Grizzly Industrial, Inc.®

MODEL G9743
7" X 12" GEARHEAD METAL-CUTTING BANDSAW
OWNER'S MANUAL
(For models manufactured since 10/23)

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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.
#PCBL7711 PRINTED IN TAIWAN V3.06.23

******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

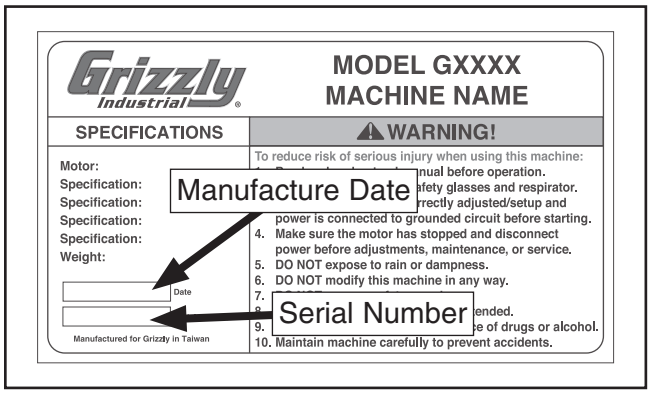
Manual Accuracy

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**.

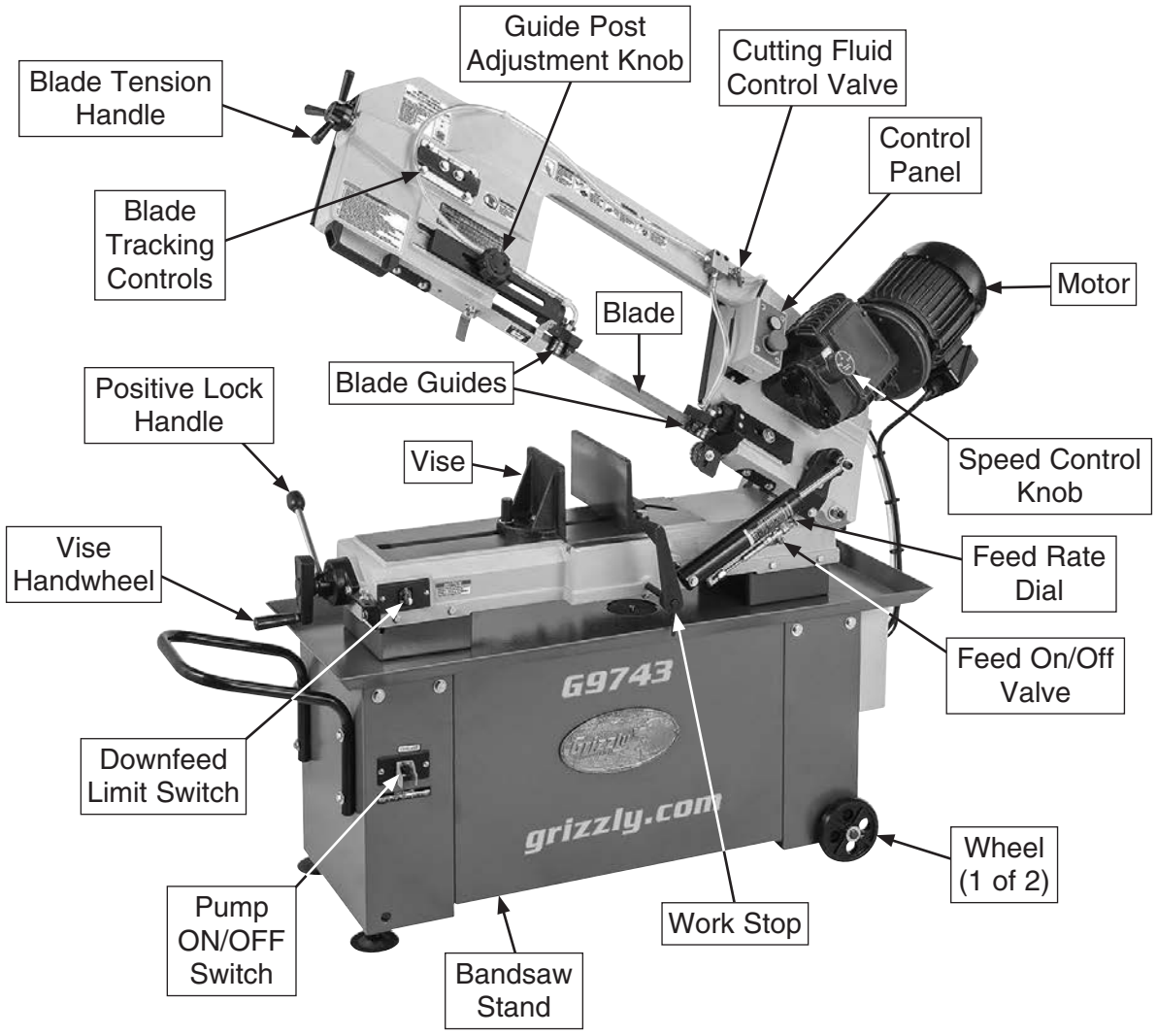
If you find this to be the case, and the difference between the manual and machine leaves you confused or unsure about something, check our website for an updated version. We post current manuals and manual updates for free on our website at **www.grizzly.com**.

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.

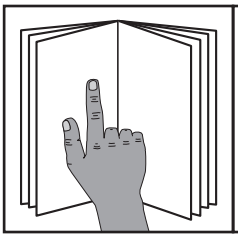


⚠WARNING

For Your Own Safety Read Instruction Manual Before Operating Saw

a) Wear eye protection and respirator.
b) Do not remove jammed cutoff pieces until blade has stopped.
c) Maintain proper adjustment of blade tension, blade guides, and support bearings.
d) Adjust upper guide to just clear workpiece.
e) Properly support and secure workpiece with table, vise, or some type of support fixture. Never hold workpiece with hands during cut.

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.

Headstock

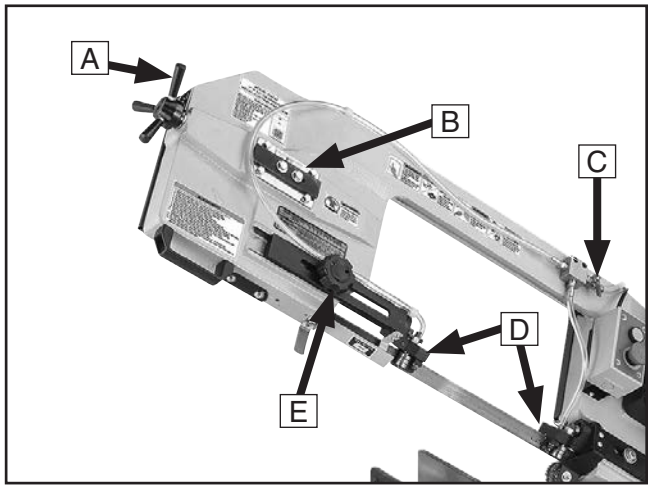


Figure 1. Headstock controls and components.

A. Blade Tension Handle: Increases or decreases blade tension.

B. Blade Tracking Controls: Adjust upper blade wheel tilt to move blade toward or away from wheel shoulder.

C. Cutting Fluid Control Valve: Adjusts cutting fluid flow rate.

D. Blade Guides: Support blade. Adjust upper blade guide as close to workpiece as possible to prevent blade from twisting.

E. Guide Post Adjustment Knob: Adjusts upper blade guide that supports blade.

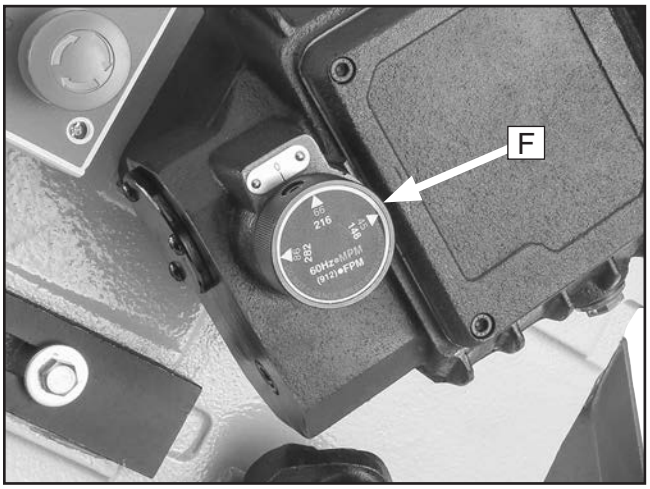


Figure 2. Location of speed control knob.

F. Speed Control Knob: Adjusts blade speed to 148, 216, or 282 FPM.

Vise

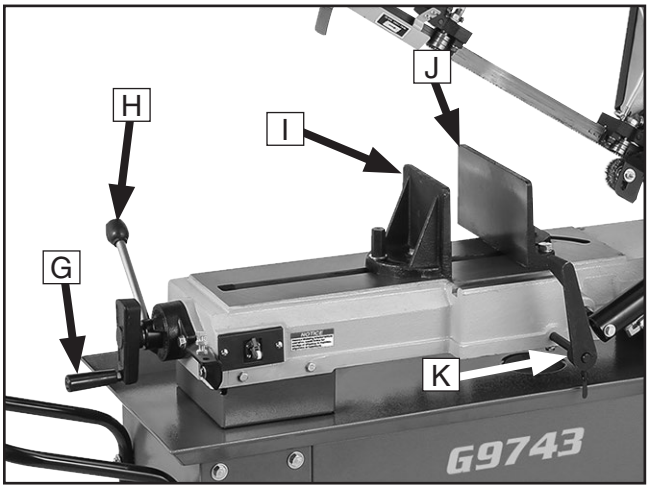


Figure 3. Vise controls and components.

G. Vise Handwheel: Adjusts movable vise jaw.

H. Positive Lock Handle: Opens vise jaws enough to advance workpiece past blade during repetitive cutting operations. Tightly clamps jaws once movable vise jaw has been adjusted to contact workpiece.

I. Movable Vise Jaw: Holds workpiece against rear vise jaw during cutting operation.

J. Rear Vise Jaw: Adjusts workpiece angle relative to blade.

K. Work Stop: Supports repetitive cutting operations.

Downfeed

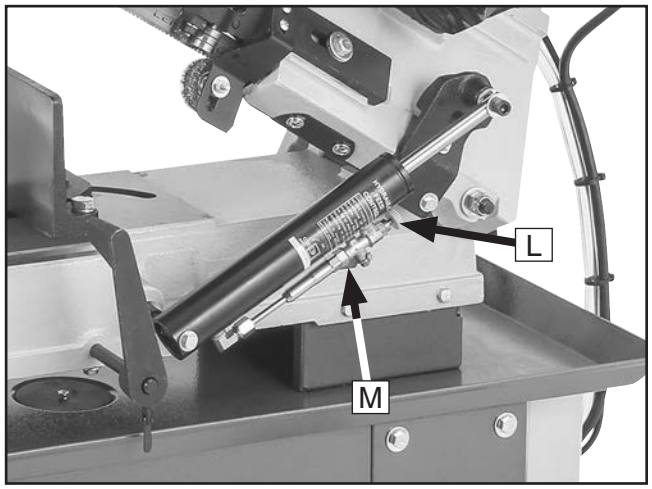


Figure 4. Feed controls.

L. Feed Rate Dial: Adjusts feed rate between levels 1–9. Increases feed rate when turned counterclockwise and decreases feed rate when turned clockwise.

M. Feed On/Off Valve: Opens to lower headstock until it contacts downfeed stop bolt; closes to stop headstock from lowering.

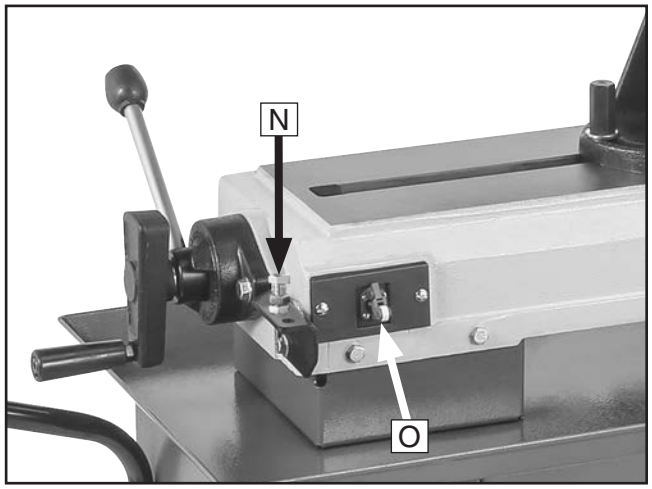


Figure 5. Other downfeed components.

N. Downfeed Stop Bolt: Stops headstock from lowering farther than completion of cut.

O. Downfeed Limit Switch: Turns machine ***OFF*** when headstock is fully lowered and switch is engaged.

Power Controls

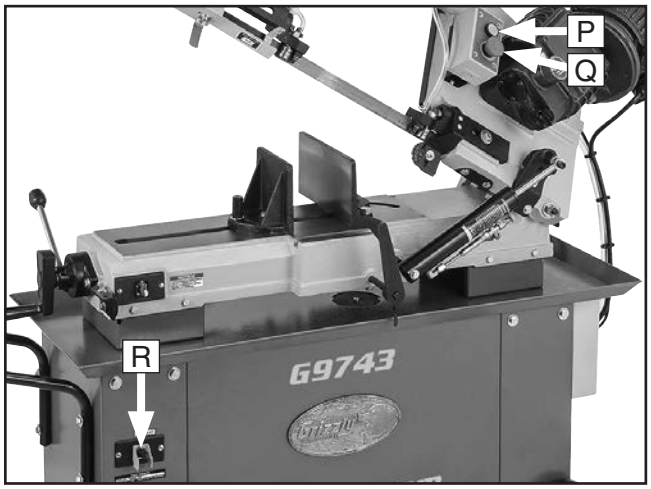


Figure 6. Control panel components.

P. ON Button: Starts saw blade.

Q. Emergency Stop Button: Stops all machine functions. Twist clockwise to reset.

R. Pump ON/OFF Switch: Turns coolant pump ***ON*** when moved up and ***OFF*** when moved down.

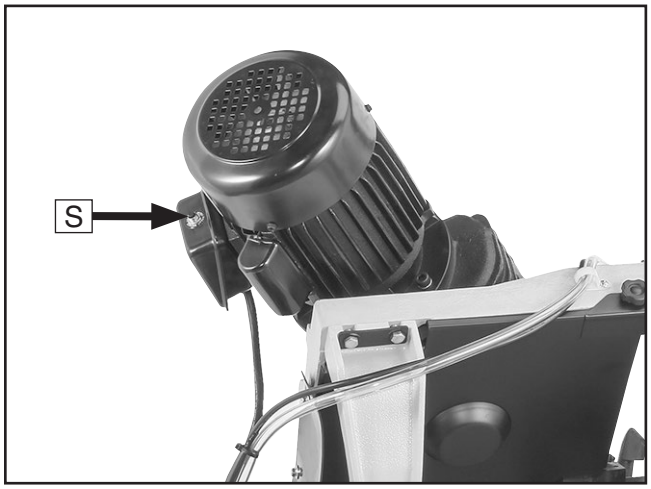


Figure 7. Location of circuit breaker reset button.

S. Circuit Breaker Reset Button: Allows motor to be restarted after thermal overload protection has tripped. To reset, turn motor ***OFF***, wait a few minutes for motor to cool, then press reset button. If button does not stay depressed, allow motor to cool longer, then try again.

MACHINE DATA SHEET

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

MODEL G9743
7" X 12" GEARHEAD METAL-CUTTING BANDSAW

Product Dimensions:

Weight..... 391 lbs.
Width (side-to-side) x Depth (front-to-back) x Height..... 56 x 17-1/2 x 59 in.
Footprint (Length x Width)..... 40 x 16-1/2 in.

Shipping Dimensions:

Type..... Wood Slat Crate
Content..... Machine
Weight..... 467 lbs.
Length x Width x Height..... 58 x 23 x 54 in.
Must Ship Upright..... Yes

Electrical:

Power Requirement..... 110V or 220V, Single-Phase, 60 Hz
Prewired Voltage..... 110V
Full-Load Current Rating..... 23.6A at 110V, 11.8A at 220V
Minimum Circuit Size..... 30A at 110V, 15A at 220V
Connection Type..... Cord Connected
Power Cord Included..... Yes
Power Cord Length..... 70 in.
Power Cord Gauge..... 12 AWG
Plug Included..... No
Recommended Plug Type..... L5-30 for 110V, 6-15 for 220V
Switch Type..... ON Button w/Automatic Shut-Off Tab

Motors:

Main

Horsepower..... 1.5 HP
Phase..... Single-Phase
Amps..... 23A/11.5A
Speed..... 1720 RPM
Type..... TEFC Capacitor-Start Induction
Power Transfer ..... Gear Drive
Bearings..... Shielded & Permanently Lubricated
Centrifugal Switch/Contacts Type..... External

Coolant Pump

Horsepower..... 53W
Phase..... Single-Phase
Amps..... 0.6A/0.3A
Speed..... 3440 RPM
Type..... Sealed Induction
Power Transfer ..... Direct Drive
Bearings..... Sealed & Permanently Lubricated

Main Specifications:

Operation Info

Blade Speeds	148, 216, 282 FPM
Std. Blade Length	104-1/2 in.
Std. Blade Width	1 in.

Cutting Capacities

Angle Cuts	45 - 90 deg.
Vise Jaw Depth	9-3/4 in.
Vise Jaw Height	5 in.
Max. Capacity Rectangular Height at 90 Deg.	7 in.
Max. Capacity Rectangular Width at 90 Deg.	12 in.
Max. Capacity Round at 90 Deg.	9 in.
Max. Capacity Rectangular Height at 30 Deg.	8 in.
Max. Capacity Rectangular Width at 30 Deg.	10 in.
Max. Capacity Round at 30 Deg.	10 in.
Max. Capacity Rectangular Height at 45 Deg.	4 in.
Max. Capacity Rectangular Width at 45 Deg.	8 in.
Max. Capacity Round at 45 Deg.	6 in.

Construction

Table	Precision Ground Cast Iron
Upper Wheel	Machined Cast Iron
Lower Wheel	Machined Cast Iron
Body	Cast Iron
Base	Formed and Welded Steel with Coolant Sump
Wheel Cover	Pre-formed Steel
Paint Type/Finish	Epoxy

Other

Wheel Size	12-1/2 in.
Blade Guides Upper	Adjustable Carbide
Blade Guides Lower	Adjustable Carbide
Coolant Capacity	2-1/2 GAL

Table Info

Table Size Length	18 in.
Table Size Width	7-3/4 in.
Floor To Cutting Area Height	21-5/8 in.

Other Specifications:

Country of Origin	Taiwan
Warranty	1 Year
Approximate Assembly & Setup Time	45 Minutes
Serial Number Location	ID Label
Sound Rating	80 dB
ISO 9001 Factory	Yes

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 Horizontal Metal Bandsaws

⚠WARNING

Serious injury or death can occur from getting fingers, hair, or clothing entangled in rotating or moving parts or making direct contact with the moving blade. To minimize risk of injury, anyone operating this machine MUST completely heed hazards and warnings below.

BLADE CONDITION. Do not operate with dull, cracked, or badly worn blade. Inspect blades for cracks and missing teeth before each use.

HAND PLACEMENT. Never position hands or fingers in line with the cut or under bandsaw headstock while lowering or operating. Hands could be cut or crushed.

BLADE GUARD POSITION. Adjust blade guard as close to workpiece as possible before cutting to minimize operator exposure to unused portion of blade.

ENTANGLEMENT HAZARDS. Do not operate this saw without blade guard in place. Loose clothing, jewelry, long hair and work gloves can be drawn into working parts.

BLADE REPLACEMENT. When replacing blades, disconnect the machine from power, wear gloves to protect hands and safety glasses to protect eyes.

HOT SURFACES. Contact with hot surfaces from machine components, ejections of hot chips, swarf, and the workpiece itself can cause burns.

WORKPIECE HANDLING. Always properly support workpiece with table, vise, or some type of support fixture. Always secure workpiece in vise before cutting. Never hold the workpiece with your hands during a cut.

UNSTABLE WORKPIECES. Avoid cutting workpieces that cannot be properly supported or clamped in a vise or jig, because they can unexpectedly move while cutting and draw the operator's hands into the blade causing serious personal injury. Examples are chains, cables, round or oblong-shaped workpieces, and those with internal or built-in moving or rotating parts, etc.

FIRE HAZARD. Use EXTREME CAUTION if cutting magnesium. Using the wrong cutting fluid could lead to chip fire and possible explosion.

CUTTING FLUID SAFETY. Cutting fluids are poisonous. Always follow manufacturer's cutting-fluid safety instructions. Pay particular attention to contact, contamination, inhalation, storage and disposal warnings. Spilled cutting fluid invites slipping hazards.

⚠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 110V... 23.6 Amps
Full-Load Current Rating at 220V .. 11.8 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 for 110V

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

Nominal Voltage 110V, 115V, 120V
Cycle ..... 60 Hz
Phase ..... Single-Phase
Power Supply Circuit ..... 30 Amps
Plug/Receptacle ..... NEMA L5-30

Circuit Requirements for 220V

This machine can be converted to operate on a power supply circuit that has a verified ground and meets the requirements listed below. (Refer to **Voltage Conversion** instructions for details.)

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.

The power cord and plug specified under "Circuit Requirements for 110V" 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).

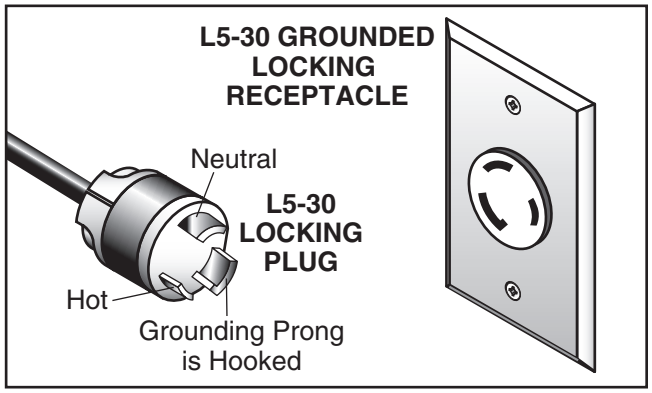
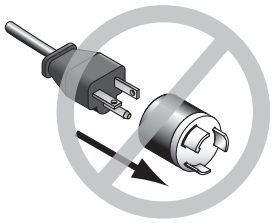


Figure 8. Typical L5-30 plug and receptacle.

⚠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.

For 220V operation: The plug specified under "Circuit Requirements for 220V" on the previous page has a grounding prong that must be attached to the equipment-grounding wire on the included power cord. The plug must only be inserted into a matching receptacle (see following figure) that is properly installed and grounded in accordance with all local codes and ordinances.

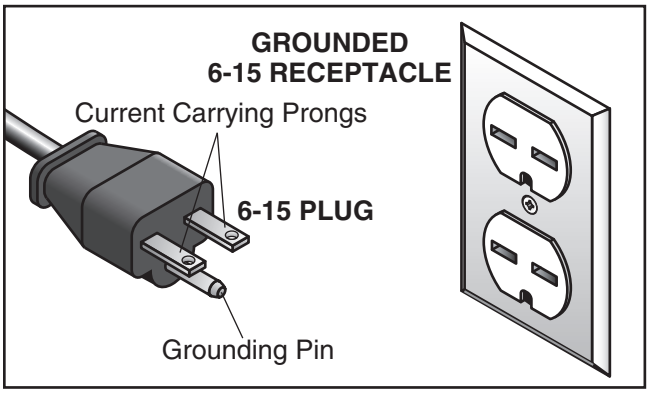


Figure 9. Typical 6-15 plug and receptacle.

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 (110V).....10 AWG
Minimum Gauge Size (220V).....16 AWG
Maximum Length (Shorter is Better).....50 ft.

Converting Voltage to 220V

The voltage conversion MUST be performed by an electrician or qualified service personnel.

The voltage conversion procedure consists of rewiring the main and coolant motors, replacing the circuit breaker, rewiring the transformer, replacing the overload relay, and installing the correct plug. Wiring diagrams are provided in the **WIRING** section, beginning on **Page 54**, for reference.

