |
| 157 | P5394157 | SANDER BELT 6" X 186" |
| 158 | P5394158 | LOCK WASHER 5/16 |
| 159 | P5394159 | FLAT WASHER 4MM |
| 160 | P5394160 | CAP SCREW M6-1 X 20 (LH) |
| 161 | P5394161 | SET SCREW 1/4-20 X 1/2 |
| 162 | P5394162 | HEX BOLT 1/4-20 X 1 |
| 163 | P5394163 | PLASTIC CUSHION |
| 164 | P5394164 | HEX NUT 1/4"-20 |
| 165 | P5394165 | FLAT WASHER 1/2 |
| 166 | P5394166 | CAP SCREW 1/2-13 X 1 |
| 167 | P5394167 | MAGNETIC SWITCH ASSEMBLY |
| 167-1 | P5394167-1 | SWITCH CASE |
| 167-2 | P5394167-2 | OL RELAY SDE RA-20 |
| 167-3 | P5394167-3 | CONTACTOR SDE MA-18 |
| 167-4 | P5394167-4 | PLASTIC COVER SCREW |
| 167-5 | P5394167-5 | SWITCH COVER |



Table Assembly Breakdown

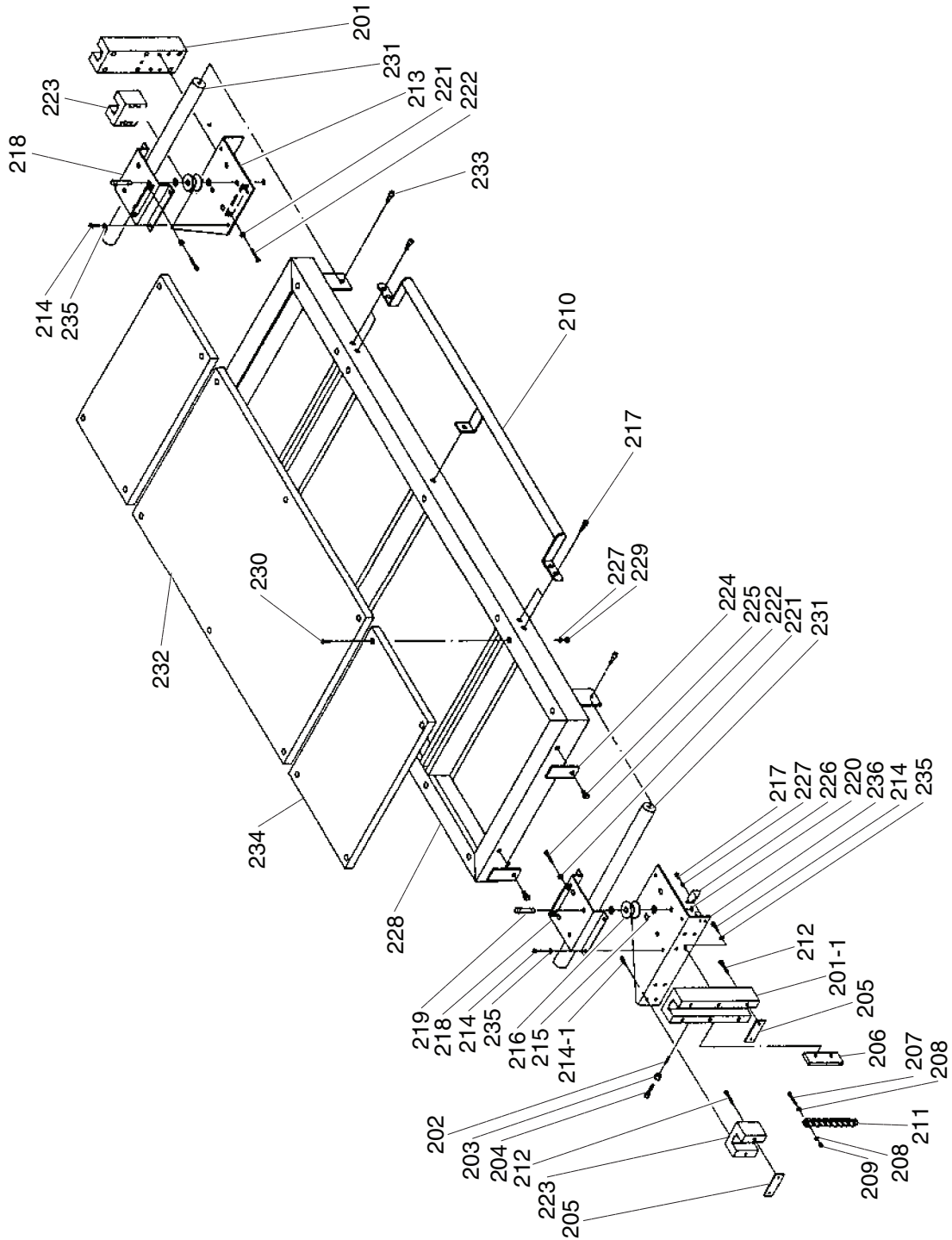


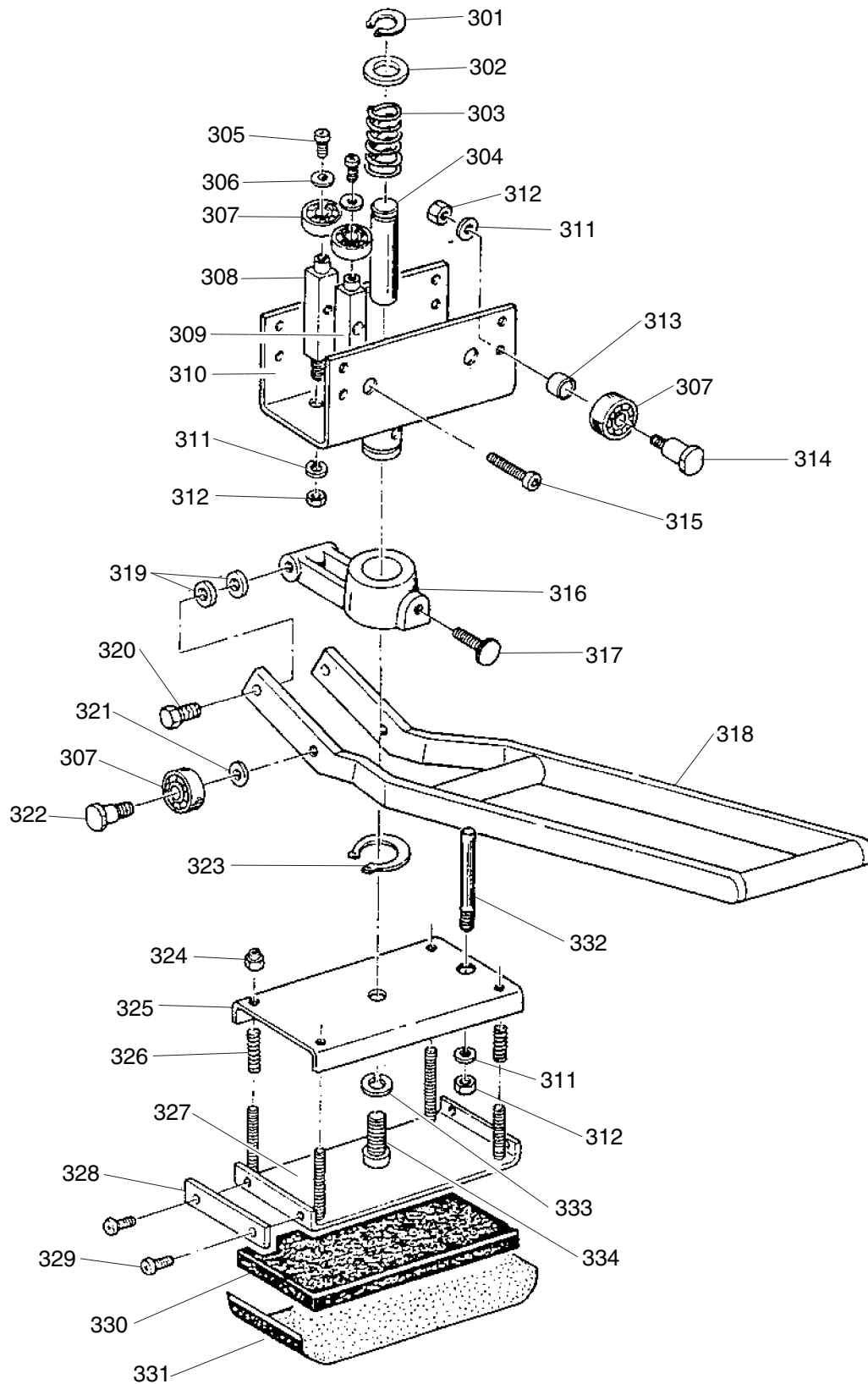
Table Assembly Parts List

