MODEL T33295
2/3 HP VARIABLE-SPEED 7-ROLLER POWER FEEDER
OWNER'S MANUAL
(For models manufactured since 03/23)

#JM22639 PRINTED IN TAIWAN V1.04.23

******Keep for Future Reference******

⚠ 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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INTRODUCTION

Contact Info

We stand behind our machines! If you have questions or need help, contact us with the information below. Before contacting, make sure you get the **serial number** and **manufacture date** from the machine ID label. This will help us help you faster.

Grizzly Technical Support
1815 W. Battlefield
Springfield, MO 65807
Phone: (570) 546-9663
Email: techsupport@grizzly.com

We want your feedback on this manual. What did you like about it? Where could it be improved? Please take a few minutes to give us feedback.

Grizzly Documentation Manager
P.O. Box 2069
Bellingham, WA 98227-2069
Email: manuals@grizzly.com

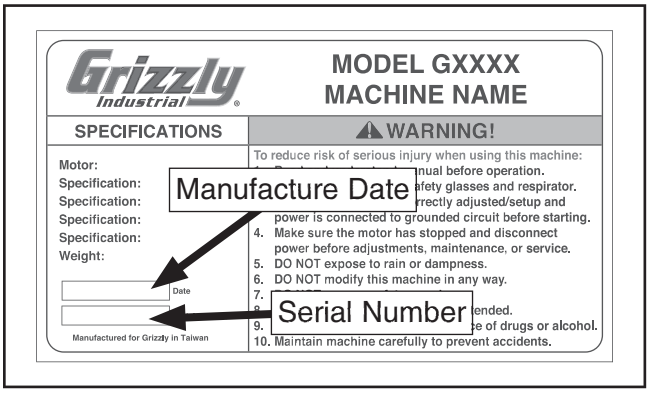
Manual Accuracy

We are proud to provide a high-quality owner's manual with your new machine!

We made every effort to be exact with the instructions, specifications, drawings, and photographs in this manual. Sometimes we make mistakes, but our policy of continuous improvement also means that **sometimes the machine you receive is slightly different than shown in the manual**.

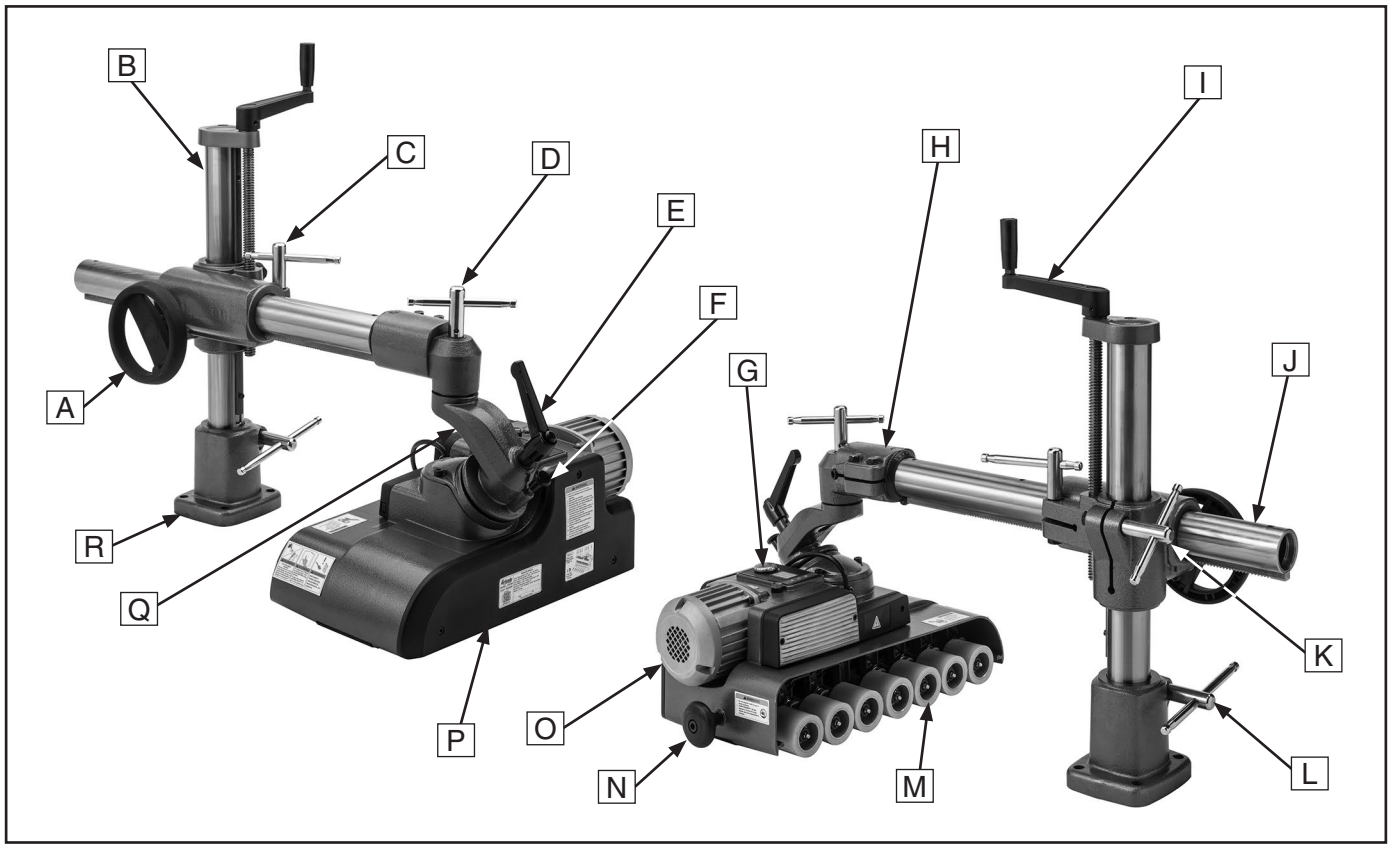
If you find this to be the case, and the difference between the manual and machine leaves you confused or unsure about something, check our website for an updated version. We post current manuals and manual updates for free on our website at **www.grizzly.com**.

Alternatively, you can call our Technical Support for help. Before calling, make sure you write down the **manufacture date** and **serial number** from the machine ID label (see below). This information is required for us to provide proper tech support, and it helps us determine if updated documentation is available for your machine.

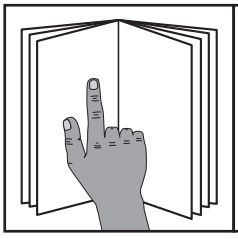


Identification

Become familiar with the names and locations of the controls and features shown below to better understand the instructions in this manual.



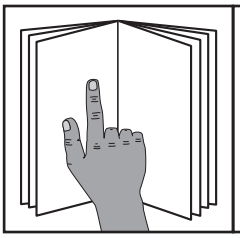
A. Horizontal Travel Handwheel
B. Vertical Column
C. Horizontal Travel Lock
D. Upper Elbow-Joint Lock
E. Lower Elbow-Joint Lock
F. Swivel Lock Pin
G. Control Panel
H. Upper Elbow Joint
I. Vertical Travel Crank Handle
J. Overarm Shaft
K. Vertical Travel Lock
L. Rotation Lock
M. Rollers
N. Rotation Knob
O. Motor
P. Chain Cover
Q. Lower Elbow-Joint
R. Base



⚠WARNING

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

Controls & Components



⚠WARNING

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

Refer to the following figures and descriptions to become familiar with the basic controls and components of this machine. Understanding these items and how they work will help you understand the rest of the manual and minimize your risk of injury when operating this machine.

Control Panel

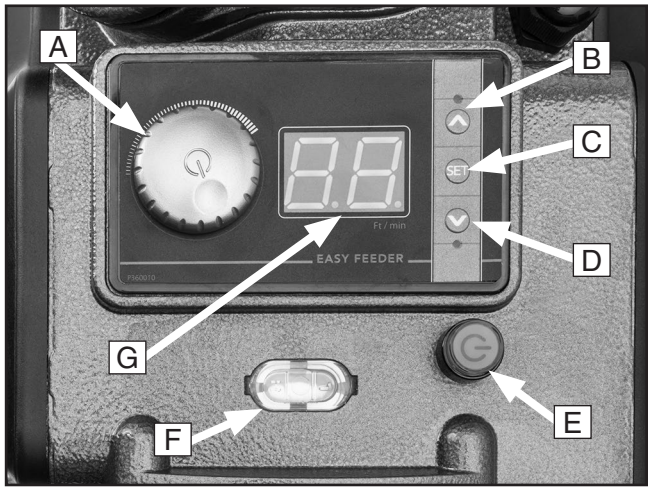


Figure 1. Control panel.

A. Variable-Speed Adjustment Dial: Starts and stops motor and controls feed rate from 7–86 FPM. To start motor, press dial until it beeps and control panel glows red. To stop motor, press dial again. To adjust feed rate, press SET button, then rotate dial clockwise to increase feed rate or counterclockwise to decrease feed rate.

B. Forward Feed Direction Button (⩓): Selects forward feed direction. When pressed, green light above button illuminates, indicating button is selected. To change feed direction, press feed direction button opposite of currently selected feed direction twice (2X). New feed direction will be set at lowest speed (7 FPM). Press variable-speed adjustment dial twice to restore original feed rate.

C. SET Button: Enables changes to feed rate. When pressed, selected feed rate flashes on control panel for 10 seconds, during which time feed rate can be selected with variable-speed adjustment dial. When panel stops flashing, feed rate is locked—until SET button is pressed again.

D. Reverse Feed Direction Button (⩔): Selects reverse feed direction. Green light below button illuminates, indicating button is selected.

E. ON/OFF Button: Turns machine ***ON*** or ***OFF***. In ON position, digital readout illuminates.

F. Gearbox Sight Glass: Displays oil level.

G. Feed Speed Digital Readout: Displays feed rate in feet per minute (FPM).

Power Feeder & Column Controls

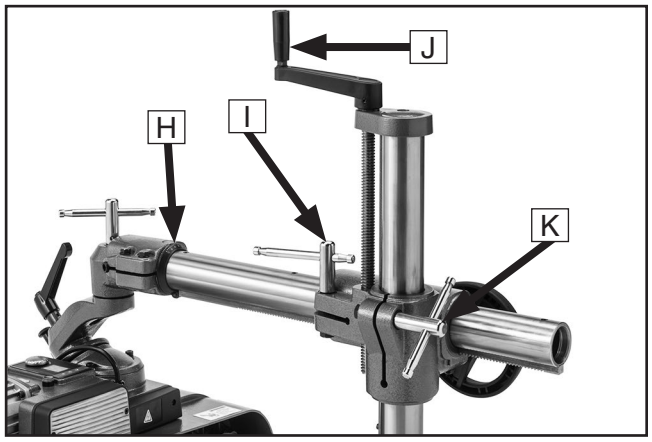


Figure 2. Location of column controls.

H. Angle Adjustment Scale: Indicates angle that power feeder assembly is rotated relative to overarm shaft. Loosen hex bolts on upper elbow-joint to allow rotation; tighten hex bolts to secure power feeder angle.

I. Horizontal Travel Lock: Locks horizontal position of power feeder.

J. Vertical Travel Crank Handle: Adjusts vertical position of overarm shaft and power feeder (when vertical travel lock is loosened).

K. Vertical Travel Lock: Locks power feeder height setting.

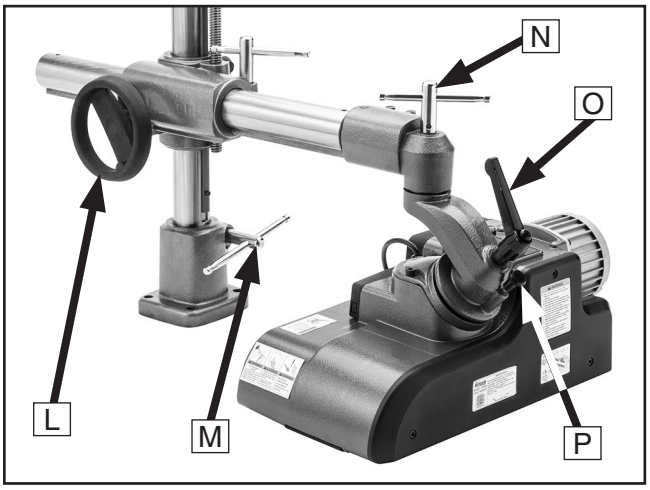


Figure 3. Location of power feeder and column controls.

L. Horizontal Travel Handwheel: Moves overarm shaft horizontally and adjusts lateral position of power feeder (when horizontal travel lock (I) is loosened).

M. Rotation Lock: Allows vertical column to rotate when loosened. Prevents vertical column from rotating when tightened.

N. Upper Elbow-Joint Lock: Allows lower elbow and power feeder to rotate around upper elbow. Tighten to secure lower elbow.

O. Lower Elbow-Joint Lock: Allows power feeder to rotate on its axis when swivel lock pin is disengaged. Tighten to secure power feeder swivel position.

P. Swivel Lock Pin: Allows power feeder to rotate when disengaged. Locks power feeder in horizontal position when engaged in either of two detents.

MACHINE DATA SHEET

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

MODEL T33295 2/3 HP VARIABLE-SPEED 7-ROLLER POWER FEEDER

Product Dimensions:

Weight..... 119 lbs.
Width (side-to-side) x Depth (front-to-back) x Height..... 37-1/2 x 20-1/2 x 29-1/2 in.
Footprint (Length x Width)..... 5-1/2 x 6 in.

Shipping Dimensions:

Carton #1

Type..... Cardboard Box
Content..... Machine
Weight..... 57 lbs.
Length x Width x Height..... 25 x 14 x 13 in.
Must Ship Upright..... No

Carton #2

Type..... Cardboard Box
Content..... Stand
Weight..... 72 lbs.
Length x Width x Height..... 30 x 13 x 12 in.
Must Ship Upright..... No

Electrical:

Power Requirement..... 220V, Single Phase, 60 Hz
Full-Load Current Rating..... 2.3A
Minimum Circuit Size..... 15A
Connection Type..... Cord & Plug
Power Cord Included..... Yes
Power Cord Length..... 9 ft.
Power Cord Gauge..... 18 AWG
Plug Included..... Yes
Included Plug Type..... 6-15
Switch Type..... Push-Button ON/OFF

Motors:

Main

Horsepower..... 500 Watt (2/3 HP)
Phase..... Single-Phase
Amps..... 2.3A
Speed..... 350 - 4800 RPM
Type..... BLDC
Power Transfer ..... Gear Drive
Bearings..... Shielded & Permanently Lubricated

Main Specifications:

Workpiece Capacities

Minimum Workpiece Length..... 6 in.