IMPORTANT: *If the diagram included on either motor conflicts with the one in the **WIRING** section, the motor may have changed since the manual was printed. Use the diagram included on the applicable motor junction box cover instead.*

Items Needed	**Qty**
Phillips Head Screwdriver #2	1
Wire Nut (14AWG x 3)	1
Electrical Tape	As Needed
Circuit Breaker 12A (P9743300V4-10X)	1
Wrench or Socket 5/16"	1
Overload Relay TECO RHU-10/12.5K1 (P9743261V5-10X)	1
Wire Stripper	1
Plug 6-15	1

To convert Model G9743 to 220V:

1. DISCONNECT MACHINE FROM POWER!

2. Open main motor junction box.

3. Remove wire nuts on main motor, as indicated in **Figure 10**.

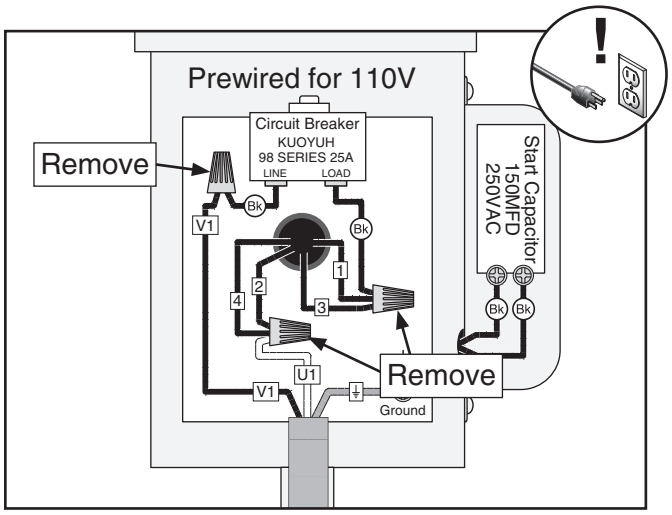


Figure 10. Location of wire nuts to remove.

4. Connect main motor wires with wire nuts, as shown in **Figure 11**. Once snug, wrap electrical tape around each wire nut and connected wires to reduce likelihood of wire nut vibrating loose during motor operation.

5. Replace pre-installed 25A circuit breaker with a 12A circuit breaker (see **Figure 11**).

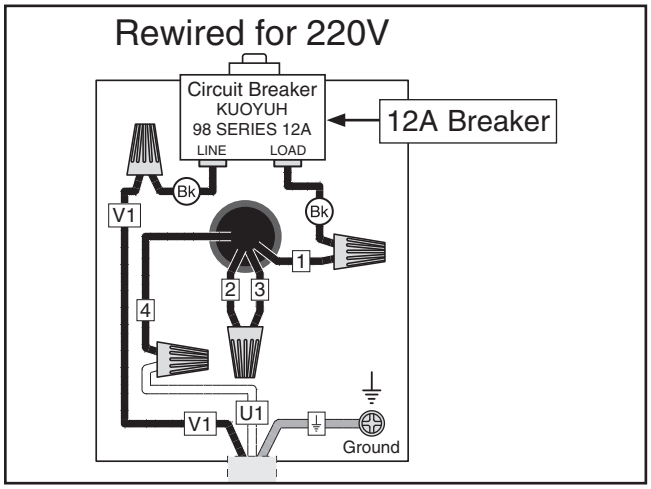


Figure 11. Main motor rewired for 220V operation.

6. Close and secure main motor junction box.

7. Open pump motor junction box.

8. Remove center terminal nut on pump motor, as indicated in **Figure 12**.

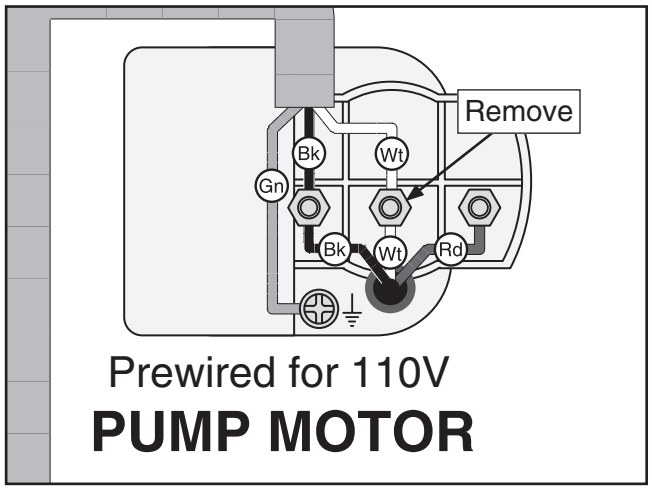


Figure 12. Location of terminal nut to remove.

9. Connect incoming white wire to same terminal as red pump motor wire, as shown in **Figure 13**, with hex nut from **Step 8**.

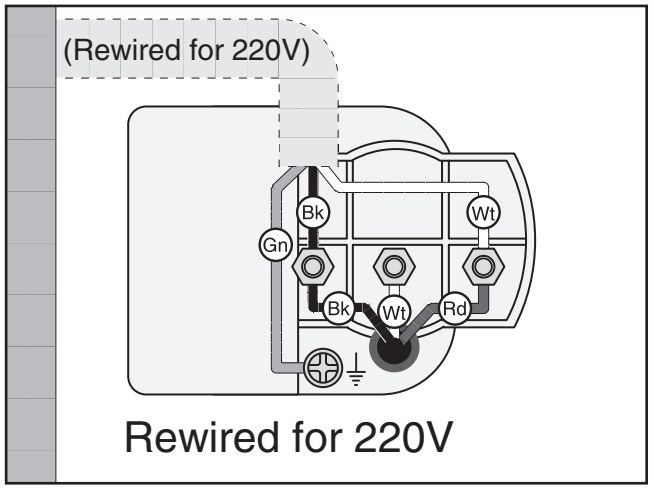


Figure 13. Pump motor wires connected for 220V operation.

10. Close and secure pump motor junction box.

11. Open electrical box.

12. Move black L wire on transformer from 110V terminal to 220V terminal (see **Figure 14**).

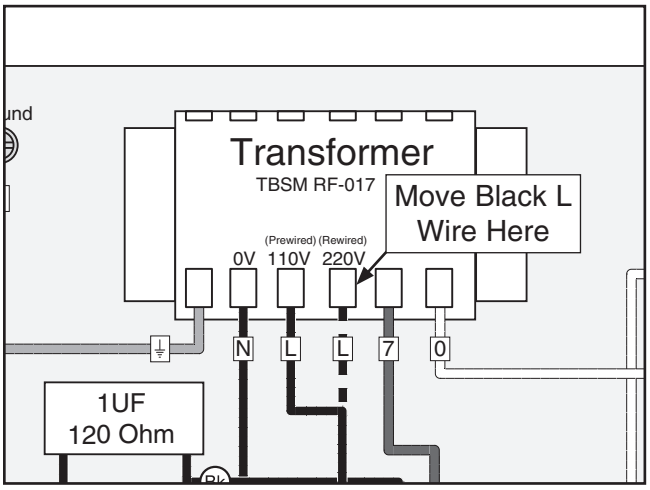


Figure 14. Location of transformer 110V and 220V terminals.

13. Remove overload relay, replace it with RHU-10/12.5K1 (9-12.5A) relay (see **Figure 15**), and set dial to 11.8A.

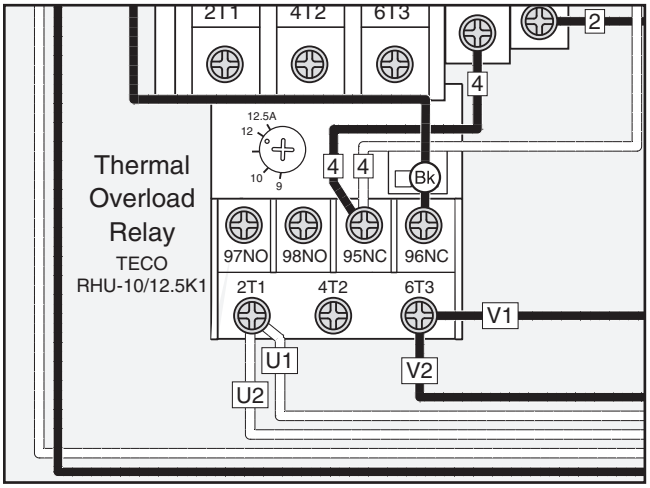


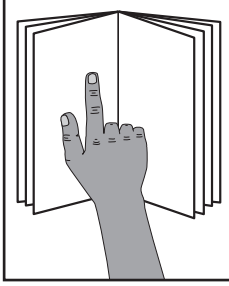
Figure 15. Overload relay installed and adjusted for 220V operation.

14. Close and secure electrical box.

15. Install 6-15 plug at end of cord, according to instructions and wiring diagrams provided by plug manufacturer.

— If plug manufacturer did not include instructions, wiring of generic NEMA 6-15 plug is illustrated on **Page 56**.

SECTION 3: SETUP

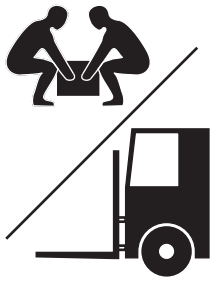


⚠WARNING

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.

Needed for Setup

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

Description	Qty
• Disposable Rags	As Needed
• Cleaner/Degreaser	As Needed
• Safety Glasses (for each person)	1 Pr.
• Disposable Gloves	As Needed
• Wrench or Socket 10mm	1
• Wrenches or Sockets 12mm	2
• Open-End Wrench 14mm, ¾", 20mm	1 Ea.
• Round Steel Bar Stock (½" x 3')	2
• Lifting Slings (Rated for at least 500 lbs.)	2
• Lifting Equipment (Rated for at least 500 lbs.)	1
• Another Person	1
• Wooden Blocks	As Needed
• Cutting Fluid	2½ gal.
• Bucket 3-gal.	1
• L5-30 Plug	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.*

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.

Box Contents (Figure 16)		Qty
A.	Handle	1
B.	Drain Tube ¾" x 15¾"	1
C.	Leveling Feet	2
D.	Wheels	2
E.	Work Stop Rod	1
F.	Work Stop w/Thumb Screw	1
G.	Axle	1

Hardware Bag (Not Shown)		Qty
H.	Flat Washers ⅝" (Wheels)	4
I.	Cotter Pins 3 x 25mm (Wheels)	2
J.	Hex Nuts ½"-12 (Feet)	2
K.	Hex Bolts ⅝"-18 x 1½" (Handle)	4
L.	Flat Washers ⅝" (Handle)	8
M.	Hex Nuts ⅝"-18 (Handle)	4

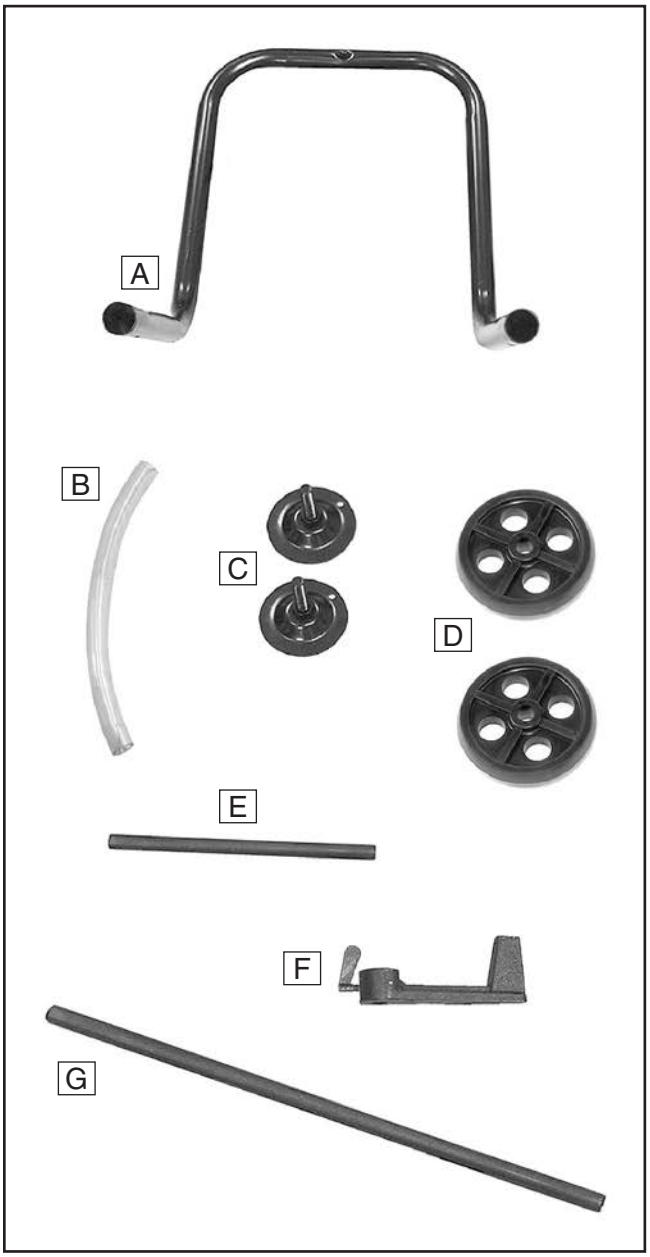
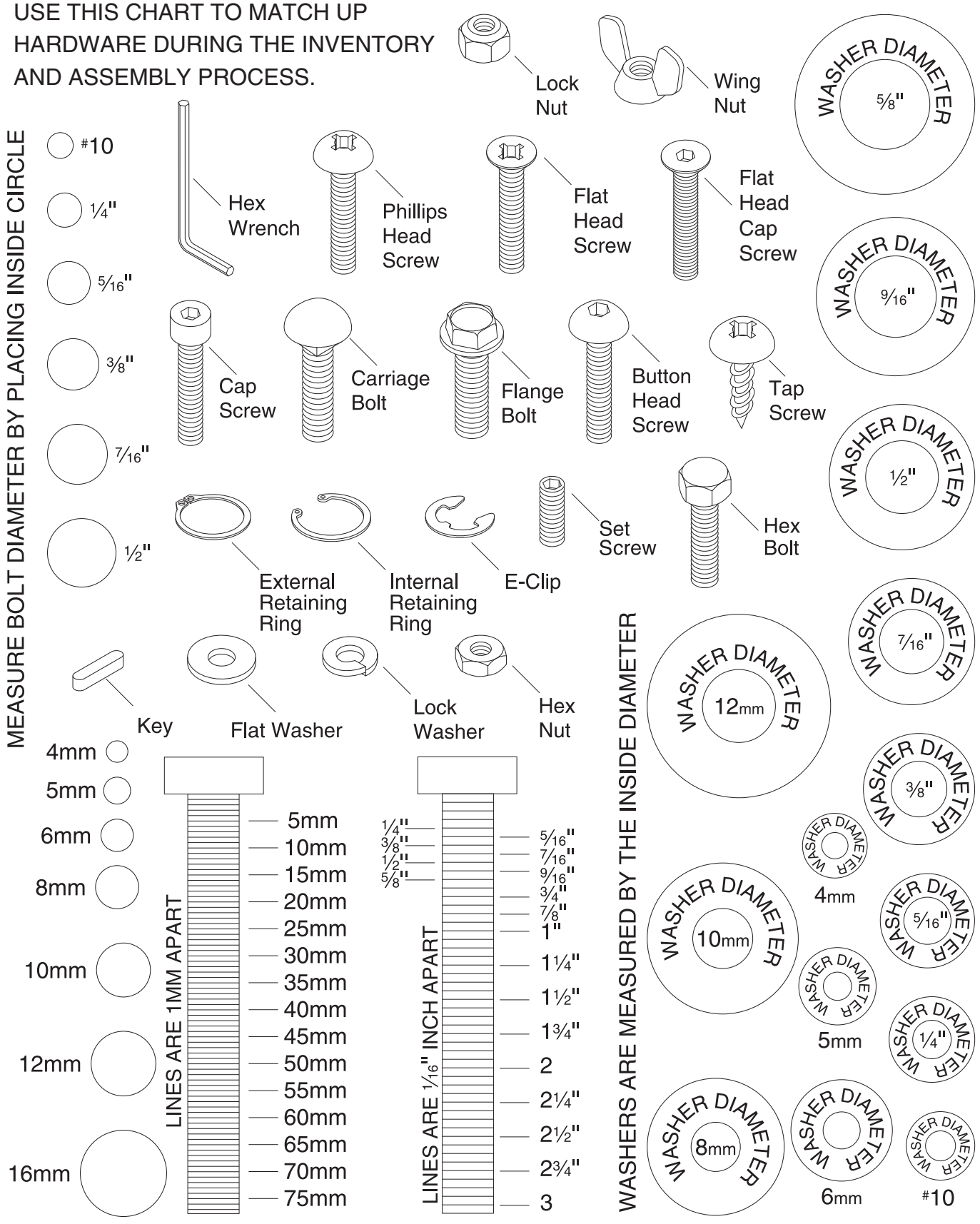


Figure 16. Box contents.

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)

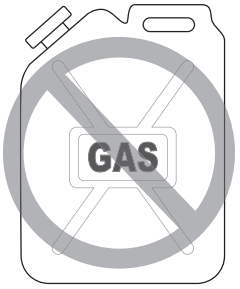
Basic steps for removing rust preventative:

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.



⚠WARNING

Gasoline and petroleum products have low flash points and can explode or cause fire if used to clean machinery. Avoid using these products to clean machinery.

⚠CAUTION

Many cleaning solvents are toxic if inhaled. Only work in a well-ventilated area.

NOTICE

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

T23692—Orange Power Degreaser
A great product for removing the waxy shipping grease from the ***non-painted*** parts of the machine during clean up.

Order online at www.grizzly.com OR Call 1-800-523-4777

Figure 17. T23692 Orange Power Degreaser.

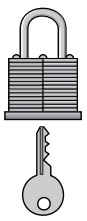
Site Considerations

Weight Load

Refer to the **Machine Data Sheet** for the weight of your machine. Make sure that the surface upon which the machine is placed will bear the weight of the machine, additional equipment that may be installed on the machine, and the heaviest workpiece that will be used. Additionally, consider the weight of the operator and any dynamic loading that may occur when operating the machine.

Space Allocation

Consider the largest size of workpiece that will be processed through this machine and provide enough space around the machine for adequate operator material handling or the installation of auxiliary equipment. With permanent installations, leave enough space around the machine to open or remove doors/covers as required by the maintenance and service described in this manual. **See below for required space allocation.**



⚠CAUTION

Children or untrained people may be seriously injured by this machine. Only install in an access restricted location.

Physical Environment

The physical environment where the machine is operated is important for safe operation and longevity of machine components. For best results, operate this machine in a dry environment that is free from excessive moisture, hazardous chemicals, airborne abrasives, or extreme conditions. Extreme conditions for this type of machinery are generally those where the ambient temperature range exceeds 41°–104°F; the relative humidity range exceeds 20%–95% (non-condensing); or the environment is subject to vibration, shocks, or bumps.

Electrical Installation

Place this machine near an existing power source. Make sure all power cords are protected from traffic, material handling, moisture, chemicals, or other hazards. Make sure to leave enough space around machine to disconnect power supply or apply a lockout/tagout device, if required.

Lighting

Lighting around the machine must be adequate enough that operations can be performed safely. Shadows, glare, or strobe effects that may distract or impede the operator must be eliminated.

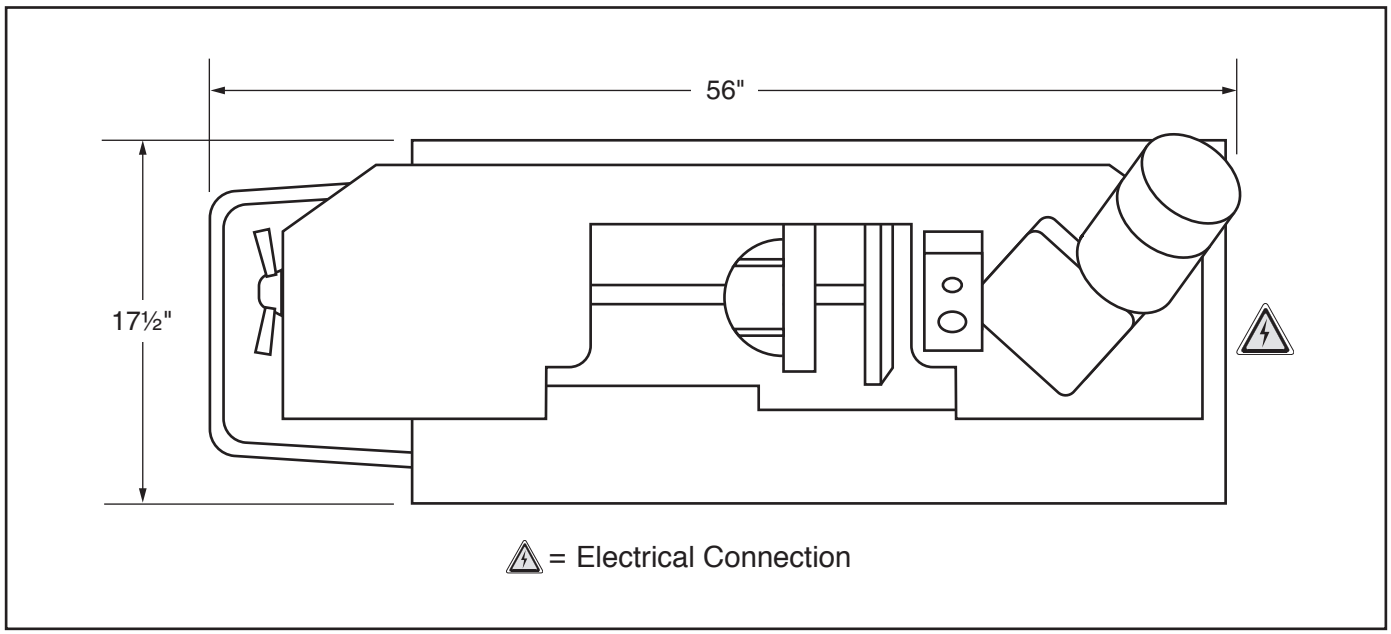


Figure 18. Minimum working clearances.

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 machine:

1. Remove hex bolt and flat washer shown in **Figure 19**.

2. Adjust hex nut shown in **Figure 19** away from shipping bracket to remove bracket.

   Note: *Bracket helps maintain headstock alignment during shipping. Store bracket and fasteners in case you need to move or ship machine later.*

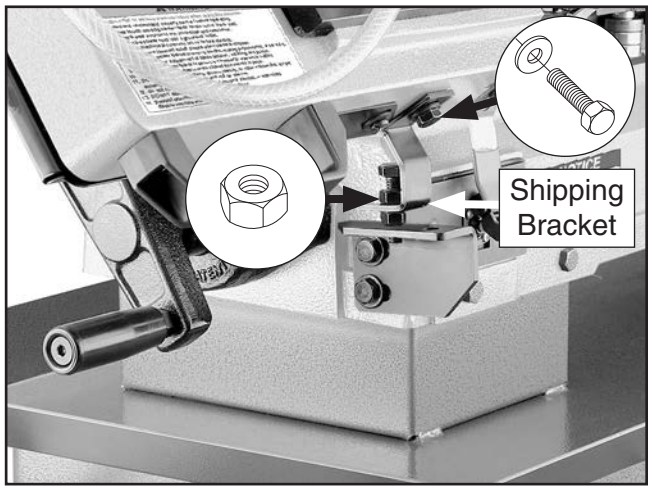


Figure 19. Location of shipping bracket and fasteners.

3. Attach handle to machine base with (4) 5/16"-18 x 1½" hex bolts, (8) 5/16" flat washers, and (4) 5/16"-18 hex nuts (see **Figure 20**).

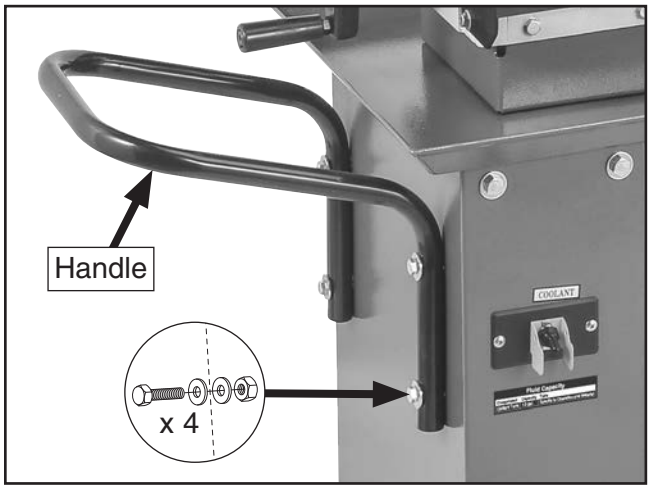


Figure 20. Handle attached to machine base.

4. Insert round steel bar stock through (4) lifting holes in machine base (see **Figure 21**).

   Note: *Bar stock must be at least ½" diameter and 3 feet long. Otherwise, it may not be big enough to properly support weight of machine.*

5. Attach lifting slings to steel bar stock and power lifting equipment (see **Figure 21**).

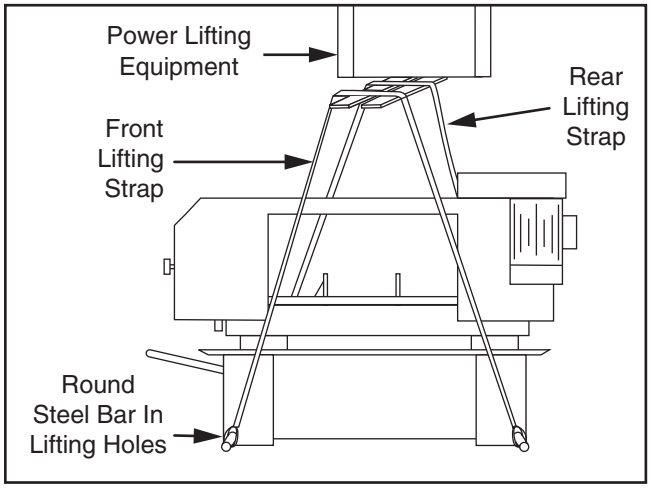


Figure 21. Example of lifting machine with forklift and lifting slings.