| REF | PART # | DESCRIPTION |
|-------|------------|-------------------------|
| 201 | P5394201 | TABLE BRACKET RIGHT |
| 201-1 | P5394201-1 | TABLE BRACKET LEFT |
| 202 | P5394202 | COPPER BAR 5/16" X 10MM |
| 203 | P5394203 | HEX NUT 3/8"-16 |
| 204 | P5394204 | HEX BOLT 3/8-16 X 1 |
| 205 | P5394205 | PLATE |
| 206 | P5394206 | KEY WHEEL FIXING PLATE |
| 207 | P5394207 | SET SCREW 8-32 X 1 |
| 208 | P5394208 | LOCK WASHER #8 |
| 209 | P5394209 | HEX NUT #8-32 |
| 210 | P5394210 | GRIP |
| 211 | P5394211 | CHAIN |
| 212 | P5394212 | CAP SCREW 5/16-18 X 2 |
| 213 | P5394213 | TABLE BASE RIGHT |
| 214 | P5394214 | HEX BOLT 5/16-18 X 3/4 |
| 214-1 | P5394214-1 | CAP SCREW 5/16-18 X 1 |
| 215 | P5394215 | FLAT WASHER 5/16 |
| 216 | P5394216 | GUIDE ROLLER |
| 217 | P5394217 | HEX BOLT 1/4-20 X 3/8 |