Operation Info

Number of Feed Speeds	Variable
Feed Speeds	7 - 86 FPM
Swing	360 deg.
Vertical Movement	7-1/2 in.
Horizontal Movement	16-3/4 in.
Rotation	Forward/Reverse

Roller Info

Number of Rollers	7
Roller Width	2-3/8 in.
Roller Diameter	2-5/16 in.
Roller Suspension	3/8 in.
Maximum Height Rollers Parallel Table Surface	7-1/2 in.

Construction Info

Roller	Rubber
Housing	Cast Aluminum
Supports	Cast Iron
Column	Cast Iron
Paint Type/Finish	Enamel

Other

Column Diameter	2-1/4 in.

Other Specifications:

Country of Origin	Taiwan
Warranty	1 Year
Approximate Assembly & Setup Time	45 Minutes
Serial Number Location	ID Label
ISO 9001 Factory	Yes

Features:

7 Spring-Powered Rollers
Variable-Speed Adjustment Dial
Crank Handle Vertical Adjustment
Rack-and-Pinion Horizontal Movement
Large Feed Speed Digital Readout
Push-Button ON/OFF Switch and Feed Direction
7 Rollers Allow for Safe Handling of Shorter Workpieces
Shorter Distance Between Rollers Allow for More Contact and Control of Workpiece

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 **Alerts the user to useful information about proper operation of the machine to avoid machine damage.**

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.

Additional Safety for Power Feeders

⚠WARNING

Serious injury or death can occur from getting hands, clothing, or jewelry entangled in moving parts of power feeder or being pulled into cutting tool on attached machinery. Workpieces ejected by attached machine can strike operator or bystanders with significant force, causing impact injuries. To minimize risk of injury, anyone operating this machine MUST completely heed hazards and warnings below.

HAND SAFETY. To reduce risk of accidental entanglement/pinch injuries between power feeder rollers and workpiece, or contact with blade/cutter of associated machine, keep hands away from rotating parts of power feeder. Turn power feeder and associated machine ***OFF*** before removing chips, sawdust, or cutoffs—DO NOT use your hands.

INSTALLING GUARDS. To reduce risk of kickback and accidental contact with blade/cutter of associated machine, always install guards, fences, and hold-downs before starting attached machine and power feeder. Repair or replace guards promptly if they become damaged.

KICKBACK. Occurs when workpiece is ejected from machine at a high rate of speed. To reduce risk of kickback-related injuries (blindness, broken bones, bruises, amputation, severe lacerations, and death), use quality workpieces and proper setup or maintenance of power feeder or associated machine. Never stand in path of workpiece.

VERIFY EACH SETUP. An improperly adjusted power feeder can increase risk of kickback, because it will continue feeding even if stock is not properly positioned for cut. Ensure that power feeder is set up correctly and firmly secured before feeding workpiece.

FEATHERBOARD. When cutting long or large stock that is difficult to feed properly, use a featherboard with power feeder (on the infeed side) to maintain even pressure and control of workpiece against fence, and to help reduce risk of kickback.

FEED WORKPIECE PROPERLY. To reduce risk of kickback, verify blade or cutter of associated machine is at full speed before feeding stock with power feeder. Avoid feeding workpiece too quickly. Always verify power feeder wheels are slightly lower than workpiece to ensure it will not slip during cutting operation. Stop power feeder BEFORE stopping cutting tool.

WORKPIECE SUPPORT. Loss of workpiece control while feeding can increase risk of kickback. Support workpiece continuously during operation as required. Use auxiliary stands or support tables for long or wide stock.

ADJUSTMENTS/MAINTENANCE. Make sure power feeder and associated machine are turned ***OFF***, disconnected from power, and all moving parts are completely stopped before doing adjustments or maintenance.

ATTACHED MACHINERY. Follow all warnings and safety information for attached machine doing cutting work.

⚠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.

⚠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: POWER SUPPLY

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.

⚠WARNING

Electrocution, fire, shock, or equipment damage may occur if machine is not properly grounded and connected to power supply.

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 .... 2.3 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 Information

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.)

⚠CAUTION

For your own safety and protection of property, consult an electrician if you are unsure about wiring practices or electrical codes in your area.

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.*

Circuit Requirements

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 ..... Single-Phase
Power Supply Circuit ..... 15 Amps
Plug/Receptacle ..... NEMA 6-15

Grounding Requirements

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.

This machine is equipped with a power cord that has an equipment-grounding wire and a grounding plug. Only insert plug into a matching receptacle (outlet) that is properly installed and grounded in accordance with all local codes and ordinances. DO NOT modify the provided plug!

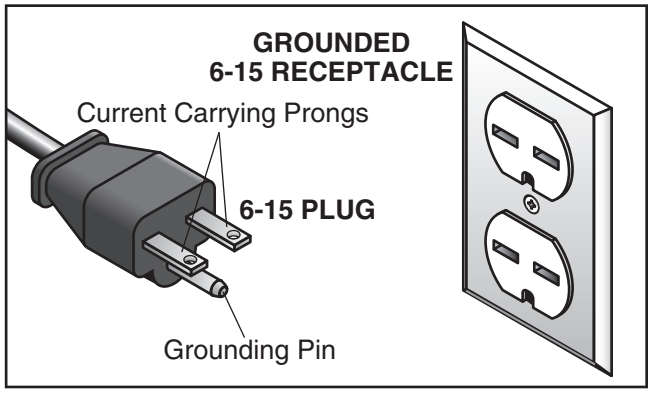
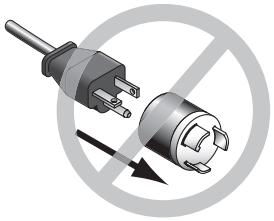


Figure 4. Typical 6-15 plug and receptacle.

⚠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 Size .....18 AWG
Maximum Length (Shorter is Better).....50 ft.

SECTION 3: SETUP

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.*

Needed for Setup

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

Description	Qty
• Safety Glasses (for each person)	1
• Cleaner/Degreaser	As Needed
• Shop Rags	As Needed
• Disposable Gloves	As Needed
• Hex Wrench 4, 5, 8mm	1 Ea.
• Phillips Head Screwdriver #2	1
• C-Clamps	2
• 12" 2x4 Wood Block	1
• Open-End Wrench 12, 14mm, 11/16"	1 Ea.
• Power Drill	1
• Drill Bit & Tap	1
• Optional Mounting Hardware	As Needed
• Thread Locking Fluid	As Needed
• Gear Oil (80-90W)	As Needed

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.

Box 1 (Figure 5)	Qty
A. Power Feeder Assembly	1
B. Lower Elbow-Joint	1
C. Base Bolt Pattern Template	1
D. Indicator Sticker	1
E. Angle Adjustment Scale	1
F. Rotation Knob M10-1.5	1

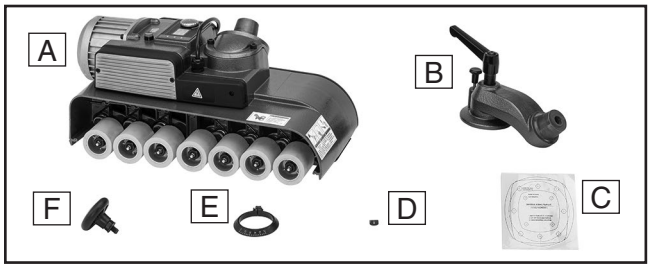


Figure 5. Box 1 inventory.

Box 2 (Figure 6)	Qty
G. Base and Vertical Column Assembly	1
H. Overarm Shaft	1
I. Hex Bolts M12-1.75 x 50 (Mounting)	4
J. Lock Washers 12mm (Mounting)	4
K. Vertical Travel Crank Handle	1
L. Upper Elbow-Joint	1

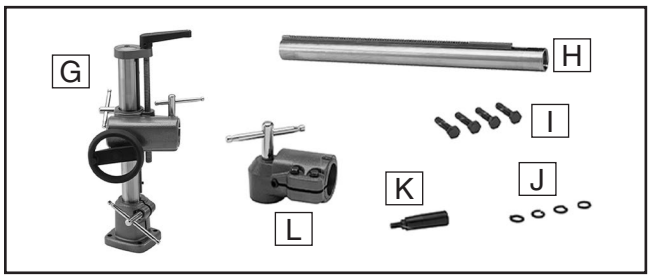


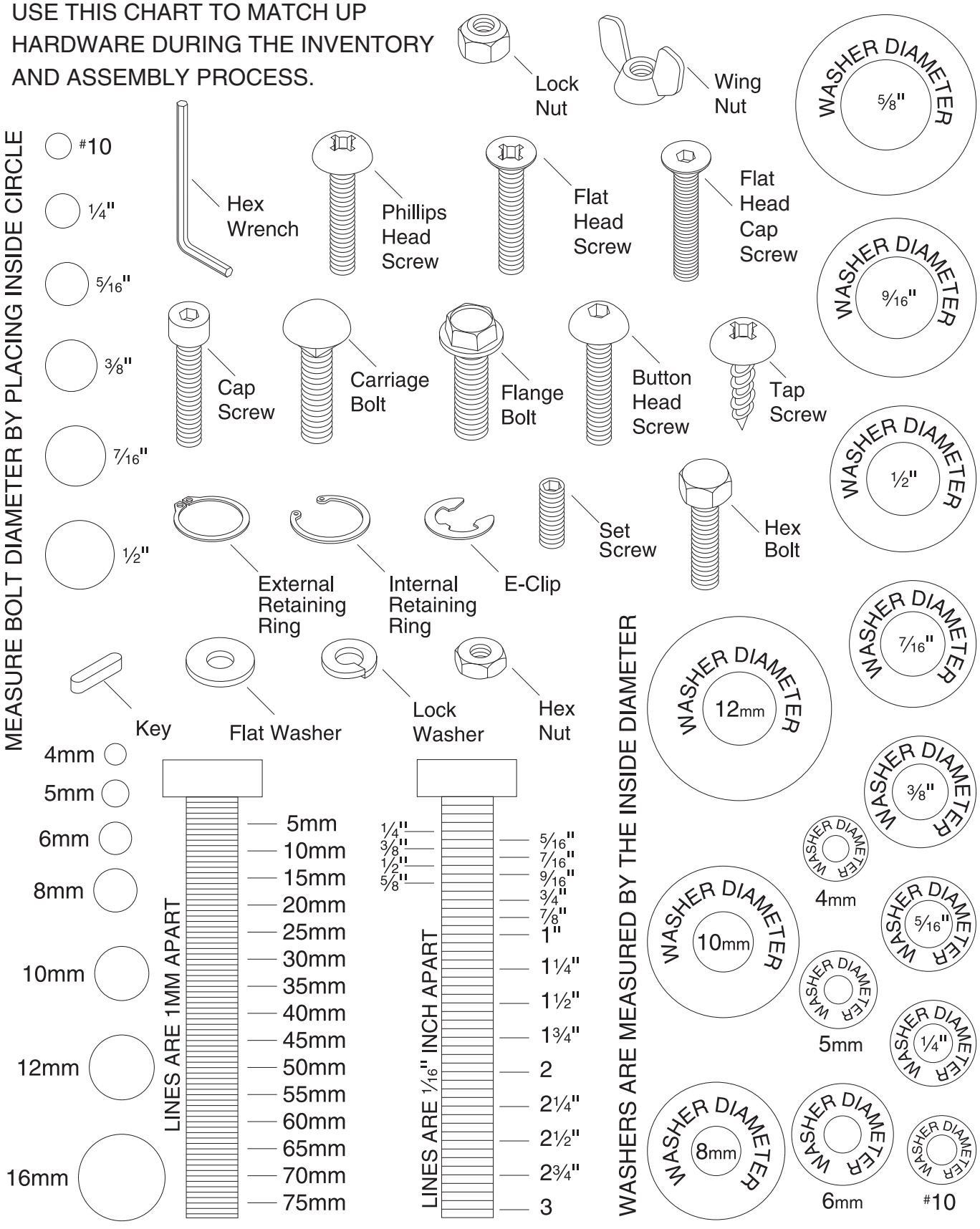
Figure 6. Box 2 inventory.

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.

Hardware Recognition Chart

USE THIS CHART TO MATCH UP HARDWARE DURING THE INVENTORY AND ASSEMBLY PROCESS.



Cleanup

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 harsh solvents like acetone or brake parts cleaner that may damage painted surfaces. Always test on a small, inconspicuous location first.

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.

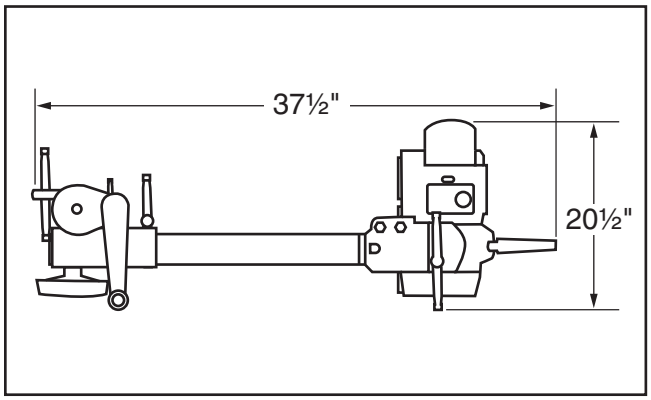
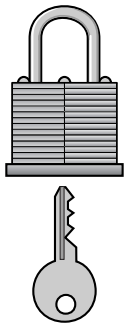


Figure 7. Minimum working clearances.

Note: *Power feeder can rotate 360° around the vertical column, so be sure to situate machine so it can freely rotate. The machine is shown here with the overarm shaft fully extended.*



⚠CAUTION

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.

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).

Tip: *We recommend using a set of C-clamps to temporarily secure the base while assembling the power feeder to prevent it from tipping. You will mount the power feeder to the machine table after completing the assembly process. Refer to* ***Base Mounting*** *on* ***Page 18*** *for specific details.*

To assemble machine:

1. Place vertical column assembly onto machine table top, then attach vertical travel handle to vertical crank shown in **Figure 8**.