6. With assistant helping to stabilize load, lift machine just high enough to clear pallet.

7. Remove pallet, then place wooden blocks under machine so it will be supported 4" off the ground, then lower machine.

8. Remove lifting slings and steel bar stock.

9. Slide axle through rear holes in bottom of machine base (see **Figure 22**).

10. Slide (1) 5/8" flat washer onto each end of axle, followed by (1) wheel and another washer, then push cotter pin through axle to secure (see **Figure 22**).

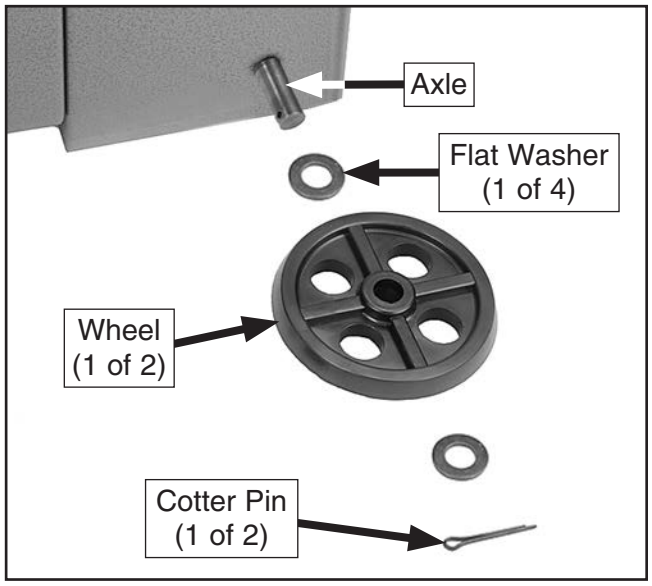


Figure 22. Wheels installed on axle.

11. Install (1) 1/2"-12 hex nut onto each leveling foot, then thread feet into front of machine base, as shown in **Figure 23**.

Figure 23. Leveling feet installed.

12. With help of an assistant, remove bandsaw from blocks.

13. Adjust feet to level bandsaw as needed, then tighten hex nuts against machine base to secure.

14. Loosen hex bolt shown in **Figure 24** enough to insert work stop rod through hole in vise base (see **Figure 24**).

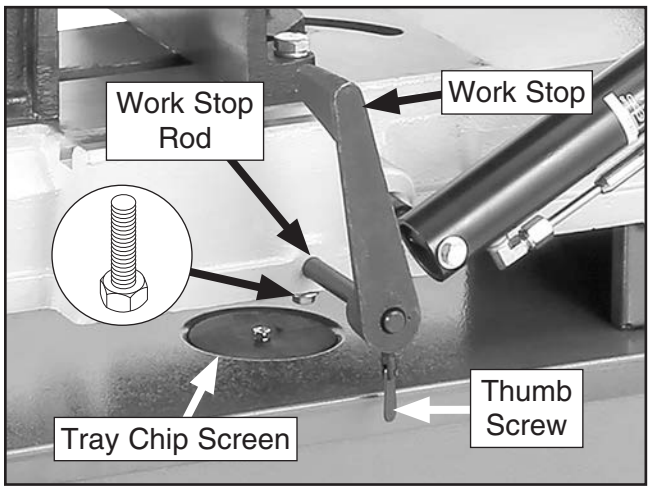


Figure 24. Work stop installed and location of tray chip screen.

15. Tighten hex bolt to secure.

16. Loosen thumb screw on work stop so you can slide work stop over rod, then tighten screw to secure (see **Figure 24**).

17. Push one end of drain tube onto bung on underside of tray chip screen (see **Figure 24**), then position opposite end in cutting fluid system tank, as shown in **Figure 25**.

Note: *Clean and remove any foreign material that may have fallen inside tank during shipping or assembly.*

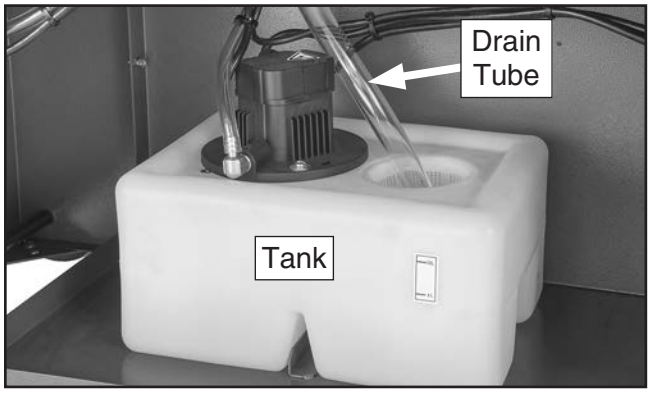
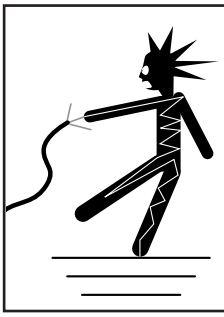


Figure 25. Drain tube placed in tank.

Power Connection

Before the machine can be connected to the power source, an electrical circuit and connection device must be prepared per the **POWER SUPPLY** section in this manual, and all previous setup instructions in this manual must be complete to ensure that the machine has been assembled and installed properly.

Always make sure the OFF button is pushed in before connecting power.



⚠WARNING

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

NOTICE

Model G9743 is prewired for 110V. If you plan to operate machine at 220V, motors and transformer must be rewired, circuit breaker and overload relay must be replaced, and 220V plug must be installed (see Converting Voltage to 220V on Page 13 for details).

Power Connection

To connect plug to power cord, install and L5-30 plug on end of power cord per plug manufacturer's instructions. If not instructions were included, use the diagram included in the **WIRING** section beginning on **Page 54**.

Note About Extension Cords: *Using an incorrectly-sized extension cord may decrease the life of electrical components on your machine. If you must use an extension cord, refer to* ***Extension Cords*** *on* ***Page 12*** *for more information.*

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 motors power up and run correctly, 2) the Emergency Stop button works correctly, and 3) the downfeed limit switch shuts down power.

⚠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 machine:

1. Clear all setup tools away from machine.

2. Fill cutting fluid tank as described in **Steps 2–5** of **Cutting Fluid System** on **Page 38**.

NOTICE

NEVER turn *ON* coolant pump without cutting fluid in tank or when cutting fluid is low or you will overheat pump and void warranty!

3. Open cutting fluid control valve (see **Figure 26**).

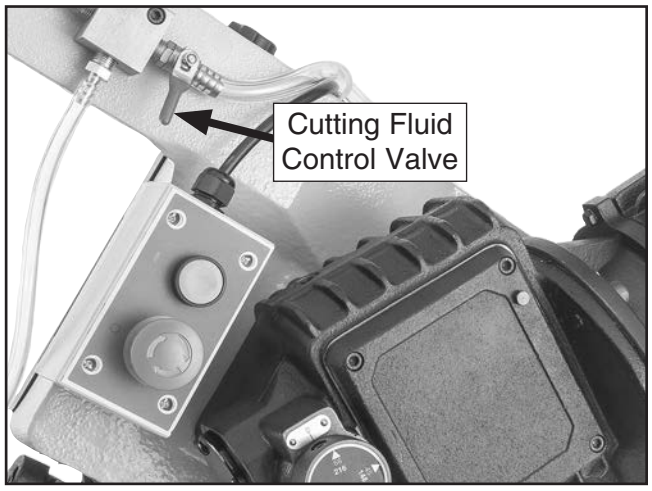


Figure 26. Location of cutting fluid control valve.

4. Raise headstock, then close feed on/off valve to lock headstock in place (see **Figure 27**).

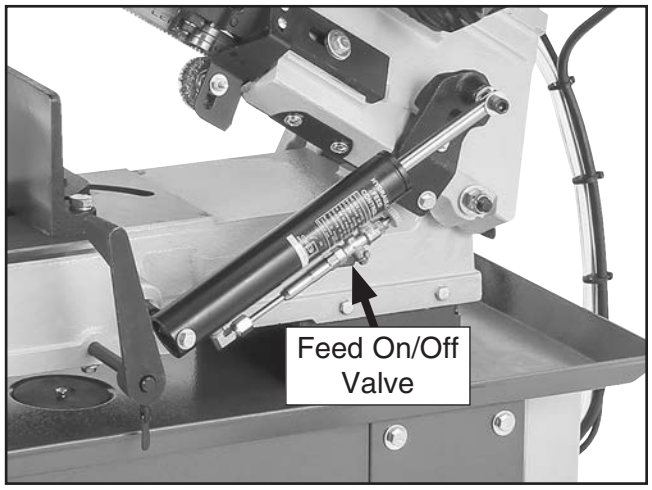


Figure 27. Location of feed on/off valve.

5. Press Emergency Stop button in.

6. Connect machine to power by inserting power cord plug into a matching receptacle.

7. Twist Emergency Stop button clockwise until it springs out (see **Figure 28**). This resets the switch so the machine can start.

Figure 28. Resetting switch.

8. Press ON button to turn machine ***ON*** (see **Figure 29**). Verify motor starts up and runs smoothly without any unusual problems or noises.

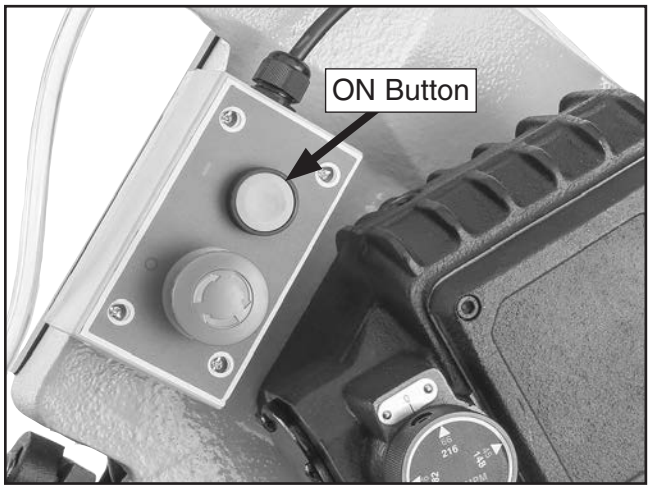


Figure 29. Location of ON button.

9. Use pump ON/OFF switch (see **Figure 30**) to turn coolant pump ***ON***. Cutting fluid should flow through blade guides and onto blade.

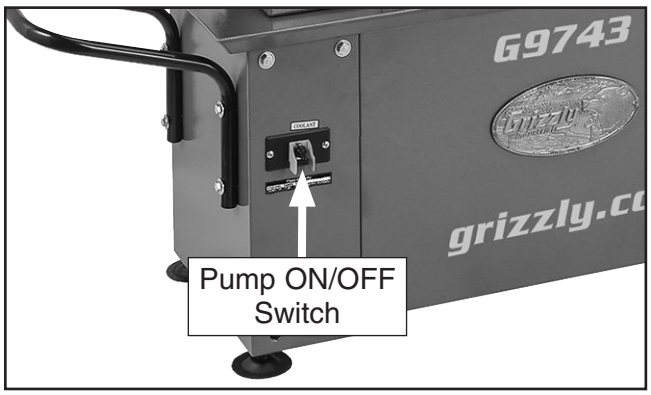


Figure 30. Location of pump ON/OFF switch.

10. Press Emergency Stop button to turn both motors ***OFF***.

11. WITHOUT resetting Emergency Stop button, try to start machine by pressing ON button. Machine should not start.

— If machine *does not* start, safety feature of Emergency Stop button is working correctly.

— If machine *does* start, immediately turn it ***OFF*** and disconnect power. Safety feature of Emergency Stop button is NOT working properly and must be replaced before further using machine.

12. Move pump ON/OFF switch to OFF position.

13. Use ON button to turn machine ***ON***.

14. Open feed on/off valve to fully lower headstock. When headstock is in lowest position, downfeed limit switch should turn power ***OFF***.

— If downfeed limit switch *does* turn power ***OFF***, limit switch is functioning correctly. Congratulations! Test Run is complete.

— If downfeed limit switch *does not* turn power ***OFF***, immediately press Emergency Stop button and disconnect power. Refer to **Adjusting Downfeed Stop Bolt** on **Page 52** before restarting Test Run. If bolt has been adjusted and downfeed limit switch *still does not* turn power ***OFF*** when headstock is in lowest position, call Tech Support for help.

Recommended Adjustments

The adjustments listed below have been performed at the factory. However, because of the many variables involved with shipping, we recommend that you at least verify the following adjustments to ensure accurate cutting results.

Step-by-step instructions on verifying these adjustments can be found in **SECTION 7: SERVICE**.

Factory adjustments that should be verified:

1. Blade Tracking (**Page 48**).

2. Squaring the Blade (**Page 50**).

3. Blade Guides and Blade Guide Bearings (**Page 51**).

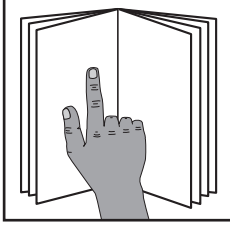
4. Downfeed Stop Bolt (**Page 52**).

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.

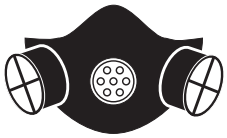


⚠WARNING

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 the workpiece to make sure it is suitable for cutting.
2. Raises headstock, then closes feed on/off valve to lock headstock in place.
3. Adjusts vise angle, then securely clamps workpiece in vise.
4. Sets up work stop if needed for operation.
5. Adjusts upper blade guide as close to workpiece as possible, and verifies blade is properly tensioned.
6. Makes sure workpiece and machine are stable and that there are no obstructions in the way of cut.
7. Puts on safety glasses and respirator.
8. Ensures machine has adequate amount of cutting fluid, then opens cutting fluid control valve.
9. Adjusts speed control knob to desired speed.
10. Starts blade and waits for blade to reach full speed.
11. Turns ***ON*** coolant pump.
12. Opens feed on/off valve and adjusts feed rate dial to lower headstock at desired speed into workpiece to complete cut.
13. Once machine has stopped, raises headstock, disconnects machine from power, and removes workpiece.

Operation Tips

The following tips will help you safely and effectively operate this bandsaw, and help you get the maximum life out of the saw blades.

Tips for cutting:

- Use work stop to quickly and accurately cut multiple pieces of stock to the same length.
- Clamp workpiece firmly in the vise jaws to ensure a straight cut through the material, and use the positive lock to speed production.
- Allow blade to reach full speed before engaging workpiece. Never start a cut with the blade in contact with the workpiece, and do not start a cut on a sharp edge.
- Chips should be curled and silvery. If the chips are thin and powder-like, increase the feed rate.
- Burned chips indicate a need to reduce the blade speed.
- Wait until blade has completely stopped before removing workpiece from vise. Avoid touching the cut end—it could be very hot!
- Support long pieces so they will not fall when cut. Flag long ends to alert passers-by of potential danger.
- Adjust blade guides as close as possible to workpiece to minimize side-to-side blade movement and prevent blade drifting and twisting.
- Use cutting fluid when possible to increase blade life.

NOTICE

Loosen blade tension at the end of each day to prolong blade life.

Workpiece Inspection

Before cutting, inspect the material for any of the following conditions and take the necessary precautions:

- **Small or Thin Workpieces:** Small or thin workpieces may be damaged during cutting—avoid cutting these workpieces if possible. If you must cut a small or thin workpiece, attach it to or clamp it between larger scrap pieces that will both support the workpiece through the cut. Some thin sheet metals will not withstand the forces from this bandsaw during cutting; instead, use a shear, nibblers, or sheet metal nippers to cut these pieces.
- **Unstable Workpieces:** Workpieces that cannot be properly supported or stabilized with the vise should not be cut on this bandsaw. Examples are chains, cables, workpieces with internal or built-in moving or rotating parts, etc.
- **Material Hardness:** Always factor in the hardness of the metal before cutting it. Hardened metals will take longer to cut, may require lubrication, and may require a different type of blade in order to efficiently cut them.
- **Tanks, Cylinders, Containers, Valves, Etc.:** Cutting into containers that are pressurized or contain gases or liquids can cause explosions, fires, caustic burns, or machine damage. Avoid cutting any of these types of containers unless you have verified that the container is empty and it can be properly supported during a cut.
- **Magnesium:** Pure magnesium burns easily. Cutting magnesium with a dull blade can create enough friction to ignite the small magnesium chips. Avoid cutting magnesium, if possible.

Using Vise

The vise on the Model G9743 adjusts from 45°–90° in relation to the blade and has a positive locking feature that improves productivity by opening the vise jaws just enough to slide material through.

Note: ***Figure 31*** *shows the correct methods of holding different workpiece shapes.*

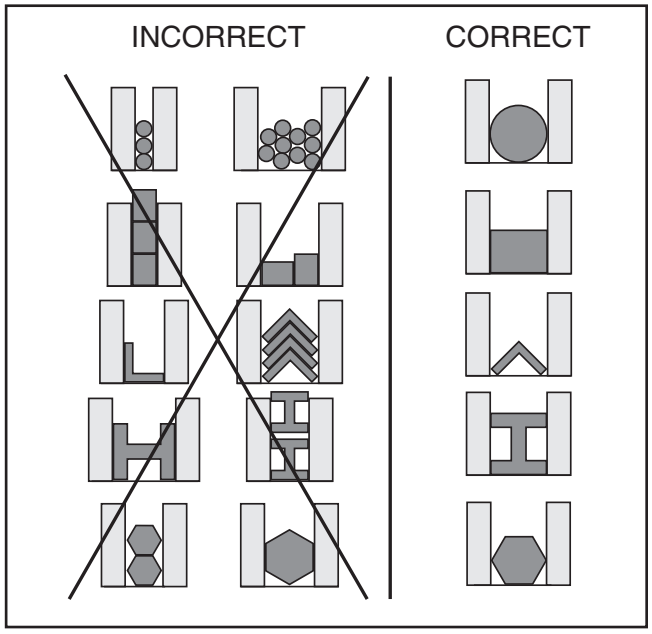


Figure 31. Example of workpiece holding options by material shape.

⚠WARNING

To avoid serious injury, always turn machine *OFF* and allow blade to come to complete stop before adjusting vise!

Tool Needed	**Qty**
Wrench or Socket ¾"	1

To use vise:

1. DISCONNECT MACHINE FROM POWER!

2. Loosen movable vise jaw angle bolt and fixed vise jaw angle nut shown in **Figure 32**.

3. Use angle scale to adjust fixed vise jaw to desired angle of cut (see **Figure 32**), then tighten angle nut to secure.

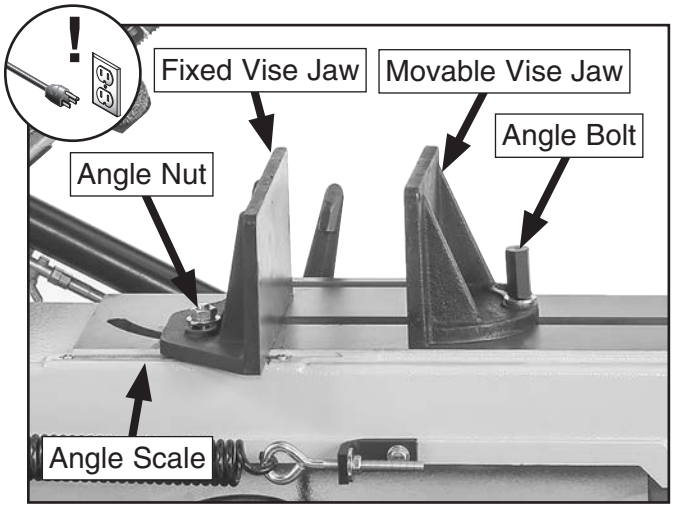


Figure 32. Location of vise jaws and angle components.

4. Move positive lock handle to half open position (see **Figure 33**).

5. Place workpiece against fixed vise jaw, then use vise handwheel to tighten movable vise jaw until it contacts workpiece (see **Figure 33**).

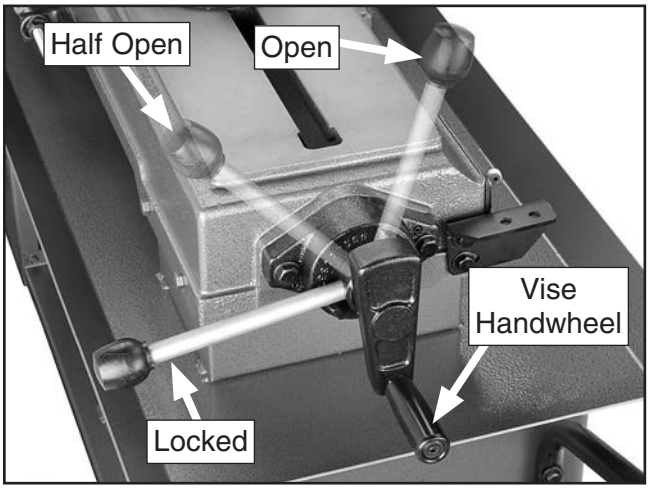


Figure 33. Example of positive lock handle positions and location of vise handwheel.

6. Move positive lock handle to locked position to secure workpiece in vise.

7. Tighten angle bolt, connect machine to power, then cut workpiece.

8. Move positive lock handle to open position to loosen vise jaws enough to slide and position workpiece for additional cuts.

— If operation is complete, use vise handwheel to fully release workpiece.

Adjusting Work Stop

The Model G9743 is equipped with a work stop for repetitive cutting operations. The work stop will need to be adjusted any time it is removed or repositioned.

To adjust work stop:

1. DISCONNECT MACHINE FROM POWER!

2. Loosen thumb screw on work stop (see **Figure 34**), and adjust work stop position on rod as needed for workpiece, then tighten thumb screw to secure.

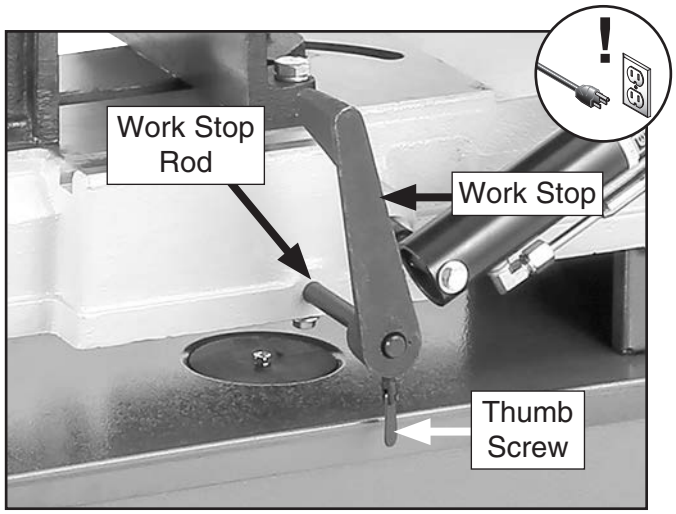


Figure 34. Work stop adjustment components.

Selecting Blades

Selecting the right blade for the cut requires a knowledge of various blade characteristics.

Blade Terminology

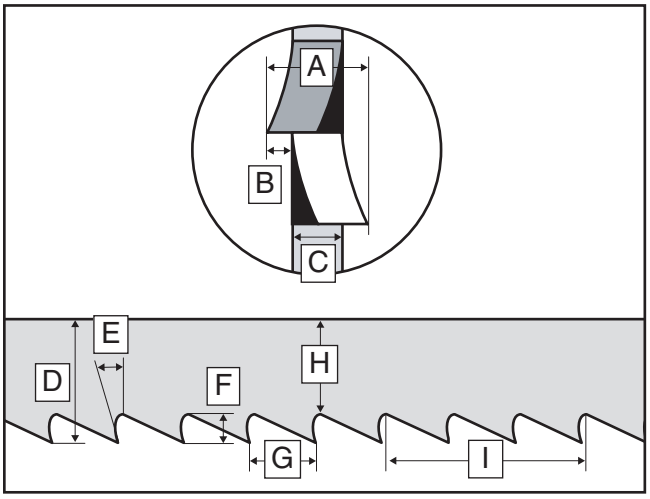


Figure 35. Bandsaw blade terminology.

A. Kerf: Amount of material removed by blade during cutting.

B. Tooth Set: Amount each tooth is bent left or right from blade.

C. Gauge: Thickness of blade.

D. Blade Width: Widest point of blade measured from tip of tooth to back edge of blade.

E. Tooth Rake: Angle of tooth face from line perpendicular to length of blade.

F. Gullet Depth: Distance from tooth tip to bottom of curved area (gullet).

G. Tooth Pitch: Distance between tooth tips.

H. Blade Back: Distance between bottom of gullet and back edge of blade.

I. Blade Pitch or TPI: Number of teeth per inch measured from gullet to gullet.

Blade Length

Measured by the blade circumference, blade lengths are usually unique to the bandsaw model and the distance between the wheels.