| REF | PART # | DESCRIPTION |
|-----|----------|----------------------------|
| 218 | P5394218 | GUIDE ROLLER SEAT |
| 219 | P5394219 | ARBOR |
| 220 | P5394220 | EXT RETAINING RING 12MM |
| 221 | P5394221 | HEX NUT 5/16"-18 |
| 222 | P5394222 | HEX BOLT 5/16-18 X 2 |
| 223 | P5394223 | AUXILIARY SLIDE |
| 224 | P5394224 | FLAPPER |
| 225 | P5394225 | HEX BOLT 3/8-16 X 3/4 |
| 226 | P5394226 | SCALE POINTER |
| 227 | P5394227 | FLAT WASHER 1/4 |
| 228 | P5394228 | WORKTABLE |
| 229 | P5394229 | HEX NUT 1/4"-20 |
| 230 | P5394230 | FLAT HD SCR 1/4-20 X 1 1/4 |
| 231 | P5394231 | GUIDE BAR |
| 232 | P5394232 | SYNTHETIC PLATE (LARGE) |
| 233 | P5394233 | CAP SCREW 3/8-16 X 3/4 |
| 234 | P5394234 | SYNTHETIC PLATE (SMALL) |
| 235 | P5394235 | LOCK WASHER 5/16 |
| 236 | P5394236 | TABLE BASE LEFT |