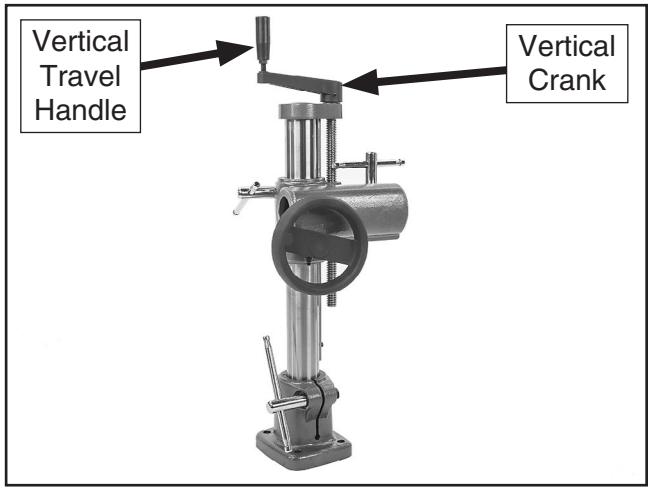


Figure 8. Vertical travel handle installed.

2. Loosen hex nut and set screw under horizontal handwheel shown in **Figure 9**, then remove horizontal handwheel.

3. Feed overarm shaft into sleeve of vertical column (see **Figure 9**). Re-install handwheel and engage gears with overarm shaft teeth. Tighten set screw and hex nut just enough to secure handwheel.

Note: *Do not overtighten set screw or handwheel will not rotate.*

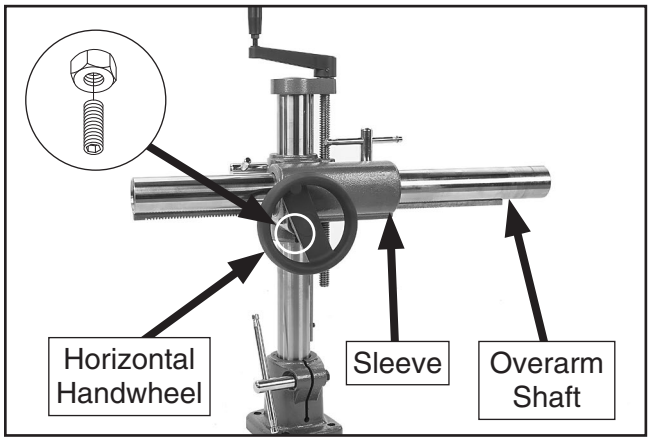


Figure 9. Overarm shaft installed onto vertical column.

4. Slide angle adjustment scale onto overarm shaft, slide upper elbow-joint onto overarm shaft, then secure for now by tightening one of the hex bolts shown in **Figure 10**.

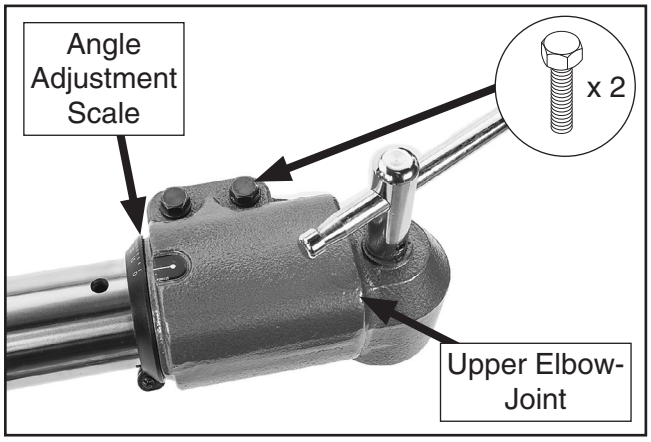


Figure 10. Angle adjustment scale installed onto upper elbow-joint.

5. Attach rotation knob to power feeder (see **Figure 11**) using pre-installed cap screw, flange nut, and (2) flat washers.

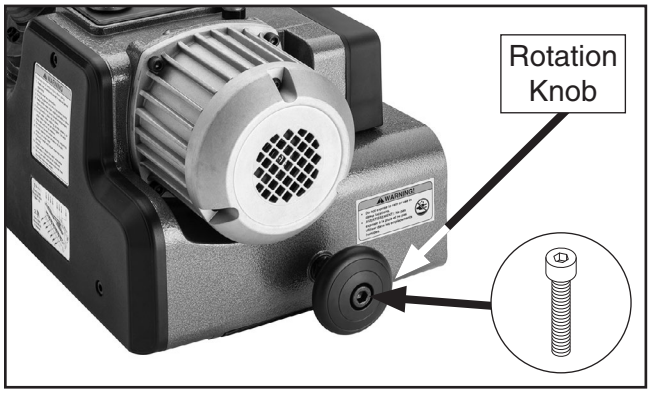


Figure 11. Rotation knob installed.

6. Thread lower elbow-joint lever all the way into threads of axial hub on power feeder (see **Figure 12**).

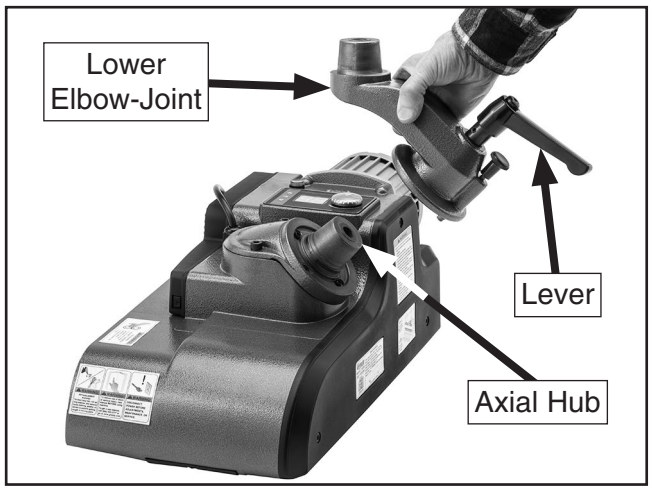


Figure 12. Attaching lower elbow-joint.

7. Loosen vertical and horizontal travel locks and rotation lock, then use horizontal handwheel and vertical travel handle to position upper elbow-joint directly over hub of lower elbow-joint (see **Figure 13**).

   Tip: *Place a short (approx. 12" long) 2x4 under power feeder to make it level with table top and make it easier to connect upper and lower elbow-joints during next step.*

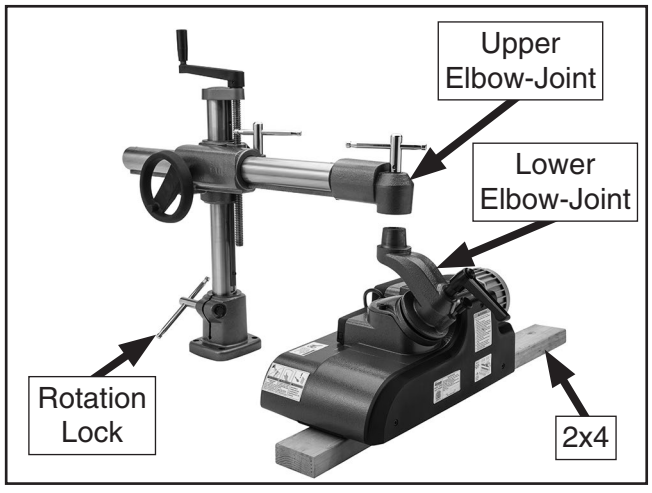


Figure 13. Upper and lower elbow-joints aligned.

8. Position upper elbow-joint so internal threads contact those inside lower elbow-joint, then fully tighten upper elbow-joint lock (see **Figure 14**).

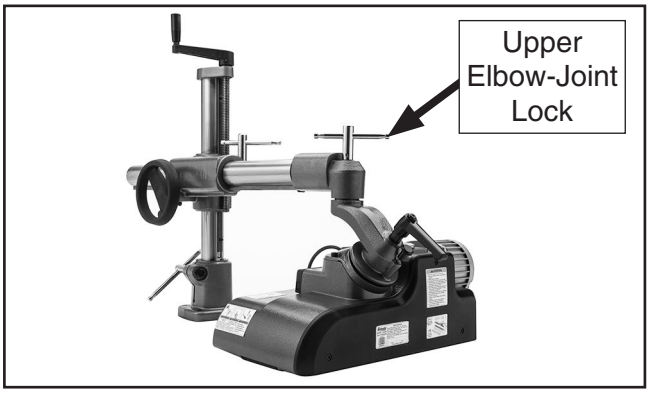


Figure 14. Upper elbow-joint lock fully tightened.

9. Adjust rollers parallel to table top, then tighten hex bolts shown in **Figure 15**.

10. Remove backing from indicator line sticker and install in recess on upper elbow-joint, as shown in **Figure 15**.

11. Position angle adjustment scale so it just contacts upper elbow-joint, align "0" on scale with indicator line, then tighten screw (see **Figure 15**).

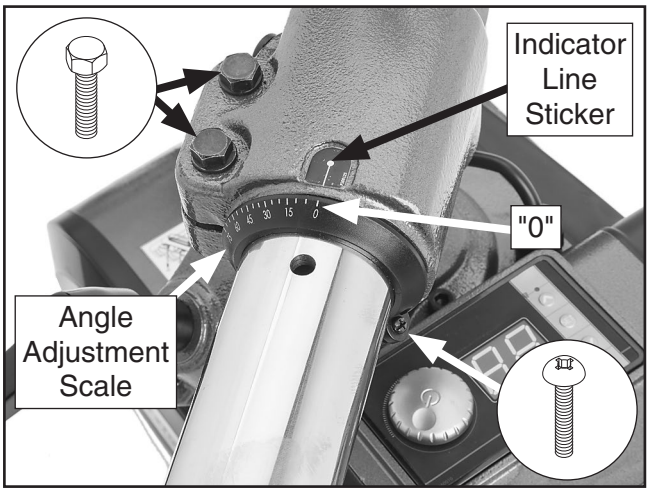


Figure 15. Angle adjustment scale and indicator line sticker installed.

Base Mounting

Position the power feeder on the table top to determine where to drill the base mounting holes in order to maximize power feeder swing and adjustment options.

Use the included base bolt pattern template to align the mounting holes. Consider the available mounting choices for your needs: **Through-Bolt Mounting** and **Direct Mounting** (discussed on **Page 19**).

With either mounting choice, leave room to operate the hand cranks and lock levers to position the rubber rollers parallel with the table surface and approximately ⅛" lower than the thickness of the workpiece.

Also, aim the front of the power feeder slightly towards the machine fence (see **Figure 16**) with approximately 1° to 1.5° toe-in toward the machine fence, so the rubber rollers lightly push the workpiece against the fence during cutting operations.

If cutting long or large stock that is difficult to feed properly, use a featherboard *before* the power feeder (on the infeed side) to maintain even pressure and control of the workpiece against the fence.

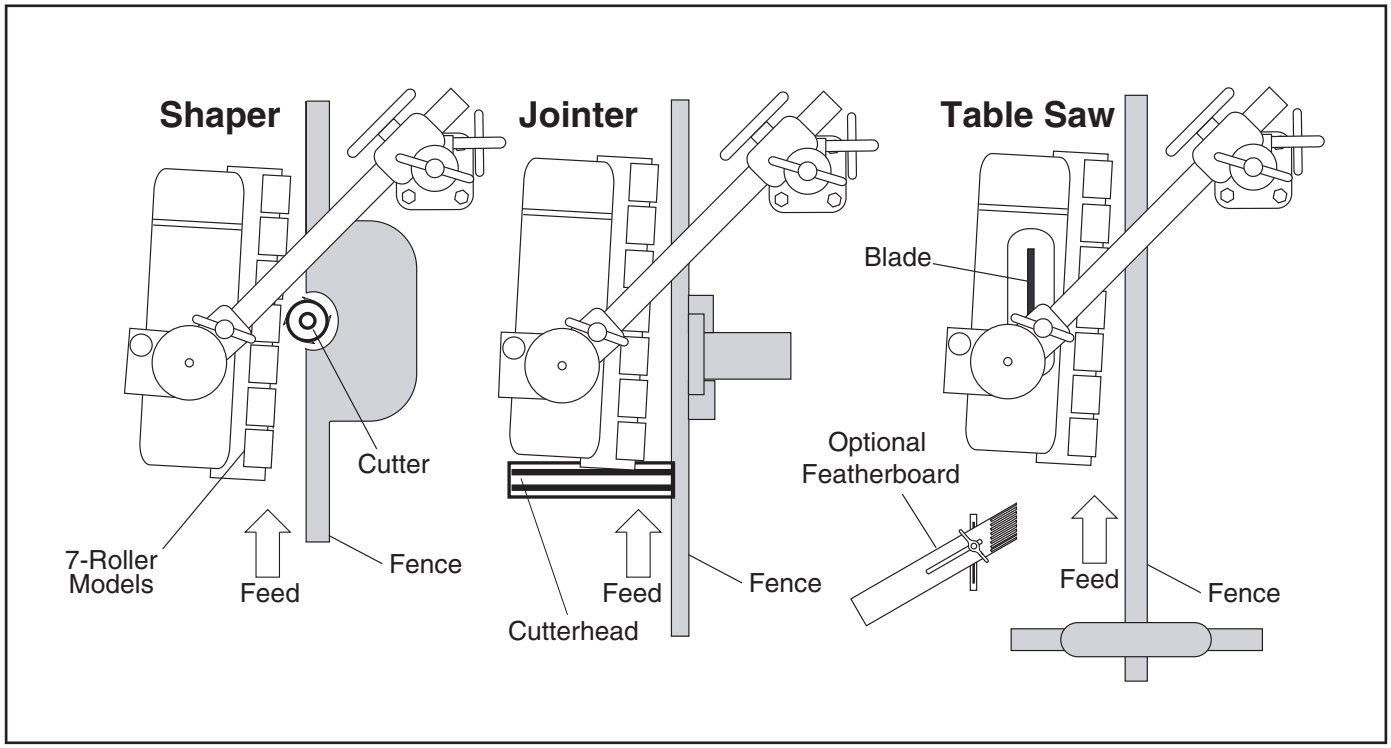


Figure 16. Typical power feed mounting on a shaper, jointer, and table saw.