Model	Blade Length
G9743	104½"

Blade Width

Measured from the back of the blade to the tip of the blade tooth (the widest point).

Model	Blade Width
G9743	1"

Tooth Type

The most common tooth types are described as follows, and illustrated in **Figure 36**.

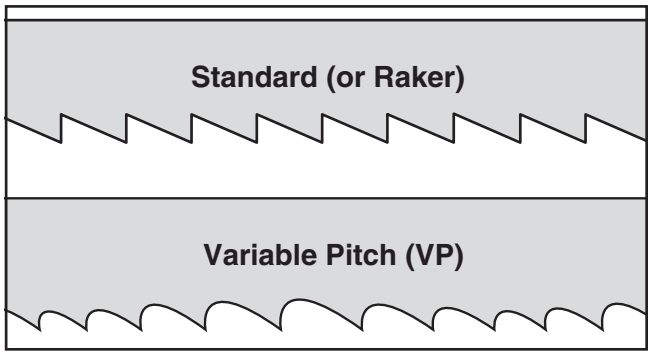


Figure 36. Bandsaw blade tooth types.

Standard or Raker: Equally spaced teeth set at "0" rake angle. Recommended for all purpose use.

Variable Pitch (VP): Varying gullet depth and tooth spacing, "0" rake angle, excellent chip removing capacity, and smooth cutting.

Blade Pitch (TPI)

The chart below is a basic starting point for choosing teeth per inch (TPI) for variable pitch blades and standard raker set bi-metal blades/ HSS blades. However, for exact specifications of bandsaw blades that are correct for the operation, contact the blade manufacturer.

To select correct blade pitch:

1. Measure material thickness. This measurement is distance from where each tooth enters workpiece to where it exits workpiece.

2. Refer to "Material Width/Diameter" row of blade selection chart in **Figure 37**, and read across to find workpiece thickness you need to cut.

3. Refer to "Material Shapes" row and find shape of material to be cut.

4. In applicable row, read across to right and find box where row and column intersect. Listed in the box is minimum TPI recommended for variable tooth pitch blades.

   The TPI range is represented by a "/" between numbers. For example, 3/4 TPI is the same as 3–4 TPI.

   The "Cutting Speed Rate Recommendation" chart, which is located on the machine just below the Blade Pitch Chart, offers guidelines for various metals, given in feet per minute (FPM). Refer to **Blade Speed Chart** section on **Page 34** for further details.

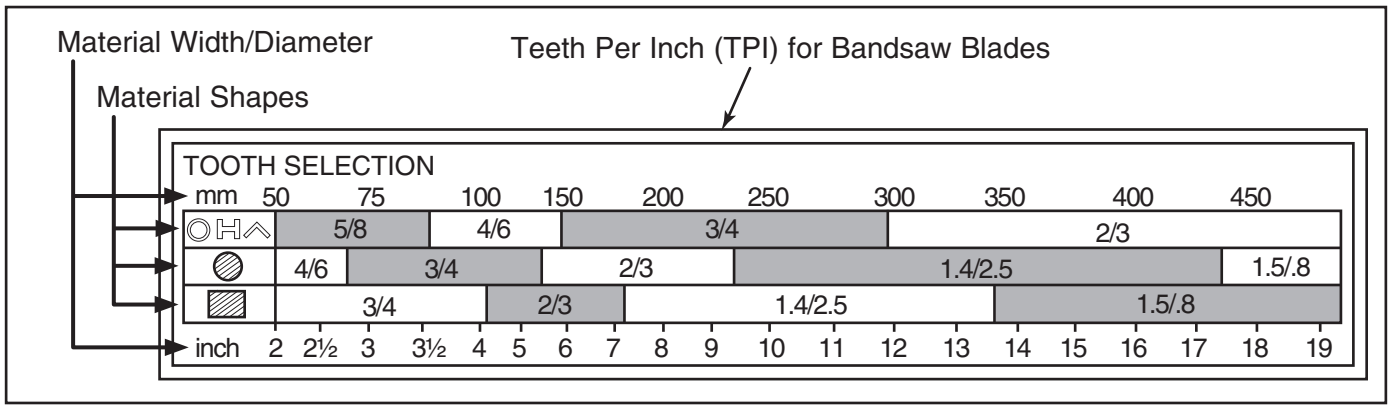


Figure 37. General guidelines for blade selection and speed chart.

Changing Blade

Blades should be changed when they become dull, damaged, or when cutting materials that require a blade of a certain type or tooth count.

⚠CAUTION

All saw blades are dangerous and may cause personal injury. To reduce risk of being injured, wear leather gloves when handling and uncoiling saw blades.

Item(s) Needed	Qty
Metal Brush or Shop Vacuum	1
Phillips Head Screwdriver #2	1
Leather Gloves (per person)	1 Pr.
Replacement Blade	1

To change blade:

1. DISCONNECT MACHINE FROM POWER!

2. Raise headstock all the way, then close feed on/off valve to keep it from lowering.

3. Remove (2) knobs and flat washers shown in **Figure 38** to remove blade cover.

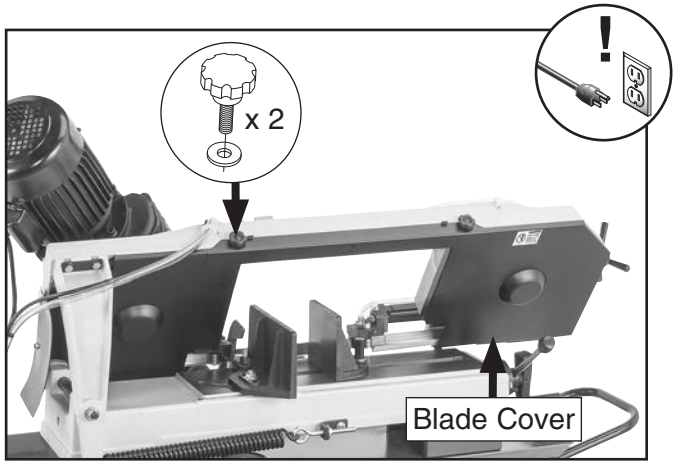


Figure 38. Location of blade cover and fasteners.

4. Move upper blade guide as far right as possible (see **Adjusting Blade Guide Positions** on **Page 37**), then clean out all chips and shavings with brush and shop vacuum.

5. Remove (2) screws shown in **Figure 39** to remove front blade guard.

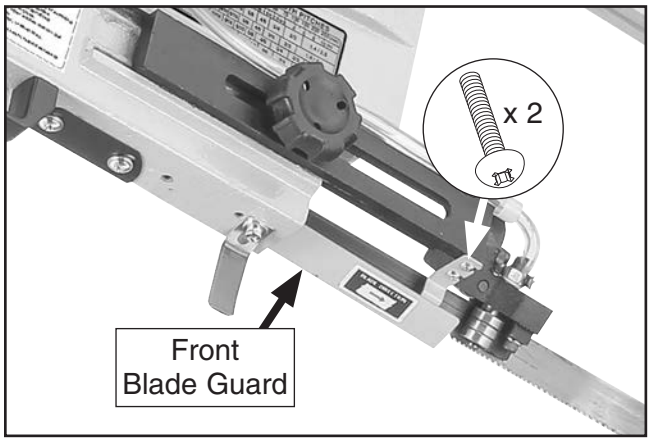


Figure 39. Location of front blade guard and screws.

6. Remove (2) screws shown in **Figure 40** to remove blade brush assembly.

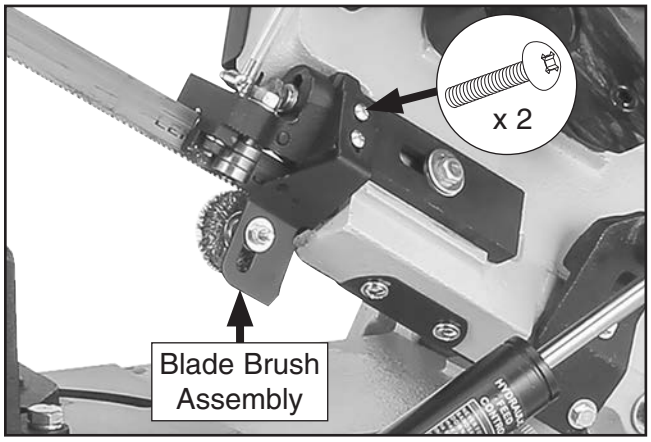


Figure 40. Location of blade brush assembly and screws.

7. Release blade tension by turning blade tension handle counterclockwise (see **Figure 41**).

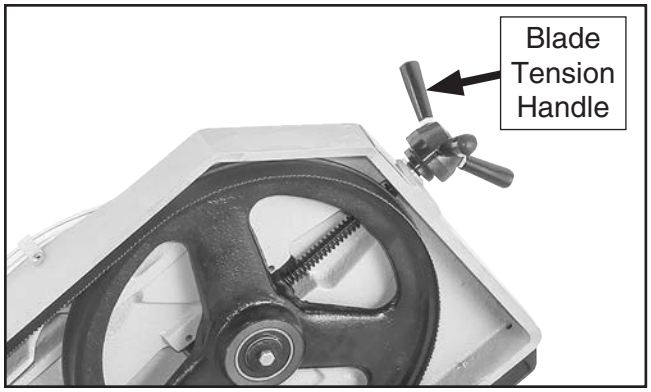


Figure 41. Location of blade tension handle.

8. Remove blade, beginning at top of blade wheels.

9. Insert new blade through both blade guides and bearings (see **Figure 42**), then position it around bottom wheel.

10. Keep blade around bottom wheel and between blade guides with one hand, then slip blade around top wheel with other hand (see **Figure 42**).

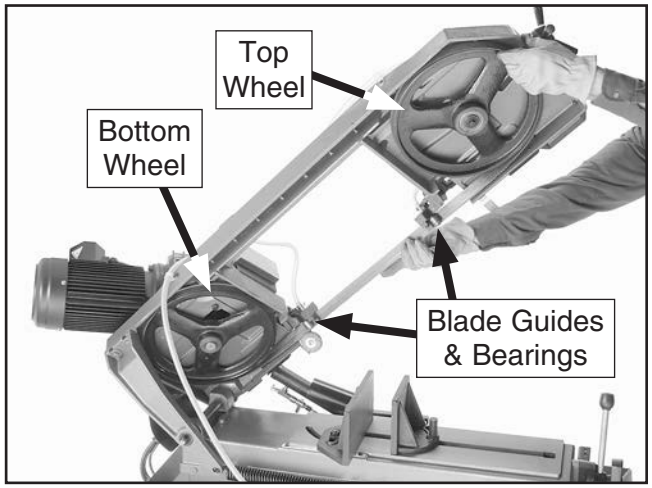


Figure 42. Example of inserting blade through blade guides and around wheels.

Note: *It is sometimes possible to flip blade inside out, in which case blade will be installed in wrong direction. After installing, check to make sure blade teeth face same direction as blade travel (see **Figure 43**). Some blades will have a directional arrow as a guide.*

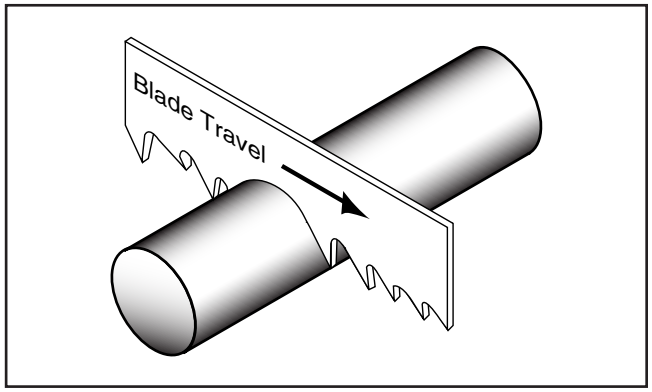


Figure 43. Example of blade cutting direction.

11. Apply a light amount of tension to hold blade in place. Work around blade to adjust position so back of blade is against shoulder of wheels, as shown in **Figure 44.**

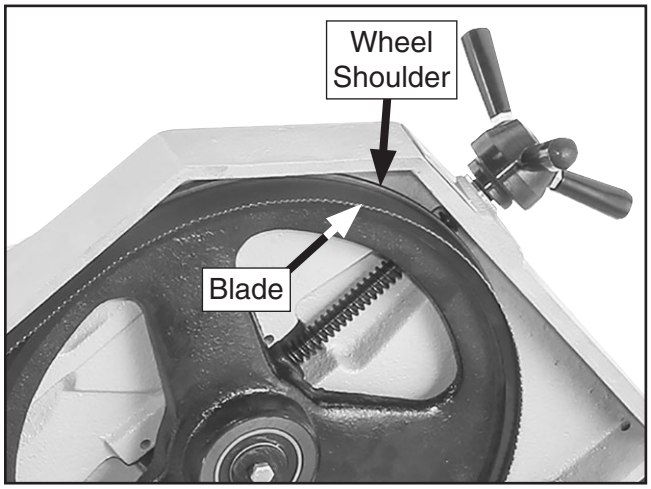


Figure 44. Blade installed on wheel.

12. Perform **Tensioning Blade** procedure on **Page 32**.

13. Put gearbox in neutral by moving speed control knob between two speed positions.

14. Spin wheel by hand until blade resumes previous tracking.

15. Install blade brush and adjust it to blade (see **Adjusting Blade Brush** on **Page 52**).

16. Install front blade guard, then install blade cover. Ensure guard does not touch blade.

17. Move speed control knob to 148, 216, or 282 FPM speed setting to put gearbox back in gear.

Tensioning Blade

Proper blade tension is essential to avoid blade vibration, twist, or slippage on the wheels. A correctly tensioned blade provides long blade life, straight cuts, and efficient cutting. The Model G9743 features a blade tension indicator to assist you with blade tensioning.

Two major signs that you do not have proper blade tension are: 1) the blade stalls in the cut and slips on the wheels, and 2) the blade frequently breaks.

NOTICE

Loosen blade tension at end of each day to prolong blade life.

Tool Needed **Qty**
Wrench or Socket 14mm 1

To tension blade:

1. DISCONNECT MACHINE FROM POWER!

2. Adjust upper blade guide as far left as it will go, and move lower blade guide as far right as it will go (see **Adjusting Blade Guide Positions** on **Page 37**).

3. Turn blade tension handle clockwise to tension blade or counterclockwise to loosen blade until tension indicator is in green zone (see **Figure 45**).

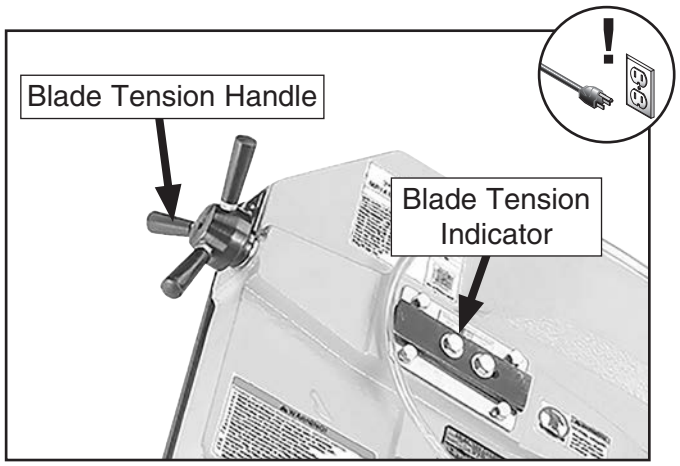


Figure 45. Blade tension components.

Note: *To fine-tune blade tension, use blade tensioning gauge like the one found in* ***Accessories*** *on* ***Page 39****. Follow instructions included with gauge and blade manufacturer's recommendations for blade tension.*

4. Adjust upper and lower blade guides as close to workpiece as possible before performing operation.

Blade Breakage

Many conditions may cause a bandsaw blade to break. Some of these conditions are unavoidable and are the natural result of the stresses placed on the bandsaw; other causes of blade breakage are avoidable.

The most common causes of avoidable blade breakage are:

- Faulty alignment or adjustment of the blade guides.
- Feeding blade through the workpiece too fast.
- Dull or damaged teeth.
- Improperly tensioned blade.
- Upper blade guide assembly set too far from the workpiece. Adjust upper blade guide assembly as close to workpiece as possible.
- Using a blade with a lumpy or improperly finished braze or weld.
- Leaving the blade tensioned when not in use.
- Using the wrong blade pitch (TPI) for the workpiece thickness. The general rule of thumb is to have no fewer than three teeth in contact with the workpiece when starting a cut and at all times during cutting.

Blade Care & Break-In

Blade Care

To prolong blade life, always use a blade with the proper width, set, type, and pitch for each application. Maintain the appropriate feed rate and blade speed (refer to **Blade Speed Chart** on **Page 34** and **Chip Inspection Chart** on **Page 35**), and pay attention to the chip characteristics. Keep blades clean, since dirty or gummed-up blades pass through the cutting material with much more resistance than clean blades, causing unnecessary heat.

Blade Break-In

The tips and edges of a new blade are extremely sharp. Cutting at too fast of a feed rate or too slow of a blade speed can fracture these tips and edges, quickly dulling the blade. Properly breaking in a blade allows these sharp edges to wear without fracturing, thus keeping the blade sharp longer. Below is a typical break-in procedure. For aftermarket blades, refer to the manufacturer's break-in procedure to keep from voiding the warranty.

Use the **Chip Inspection Chart** on **Page 35** as a guide to evaluate the chips and ensure that the optimal blade speed and feed rate are being used.

To properly break in new blade:

1. Choose correct speed for blade and material type.

2. Reduce feed rate by half for first 50–100 in^2 of material cut.

3. To avoid twisting blade when cutting, adjust feed rate when total width of blade is in cut.

Changing Blade Speed

The Model G9743 has these three blade speeds: 148, 216, and 282 FPM.

NOTICE

DO NOT change speeds while motor is running. Wait for the bandsaw to come to complete stop or you will damage the gears.

To change blade speed:

1. TURN MACHINE ***OFF*** AND ALLOW MOTOR TO COME TO COMPLETE STOP!

2. Refer to **Blade Speed Chart** on **Page 34** to determine best speed for cut.

3. With machine turned ***OFF***, rotate speed control knob to desired speed (see **Figure 46**).

   Note: *Choose closest available speed setting on machine to speed shown in chart from **Step 2**, then adjust feed rate as necessary using appearance of chips produced as a guide (see **Chip Inspection Chart** on **Page 35**).*

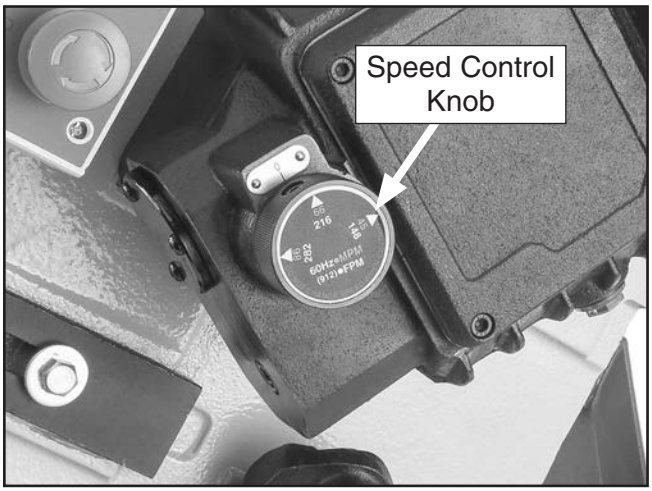


Figure 46. Location of speed control knob.

Blade Speed Chart

The chart in **Figure 47** offers blade speed guidelines for various metals, given in feet per minute (FPM) and meters per minute (M/Min). Choose the closest available speed on the machine, then adjust the feed rate as necessary, using the appearance of the chips produced as a guide. Refer to the **Chip Inspection Chart** that follows for recommendations on adjusting feed rate or blade speed based on the appearance of the chips produced.

Material	Speed FPM (M/Min)	Material	Speed FPM (M/Min)	Material	Speed FPM (M/Min)	Material	Speed FPM (M/Min)
Carbon Steel	196~354 (60) (108)	Tool Steel	203 (62)	Alloy Steel	111~321 (34) (98)	Free Machining Stainless Steel	150~203 (46) (62)
Angle Steel	180~220 (54) (67)	High-Speed Tool Steel	75~118 (25) (36)	Mold Steel	246 (75)	Gray Cast Iron	108~225 (33) (75)
Thin Tube	180~220 (54) (67)	Cold-Work Tool Steel	95~213 (29) (65)	Water-Hardened Tool Steel	242 (74)	Ductile Austenitic Cast Iron	65~85 (20) (26)
Aluminum Alloy	220~534 (67) (163)	Hot-Work Tool Steel	203 (62)	Stainless Steel	85 (26)	Malleable Cast Iron	321 (98)
Copper Alloy	229~482 (70) (147)	Oil-Hardened Tool Steel	203~213 (62) (65)	CR Stainless Steel	85~203 (26) (62)	Plastics & Lumber	220 (67)

Figure 47. Blade speed chart.

Chip Inspection Chart

The best method for choosing the cutting speed and feed rate for a cutting operation is to inspect the chips created by the cut. These chips are indicators of what is commonly referred to as the "chip load." Refer to the chip inspection chart below to evaluate chip characteristics and determine whether to adjust feed rate/ pressure, blade speed, or both.

Chip Appearance	Chip Description	Chip Color	Blade Speed	Feed Rate/ Pressure	Other Actions
	Thin & Curled	Silver	Good	Good	
	Hard, Thick & Short	Brown or Blue	Increase	Decrease	
	Hard, Strong & Thick	Brown or Blue	Increase	Decrease	
	Hard, Strong, Curled & Thick	Silver or Light Brown	Good	Decrease Slightly	Check Blade Pitch
	Hard, Coiled & Thin	Silver	Increase	Decrease	Check Blade Pitch
	Straight & Thin	Silver	Good	Increase	
	Powdery	Silver	Decrease	Increase	
	Coiled, Tight & Thin	Silver	Good	Decrease	Check Blade Pitch

Figure 48. Chip inspection chart.

Setting Blade Feed Rate

The speed at which the saw blade will cut through a workpiece is determined by blade type, feed rate, and feed pressure. The feed rate is controlled by the feed rate dial and the feed pressure tension spring.

During operation, pay attention to the chips being produced from the cut and compare them to the **Chip Inspection Chart** on **Page 35** to properly set the downfeed rate.

Note: *If a lubricant is used on the cut, the feed rate can be increased by approximately 15%.*

Tool Needed	**Qty**
Open-End Wrench 14mm	1

To set blade feed rate:

1. DISCONNECT MACHINE FROM POWER!

2. Raise headstock to maximum height to remove spring tension, then close feed on/off valve to keep it from lowering.

3. Adjust nut shown in **Figure 49** to adjust feed pressure tension spring. Nut should be tight enough to remove play but not enough to apply tension to spring.

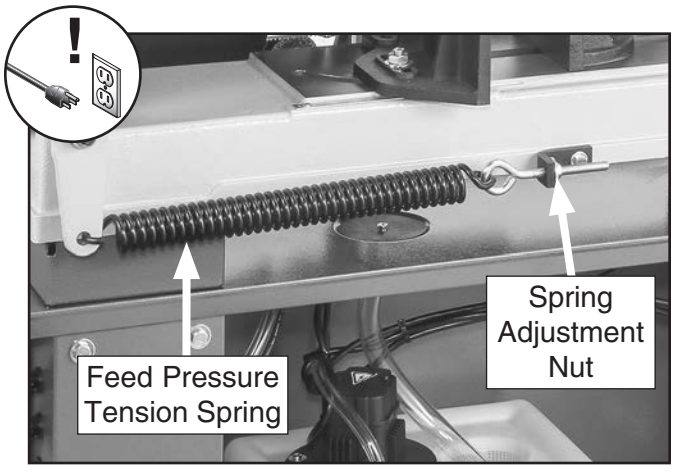


Figure 49. Spring adjustment components.

Note: *Spring adjustment is an initial setting. Depending on cutting circumstances, you will have to fine-tune feed pressure with this adjustment. Increasing spring tension will reduce feed pressure.*

4. Clamp workpiece in vise.

5. Open feed on/off valve to lower headstock until it is a few inches above workpiece, then close valve.

6. Turn feed rate dial all the way clockwise (see **Figure 50**).

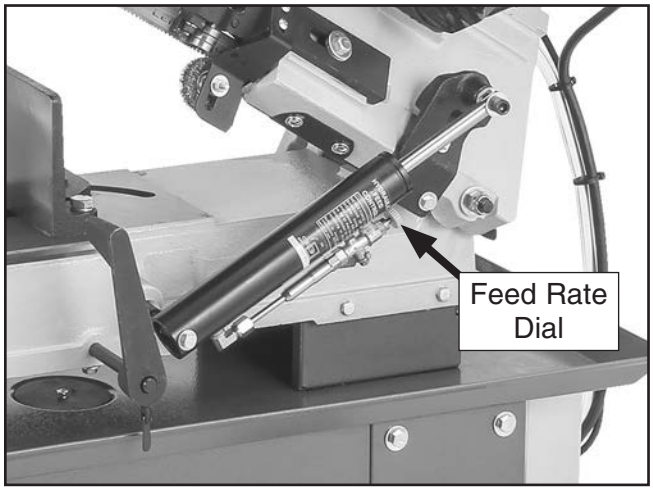


Figure 50. Location of feed rate dial.