Platen Press Breakdown



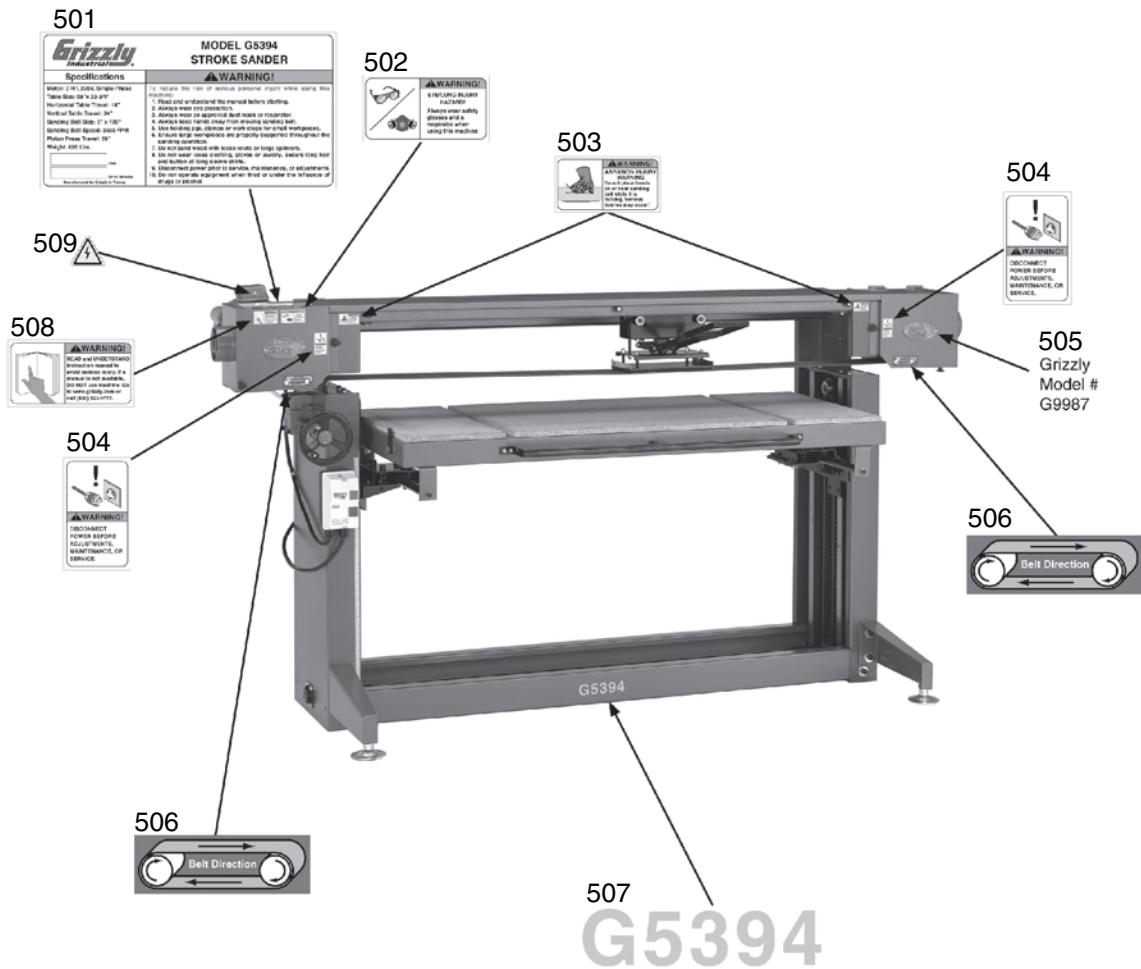
Platen Press Parts List

| REF | PART # | DESCRIPTION |
|-----|----------|----------------------------------|
| 301 | P5394301 | EXT RETAINING RING 25MM |
| 302 | P5394302 | FLAT WASHER 25MM |
| 303 | P5394303 | MIDDLE POST SPRING 3.2 X 35 X 82 |
| 304 | P5394304 | MIDDLE POST |
| 305 | P5394305 | HEX BOLT 1/4-20 X 3/8 |
| 306 | P5394306 | FLAT WASHER 1/4 |
| 307 | P5394307 | BALL BEARING 6001ZZ |
| 308 | P5394308 | BACK BEARING PILLAR |
| 309 | P5394309 | FRONT BEARING PILLAR |
| 310 | P5394310 | UPPER PRESSING PLATE |
| 311 | P5394311 | LOCK WASHER 3/8 |
| 312 | P5394312 | HEX NUT 3/8"-16 |
| 313 | P5394313 | DISTANCE SLEEVE |
| 314 | P5394314 | BEARING SHAFT |
| 315 | P5394315 | CAP SCREW 1/4-20 X 2 |
| 316 | P5394316 | PRESSING PLATE STAND |
| 317 | P5394317 | OFFSET SCREW 5/16-18 X 3/4 |