Through-Bolt Mounting

We recommend mounting the power feeder to the machine table with through bolts, nuts, and washers (see **Figure 17**). This provides the most rigidity and clamping strength to prevent the feeder base from twisting out of alignment during use. However, if under-table support webs interfere with washer or nut locations, drill and thread holes directly into the table (**Direct Mounting**). Use the included mounting template as a guide.

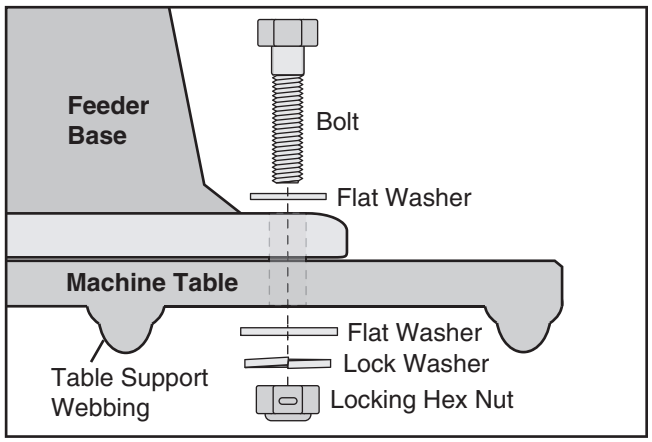


Figure 17. Through-bolt mounting.

Direct Mounting

Use the included mounting template to drill and tap the table so the power feeder base can be directly mounted to the table surface (see **Figure 18**). Use medium-grade liquid thread-locking compound on all threads. If the table is less than 3/8" thick where the holes will be drilled and tapped, or if support webbing interferes, the threads may strip or loosen during power feeder use. Thread-locking compound is *not* a permanent solution. Revert to the **Through-Bolt Mounting** or clamping kit options.

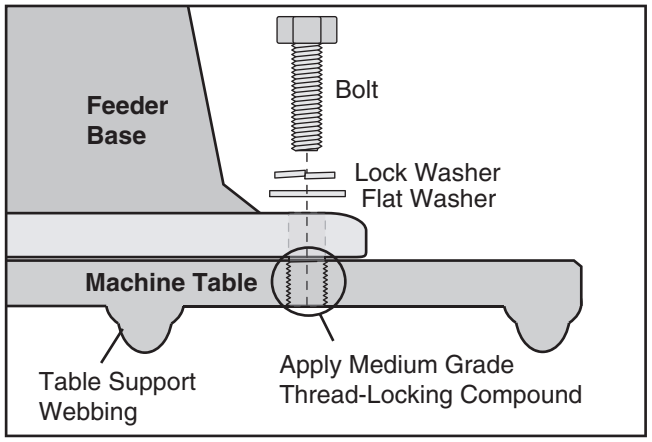


Figure 18. Direct mounting.

Checking Gearbox Oil Level

Before starting the machine for the first time, check the oil level in the gearbox. The gearbox has the proper amount of oil when the sight glass is filled approximately halfway. DO NOT mix oil types.

Items Needed	Qty
Hex Wrench 4mm	1
Gear Oil 80-90W	As Needed

To check gearbox oil level:

1. Rotate machine so chain cover is facing up.

2. Locate gearbox sight glass beneath control panel (see **Figure 19**).

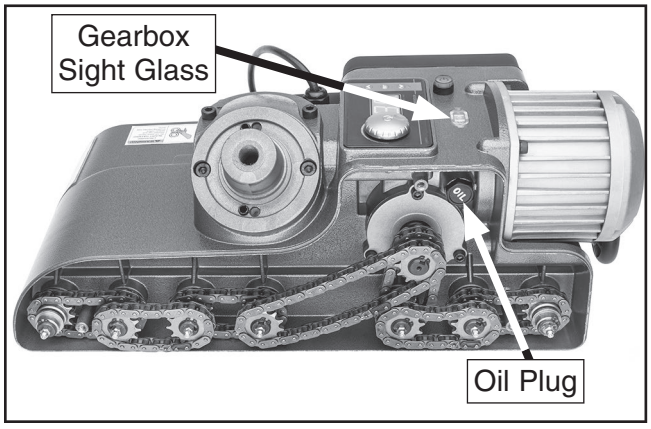


Figure 19. Oil plug and gearbox sight glass locations.

— If sight glass *is* filled approximately halfway, then gearbox oil level is okay. Proceed to **Test Run**.

— If sight glass *is not* filled approximately halfway, then you need to add more oil. Proceed to **Step 3**.

3. Remove chain cover.

4. Remove oil plug (see **Figure 19**) and add gear oil until sight glass is filled approximately halfway, then replace oil plug.

5. Install chain cover and rotate power feeder back into position for operation.

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.

The Test Run consists of verifying the following: 1) The motor powers up and runs correctly, and 2) the control panel works correctly.

⚠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.

For the following Test Run steps, refer to **Figure 20**.

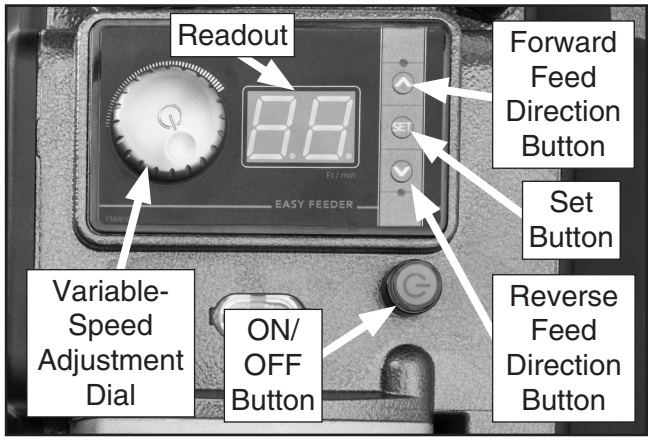


Figure 20. Readout illuminated.

To test run machine:

1. Clear all setup tools away from machine.

2. Adjust and lock power feeder so rollers are held approximately 1" above machine table and nothing will interfere with roller rotation.

3. Connect power feeder to power supply.

4. Press ON/OFF button. Digital readout will illuminate.

5. Press SET button, and use variable-speed adjustment dial to select 10 FPM on readout. Number will flash for 10 seconds, then glow steadily.

6. Press forward feed direction button (⩓), then press and hold variable-speed adjustment dial until you hear a beeping sound and outside edge of panel glows red. Motor should run smoothly and without unusual problems or noises. Rollers should rotate in a counterclockwise direction (when viewed from top).

   — If motor or rollers do not function correctly, disconnect from power and refer to **Troubleshooting** on **Page 30** before completing **Test Run**.

7. Press variable-speed adjustment dial. Rollers should stop rotating.

   — If rollers stop rotating, variable-speed adjustment dial is functioning correctly. Proceed to **Step 8**.

   — If rollers *do not* stop rotating, variable-speed adjustment dial is NOT functioning correctly. Contact Grizzly Technical Support before preceding with Test Run.

8. Press reverse feed direction button (⩓), then press and hold variable-speed adjustment dial until you hear a beep and control panel glows red. Rollers should rotate in clockwise direction (when viewed from top).

9. Press variable-speed adjustment dial to stop rollers.

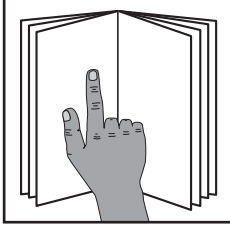
   Test Run is complete.

SECTION 4: OPERATIONS

Operation Overview

The purpose of this overview is to provide the novice machine operator with a basic understanding of how the machine is used during operation, so the machine controls/components discussed later in this manual are easier to understand.

Due to the generic nature of this overview, it is **not** intended to be an instructional guide. To learn more about specific operations, read this entire manual, seek additional training from experienced machine operators, and do additional research outside of this manual by reading "how-to" books, trade magazines, or websites.

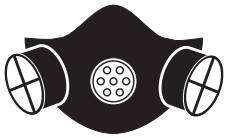


⚠WARNING

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

⚠WARNING

To reduce risk of eye injury from flying chips or lung damage from breathing dust, always wear safety glasses and a respirator when operating this machine.



NOTICE

If you are not experienced with this type of machine, WE STRONGLY RECOMMEND that you seek additional training outside of this manual. Read books/magazines or get formal training before beginning any projects. Regardless of the content in this section, Grizzly Industrial will not be held liable for accidents caused by lack of training.

To complete a typical operation, the operator does the following:

1. Examines workpiece to make sure it is suitable for cutting operation.
2. Adjusts machine cutter/blade and fence for desired operation.
3. Checks outfeed side of machine for proper support and to make sure workpiece can safely pass all the way through cutter/blade without interference.
4. Loosens upper elbow-joint lock and points power feeder 1° to 1.5° toward machine fence, so rollers will lightly push workpiece against fence during cutting operations, then tightens elbow-joint lock.
5. Loosens vertical travel lock and lower elbow-joint lock, then adjusts position of power feeder so rollers are parallel with table surface and ⅛" lower than thickness of workpiece, then tightens all locks.
6. Checks to make sure rollers are clear of cutter or blade.
7. (Optional) positions featherboard on infeed side for cutting long or large stock that is difficult to feed properly.
8. Sets feed speed and direction using control panel.
9. Puts on safety glasses and a respirator.
10. Starts machine, then starts power feeder. Feeds stock into power feeder, maintaining firm pressure on workpiece against table and fence.
11. Stops power feeder, then stops machine.

Basic Use & Care

WARNING

You MUST assemble all guards, fences, and hold-downs before starting your machine or power feeder. Failure to heed this warning could result in amputation or death!

Power feeders reduce kickback hazards and improve cutting results by feeding in a consistent and stable manner. Remember, DO NOT stand in the path of potential kickback. When not in use, support the power feeder with a wooden block so the rollers are raised above the table and do not compress from the weight of the power feeder.

The lock levers and hand cranks allow you to adjust the power feeder tracking and height to accommodate many workpiece sizes. Before loosening any lock lever, always support the power feeder with a block of wood so the power feeder does not drop and cause damage.

Adjust the power feeder so it is toed-in approximately 1° to 1.5° towards the machine fence, as shown in **Figure 21**. This adjustment will ensure that the power feeder rollers slightly push the workpiece against the fence during cutting operations. Use a featherboard on the infeed side to assist with feeding long or large stock.

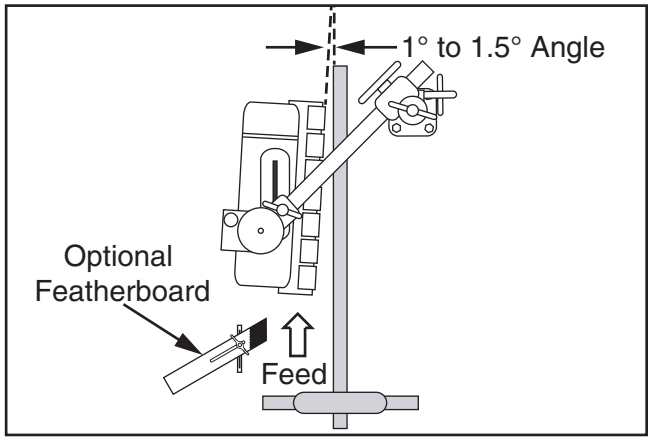


Figure 21. Example of power feeder toe-in on table saw.

Next, adjust power feeder so the rollers are parallel with the table surface and approximately 1/8" lower than the thickness of the workpiece, as shown in **Figure 22**. This ensures that the workpiece will not slip or hang during a cut. Always double check that the power feeder rollers are always slightly lower than the workpiece before you begin feeding operations. Otherwise, the workpiece may slip and kick back.

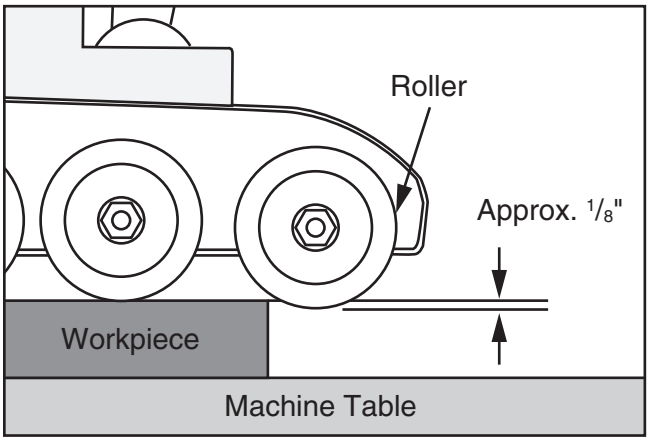
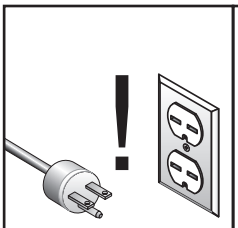


Figure 22. Rollers adjusted approximately 1/8" below workpiece.

Changing Speeds



⚠WARNING

To reduce risk of shock or accidental startup, always disconnect machine from power before adjustments, maintenance, or service.

Variable-Feed Speeds..... 7–86 FPM

Users can change the feed rate by adjusting the variable-speed adjustment dial on the control panel.

To change speed:

1. Press SET button on control panel, as shown in **Figure 23**.

   Note: *Current feed rate will flash for up to 10 seconds, after which SET button must be pressed again to adjust feed rate.*

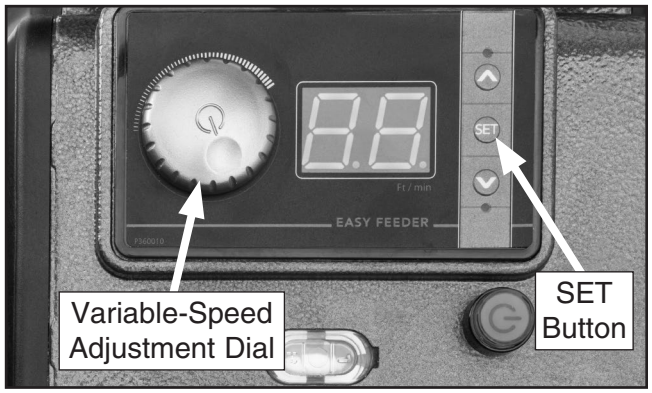


Figure 23. Location of SET button and variable-speed adjustment dial on control panel.