7. Set blade speed, then connect machine to power and turn blade and coolant pump ***ON***.

8. Open feed on/off valve, then slowly rotate feed rate dial counterclockwise to a slow feed rate until saw begins to cut workpiece.

9. Observe chips that exit cut and adjust feed rate dial according to chip characteristics (see **Chip Inspection Chart** on **Page 35**).

Adjusting Blade Guide Positions

The blade guides should be as close to the workpiece as possible during cutting operations. This will help ensure straight cuts by keeping the blade from twisting and drifting off the cut line.

To adjust the upper blade guide, loosen the guide post adjustment knob (see **Figure 51**) and slide the upper blade guide as close to the workpiece as possible, then tighten the knob.

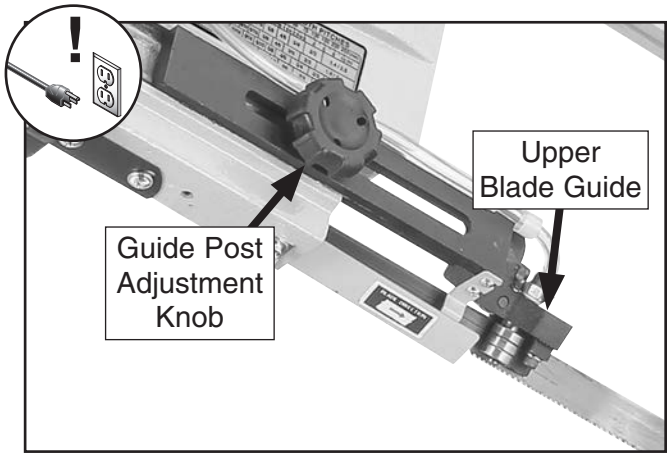


Figure 51. Upper blade guide adjustment components.

To adjust the lower blade guide, loosen the hex bolt shown in **Figure 52** and slide the lower blade guide as close to the workpiece as possible, then tighten the hex bolt. The lower blade guide has a wire brush that makes contact with the blade to help clear away chips and extend blade life (see **Figure 52**).

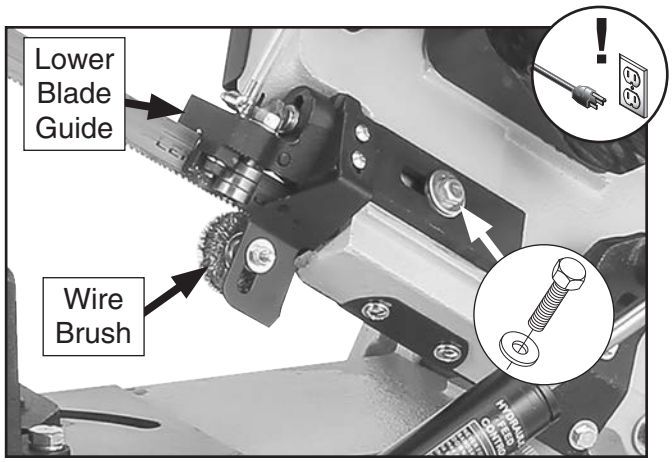


Figure 52. Lower blade guide adjustment components and blade brush.

Cutting Fluid

While simple in concept and function, many issues must be taken into account to mix and use the correct cutting fluid. Always follow all product warnings and specifications, and contact the cutting fluid manufacturer for unanswered questions about specific application and safety information.

Use the information below as a guideline to choose the appropriate cutting fluid:

- For cutting low alloy, low carbon, and general-purpose category metals with a bi-metal blade—use a water-soluble cutting fluid.
- For cutting stainless steels, high carbon, and high alloy metals, brass, copper and mild steels—use "Neat Cutting Oil" (commonly undiluted mineral oils) that have extreme pressure additives (EP additives).
- For cutting cast iron, cutting fluid is not recommended.
- For cutting magnesium, use only cutting fluid that is designed for cutting magnesium.

Remember: *Too much flow at the cutting fluid nozzles will make a mess and can make the work area unsafe; and not enough cutting fluid at the cut will heat the blade, causing the blade teeth to load up and break.*

Tip: *Using a refractometer or hydrometer to replenish water in water-based cutting fluid can extend the life of blades and cutting fluid, and ensure consistent cutting results.*

⚠WARNING

BIOLOGICAL AND POISON HAZARD!

Use proper personal protective equipment when handling cutting fluid and follow federal, state, and cutting fluid manufacturer requirements to properly dispose of cutting fluid.

Cutting Fluid System

This bandsaw has a built-in cutting fluid system that extends the life of bandsaw blades by lowering the cutting temperature and washing away chips.

See **Cutting Fluid** on **Page 37** and **Cutting Fluid System** on **Page 44** in **MAINTENANCE** section for more information.

⚠WARNING

FIRE HAZARD!

DO NOT cut magnesium when using oil-water solutions as cutting fluid! Always use cutting fluid intended for magnesium. Water in the solution could cause magnesium-chip fire.

NOTICE

Keep tray chip screen clear so cutting fluid can recycle to pump tank. Running coolant pump without adequate cutting fluid can significantly damage pump, which will not be covered under warranty.

Items Needed	**Qty**
Safety Wear	See **Hazards** on **Page 44**
Cutting Fluid	9½ Liters (2½ Gallons)
Clean Jug or Bucket	1

To use cutting fluid system:

1. DISCONNECT MACHINE FROM POWER!

2. Mix cutting fluid according to cutting fluid manufacturer's specifications and fill tank with cutting fluid past "8L" mark on tank (see **Figure 53**).

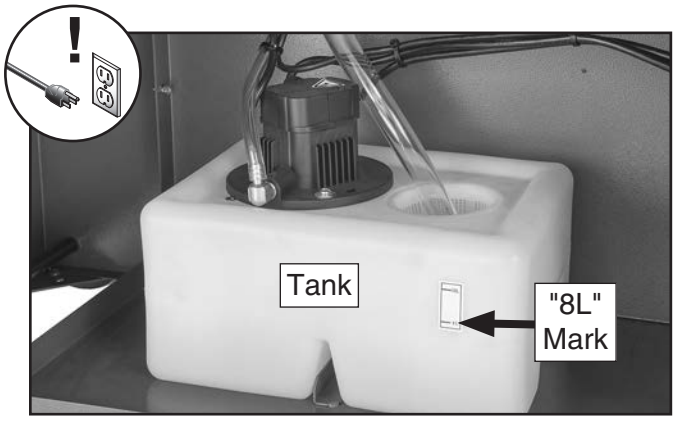


Figure 53. Drain tube placed in tank.

3. Adjust cutting fluid control valve to control flow of cutting fluid (see **Figure 54**). Make sure pressure is not so high that cutting fluid spills on floor and creates a slipping hazard.

4. Connect machine to power, then turn pump ***ON*** before making cut.

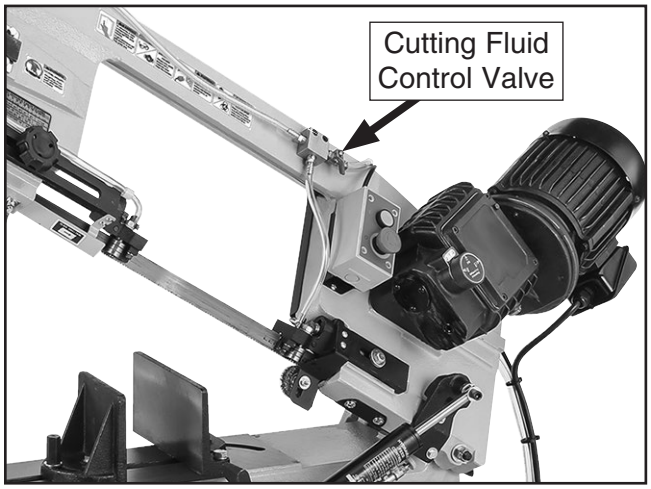


Figure 54. Location of cutting fluid control valve.

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.

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 55. Assortment of basic eye protection.

Tool Steel Blades
H2307—104½" x 1" x .035" 10 TPI Raker
H2308—104½" x 1" x .035" 14 TPI Raker

Variable Pitch Bi-Metal Blades
H2316—104½" x 1" x .035" 4–6 Variable Pitch
H2317—104½" x 1" x .035" 5–8 Variable Pitch
H2318—104½" x 1" x .035" 6–10 Variable Pitch
H2319—104½" x 1" x .035" 8–12 Variable Pitch
H2320—104½" x 1" x .035" 10–14 Variable Pitch

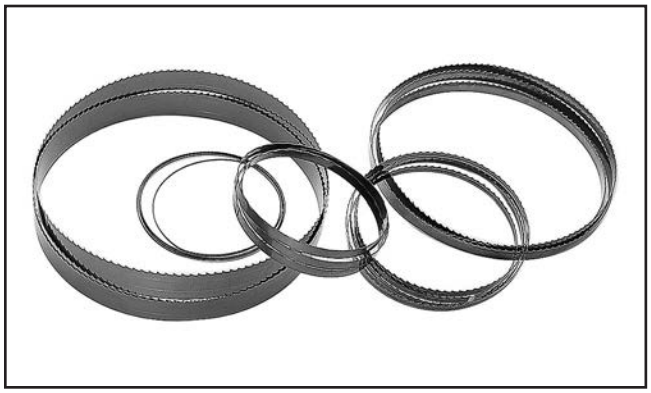


Figure 56. Assorted replacement blades.

H5408—Blade Tensioning Gauge
This gauge ensures long blade life, reduced blade breakage, and straight cutting by indicating correct tension. A precision dial indicator provides you with a direct readout in PSI.

Figure 57. H5408 Blade Tensioning Gauge.

T24753—Relton Option 1 Cutting Fluid, 1 Gal.
This is a water-based, non-WHMIS, environmentally-friendly cutting fluid containing no chlorine or sulfur.

Figure 58. T24753 Relton Option 1 Cutting Fluid.

T21321—Hand Punch
For repetitive hole punching, nothing beats the speed of a hand punch. With a throat depth of 6 9/32", this versatile punch can make a hole in mild steel up to 3/16" thick. Measures 5 1/2" wide by 31 1/2" tall (without handle). Approximate shipping weight: 192 lbs.

Figure 59. T21321 Hand Punch.

G5618—Deburring Tool with 2 Blades
The quickest tool for smoothing freshly machined metal edges. Comes with two blades—one for steel/aluminum and one for brass/cast iron.

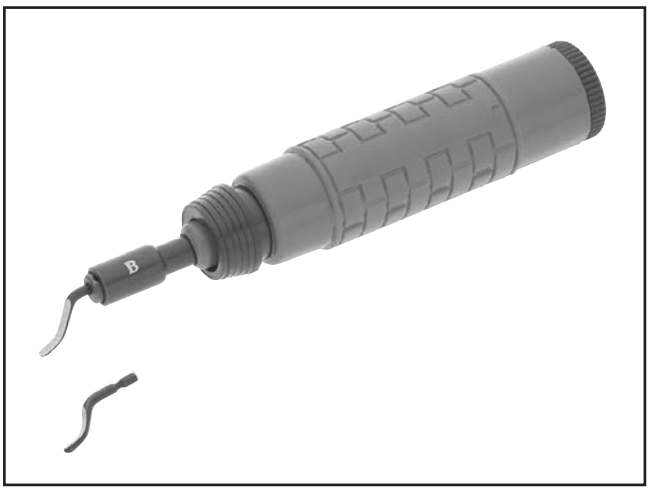
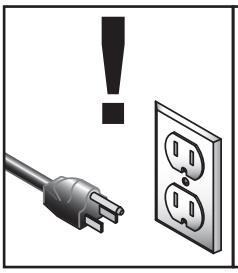


Figure 60. G5618 Deburring Tool with 2 Blades.

D2273—Single Roller Stand
D2274—5 Roller Stand
These roller stands are invaluable when working solo in any shop for outfeeding and support tasks. With 15 7/8" wide rollers, adjustable height, and all steel construction make them convenient and rugged.

Figure 61. Roller stands.

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 saw blade.
- Worn or damaged wires.
- Low cutting fluid level.
- Any other unsafe condition.

Daily Maintenance

- Clean machine after each use.
- Maintain correct blade tension and release blade tension when machine is not in use.

Monthly Maintenance

- Lubricate vise leadscrew.
- Check gearbox fluid level.
- Change cutting fluid.

Annual Maintenance

- Change gearbox oil.

Cleaning & Protecting

Cleaning the Model G9743 is relatively easy. Use a brush and shop vacuum to remove chips and other debris from the working surfaces. Remove any excess cutting fluid with a dry towel.

Protect the unpainted cast iron surfaces by wiping them clean after every use. Keep the surfaces rust-free with regular applications of a rust-preventative lubricant.

Lubrication

Use the following sections to lubricate the vise leadscrew and maintain the gearbox.

Vise Leadscrew

Lube Type.....Model G4682 or Dry Coating Lube
Oil Amount.....Thin Coat
Lubrication Frequency.....Monthly

G4682—Dry Coating Lube

Spray on saw blades, router bits, shaper cutters—even table tops—to form a low-friction coating that works great, even under high temperature and pressure. Contains no silicone or oil, so it will not stain or damage paint or wood finishes. 9.5 oz.

Figure 62. G4682 Dry Coating Lube.

Item(s) Needed	Qty
Mineral Spirits	As Needed
Clean Shop Rags	As Needed
Stiff Brush	As Needed
Dry Coating Lube (G4682 or Equiv.)	As Needed

Clean the vise leadscrew (see **Figure 63**). When dry, apply a thin coat of dry coating lube to exposed leadscrew threads, then move vise through the full range of motion several times to disperse lube along full length of leadscrew.

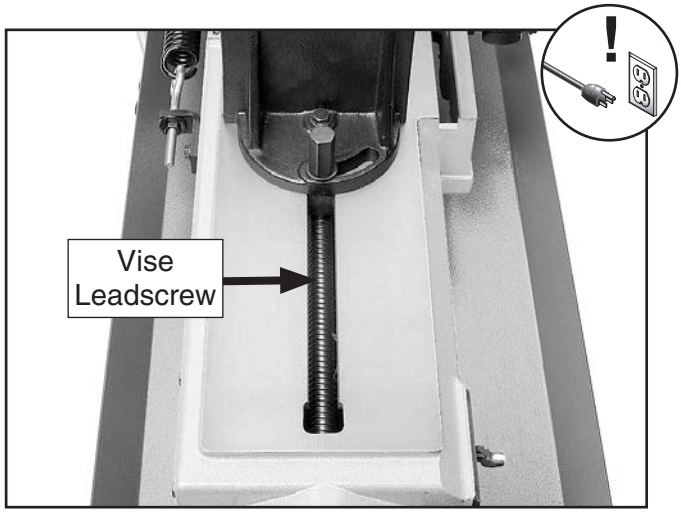


Figure 63. Location of vise leadscrew.

Checking/Adding Gearbox Oil

Lube Type.....T28042 or ISO 320 Equivalent
Amount ..... As Needed
Lubrication Frequency .....Monthly

T28042—Armor Plate w/Moly-D XHP Gear Oil
This industrial gear oil from Primrose has been developed specifically for significantly higher temperatures and pressures typical of industrial applications. The 514M 6EP equals a ISO 320 viscosity grade.

Figure 64. T28042 Moly-D Gear Oil.

The gearbox oil level should fill the sight glass about halfway full when the headstock is fully lowered. If the oil level drops below this level, add oil as needed using the following steps.

Item(s) Needed	Qty
Hex Wrench 8mm	1
ISO 320 Oil (T28042 or Equivalent)	As Needed

To check gearbox oil:

1. Run machine for 10 minutes to warm up oil in gearbox.
2. DISCONNECT MACHINE FROM POWER!
3. Raise headstock completely, then close feed on/off valve to keep it from lowering.
4. Check oil level in sight glass (see **Figure 65**).
   - — If oil level fills about half of sight glass, no oil needs to be added.
   - — If oil level fills *less than* half of sight glass, proceed to **Step 5**.
5. Remove fill plug, add oil until it fills half of sight glass, then install fill plug (see **Figure 65**).

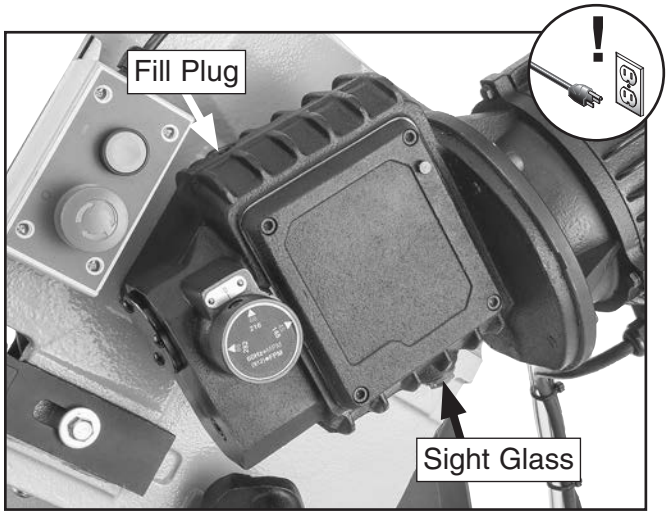


Figure 65. Location of gearbox fill components.

Changing Gearbox Oil

Lube Type.....T28042 or ISO 320 Equivalent
Amount ..... As Needed
Lubrication Frequency ..... Annually

The gearbox should be drained and refilled after the first 50 hours of use and then once every year. If machine is used daily, change the gearbox oil every three months. Use a high quality, ISO 320 grade synthetic gear oil.

Item(s) Needed	Qty
Hex Wrench 8mm	1
ISO 320 Oil (T28042 or Equivalent)	As Needed
Drain Pan	1
Thread-Sealing Tape	As Needed

To change gearbox oil:

1. Run machine for 10 minutes to warm up oil in gearbox.
2. DISCONNECT MACHINE FROM POWER!
3. Completely lower headstock.
4. Remove fill plug (see **Figure 66**).
5. With drain pan positioned to catch oil, remove drain plug (see **Figure 66**).

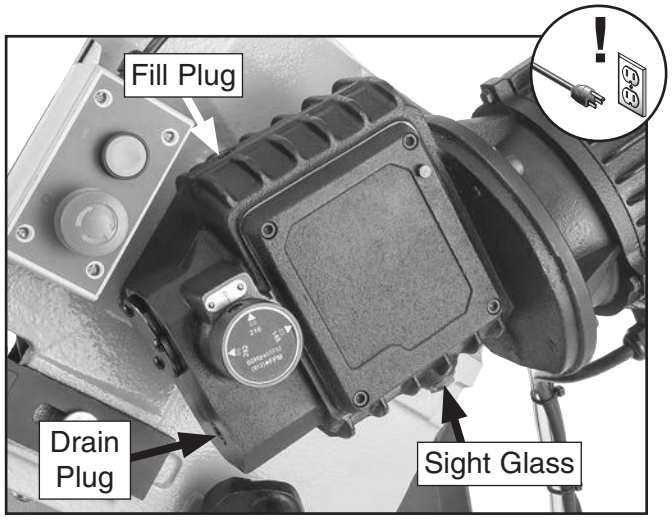


Figure 66. Location of gearbox components.

6. When oil is drained, clean threads of drain plug, wrap threads with thread-sealing tape, then install plug.
7. Raise headstock completely, then close feed on/off valve to keep it from lowering.
8. Fill gearbox at fill plug hole until sight glass is about halfway full (see **Figure 67**).

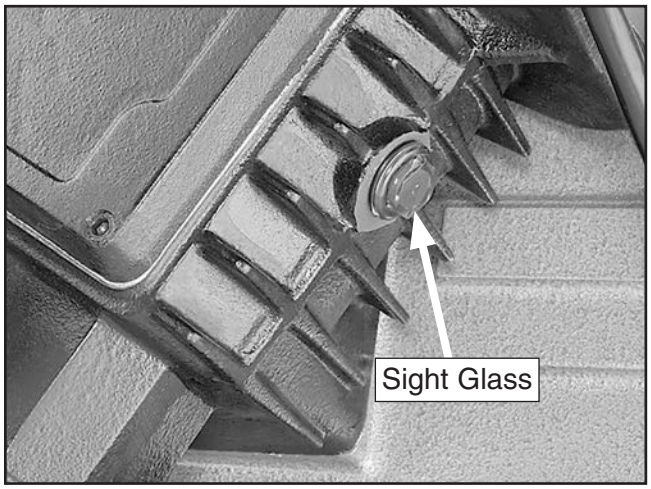


Figure 67. Location of gearbox sight glass.

9. Install fill plug, then connect machine to power and run it for a few minutes.
10. DISCONNECT MACHINE FROM POWER!
11. Check oil level in sight glass.

    — If oil level fills about half of sight glass, no oil needs to be added.

    — If oil level fills *less than* half of sight glass, proceed to **Step 12**.

12. Remove fill plug, add oil until it fills half of sight glass, then install fill plug (see **Figure 66**).

Cutting Fluid System

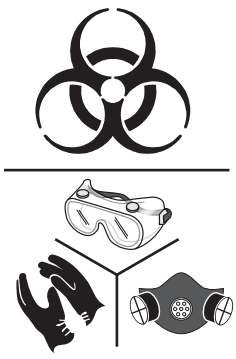
The cutting fluid system consists of a tank, pump, and hoses with a shared control valve. The pump collects cutting fluid from the tank and sends it to the valve, which controls the flow of cutting fluid. As the cutting fluid leaves the work area, it drains through the machine base, where the swarf and metal chips are screened out, and back into the tank.

Although most swarf from machining operations is screened out of the cutting fluid before it returns to the tank, small particles will accumulate in the bottom of the tank in the form of sludge. To prevent this sludge from being pulled into the pump and damaging it, the pump's intake is positioned above the bottom of the tank. This works well when the tank is regularly cleaned; however, if excess sludge is allowed to accumulate, the pump will inevitably begin sucking it up.

Hazards

As cutting fluid ages and gets used, dangerous microbes can proliferate and create a biological hazard. The risk of exposure to this hazard can be greatly reduced by replacing the old cutting fluid on a monthly basis, or as indicated by the manufacturer of the cutting fluid.

When working with the cutting fluid, minimize exposure to skin, eyes, and lungs by wearing the proper PPE (Personal Protective Equipment), such as long-sleeve waterproof gloves, protective clothing, splash-resistant safety goggles, and a NIOSH-approved respirator.



⚠WARNING

BIOLOGICAL & POISON HAZARD!

Use personal protection equipment when handling cutting fluid. Follow federal, state, and cutting fluid manufacturer requirements for proper disposal.

Changing Cutting Fluid

Items Needed	Qty
Safety Wear	See **Hazards**
Phillips Head Screwdriver #2	1
Disposable Shop Rags	As Needed
Soap	As Needed
Clean Jug or Bucket	1
Cutting Fluid	9½ Liters (2½ Gallons)

To change cutting fluid:

1. DISCONNECT MACHINE FROM POWER!

2. Remove (2) Phillips head screws and flat washers shown in **Figure 68** to lift coolant pump out of tank.

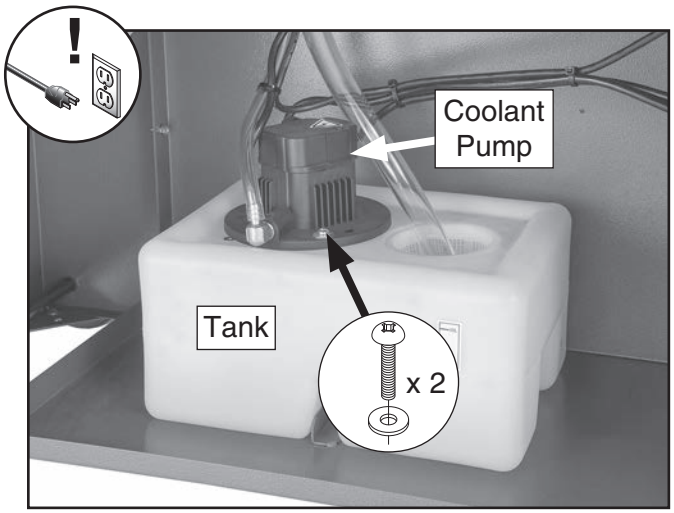


Figure 68. Location of coolant pump and fasteners.

3. Remove tank from base and empty it. Dispose of cutting fluid per federal, state, and manufacturer requirements.

4. Thoroughly clean tank and submerged-portion of pump with hot, soapy water, then rinse with clean water.

5. Mix cutting fluid according to cutting fluid manufacturer's specifications.

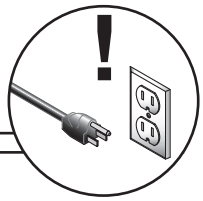
6. Install tank and fill with cutting fluid past "8L" mark on tank.