| REF | PART # | DESCRIPTION |
|-----|----------|----------------------------|
| 318 | P5394318 | PRESSING PLATE HANDLE |
| 319 | P5394319 | PLASTIC WASHER 8MM |
| 320 | P5394320 | HEX BOLT 5/16-18 X 3/4 |
| 321 | P5394321 | FLAT WASHER 3/8 |
| 322 | P5394322 | BEARING SHAFT |
| 323 | P5394323 | EXT RETAINING RING 38MM |
| 324 | P5394324 | LOCK NUT 1/4-20 |
| 325 | P5394325 | MIDDLE PRESSING PLATE SEAT |
| 326 | P5394326 | SPRING 1.3 X 9.6 X 42 |
| 327 | P5394327 | LOWER PRESSING PLATE SEAT |
| 328 | P5394328 | FIXING PLATE |
| 329 | P5394329 | FLANGE SCREW 10-24 X 3/8 |
| 330 | P5394330 | PAD |
| 331 | P5394331 | GRAPHITE PAD |
| 332 | P5394332 | GUIDE POST |
| 333 | P5394333 | LOCK WASHER 1/2 |
| 334 | P5394334 | CAP SCREW 1/2-13 X 3/4 |



Labels Breakdown & Parts List



| REF | PART # | DESCRIPTION |
|-----|----------|--------------------------|
| 501 | P5394501 | MACHINE ID LABEL |
| 502 | P5394502 | GLASSES/RESPIRATOR LABEL |
| 503 | P5394503 | HAND ABRASION WARNING |
| 504 | P5394504 | DISCONNECT WARNING |
| 505 | P5394505 | GRIZZLY NAMEPLATE |

| REF | PART # | DESCRIPTION |
|-----|----------|------------------------|
| 506 | P5394506 | BELT DIRECTION LABEL |
| 507 | P5394507 | MODEL NUMBER LABEL |
| 508 | P5394508 | READ MANUAL LABEL |
| 509 | P5394509 | ELECTRICITY LABEL 0.7" |

WARNING

Safety labels help reduce the risk of serious injury caused by machine hazards. If any label comes off or becomes unreadable, the owner of this machine **MUST** replace it in the original location before resuming operations. For replacements, contact (800) 523-4777 or www.grizzly.com.





WARRANTY CARD

Name _____
 Street _____
 City _____ State _____ Zip _____
 Phone # _____ Email _____
 Model # _____ Order # _____ Serial # _____

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
 Card Deck Website Other:

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

| | | |
|---|--|---|
| <input type="checkbox"/> Cabinetmaker & FDM | <input type="checkbox"/> Popular Science | <input type="checkbox"/> Wooden Boat |
| <input type="checkbox"/> Family Handyman | <input type="checkbox"/> Popular Woodworking | <input type="checkbox"/> Woodshop News |
| <input type="checkbox"/> Hand Loader | <input type="checkbox"/> Precision Shooter | <input type="checkbox"/> Woodsmith |
| <input type="checkbox"/> Handy | <input type="checkbox"/> Projects in Metal | <input type="checkbox"/> Woodwork |
| <input type="checkbox"/> Home Shop Machinist | <input type="checkbox"/> RC Modeler | <input type="checkbox"/> Woodworker West |
| <input type="checkbox"/> Journal of Light Cont. | <input type="checkbox"/> Rifle | <input type="checkbox"/> Woodworker's Journal |
| <input type="checkbox"/> Live Steam | <input type="checkbox"/> Shop Notes | <input type="checkbox"/> Other: |
| <input type="checkbox"/> Model Airplane News | <input type="checkbox"/> Shotgun News | |
| <input type="checkbox"/> Old House Journal | <input type="checkbox"/> Today's Homeowner | |
| <input type="checkbox"/> Popular Mechanics | <input type="checkbox"/> Wood | |

3. What is your annual household income?

\$20,000-\$29,000 \$30,000-\$39,000 \$40,000-\$49,000
 \$50,000-\$59,000 \$60,000-\$69,000 \$70,000+

4. What is your age group?

20-29 30-39 40-49
 50-59 60-69 70+

5. How long have you been a woodworker/metalworker?

0-2 Years 2-8 Years 8-20 Years 20+ Years

6. How many of your machines or tools are Grizzly?

0-2 3-5 6-9 10+

7. Do you think your machine represents a good value? Yes No

8. Would you recommend Grizzly Industrial to a friend? Yes No

9. Would you allow us to use your name as a reference for Grizzly customers in your area?

Note: We never use names more than 3 times. Yes No

10. Comments: _____

CUT ALONG DOTTED LINE

FOLD ALONG DOTTED LINE



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



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Send a Grizzly Catalog to a friend:

Name _____
Street _____
City _____ State _____ Zip _____

TAPE ALONG EDGES--PLEASE DO NOT STAPLE

WARRANTY & 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 back 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.

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