2. Rotate variable-speed adjustment dial to desired feed rate.

Adjusting Roller Angle

The Model T33295 can be positioned to feed workpieces so the rollers are angled relative to the machine fence from 45°–90°. For example, it can be positioned at 90° to feed stock against a fence, or positioned at 45° for making bevel cuts on a jointer.

Use the controls shown in **Figure 24** to position the power feeder for incline feeding.

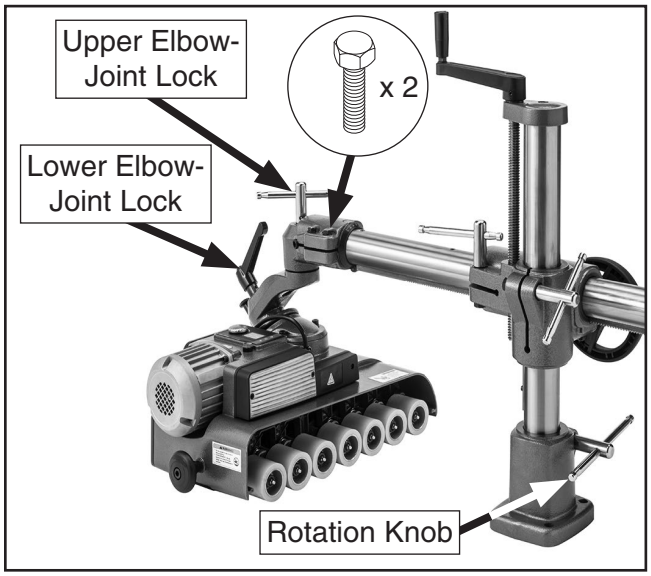


Figure 24. Location of controls for re-positioning power feeder for incline feeding.

Tools Needed **Qty**
Open-End Wrench or Socket 14mm 1

To position power feeder for vertical/incline feeding:

1. DISCONNECT MACHINE FROM POWER!

2. Loosen rotation lock and swing power feeder off of machine table (see **Figure 24**).

3. Loosen (2) hex bolts on upper elbow-joint, rotate upper elbow to desired angle, then tighten hex bolts (see **Figure 24**) to secure setting.

4. Loosen upper elbow-joint lock and lower elbow-joint lock (see **Figure 24**).

5. While holding onto rotation knob with one hand, disengage swivel lock pin, rotate power feeder clockwise (flip it upside down) so it is oriented as shown in **Figure 25**, then move it back over table and up against fence.

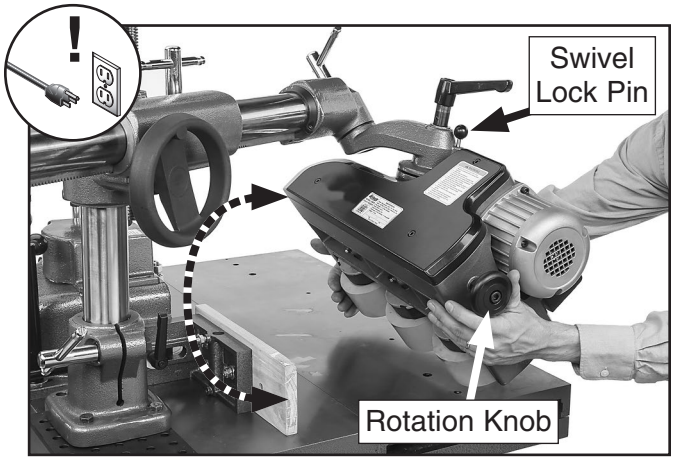


Figure 25. Example of rotating power feeder for vertical or incline feeding.

6. Lower power feeder and adjust it as needed so rollers are parallel with workpiece and workpiece is firmly against fence, as shown in **Figures 26–27**.

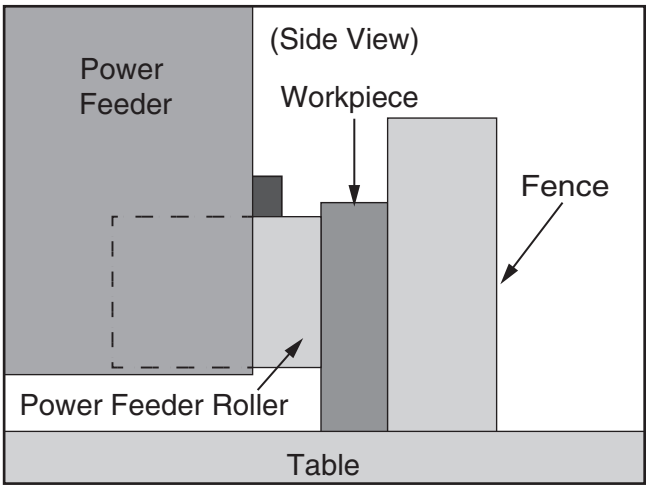


Figure 26. Example of power feeder set up for 90° feeding operation on shaper against a fence.

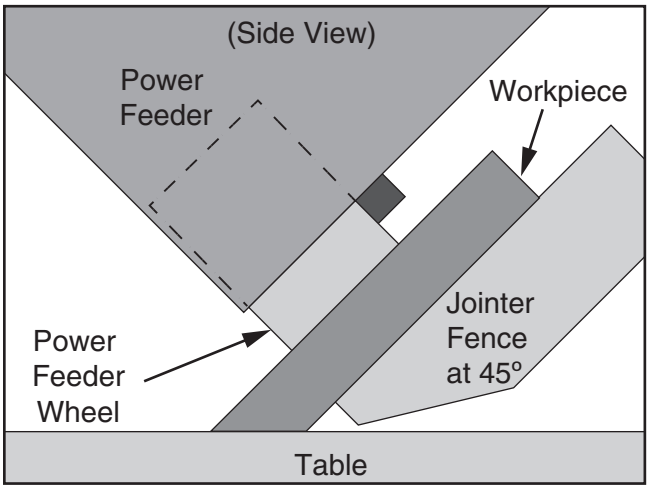


Figure 27. Example of power feeder set up for 45° feeding operation on jointer.

7. Tighten all locks on power feeder and vertical column.

8. Repeat **Steps 2–7** in reverse order to reposition power feeder for non-angle feeding operations.

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.

T28172—14" x 39" Heavy-Duty Roller Table
T28369—14" x 78" Heavy-Duty Roller Table
T28370—14" x 118" Heavy-Duty Roller Table
Increase material handling and processing efficiency with one or more of these Heavy-Duty Roller Tables. Ideal for easily positioning material for cross cutting or cutting to length using a chop saw or metal cutting bandsaw. Simply place a roller table on one or both sides of your saw and production time is automatically improved!

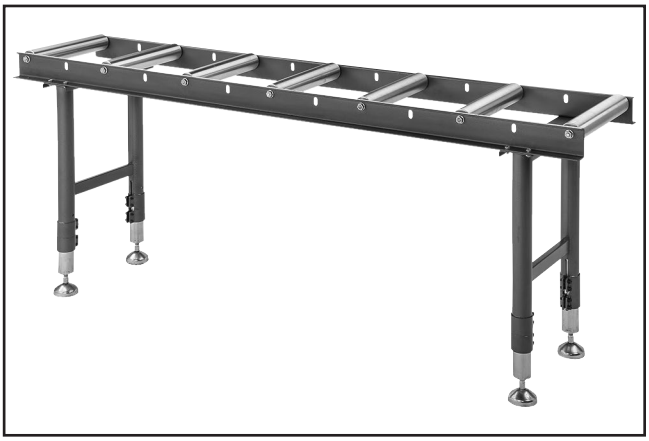


Figure 28. Heavy-duty roller tables.

T27630—Lumber Rack 6-Shelf System
The T27630 Lumber Rack 6-Shelf System is just the thing for your shop. Easy to install into a sturdy wall, each shelf can hold up to 100 pounds and uses 1" powder-coated steel supports for a clean, long-lasting support of your workpieces.

Figure 29. T27630 Lumber Rack 6-Shelf System.

T33851—Replacement Roller for T33295
These $2\frac{3}{8}$" wide x $2\frac{5}{16}$" diameter rollers are made from synthetic rubber and fit the T33295.

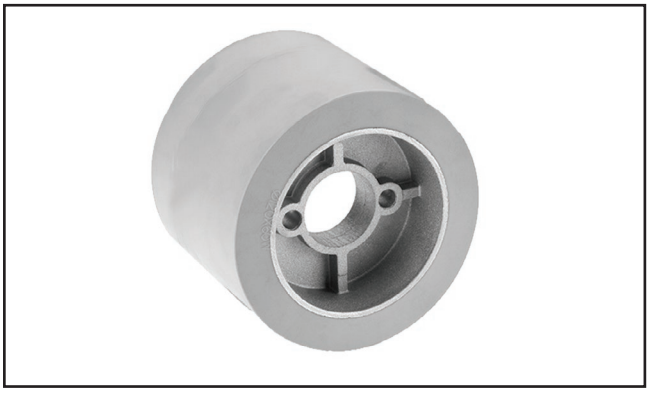


Figure 30. T33851 Replacement Roller.

G5562—SLIPIT® 1 Qt. Gel
G5563—SLIPIT® 12 Oz. Spray
Use on cast iron table surfaces and other unpainted metal surfaces to reduce sliding friction and hangups. This product also reduces rust and prevents resin build-up.

Figure 31. SLIPIT® gel and spray.

Basic Eye Protection

T32323—Woodturners Face Shield
T32401—EDGE Brazeau Safety Glasses, Clear
T32402—EDGE Khor G2 Safety Glasses, Tint
T32404—EDGE Mazeno Safety Glasses, Clear

Figure 32. Assortment of basic eye protection.

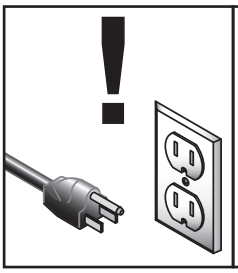
T26419—Syn-O-Gen Synthetic Grease
Formulated with 100% pure synthesized hydrocarbon basestocks that are compounded with special thickeners and additives to make Syn-O-Gen non-melt, tacky, and water resistant. Extremely low pour point, extremely high temperature oxidation, and thermal stability produce a grease that is unmatched in performance.

Figure 33. Recommended product for machine lubrication.

H8255—Grease Gun
The single hand lever pump action and a flexible nozzle allows this heavy-duty Grease gun to access hard-to-reach places. It uses standard 14½ oz. grease cartridges, or can be easily converted to allow filling from a bulk container or filler pump.

Figure 34. H8255 Grease Gun.

SECTION 6: MAINTENANCE



⚠WARNING
To reduce risk of shock or accidental startup, always disconnect machine from power before adjustments, maintenance, or service.

Schedule

For optimum performance from this machine, this maintenance schedule must be strictly followed.

Ongoing
To minimize your risk of injury and maintain proper machine operation, shut down the machine immediately if you ever observe any of the items below, and fix the problem before continuing operations:

- Loose mounting bolts.
- Damaged rollers.
- Worn or damaged switch, cord, and plug.
- Any other unsafe condition.

Every 8 Hours of Operation
- Check gearbox oil level (**Page 19**).
- Lubricate chains and sprockets (**Page 29**).
- Lubricate vertical travel leadscrew (**Page 29**).
- Lubricate lock levers (**Page 29**).
- Lubricate overarm rack (**Page 29**).

Monthly Maintenance
- Lubricate roller and chain grease fittings (**Page 28**).
- Change gearbox oil—after first month (**Page 28**).

Every 6 Months
- Change gearbox oil (**Page 28**).

Cleaning & Protecting

Cleaning the Model T33295 is relatively easy. Frequently blow off sawdust with compressed air. This is especially important for internal working parts and the motor. Dust build-up around the motor will decrease its lifespan. If rollers become loaded up with pitch, oil, or other residues, wipe with a clean rag and soap and water. Keep mineral spirits away from plastic parts or painted surfaces to avoid damage.

Lubrication

Other than the lubrication points covered in this section, all other bearings are internally lubricated and sealed at the factory. Simply leave them alone unless they need to be replaced.

Before performing any lubrication task, DISCONNECT MACHINE FROM POWER!

IMPORTANT: Before adding lubricant, clean any debris and grime from fill hole/grease fitting and immediate area to prevent contamination of new lubricant.

Use the schedule below and the following instructions to properly lubricate the other components that require lubrication.

Lubrication Task	Frequency (Hours of Operation)	Page Ref.
Roller & Chain Grease Fittings	200 Hrs.	**28**
Gearbox	1000 Hrs.	**28**
Chains & Sprockets	8 Hrs.	**29**
Vertical Travel Leadscrew	8 Hrs.	**29**
Lock Levers	8 Hrs.	**29**
Overarm Rack	8 Hrs.	**29**

Items Needed	Qty
NLGI#2 Grease or Equivalent	As Needed
ISO 32 Oil or Equivalent	As Needed
80-90W Gear Oil	As Needed
Clean Shop Rags	As Needed
Mineral Spirits	As Needed
Brushes	As Needed
1-Gallon Catch Pan	1
Grease Gun ⅛" NPT	1
Hex Wrenches 3, 4mm	1 Ea.

Roller Lubrication & Chain Grease Fittings

Lube Type ..... T26419 or NLGI#2 Equivalent
Amount ..... 1–2 Pump
Lubrication Frequency ..... 200 Hrs. of Operation
Grease Gun 1

Wipe the roller lubrication points and chain grease fittings clean and lubricate with one pump from a grease gun filled with NLGI#2 grease (see **Figures 35**–**36**). Spread the grease around the roller lubrication points. It will be necessary to remove the chain cover to access the chain grease fittings.

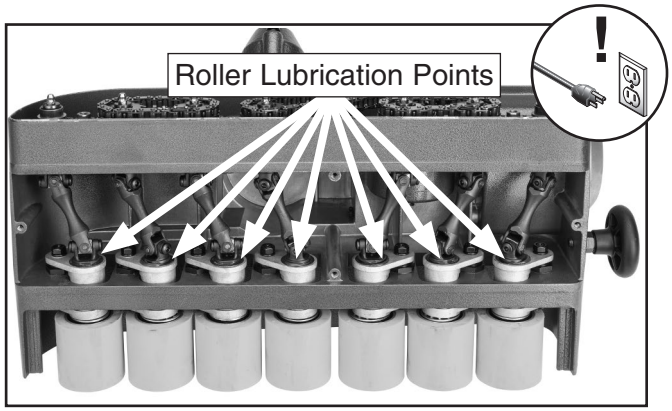


Figure 35. Location of roller lubrication points.