7. Install coolant pump.

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 power supply breaker immediately trips after startup.	1. Emergency Stop button depressed/at fault.	1. Rotate Emergency Stop button to reset. Replace if at fault.
	2. Downfeed limit switch engaged/at fault.	2. Raise headstock/adjust downfeed stop bolt (**Page 52**)/ replace switch.
	3. Machine circuit breaker tripped or at fault.	3. Reset circuit breaker.
	4. Blown machine fuse.	4. Replace fuse/ensure no shorts.
	5. Incorrect power supply voltage or circuit size.	5. Ensure correct power supply and circuit size (**Page 11**).
	6. Plug/receptacle at fault/wired incorrectly.	6. Test for good contacts; correct wiring (**Page 54**).
	7. Power supply circuit breaker tripped or fuse blown.	7. Ensure circuit is free of shorts. Reset circuit breaker or replace fuse.
	8. Motor wires connected incorrectly.	8. Correct motor wiring connections (**Page 54**).
	9. Thermal overload relay has tripped/at fault.	9. Reset. Adjust or replace if at fault.
	10. Start capacitor at fault.	10. Test/replace if at fault.
	11. Centrifugal switch adjustment/contact points at fault.	11. Adjust centrifugal switch/clean contact points. Replace either if at fault.
	12. Contactor not energized/at fault.	12. Test all legs for power; replace if necessary.
	13. Wiring broken, disconnected, or corroded.	13. Fix broken wires or disconnected/corroded connections (**Page 54**).
	14. ON button or circuit breaker at fault.	14. Replace button/circuit breaker.
	15. Motor or motor bearings at fault.	15. Replace motor.
Machine stalls or is underpowered.	1. Dull blade or wrong blade for task.	1. Replace blade (**Page 30**).
	2. Wrong workpiece material (metal).	2. Use correct type/size of metal.
	3. Gearbox at fault.	3. Select appropriate gear ratio; replace broken or slipping gears.
	4. Blade slipping on wheels or not properly tensioned.	4. Adjust blade tracking (**Page 48**) and tension (**Page 32**).
	5. Motor wires connected incorrectly.	5. Correct motor wiring connections (**Page 54**).
	6. Plug/receptacle at fault/wired incorrectly.	6. Test for good contacts/correct wiring (**Page 54**).
	7. Machine undersized for task.	7. Use correct (**Page 28**), sharp blade; reduce feed rate (**Page 36**)/depth of cut; use cutting fluid if possible.
	8. Motor overheated, tripping machine circuit breaker.	8. Clean motor, let cool, and reduce workload. Reset breaker.
	9. Extension cord too long.	9. Move machine closer to power supply; use shorter extension cord (**Page 12**).
	10. Contactor not energized/at fault.	10. Test all legs for power; repair/replace if at fault.
	11. Centrifugal switch/contact points at fault.	11. Adjust centrifugal switch/clean contact points. Replace either if at fault.
	12. Motor or motor bearings at fault.	12. Replace motor.

Motor & Electrical (Cont.)

Symptom	Possible Cause	Possible Solution
Machine has vibration or noisy operation.	1. Motor or component loose. 2. Mobile base fasteners loose or feet not adjusted properly. 3. Workpiece loose. 4. Motor fan rubbing on fan cover. 5. Blade damaged or warped. 6. Centrifugal switch needs adjustment/at fault. 7. Motor bearings at fault. 8. Gearbox at fault.	1. Replace damaged or missing bolts/nuts or tighten if loose. 2. Tighten base fasteners or adjust feet to stabilize machine. 3. Securely clamp workpiece in vise (**Page 27**). 4. Fix/replace fan cover; replace loose/damaged fan. 5. Replace warped/damaged blade (**Page 30**). 6. Adjust/replace if at fault. 7. Test by rotating shaft; rotational grinding/loose shaft requires bearing replacement. 8. Rebuild gearbox for bad gear(s)/bearing(s).
Coolant pump is not functioning.	1. Pump wires connected incorrectly. 2. Wiring broken, disconnected, or corroded. 3. Pump ON/OFF switch at fault. 4. Coolant pump or pump bearings at fault.	1. Correct pump wiring connections (**Page 54**). 2. Fix broken wires or disconnect/corroded connections (**Page 54**). 3. Replace switch. 4. Replace pump.
Blade keeps moving after cut is complete.	1. Downfeed limit switch not engaged/at fault.	1. Adjust downfeed stop bolt/shut-off switch tab (**Page 52**)/replace switch if at fault.

Operation

Symptom	Possible Cause	Possible Solution
Vibration when operating or cutting.	1. Loose or damaged blade. 2. Machine component(s) loose. 3. Bent or dull blade. 4. Worn wheel bearing. 5. Wheels worn or incorrectly installed. 6. Wheel appears bent. 7. Gearbox at fault.	1. Tension blade (**Page 32**)/replace blade (**Page 30**). 2. Inspect/tighten component(s). 3. Replace blade (**Page 30**). 4. Check/replace wheel bearing. 5. Replace wheels; adjust blade tracking (**Page 48**). 6. Check/replace wheel/wheel bearing. 7. Rebuild gearbox for bad gear(s)/bearing(s).
Ticking sound when saw is running.	1. Blade teeth missing or broken. 2. Blade weld contacting blade guides. 3. Blade weld failing.	1. Inspect/replace blade (**Page 30**). 2. Grind weld down flush with blade. 3. Cut and reweld blade, or replace blade (**Page 30**).
Machine or blade bogs down in cut.	1. Feed rate too fast; blade speed too low. 2. Blade loading up, blade TPI incorrect. 3. Blade dull. 4. Blade not supported; blade tracking incorrectly. 5. Blade tension too low. 6. Material requires cutting fluid/lubrication.	1. Reduce feed rate (**Page 36**); increase blade speed (**Page 33**). 2. Install blade with fewer TPI/different style teeth (**Page 28**). 3. Replace blade (**Page 30**). 4. Move blade guides closer to workpiece (**Page 37**); adjust blade tracking (**Page 48**). 5. Clean wheels; increase blade tension (**Page 32**). 6. Use applicable cutting fluid/lubrication.
Cuts not square, intended angle is incorrect.	1. Loose vise. 2. Blade not square to table.	1. Tighten vise and secure workpiece (**Page 27**). 2. Adjust blade square to table (**Page 50**).
Blade wears on one side or shows overheating.	1. Blade guides worn or mis-adjusted. 2. Blade not supported. 3. Dull/incorrect blade. 4. Incorrect cutting fluid for workpiece/cut.	1. Adjust guides and bearings (**Page 51**)/replace. 2. Move blade guides closer to workpiece (**Page 37**). 3. Replace blade (**Page 30**). 4. Use correct cutting fluid mixture.

Operation (Cont.)

Symptom	Possible Cause	Possible Solution
Blade wears on one side or shows overheating.	5. Blade is bell-mouthed.	5. Replace blade (**Page 30**).
Excessive blade breakage.	1. Workpiece loose. 2. Blade contacting workpiece when started. 3. Blade too thick/blade gullets too large. 4. Workpiece too coarse for blade. 5. Blade tension/tracking requires adjustment. 6. Blade guide bearings require adjustment. 7. Blade weld failing.	1. Secure workpiece with vise (**Page 27**). 2. Raise headstock, start blade, then lower blade into workpiece. 3. Use thinner blade/blade with smaller gullets (**Page 28**). 4. Use coarser-tooth blade (**Page 28**); adjust feed rate (**Page 36**); adjust blade speed (**Page 33**). 5. Adjust blade tension (**Page 32**), tracking (**Page 48**). 6. Adjust blade guide bearings (**Page 51**). 7. Cut and reweld blade, or replace blade (**Page 30**).
Blade dulls prematurely, or metal sticks to blade.	1. Blade improperly broken in. 2. Blade gullets loading up with chips. 3. Blade tension too low. 4. Blade TPI too fine or coarse for material; teeth load up and overheat. 5. Incorrect cutting fluid for workpiece/cut. 6. Inadequate feed pressure. 7. Incorrect feed rate/blade speed.	1. Replace blade (**Page 30**); complete blade break-in procedure (**Page 33**). 2. Use blade with larger gullets (**Page 28**). 3. Increase blade tension (**Page 32**). 4. Use coarser-tooth or finer-tooth blade (**Page 28**); adjust feed rate (**Page 36**); adjust blade speed (**Page 33**); make sure blade brush works and is adjusted correctly (**Page 52**). 5. Use correct cutting fluid mixture. 6. Decrease headstock spring tension (**Page 36**). 7. Adjust feed rate (**Page 36**), adjust blade speed (**Page 33**).
Blade tracks incorrectly, or comes off wheels.	1. Feed rate too fast/wrong TPI. 2. Blade tension/tracking requires adjustment. 3. Blade guides need adjustment. 4. Blade bell-mouthed.	1. Reduce feed rate (**Page 36**)/decrease blade TPI (**Page 28**). 2. Adjust blade tension (**Page 32**), tracking (**Page 48**). 3. Adjust blade guides (**Page 51**). 4. Replace blade (**Page 30**).
Cuts are crooked/ excessively rough.	1. Feed rate too fast; blade speed incorrect. 2. Blade is too coarse or dull. 3. Blade not supported. 4. Carbide blade guides/bearings out of adjustment. 5. Blade tension/tracking requires adjustment. 6. Feed pressure too great.	1. Reduce feed rate (**Page 36**); adjust blade speed (**Page 33**). 2. Replace blade (**Page 30**). 3. Move blade guides closer to workpiece (**Page 37**). 4. Adjust carbide blade guides/bearings (**Page 51**). 5. Adjust blade tension (**Page 32**), tracking (**Page 48**). 6. Increase headstock spring tension (**Page 36**).
Coolant pump is ***ON***, but cutting fluid system is not functioning.	1. Cutting fluid control valve is closed. 2. Cutting fluid level is low. 3. Cutting fluid system is leaking. 4. Flow blocked or impeded.	1. Open cutting fluid control valve. 2. Check level/fill cutting fluid (**Page 38**). 3. Inspect/test for leaks/repair. 4. Make sure cutting fluid lines are not pinched/damaged.
Cutting fluid system is pulling sludge from tank.	1. Cutting fluid level is low. 2. Cutting fluid needs to be changed/tank is dirty.	1. Check level/fill cutting fluid (**Page 38**). 2. Clean and change cutting fluid (**Page 44**).
Blade cuts into table or does not fully cut through workpiece.	1. Downfeed stop bolt requires adjustment.	1. Adjust downfeed stop bolt (**Page 52**).

Adjusting Blade Tracking

The blade tracking has been properly set at the factory and will rarely need to be adjusted if the bandsaw is used properly.

If the blade comes off the wheels, or if the blade bogs down in a cut, these are signs that the tracking needs to be adjusted. Before adjusting the blade tracking, however, be sure that the feed rate and blade speed are correct, the blade is not dull and has correct teeth style and TPI for material, the blade tension is correct, and the blade is properly lubricated.

Tools Needed	**Qty**
Phillips Head Screwdriver #2	1
Wrench or Socket 14mm	1
Hex Wrench 4mm	1

To adjust blade tracking:

1. DISCONNECT MACHINE FROM POWER!

2. Raise headstock completely, then close feed on/off valve to keep it from lowering.

3. Remove (2) knobs and flat washers shown in **Figure 69** to remove blade cover.

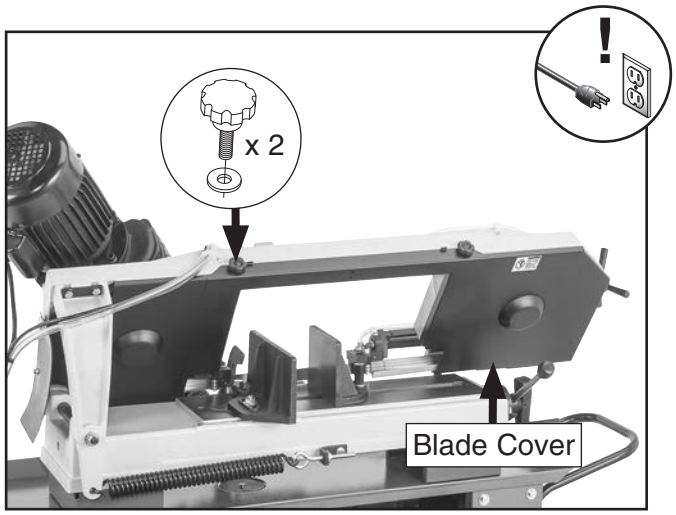


Figure 69. Location of blade cover and fasteners.

4. Remove (2) screws shown in **Figure 70** to remove front blade guard.

5. Remove guide post adjustment knob and flat washer (see **Figure 70**) to remove upper blade guide assembly.

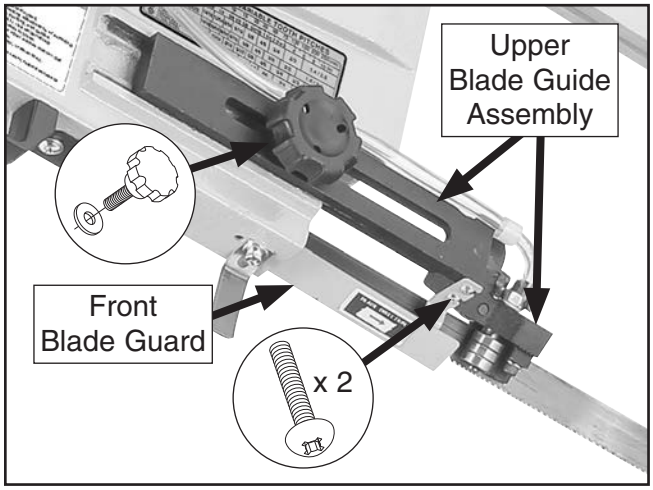


Figure 70. Upper blade guide removal components.

6. Remove (2) screws shown in **Figure 71** to remove blade brush assembly.

7. Remove hex bolt and flat washer shown in **Figure 71** to remove lower blade guide assembly.

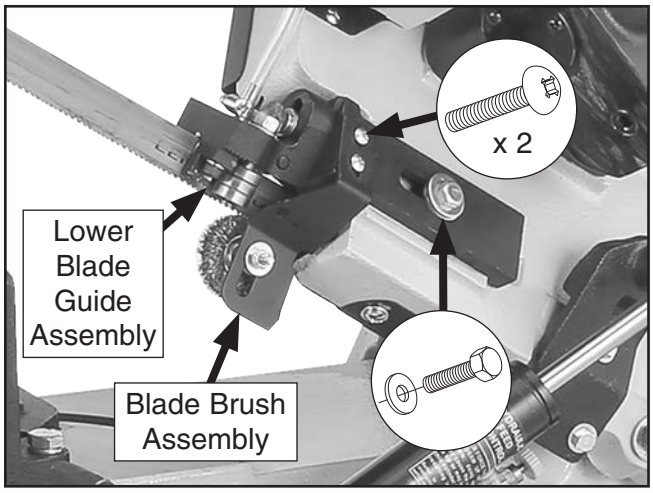


Figure 71. Location of blade brush assembly and screws.

8. Loosen, but do not remove, lower hex bolt in blade wheel tilting mechanism (see **Figure 72**).

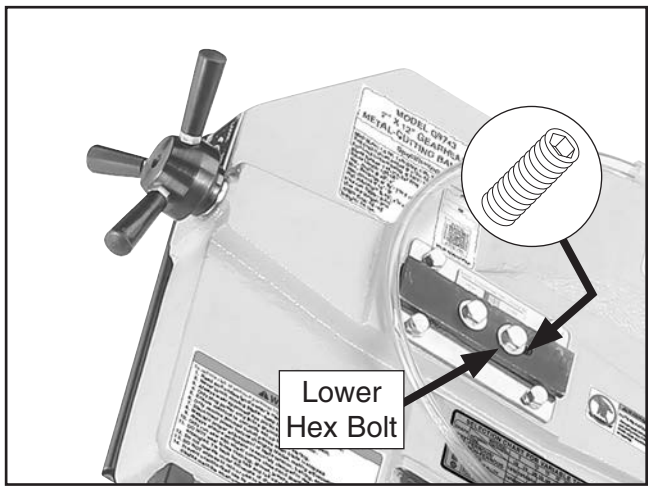


Figure 72. Location of blade tracking controls.

9. Relax blade tension.

10. Adjust tracking set screw (see **Figure 72**), then tighten hex bolt loosened in **Step 8**.

    — Tightening set screw will move blade closer to shoulder of wheel (see **Figure 73**).

    — Loosening set screw will move blade away from shoulder of wheel (see **Figure 73**).

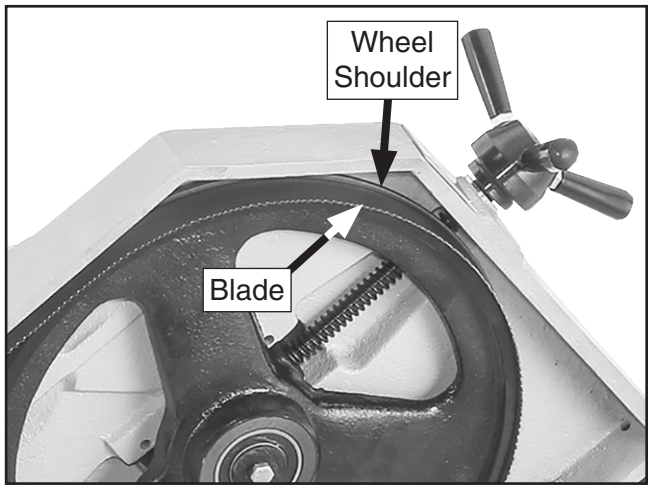


Figure 73. Location of wheel shoulder.

11. Tension blade.

12. Put gearbox in neutral by moving speed control knob between two speed positions.

13. Spin wheel by hand.

    — If blade *tracks along* wheel shoulder (without rubbing), blade is tracking correctly. Proceed to **Step 14**.

    — If blade *drifts away from* or *hits* wheel shoulder, repeat **Steps 8–13** until blade tracks correctly.

14. Install lower blade guide assembly.

15. Install blade brush assembly and adjust brush to blade (see **Adjusting Blade Brush** on **Page 52**).

16. Install upper blade guide assembly and guide post adjustment knob.

17. Install front blade guard. Ensure guard does not touch blade.

18. Install blade cover.

19. Refer to **Adjusting Blade Guides & Bearings** on **Page 51** to adjust blade guides to blade.

Squaring Blade to Table

Over the life of the saw, this adjustment should be performed to improve cutting results and extend blade life.

Tools Needed	Qty
Square	1
Hex Wrench 6mm	1

To square blade to table:

1. DISCONNECT MACHINE FROM POWER!

2. Lower headstock completely.

3. Place square on table bed and against edge of blade (see **Figure 74**), and check different points along length of table between blade guides.

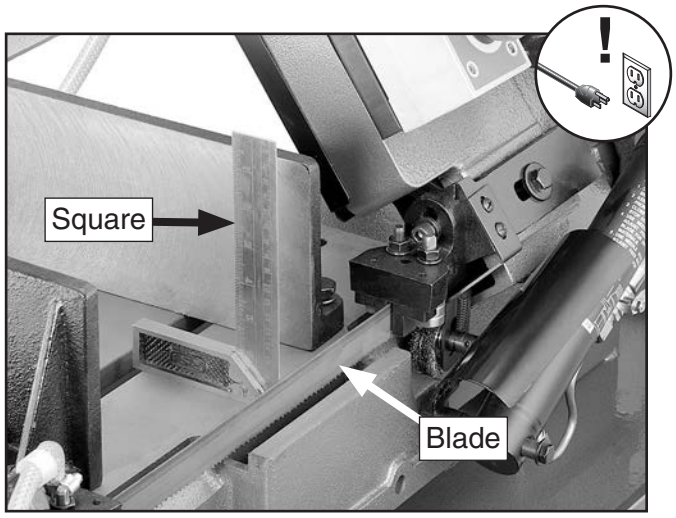


Figure 74. Example of square placed on table bed against edge of blade.

— If blade *is* square to table, no adjustment is necessary.

— If blade *is not* square to table, proceed to **Step 4**.

4. Lightly pull cutting fluid hose bibs to remove cutting fluid hoses from blade guide assemblies (see **Figure 75**).

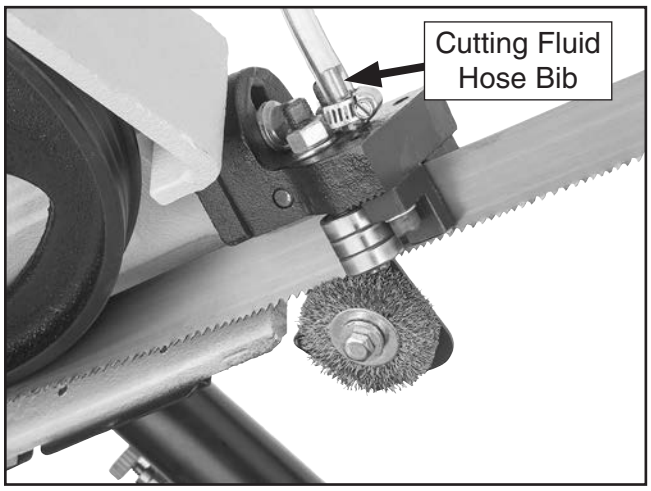


Figure 75. Location of cutting fluid hose bib (lower blade guide assembly shown).

5. Loosen cap screw on blade guide assembly that needs adjustment (see **Figure 75**), and rotate blade guide until blade is vertical to bed.

Note: *Both blade guides can be adjusted to bring blade into square.*

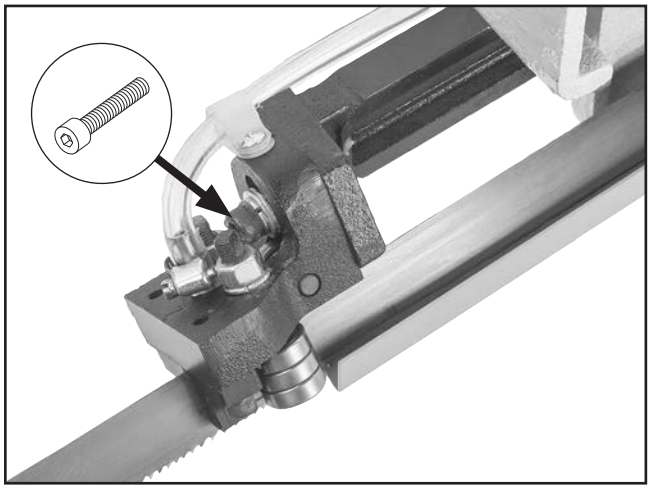


Figure 76. Location of adjustment cap screw (upper blade guide assembly shown).

6. Tighten cap screw(s).

7. Press hose bibs into blade guide assemblies to install cutting fluid hoses.

Adjusting Blade Guides & Bearings

The blade guide assemblies come adjusted from the factory and the need for adjustment should rarely occur. Uneven blade wear and crooked cuts may be the result of improper adjustment.

Each blade guide assembly includes a carbide blade guide, an eccentric bushing, and three bearings (see **Figure 77**). The eccentric bushings allow the distance between the blade and bearings to be adjusted.

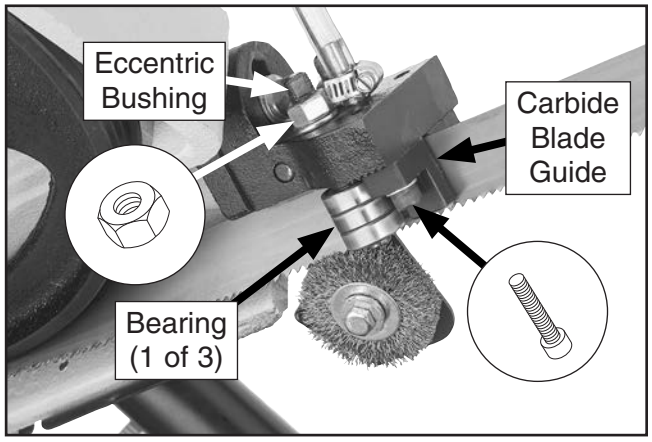


Figure 77. Blade guide components (lower blade guide shown).

There is also a support bearing on the upper and lower blade guides that is not adjustable. When the blade guides and tracking are adjusted correctly, these bearings will make light contact with the blade.

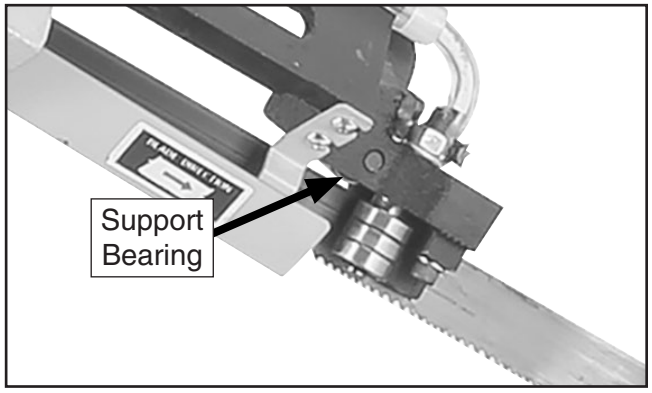


Figure 78. Location of support bearing (upper blade guide shown).