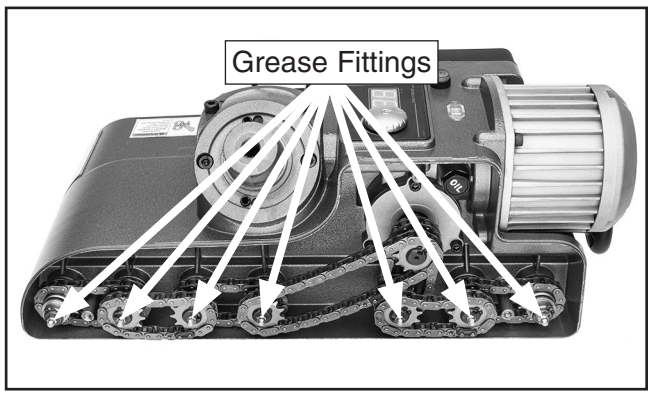


Figure 36. Location of chain grease fittings (chain cover removed).

Gearbox

Lube Type ..... 80-90W Gear Oil
Amount ..... 4.05 Oz.
Lubrication Frequency:

- 200 Hrs./First Month of Operation
- 1000 Hrs./6 Months of Operation

The gearbox should be drained and refilled after the first month or 200 hours of use. For the remaining life of the power feeder, change oil every six months or 1000 hours of use.

To change gearbox oil:

1. DISCONNECT MACHINE FROM POWER!

2. Rotate power feeder off of machine table, remove chain cover, and tighten rotation lock.

3. Rotate power feeder upside down so chains face down.

4. Place drain pan under plug labeled "OIL," then remove plug (see **Figure 37**) and drain oil.

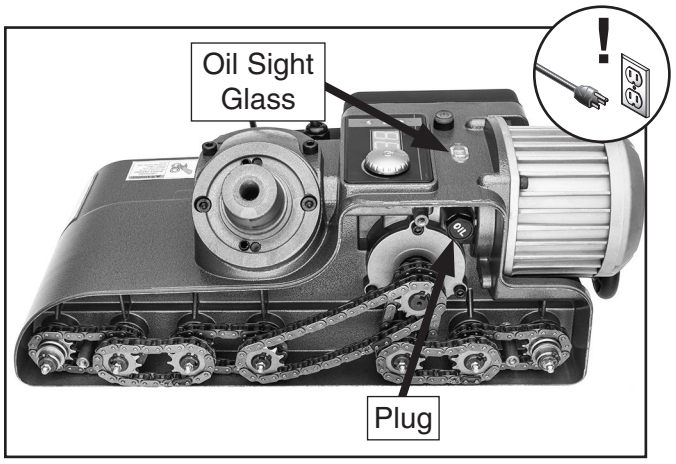


Figure 37. Location of gearbox plug/oil drain and sight glass.

5. Rotate power feeder 180 degrees so chains are facing up, fill gearbox with oil until oil level is at halfway point in sight glass, then replace plug.

6. Install chain cover and rotate power feeder back into position for operation.

Chains & Sprockets

Lube Type..... T26419 or NLGI#2 Equivalent
Amount .....Thin Coat
Lubrication Frequency .....8 Hrs. of Operation

Use mineral spirits to clean any debris and built-up grime. To prevent rust and binding, brush the sprockets and chains (see **Figure 38**) with a light film of NLGI#2 grease. It will be necessary to remove the chain cover to access the chain and sprockets.

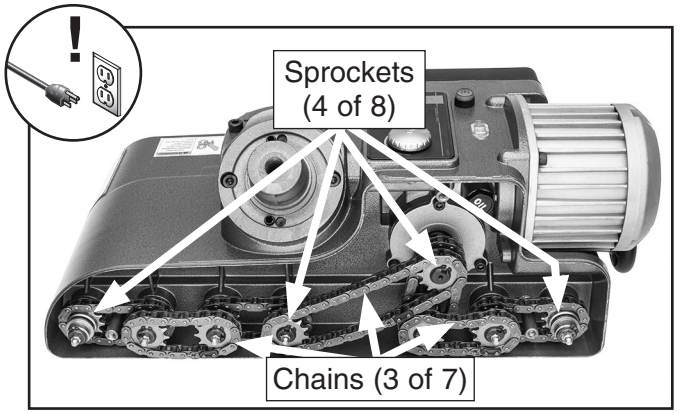


Figure 38. Location of chain and sprockets (chain cover removed).

Vertical Travel Leadscrew

Lube Type..... T26419 or NLGI#2 Equivalent
Amount .....Thin Coat
Lubrication Frequency .....8 Hrs. of Operation

Use mineral spirits to clean any debris and built-up grime. Brush a thin coat of lubricant on the threads of the leadscrew (see **Figure 39**), then rotate leadscrew through its full path to distribute the grease.

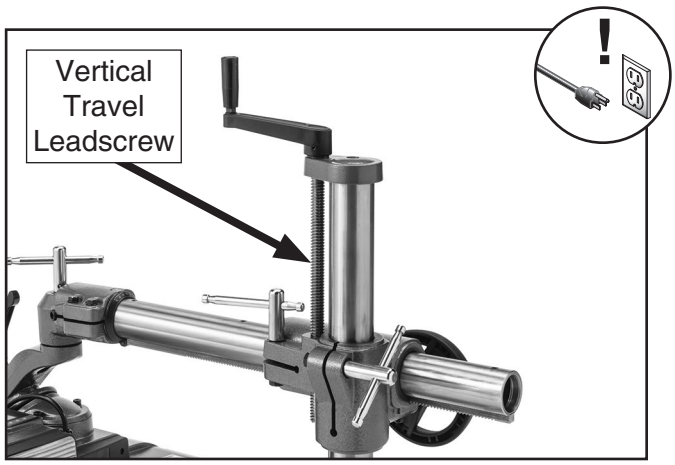


Figure 39. Vertical travel leadscrew.

Lock Levers

Lube Type..... ISO 32 or Equivalent
Amount .....Thin Coat
Lubrication Frequency .....8 Hrs. of Operation

To prevent rust and binding, periodically clean and oil all lock-lever and leadscrew threads (see **Figure 40**) with light machine oil.

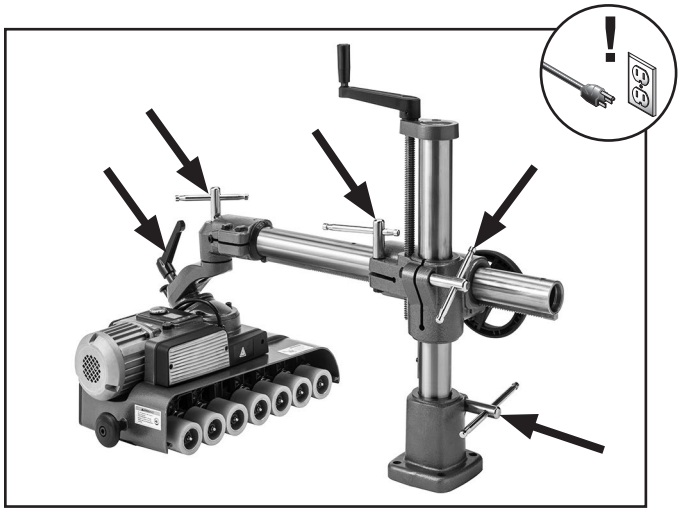


Figure 40. Location of levers to lubricate.

Overarm Rack

Lube Type..... T26419 or NLGI#2 Equivalent
Amount .....Thin Coat
Lubrication Frequency .....8 Hrs. of Operation

Clean the overarm rack teeth (see **Figure 41**) with mineral spirits, shop rags, and a brush. When dry, use a brush to apply a thin coat of grease to the teeth, then move the overarm back and forth several times to distribute the grease.

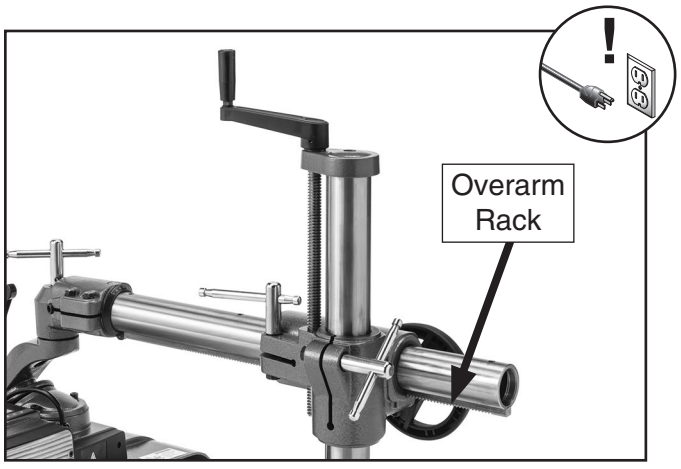
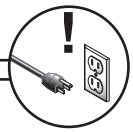


Figure 41. Overarm rack teeth.

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
Motor does not start or power supply breaker (or fuse) trips immediately upon startup.	1. Blown fuse. 2. Incorrect power supply voltage or circuit size. 3. Power supply circuit breaker tripped or fuse blown. 4. Wiring broken, disconnected, or corroded. 5. ON/OFF switch at fault. 6. Circuit board at fault. 7. Motor or motor bearings at fault.	1. Replace fuse/ensure no shorts. 2. Ensure correct power supply voltage and circuit size. 3. Ensure circuit is sized correctly and free of shorts. Reset circuit breaker or replace fuse. 4. Fix broken wires or disconnected/corroded connections. 5. Replace ON/OFF switch. 6. Inspect/replace if at fault. 7. Test/repair/replace.
Machine stalls or is underpowered.	1. Workpiece crooked; fence loose or misadjusted. 2. Gearbox at fault. 3. Circuit board at fault. 4. Pulley/sprocket slipping on shaft. 5. Motor overheated. 6. Extension cord too long. 7. Motor or motor bearings at fault.	1. Straighten or replace workpiece/adjust fence. 2. Replace broken or slipping gears. 3. Inspect/replace if at fault. 4. Tighten/replace loose pulley/shaft. 5. Clean motor, let cool, and reduce workload. 6. Move machine closer to power supply; use shorter extension cord. 7. Replace motor.
Machine has vibration or noisy operation.	1. Motor or component loose. 2. Incorrectly mounted. 3. Workpiece loose. 4. Rollers protruding unevenly. 5. Motor bearings at fault.	1. Replace damaged or missing bolts/nuts or tighten if loose. 2. Adjust or tighten mounting hardware. 3. Move rollers closer to workpiece (**Page 22**). 4. Adjust rollers. 5. Test by rotating shaft; rotational grinding/loose shaft requires bearing replacement.

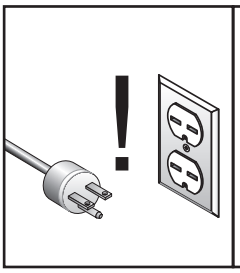
Operations

Symptom	Possible Cause	Possible Solution
Workpiece jams when feeding under rollers.	1. Rollers positioned too low. 2. Feeder at wrong angle.	1. Raise feeder (**Page 22**). 2. Adjust angle (**Page 23**).
Workpiece slips while passing beneath rollers.	1. Rollers positioned too high. 2. Workpiece too dusty. 3. Rollers dirty or oily. 4. Feed speed too fast. 5. Worn roller(s). 6. Rollers loose.	1. Lower power feeder roller ⅛" lower than height of workpiece (**Page 22**). 2. Wipe dust off workpiece. 3. Clean roller surface with soap and warm water. 4. Reduce feed speed. 5. Replace roller(s) (**Page 31**). 6. Tighten rollers (**Page 31**).
Workpiece cut is burnt.	1. Feed speed too slow. 2. Dull cutter or blade.	1. Increase feed speed. 2. Install sharp cutter or blade.

Operations (Cont.)

Symptom	Possible Cause	Possible Solution
Rough finish or chipped grain on workpiece.	1. Feed speed too fast. 2. Dull cutter or blade. 3. Power feeder angle not toed-in to keep workpiece against fence.	1. Reduce feed speed. 2. Replace with sharp cutter or blade. 3. Adjust power feeder so it is toed in 1° to 1.5° toward fence (**Page 22**).
Workpiece hangs up and does not enter the machine.	1. Rollers positioned too high.	1. Lower power feeder roller ⅛" lower than height of workpiece (**Page 22**).
Error message on control panel (E1, E2, E3).	1. (E1) Motor failed to start; workpiece jammed. 2. (E2) Circuit board temperature too high. 3. (E3) Motor temperature too high.	1. Remove jammed workpiece. 2. Allow circuit board to cool. 3. Allow motor to cool.

Replacing Rollers



⚠WARNING

To reduce risk of shock or accidental startup, always disconnect machine from power before adjustments, maintenance, or service.

Over time, the rubber rollers will wear down or become damaged. When this occurs, they can be easily replaced.

Items Needed **Qty**
Socket 11/16" 1
Socket Wrench 1
Replacement Rollers (Model T33851). . As Needed

To replace roller:

1. DISCONNECT MACHINE FROM POWER!

2. Remove hex nut and washer that secure roller (see **Figure 42**).

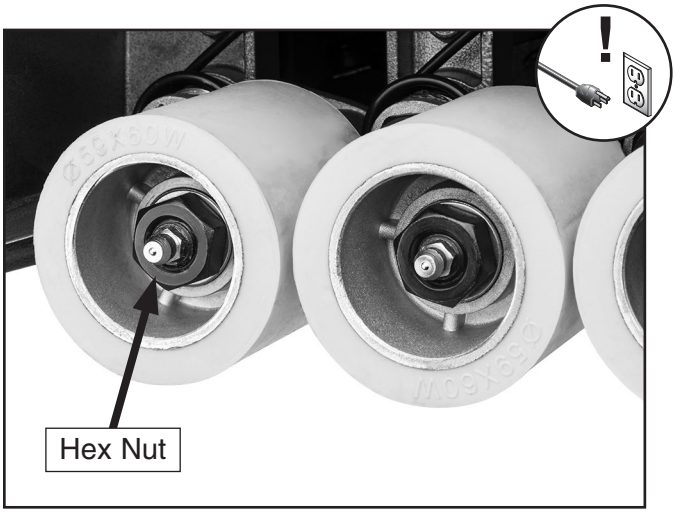


Figure 42. Roller hex nut location.

3. Remove and replace roller.

4. Install hex nut and washer and tighten.

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 aftermarket 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.

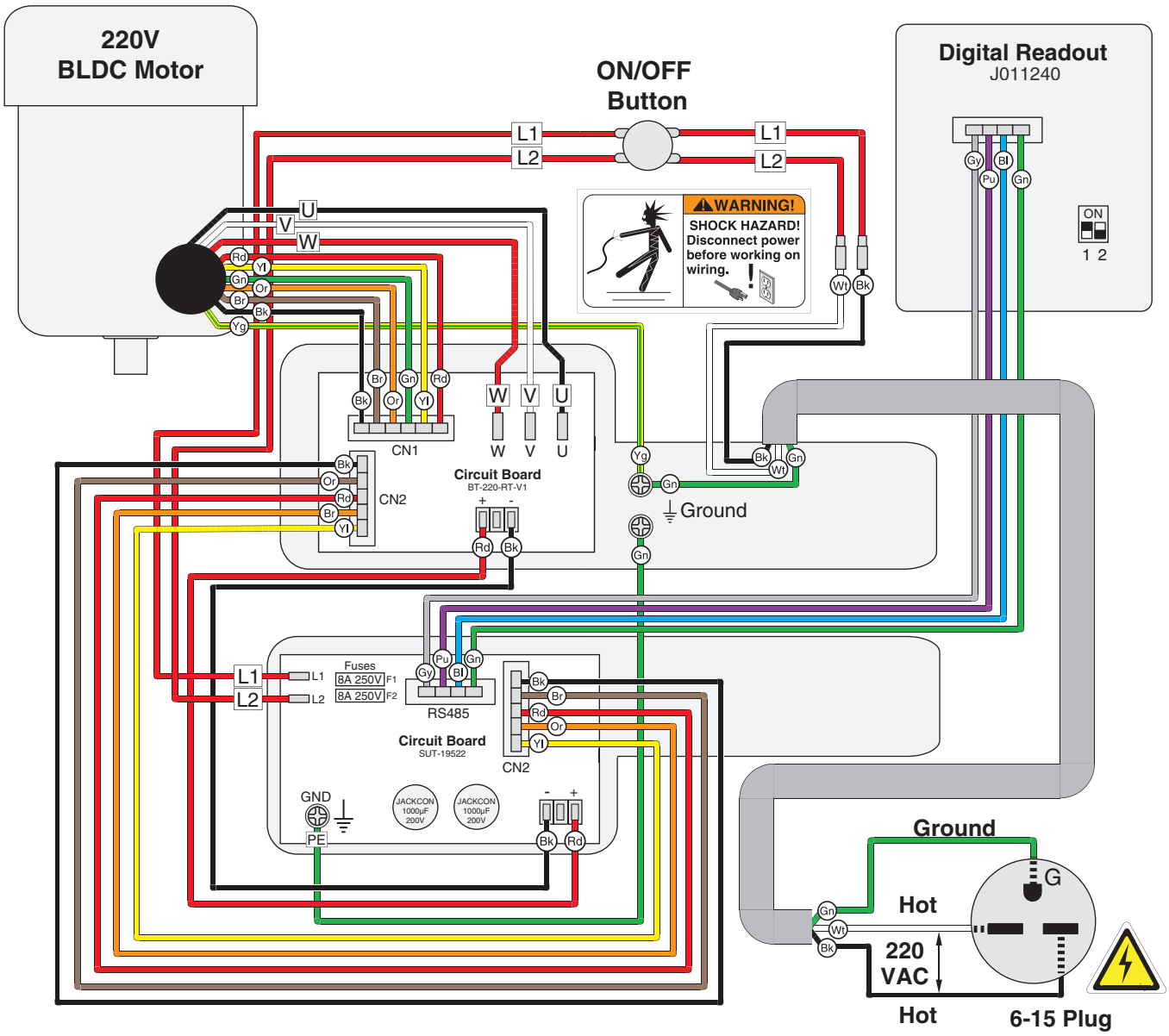
NOTICE

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	Bk	BLUE	Bl	YELLOW	Yl	LIGHT BLUE	Lb
WHITE	Wt	BROWN	Br	YELLOW GREEN	Yg	BLUE WHITE	Bw
GREEN	Gn	GRAY	Gy	PURPLE	Pu	TURQUOISE	Tu
RED	Rd	ORANGE	Or	PINK	Pk		

Wiring Diagram



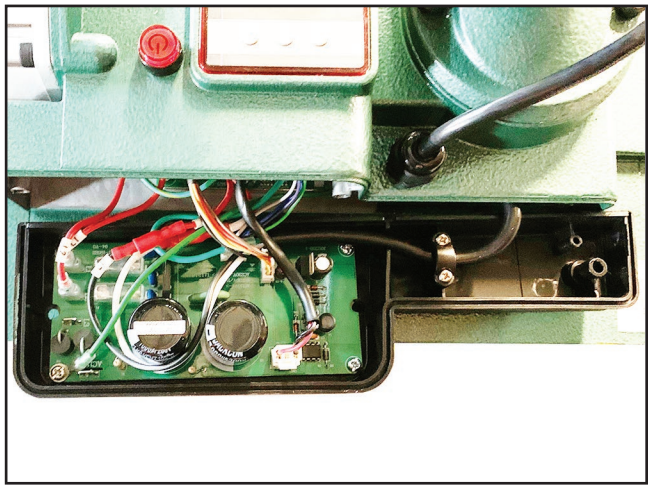


Figure 43. Motor circuit board wiring.

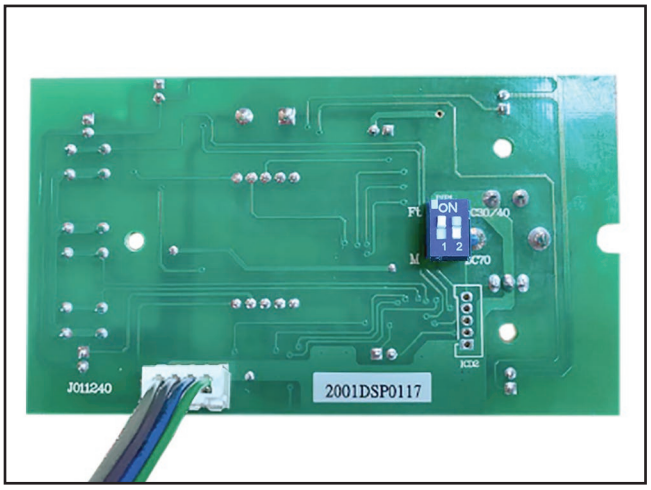
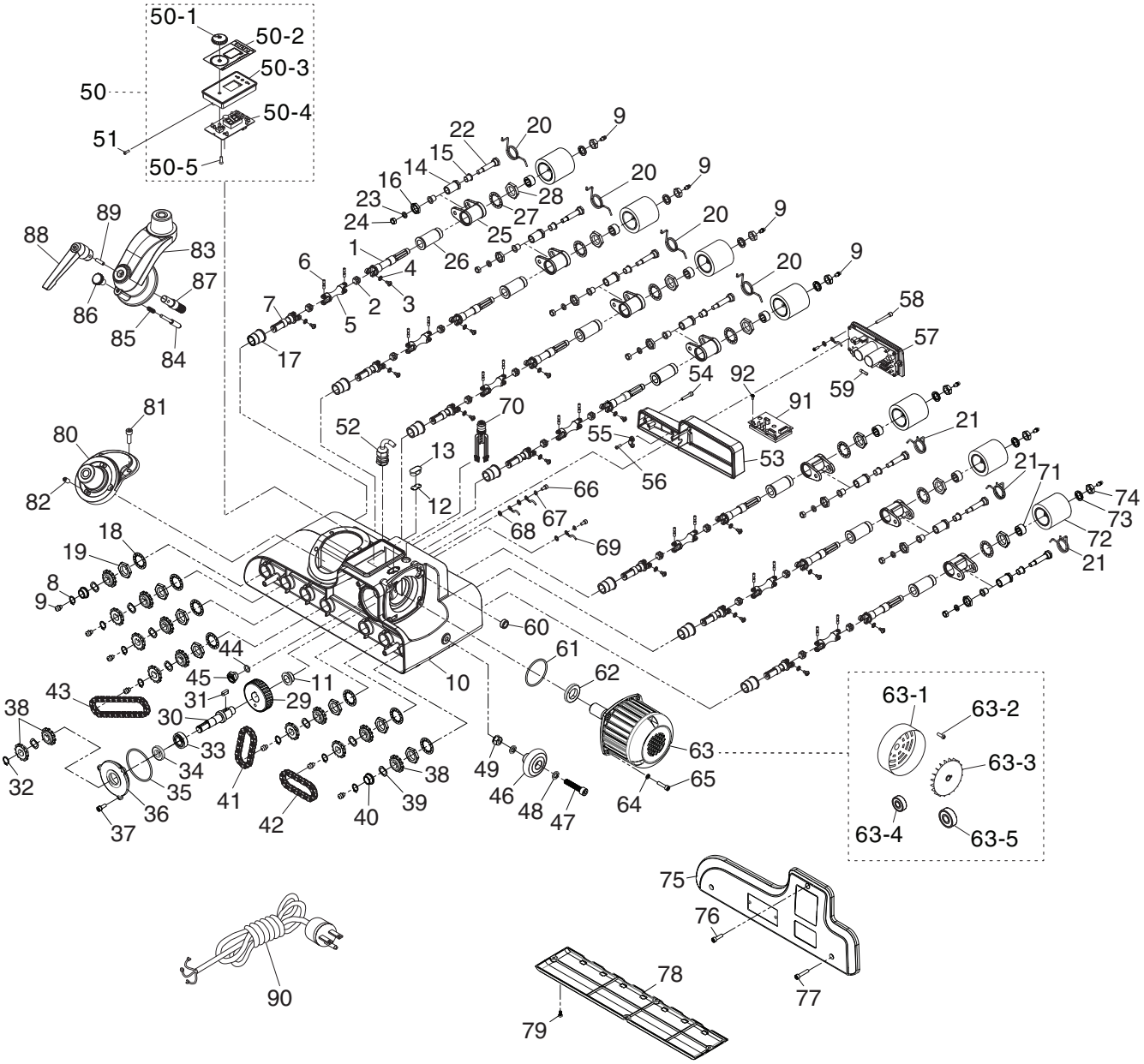


Figure 44. Digital readout circuit board.

SECTION 9: PARTS

We do our best to stock replacement parts when possible, but we cannot guarantee that all parts shown are available for purchase. Call **(800) 523-4777** or visit **www.grizzly.com/parts** to check for availability.