Tools Needed	Qty
Feeler Gauge 0.001"–0.002"	1
Open-End Wrenches ¼", 14mm	1 Ea.
Hex Wrench 5mm	1 Ea.

To adjust blade guides and bearings:

1. DISCONNECT MACHINE FROM POWER!

2. Raise headstock completely, then close feed on/off valve to keep it from lowering.

3. Check clearance between blade and bearings (see **Figure 78**) on both blade guide assemblies. Bearings should make light contact with blade or have a clearance of 0.001"–0.002".

   — If all bearings *do* make light contact with blade or have a clearance of 0.001"–0.002", no bearing adjustment is necessary. Proceed to **Step 7**.

   — If all bearings *do not* make light contact with blade or have a clearance of 0.001"–0.002", proceed to **Step 4**.

4. Loosen hex nut on eccentric bushing of bearings that needs adjustment (see **Figure 78**).

5. Turn eccentric bushing until bearings make light contact with blade or have clearance of 0.001"–0.002" (see **Figure 78**).

6. Tighten hex nut to secure bearing position.

7. Repeat **Step 3** with blade and carbide blade guides (see **Figure 78**).

   — If guides *do* make light contact with blade or have a clearance of 0.001"–0.002", guides do not need adjustment.

   — If guides *do not* make light contact with blade or have a clearance of 0.001"–0.002", proceed to **Step 8**.

8. Loosen cap screw shown in **Figure 78** for carbide blade guide that needs adjustment.

9. Adjust carbide blade guide until guide makes light contact with blade or has clearance of 0.001"–0.002", then tighten cap screw to secure.

Adjusting Blade Brush

The Model G9743 has a blade brush to help keep metal chips off the blade wheels. Use this section to install the brush correctly after installing a blade or adjusting the blade tracking.

This brush will wear over time and require adjustment when it no longer makes proper contact with the blade.

Tools Needed	Qty
Wrenches or Sockets 10mm	2

To adjust blade brush:

1. DISCONNECT MACHINE FROM POWER!

2. Loosen hex nut shown in **Figure 79**.

3. Position brush (see **Figure 79**) so blade extends ⅛" into bristles of brush, then tighten hex nut to secure.

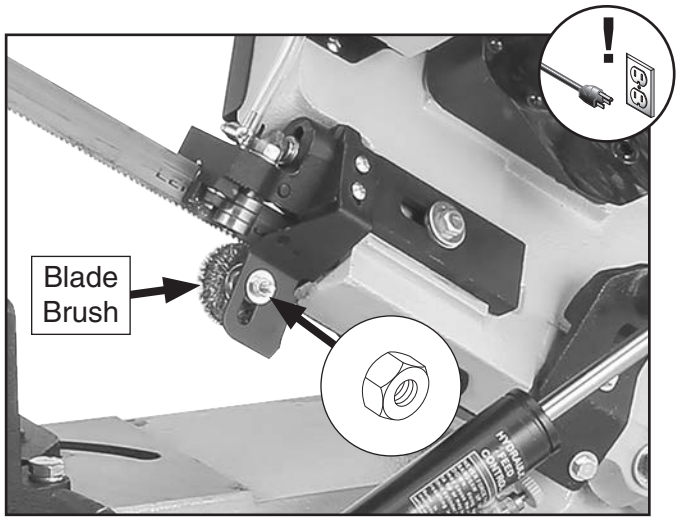


Figure 79. Location of blade brush and hex nut.

Adjusting Downfeed Stop Bolt

If the blade does not turn ***OFF*** at the end of a cut, the headstock does not travel far enough to complete the cut, or the blade contacts the vise table, then the downfeed stop bolt will need to be adjusted.

When the headstock contacts the downfeed stop bolt, the shut-off switch tab must contact the downfeed limit switch to turn the blade ***OFF***.

Tools Needed	Qty
Open-End Wrenches 14mm	2
Phillips Head Screwdriver #2	1

To adjust downfeed stop bolt:

1. DISCONNECT MACHINE FROM POWER!

2. Lower headstock completely. When headstock stops, blade teeth should be just below table surface, but not contacting vise base (see **Figure 80**).

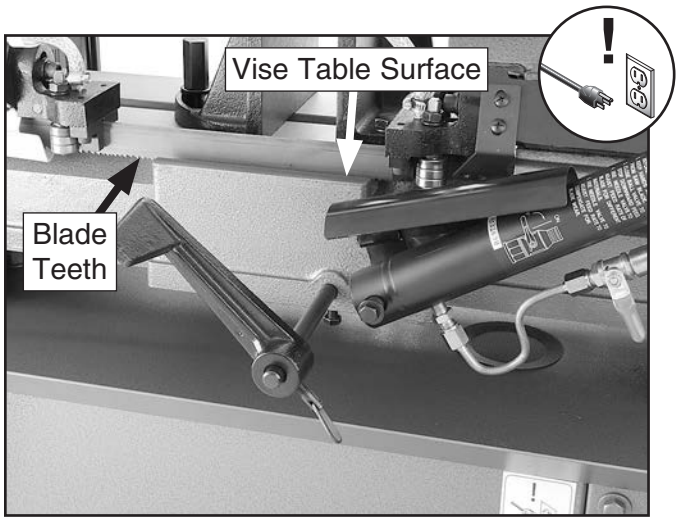


Figure 80. Example of blade below table surface but not contacting vise base.

— If blade teeth are just below table surface, but not contacting vise base, proceed to **Step 6**.

— If blade contacts vise base, raise headstock until blade teeth are just below table surface, then close feed on/off valve to secure. Proceed to **Step 4**.

— If blade is above table surface, proceed to **Step 3**.

3. Loosen (2) jam nuts shown in **Figure 81**, then tighten downfeed stop bolt until blade is just below table surface. Proceed to **Step 5**.

4. Loosen downfeed stop bolt (see **Figure 81**) until it contacts headstock.

5. Tighten jam nuts (see **Figure 81**) against bracket without turning downfeed stop bolt to secure setting.

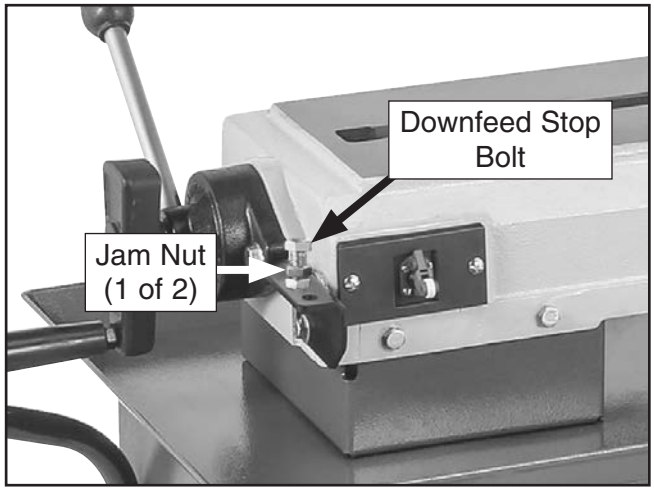


Figure 81. Location of downfeed stop bolt adjustment components.

6. Raise headstock a few inches above vise, close feed on/off valve to keep it from lowering, then connect machine to power.

7. Start blade, then open feed on/off valve. Headstock should lower until it contacts downfeed stop bolt, and blade should turn ***OFF***.

— If headstock lowers until it contacts downfeed stop bolt, and blade turns ***OFF***, no further adjustment is required.

— If blade does not turn ***OFF*** when headstock contacts downfeed stop bolt, or if blade turns ***OFF*** before headstock contacts downfeed stop bolt, DISCONNECT MACHINE FROM POWER, then proceed to **Step 8**.

8. Loosen hex bolt shown in **Figure 82**).

9. With headstock resting on downfeed stop bolt, position shut-off switch tab (see **Figure 82**) so it *just* activates limit switch, then tighten hex bolt.

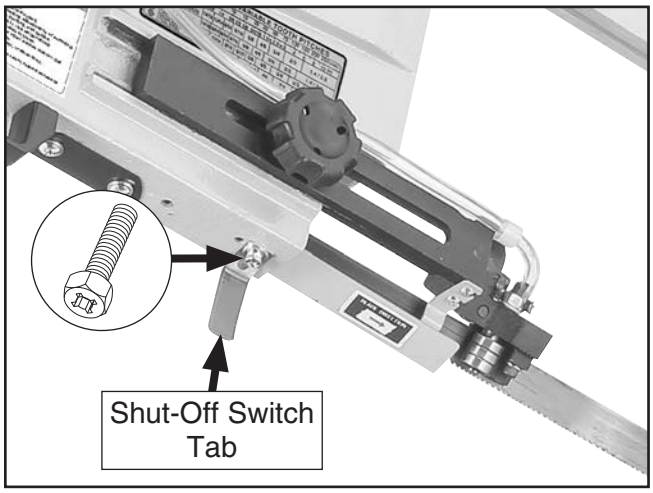


Figure 82. Location of shut-off switch tab and hex bolt.

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.

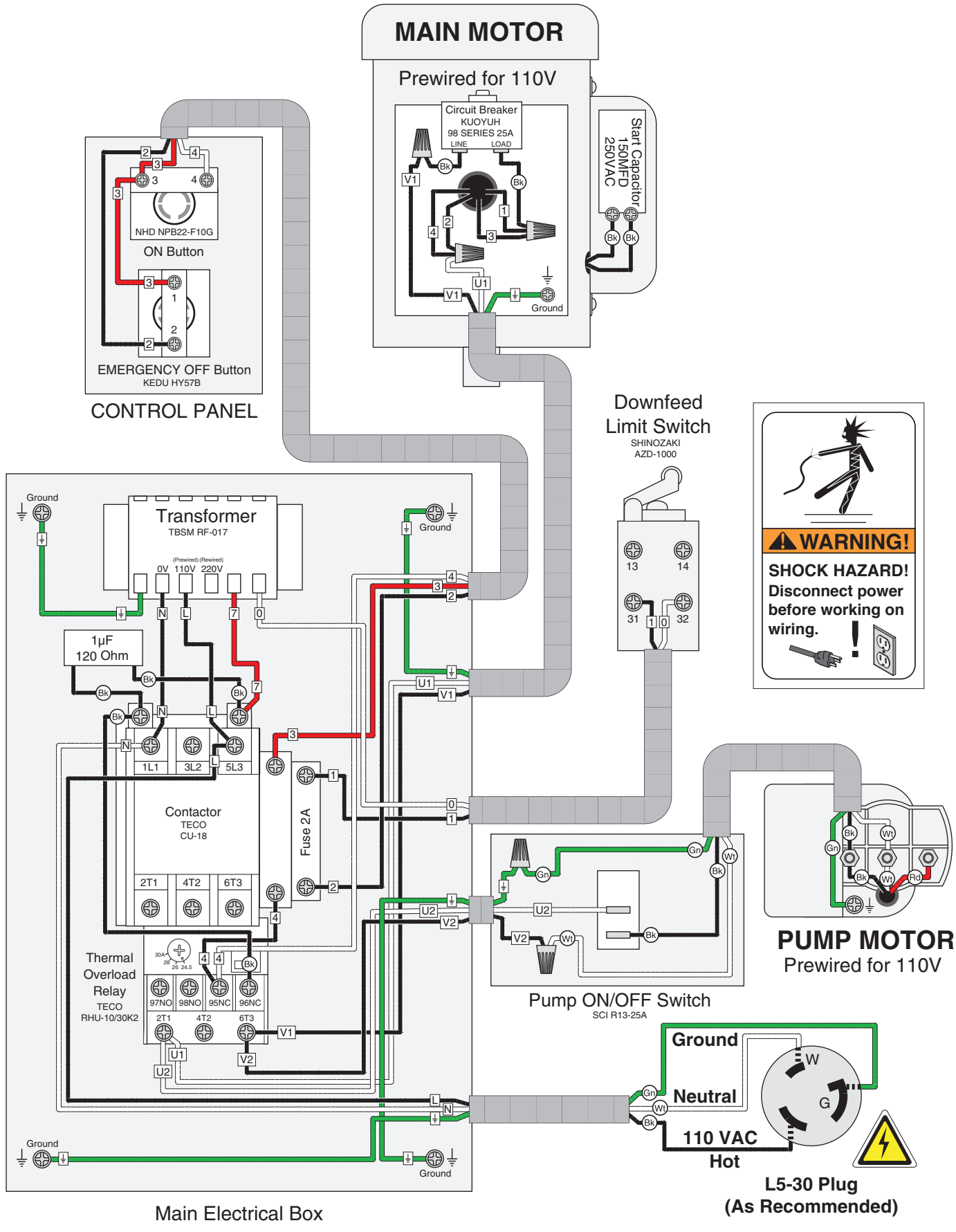
NOTICE

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

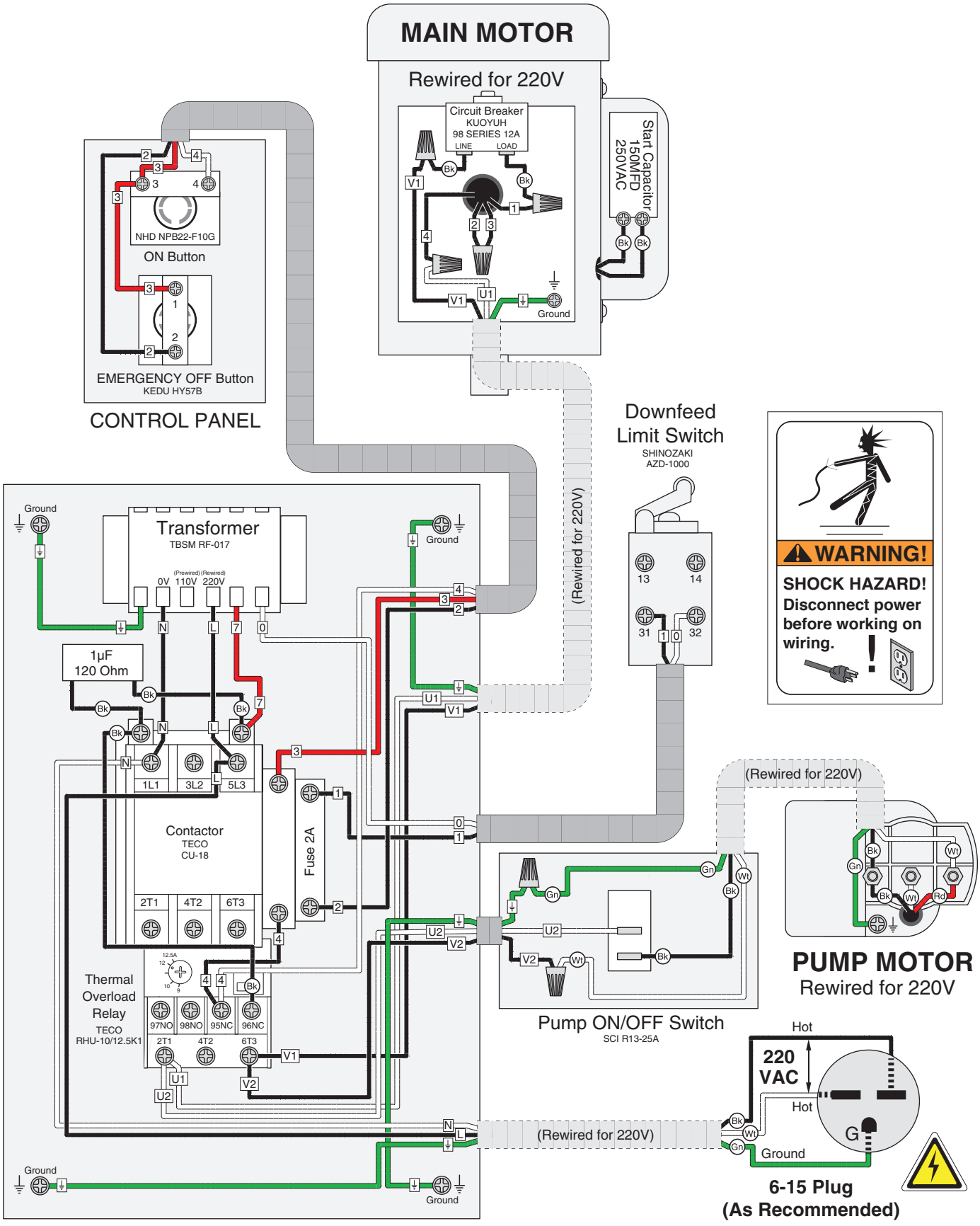
COLOR KEY

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 (110V)



Wiring Diagram (220V)



STOP *READ ELECTRICAL SAFETY ON PAGE 54!*

Electrical Component Photos

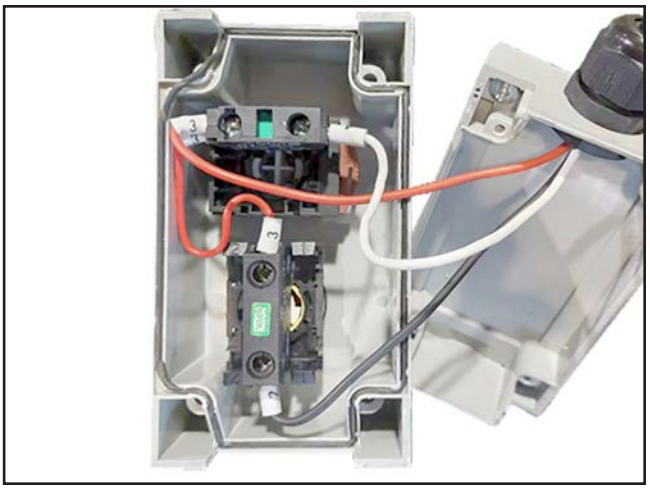


Figure 83. Control panel wiring.

Figure 86. Main motor junction box wiring (110V).

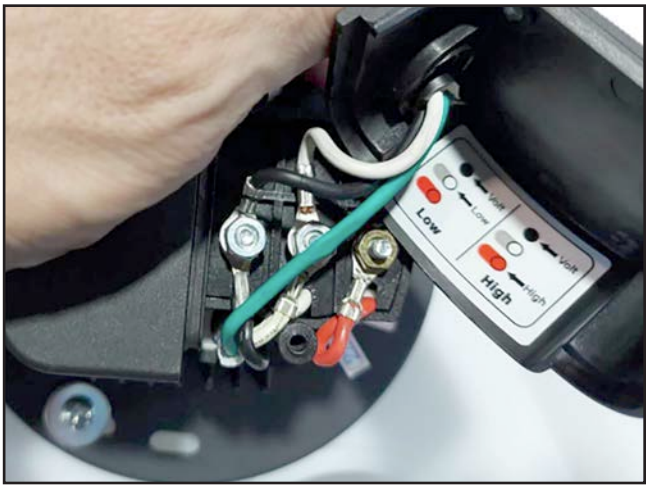


Figure 84. Pump motor junction box wiring (110V).

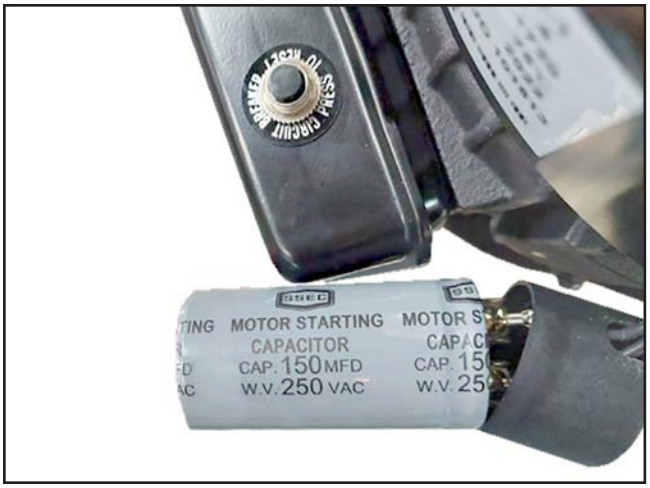


Figure 87. Start capacitor wiring.

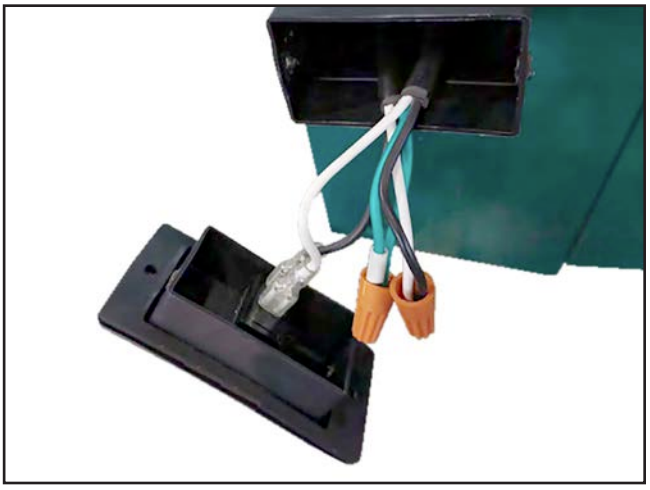


Figure 85. Pump ON/OFF switch wiring.

Figure 88. Downfeed limit switch wiring.

Electrical Component Photos (Cont.)