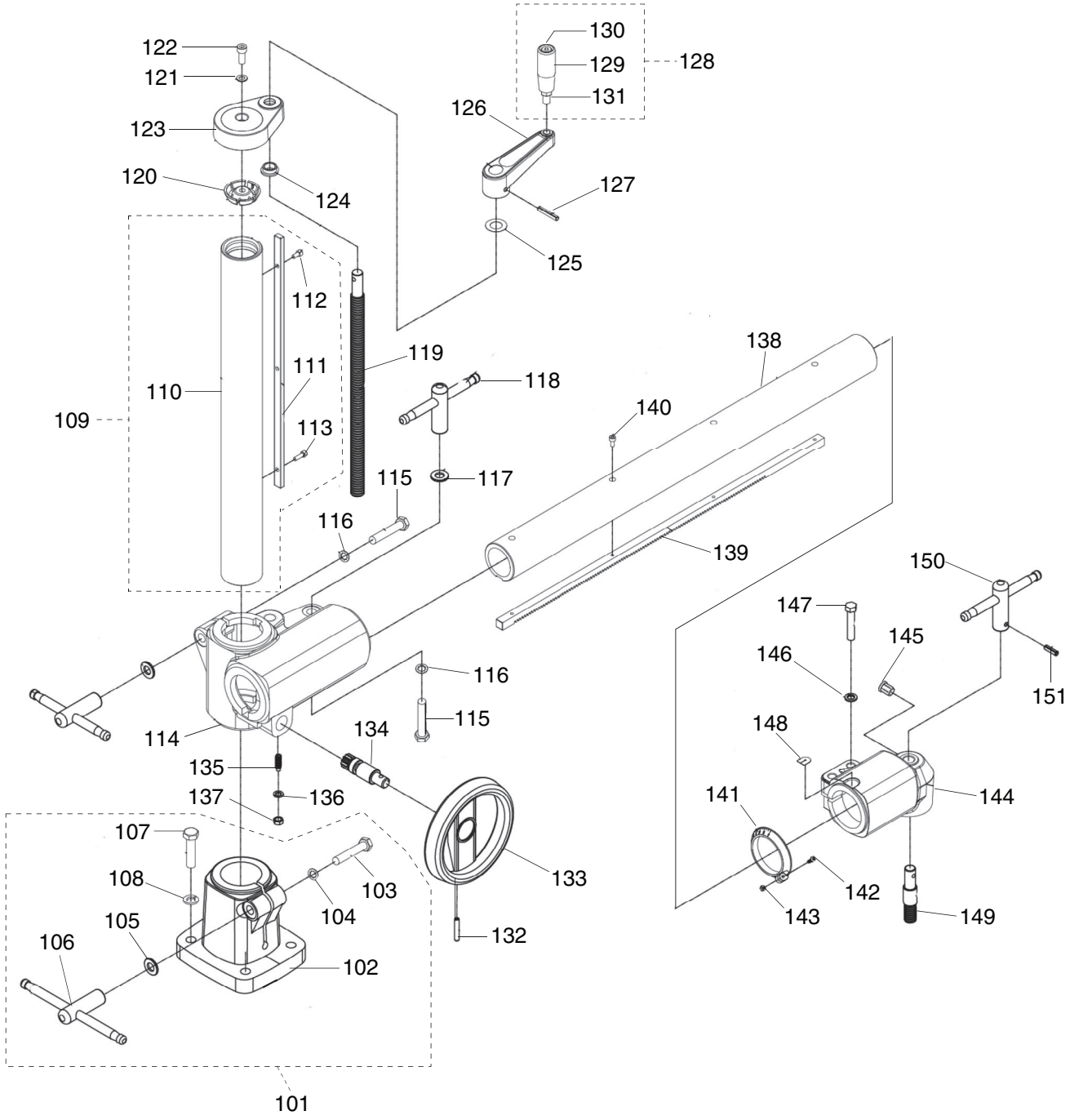
Main



Main Parts List

REF	PART #	DESCRIPTION
1	PT33295001	SPLINED DRIVESHAFT
2	PT33295002	BLOCK JOINT 12MM
3	PT33295003	BUTTON HD CAP SCR M5-1.0 X 9
4	PT33295004	INT TOOTH WASHER #10
5	PT33295005	DRIVESHAFT LINKAGE
6	PT33295006	CROSS PIN 4.5 X 21.8
7	PT33295007	KEYED DRIVESHAFT
8	PT33295008	EXT RETAINING RING 17MM
9	PT33295009	GREASE FITTING M6-1 STRAIGHT
10	PT33295010	POWER FEEDER BODY
11	PT33295011	BUSHING 35MM 17ID X 35OD X 5L
12	PT33295012	OIL SIGHT GLASS
13	PT33295013	OIL SIGHT GLASS PANEL
14	PT33295014	PIVOT BUSHING
15	PT33295015	BUSHING
16	PT33295016	HEX NUT M18-1.5
17	PT33295017	CHAIN BUSHING
18	PT33295018	INT TOOTH WASHER 23.5MM
19	PT33295019	HEX NUT M22-1.5
20	PT33295020	TORSION SPRING (LEFT)
21	PT33295021	TORSION SPRING (RIGHT)
22	PT33295022	SHOLDER BOLT M8-1.25
23	PT33295023	LOCK WASHER 8MM
24	PT33295024	HEX NUT M8-1.25
25	PT33295025	ROLLER PIVOT HOUSING
26	PT33295026	BUSHING
27	PT33295027	INT TOOTH WASHER 23.5MM
28	PT33295028	HEX NUT M22-1.5
29	PT33295029	WORM GEAR 30T
30	PT33295030	WORM GEAR SHAFT
31	PT33295031	KEY 6 X 6 X 18
32	PT33295032	EXT RETAINING RING 15MM
33	PT33295033	BALL BEARING 6003ZZ
34	PT33295034	OIL SEAL 17 X 32 X 7MM
35	PT33295035	O-RING 71.4 X 3.1 G72
36	PT33295036	WORM GEAR COVER
37	PT33295037	CAP SCREW M6-1 X 16
38	PT33295038	SPROCKET 12T X 3/8"
39	PT33295039	WAVY WASHER 17MM
40	PT33295040	BUSHING
41	PT33295041	CHAIN 14S
42	PT33295042	CHAIN 12S
43	PT33295043	CHAIN 21S
44	PT33295044	O-RING 11.8 X 2.4 P12
45	PT33295045	OIL FILL PLUG
46	PT33295046	KNOB M10-1.5, D65D, ROUND KD
47	PT33295047	CAP SCREW M10-1.5 X 50
48	PT33295048	FLAT WASHER 10MM
49	PT33295049	FLANGE NUT M10-1.5
50	PT33295050	DRO
50-1	PT33295050-1	SPEED ADJUSTMENT DIAL
50-2	PT33295050-2	DRO COVER PLATE
50-3	PT33295050-3	DRO COVER
50-4	PT33295050-4	DRO CIRCUIT BOARD
50-5	PT33295050-5	TAP SCREW M3 X 8
51	PT33295051	TAP SCREW M4 X 12
52	PT33295052	STRAIN RELIEF TYPE-3 PG11
53	PT33295053	CIRCUIT BOARD COVER
54	PT33295054	CAP SCREW M5-.8 X 25
55	PT33295055	WIRE CLAMP
56	PT33295056	TAP SCREW M4 X 8
57	PT33295057	CONTROLLER CIRCUIT BOARD
58	PT33295058	CAP SCREW M5-.8 X 40
59	PT33295059	FUSE 8A 250V 0.25" FAST-ACTING, GLASS
60	PT33295060	SPACER
61	PT33295061	O-RING 59.4 X 3.1 G60
62	PT33295062	MOTOR OIL SEAL
63	PT33295063	MOTOR 400W 220V V1
63-1	PT33295063-1	MOTOR FAN COVER
63-2	PT33295063-2	BUTTON HD CAP SCR M5-.8 X 12
63-3	PT33295063-3	MOTOR FAN
63-4	PT33295063-4	BALL BEARING 6005-2RS (FRONT)
63-5	PT33295063-5	BALL BEARING 6201-2RS (REAR)
64	PT33295064	LOCK WASHER 6MM
65	PT33295065	CAP SCREW M6-1 X 20
66	PT33295066	CAP SCREW M5-.8 X 12
67	PT33295067	FLAT WASHER 5MM
68	PT33295068	LOCK WASHER 5MM
69	PT33295069	GROUND WIRE 18G 1W 24MM
70	PT33295070	ON/OFF SWITCH FINGLAI R16-503AD
71	PT33295071	SPACER 14 X 22 X 12MM
72	PT33295072	ROLLER 59MM X 60MM
73	PT33295073	SPLINED WASHER 14MM
74	PT33295074	HEX NUT M12-1.75
75	PT33295075	CHAIN COVER
76	PT33295076	CAP SCREW M6-1 X 20
77	PT33295077	CAP SCREW M6-1 X 30
78	PT33295078	BOTTOM COVER
79	PT33295079	BUTTON HD CAP SCR M5-.8 X 10
80	PT33295080	LOWER ELBOW PIVOT JOINT
81	PT33295081	CAP SCREW M8-1.25 X 25
82	PT33295082	LOCK PIN
83	PT33295083	LOWER ELBOW JOINT
84	PT33295084	LOCATING PIN
85	PT33295085	COMPRESSION SPRING 0.8 X 8 X 23
86	PT33295086	PIVOT LOCK KNOB M6-1, 22D
87	PT33295087	LOCKING SHAFT M16-1.5 X 82
88	PT33295088	ADJUSTABLE HANDLE 108L
89	PT33295089	ROLL PIN 6 X 22
90	PT33295090	POWER CORD 3W 18G 72" 6-15P
91	PT33295091	MOTOR CIRCUIT BOARD
92	PT33295092	PHLP HD SCR M4-.7 X 8

Column & Stand

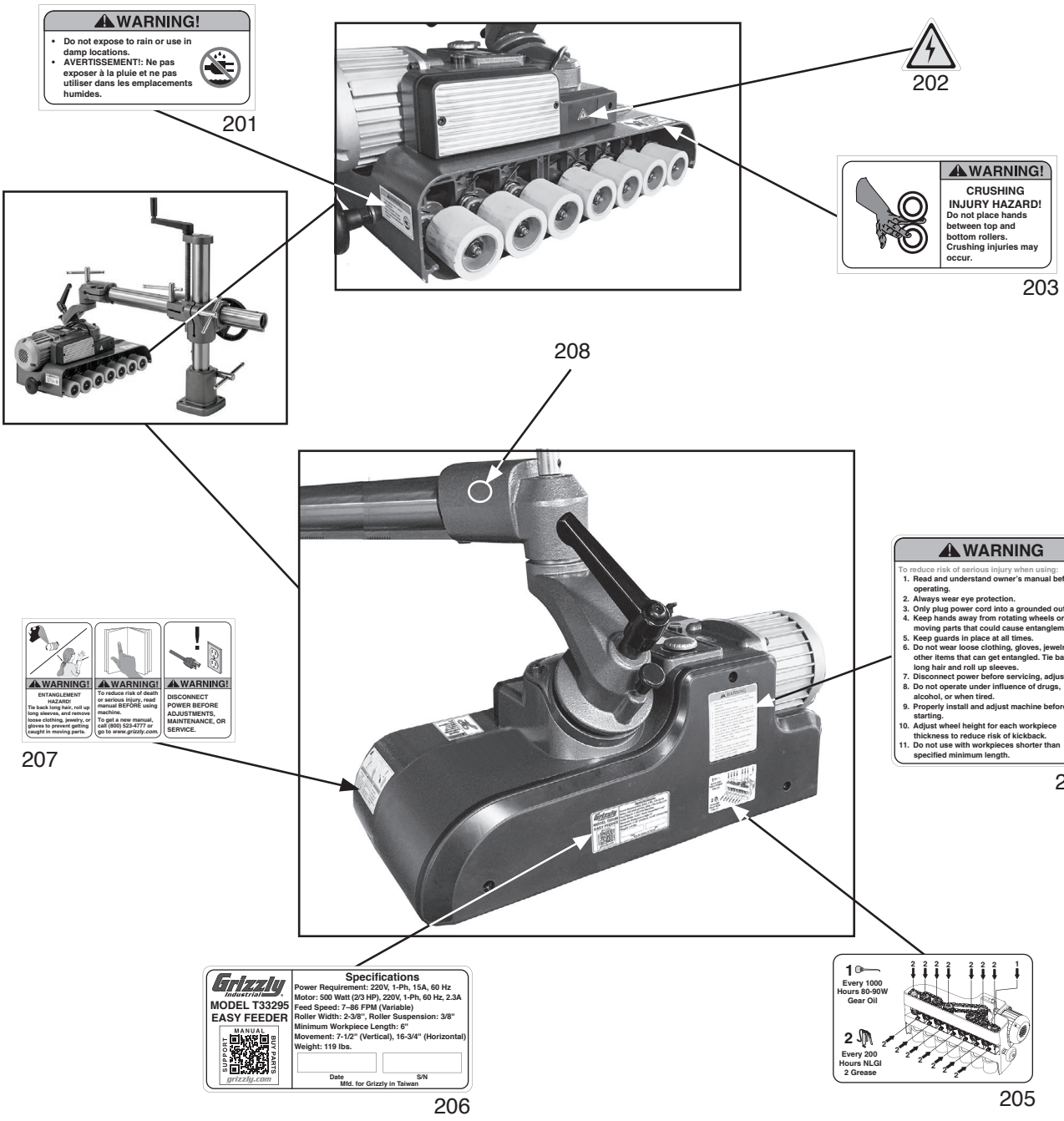


Column & Stand Parts List

REF	PART #	DESCRIPTION
101	PT33295101	VERTICAL COLUMN BASE ASSY
102	PT33295102	VERTICAL COLUMN BASE
103	PT33295103	HEX BOLT M12-1.75 X 75
104	PT33295104	INT TOOTH WASHER 12MM
105	PT33295105	FLAT WASHER 12MM
106	PT33295106	SLIDING T-HANDLE 200MM
107	PT33295107	HEX BOLT M12-1.75 X 50
108	PT33295108	LOCK WASHER 12MM
109	PT33295109	VERTICAL COLUMN ASSEMBLY
110	PT33295110	VERTICAL COLUMN
111	PT33295111	VERTICAL COLUMN RACK
112	PT33295112	CAP SCREW M5-.8 X 10
113	PT33295113	CAP SCREW M5-.8 X 16
114	PT33295114	ELEVATING BRACKET
115	PT33295115	HEX BOLT M12-1.75 X 75
116	PT33295116	LOCK WASHER 12MM
117	PT33295117	FLAT WASHER 12MM
118	PT33295118	SLIDING T-HANDLE 150MM
119	PT33295119	ELEVATION LEADSCREW
120	PT33295120	FINNED ANCHOR M8-1.25
121	PT33295121	FLAT WASHER 8MM
122	PT33295122	CAP SCREW M8-1.25 X 25
123	PT33295123	COLUMN CAP
124	PT33295124	LEADSCREW BUSHING
125	PT33295125	FLAT WASHER 17 X 30 X 0.5MM
126	PT33295126	ELEVATION HANDLE ARM 130L

REF	PART #	DESCRIPTION
127	PT33295127	ROLL PIN 6 X 36
128	PT33295128	ELEVATION HANDLE ASSEMBLY
129	PT33295129	HOLLOW HANDLE 25 X 69, 10
130	PT33295130	CAP SCREW M10-1.5 X 85
131	PT33295131	HEX NUT M10-1.5
132	PT33295132	ROLL PIN 6 X 36
133	PT33295133	HANDWHEEL TYPE-17 160D X 17MM
134	PT33295134	PINION
135	PT33295135	SET SCREW M8-1.25 X 25 DOG-PT
136	PT33295136	LOCK WASHER 8MM
137	PT33295137	HEX NUT M8-1.25
138	PT33295138	OVER ARM SHAFT 720MM
139	PT33295139	OVER ARM SHAFT RACK 650MM
140	PT33295140	CAP SCREW M5-.8 X 10
141	PT33295141	ANGLE DIAL SCALE
142	PT33295142	PHLP HD SCR M4-.7 X 15
143	PT33295143	HEX NUT M4-.7
144	PT33295144	UPPER ELBOW JOINT
145	PT33295145	STRAIN RELIEF TYPE-1 6MM
146	PT33295146	LOCK WASHER 10MM
147	PT33295147	HEX BOLT M10-1.5 X 50
148	PT33295148	POINTER PANEL
149	PT33295149	LOCKING SHAFT M16-2
150	PT33295150	T-HANDLE, 150MM W/HOLE FOR PIN
151	PT33295151	ROLL PIN 6 X 22

Labels & Cosmetics



REF	PART #	DESCRIPTION
201	PT33295201	WATER EXPOSURE WARNING LABEL
202	PT33295202	ELECTRICITY LABEL
203	PT33295203	SLIP ROLL WARNING
204	PT33295204	OPERATION WARNING LABEL

REF	PART #	DESCRIPTION
205	PT33295205	LUBRICATION NOTICE
206	PT33295206	MACHINE ID LABEL
207	PT33295207	COMBO WARNING LABEL
208	PT33295208	TOUCH-UP PAINT, GRIZZLY GREEN

⚠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 & 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.

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.

In the event you need to use 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.

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.

To take advantage of this warranty, you must register it at **https://www.grizzly.com/forms/warranty**, or you can scan the QR code below to be automatically directed to our warranty registration page. Enter all applicable information for the product.