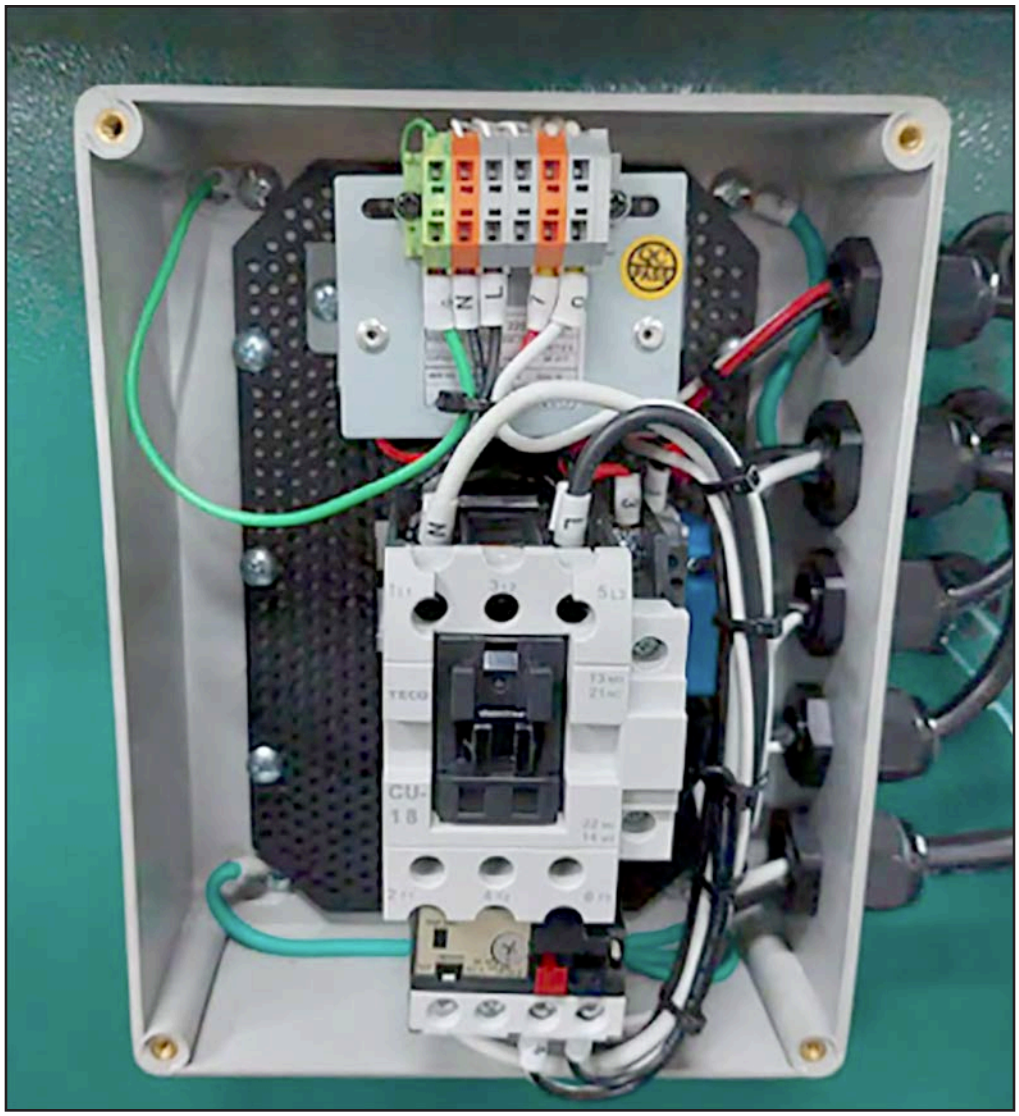
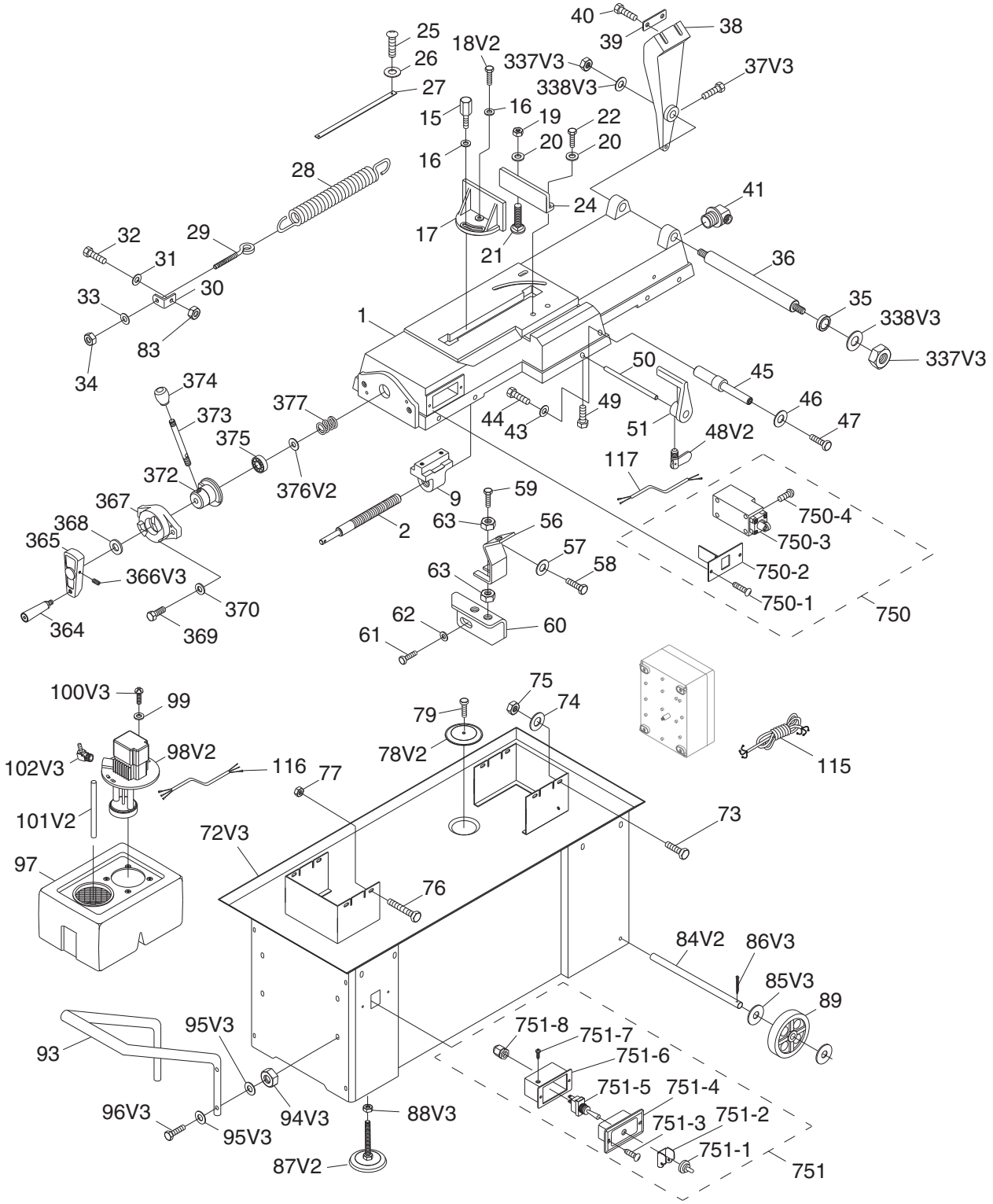


Figure 89. Main electrical box wiring (110V).

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.

Base/Stand



BUY PARTS ONLINE AT GRIZZLY.COM!
Scan QR code to visit our Parts Store.

Base/Stand Parts List

REF	PART #	DESCRIPTION
1	P9743001	SWIVEL BASE
2	P9743002	ACME SCREW 22 X 5-650
9	P9743009	ACME NUT 22 X 5
15	P9743015	FIXED BOLT 22 X 19 X 78, 3/8-16 X 38
16	P9743016	FLAT WASHER 3/8
17	P9743017	VISE JAW BRACKET FRONT
18V2	P9743018V2	HEX BOLT 3/8-16 X 1-1/2 V2.01.02
19	P9743019	HEX NUT 1/2-12
20	P9743020	FLAT WASHER 1/2
21	P9743021	CARRIAGE BOLT 1/2-12 X 2
22	P9743022	HEX BOLT 1/2-12 X 2
24	P9743024	REAR VISE JAW BRACKET
25	P9743025	PHLP HD SCR 10-24 X 3/8
26	P9743026	FLAT WASHER #10
27	P9743027	SCALE
28	P9743028	EXT SPRING 32 X 292
29	P9743029	SPRING ADJUSTNG ROD
30	P9743030	SPRING HANDLE BRACKET
31	P9743031	FLAT WASHER 5/16
32	P9743032	HEX BOLT 5/16-18 X 3/4
33	P9743033	FLAT WASHER 3/8
34	P9743034	HEX NUT 3/8-16
35	P9743035	BUSHING
36	P9743036	SUPPORT ROD
37V3	P9743037V3	HEX BOLT 5/16-18 X 3/4 V3.04.06
38	P9743038	PIVOT BRACKET
39	P9743039	BRACKET WASHER
40	P9743040	HEX BOLT 3/8-16 X 1-1/2
41	P9743041	WIRE NIPPLE 5/8
43	P9743043	FLAT WASHER 5/16
44	P9743044	HEX BOLT 5/16-18 X 3/4
45	P9743045	CYLINDER LOWER SUPPORT
46	P9743046	FLAT WASHER 5/16
47	P9743047	HEX BOLT 5/16-18 X 1/2
48V2	P9743048V2	THUMB SCREW M8-1.25 X 23 V2.01.02
49	P9743049	HEX BOLT 5/16-18 X 3/4
50	P9743050	STOCK STOP ROD
51	P9743051	STOP BLOCK
56	P9743056	FIXED PLATE
57	P9743057	FLAT WASHER 1/4
58	P9743058	HEX BOLT 5/16-18 X 1-1/2
59	P9743059	HEX BOLT 3/8-16 X 1-3/4
60	P9743060	SUPPORT PLATE
61	P9743061	HEX BOLT 5/16-18 X 3/4
62	P9743062	LOCK WASHER 5/16
63	P9743063	HEX NUT 3/8-16
72V3	P9743072V3	STAND COMPLETE ASSY V3.04.06
73	P9743073	HEX BOLT 5/16-18 X 1
74	P9743074	LOCK WASHER 5/16
75	P9743075	HEX NUT 5/16-18
76	P9743076	HEX BOLT 3/8-16 X 1-1/4
77	P9743077	HEX NUT 3/8-16

REF	PART #	DESCRIPTION
78V2	P9743078V2	FILTER V2.01.02
79	P9743079	HEX BOLT 1/4-20 x 1/2
83	P9743083	HEX NUT 5/16-18
84V2	P9743084V2	WHEEL ROD V2.12.09
85V3	P9743085V3	FLAT WASHER 3/8 V3.12.09
86V3	P9743086V3	COTTER PIN 3 X 25MM STANDARD
87V2	P9743087V2	FOOT V2.12.09
88V3	P9743088V2	HEX NUT 1/2-12
89	P9743089	WHEEL
93	P9743093	HANDLE
94V3	P9743094V3	HEX NUT 5/16-18 V3.04.06
95V3	P9743095V3	FLAT WASHER 5/16 V3.04.06
96V3	P9743096V3	HEX BOLT 5/16-18 X 1-1/2 V3.04.06
97	P9743097	CUTTING FLUID TANK
98V2	P9743098V2	COOLANT PUMP 53W 110/220V 1-PH V2.08.21
99	P9743099	FLAT WASHER 1/4
100V3	P9743100V3	PHLP HD SCR 1/4-20 X 5/8 V3.04.06
101V2	P9743101V2	HOSE 3/4" X 15-3/4" V2.04.06
102V3	P9743102V3	COUPLER 3/8"PT X 5/16" V3.04.06
115	P9743115	POWER CORD 12G 3W 70"
116	P9743116	PUMP CORD 18G 3W 22"
117	P9743117	LIMIT SWITCH CORD 18G 2W 48"
337V3	P9743337V3	LOCK NUT 1/2-12 V3.04.06
338V3	P9743338V3	FLAT WASHER 1/2 V3.04.06
364	P9743364	CRANK HANDLE
365	P9743365	CAST IRON CRANK
366V3	P9743366V3	SET SCREW 5/16-18 X 1/2 V3.04.06
367	P9743367	PRESS CLAMP
368	P9743368	FLAT WASHER 12MM
369	P9743369	HEX BOLT 3/8-16 X 1-1/4
370	P9743370	LOCK WASHER 3/8
372	P9743372	PRESSURE SHAFT
373	P9743373	STUD-UDE 1/2-13 X 7, 1/2, 7/8
374	P9743374	KNOB 1/2-13, D1-3/8 ROUND
375	P9743375	BEARING 10 X 28 X 11
376V2	P9743376V2	FLAT WASHER 12MM V2.01.02
377	P9743377	COMPRESSION SPRING 31.5 X 34L
750	P9743750	SAFETY SWITCH ASSY V3.04.06
750-1	P9743750-1	PHLP HD SCR 10-24 X 3/8
750-2	P9743750-2	SWITCH BRACKET V3.04.06
750-3	P9743750-3	SAFETY SWITCH V3.04.06
750-4	P9743750-4	PHLP HD SCR 10-24 X 3/8
751	P9743751	PUMP TOGGLE SWITCH ASSY V3.04.06
751-1	P9743751-1	TOGGLE SWITCH COVER V3.04.06
751-2	P9743751-2	SWITCH COVER V3.04.06
751-3	P9743751-3	PHLP HD SCR 10-24 X 3/8
751-4	P9743751-4	COVER V3.04.06
751-5	P9743751-5	TOGGLE SWITCH SCI R13-25A V3.04.06
751-6	P9743751-6	ELECTRICAL BOX V3.04.06
751-7	P9743751-7	PHLP HD SCR M4-.7 X 6
751-8	P9743751-8	STRAIN RELIEF TYPE-3 PG11V3.04.06

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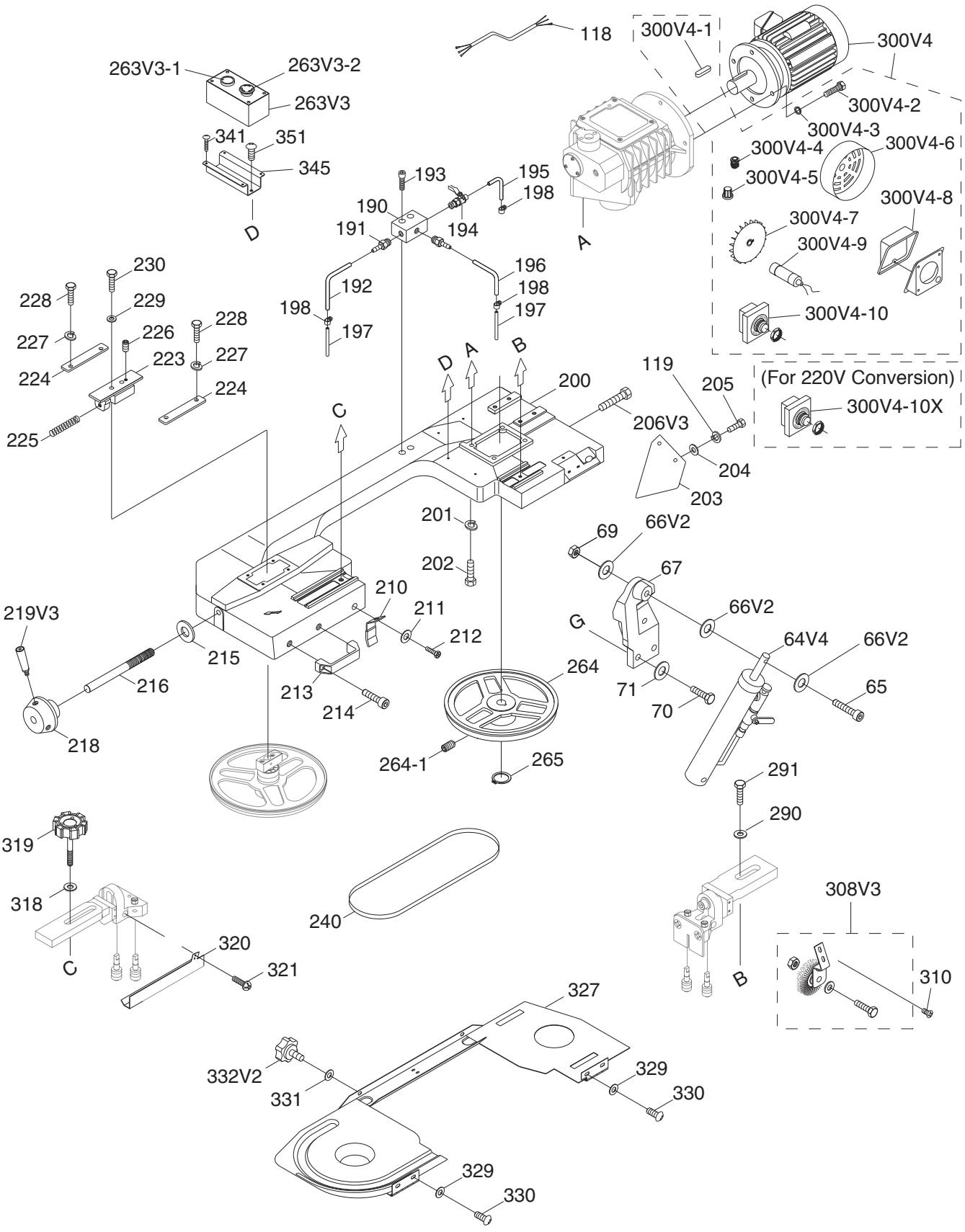
Headstock



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Headstock Parts List

REF	PART #	DESCRIPTION
64V4	P9743064V4	CYLINDER COMPLETE SET V4.05.14
65	P9743065	CAP SCREW 3/8-16 X 2-1/4
66V2	P9743066V2	LOCK WASHER 3/8 V2.01.02
67	P9743067	CYLINDER UPPER SUPPORT
69	P9743069	HEX NUT 3/8-16
70	P9743070	HEX BOLT 5/16-18 X 1
71	P9743071	FLAT WASHER 5/16
118	P9743118	MOTOR CORD 12G 3W 30"
119	P9743119	LOCK WASHER 1/4
190	P9743190	VALVE 3-WAY
191	P9743191	HOSE FITTING
192	P9743192	HOSE 8 X 1100MM 1/4"
193	P9743193	CAP SCREW 1/4-20 X 1-1/4
194	P9743194	VALVE 1/4"PT X 5/16"
195	P9743195	HOSE 12 X 8 X 1400MM 5/16"
196	P9743196	HOSE 8 X 6 X 400MM 1/4"
197	P9743197	HOSE BIB
198	P9743198	HOSE CLAMP V2.01.02
200	P9743200	BODY FRAME
201	P9743201	LOCK WASHER 3/8
202	P9743202	HEX BOLT 3/8-16 X 1-1/4
203	P9743203	SUPPORT PLATE
204	P9743204	FLAT WASHER 1/4
205	P9743205	HEX BOLT 1/4-20 X 1/2 PHILLIPS
206V3	P9743206V3	HEX BOLT 5/16-18 X 3/4 V3.04.06
210	P9743210	SHUT-OFF SWITCH TAB
211	P9743211	FLAT WASHER 1/4
212	P9743212	CAP SCREW 1/4-20 X 5/8
213	P9743213	HANDLE
214	P9743214	CAP SCREW 5/16-18 X 1
215	P9743215	LOCK WASHER 3/8
216	P9743216	BLADE TENSION BAR
218	P9743218	HANDLE BODY
219V3	P9743219V3	HANDLE 3/4 X 2, 5/16-18 X 3/4 V3.04.06
223	P9743223	BLADE TENSION SLIDING BLOCK
224	P9743224	SLIDING PLATE
225	P9743225	COMPRESSION SPRING 14 X 140
226	P9743226	SET SCREW 5/16-18 X 3/4
227	P9743227	LOCK WASHER 5/16

REF	PART #	DESCRIPTION
228	P9743228	HEX BOLT 5/16-18 X 1
229	P9743229	FLAT WASHER 5/16
230	P9743230	HEX BOLT 5/16-18 X 1-1/2
240	P9743240	BLADE 104-1/2 X 1
263V3	P9743263V3	CONTROL BOX V3.12.07
263V3-1	P9743263V3-1	ON BUTTON NHD NPB22-F10G
263V3-2	P9743263V3-2	EMERGENCY OFF BUTTON KEDU HY57B
264	P9743264	DRIVE BLADE WHEEL
264-1	P9743264-1	SET SCREW 1/4-20 X 3/8
265	P9743265	EXT RETAINING RING 25MM
290	P9743290	FLAT WASHER 3/8
291	P9743291	HEX BOLT 3/8-16 X 1-1/4
300V4	P9743300V4	MOTOR 1.5HP 110/220V 1-PH V4.08.07
300V4-1	P9743300V4-1	KEY 5 X 5 X 30
300V4-2	P9743300V4-2	HEX BOLT M10-1.5 X 25
300V4-3	P9743300V4-3	LOCK WASHER 10MM
300V4-4	P9743300V4-4	STRAIN RELIEF TYPE-3 PG13.5
300V4-5	P9743300V4-5	WIRE NUT 12AWG
300V4-6	P9743300V4-6	FAN COVER
300V4-7	P9743300V4-7	FAN
300V4-8	P9743300V4-8	JUNCTION BOX
300V4-9	P9743300V4-9	S CAPACITOR 150M 250V 2-3/4" X 1-3/8"
300V4-10	P9743300V4-10	CIRCUIT BREAKER KUOYUH-98 25A 110V
300V4-10X	P9743300V4-10X	CIRCUIT BREAKER KUOYUH-98 12A 220V
308V3	P9743308V3	BRUSH ASSY V3.04.06
310	P9743310	PHLP HD SCR 10-24 X 3/8
318	P9743318	LOCK WASHER 3/8
319	P9743319	BLADE ADJUSTABLE KNOB
320	P9743320	BLADE COVER FRONT
321	P9743321	PHLP HD SCR 8-32 x 1/4
327	P9743327	BLADE BACK COVER
329	P9743329	FLAT WASHER 1/4
330	P9743330	PHLP HD SCR 1/4-20 X 1/2
331	P9743331	FLAT WASHER 1/4
332V2	P9743332V2	KNOB BOLT 1/4-20 X 1/2, D1-5/16 V2.01.02
341	P9743341	PHLP HD SCR M4-.7 X 6
345	P9743345	BRACKET
351	P9743351	PHLP HD SCR 10-24 X 3/8

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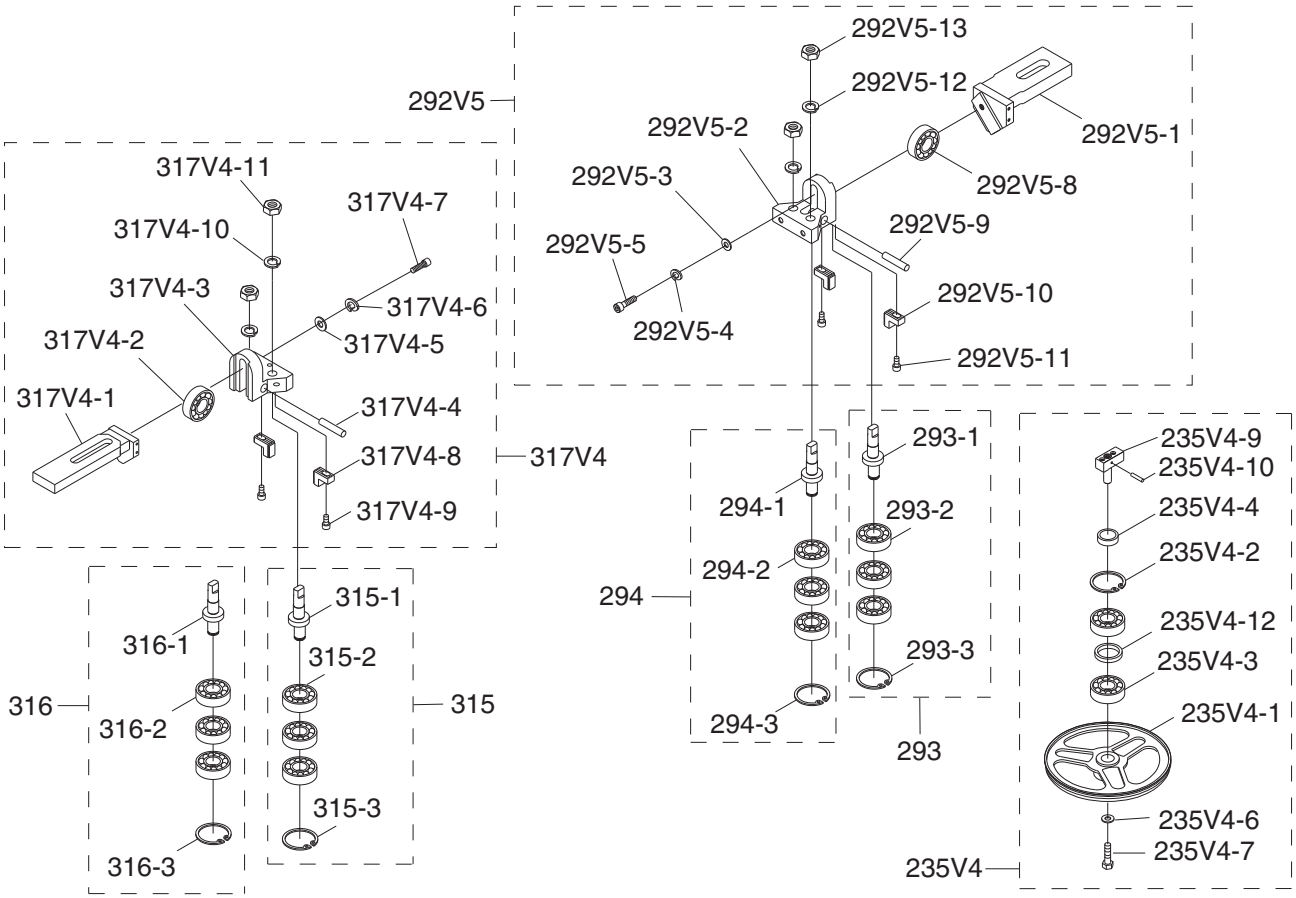
Miscellaneous Assemblies



REF	PART #	DESCRIPTION
235V4	P9743235V4	IDLER WHEEL ASSY V4.04.06
235V4-1	P9743235V4-1	IDLER WHEEL
235V4-2	P9743235V4-2	INT RETAINING RING 52MM
235V4-3	P9743235V4-3	BALL BEARING 6205-2RS
235V4-4	P9743235V4-4	BUSHING
235V4-6	P9743235V4-6	FLAT WASHER 5/16
235V4-7	P9743235V4-7	HEX BOLT 5/16-18 X 3/4
235V4-9	P9743235V4-9	SLIDING PLATE DRAW BLOCK & SHAFT
235V4-10	P9743235V4-10	ROLL PIN 5 X 34
235V4-12	P9743235V4-12	SPACER
292V5	P9743292V5	ADJUSTABLE BRACKET ASSY V5.01.08
292V5-1	P9743292V5-1	ADJUSTABLE BRACKET
292V5-2	P9743292V5-2	BLADE ADJUSTER
292V5-3	P9743292V5-3	FLAT WASHER 5/16
292V5-4	P9743292V5-4	LOCK WASHER 5/16
292V5-5	P9743292V5-5	CAP SCREW 5/16-18 X 1-1/4
292V5-8	P9743292V5-8	BEARING 22MM X 8MM 608ZZ
292V5-9	P9743292V5-9	BEARING PIN 8MM
292V5-10	P9743292V5-10	CARBIDE GUIDE
292V5-11	P9743292V5-11	CAP SCREW M6-1 X 16
292V5-12	P9743292V5-12	LOCK WASHER 3/8
292V5-13	P9743292V5-13	HEX NUT 3/8-24
293	P9743293	GUIDE PIVOT ASSEMBLY RIGHT V2.01.02
293-1	P9743293-1	GUIDE PIVOT RIGHT V2.01.02
293-2	P9743293-2	BEARING 22MM X 8MM 608ZZ

REF	PART #	DESCRIPTION
293-3	P9743293-3	INT RETAINING RING 26MM
294	P9743294	GUIDE PIVOT ASSEMBLY LEFT V2.01.02
294-1	P9743294-1	GUIDE PIVOT V2.01.02
294-2	P9743294-2	BEARING 22MM X 8MM 608ZZ
294-3	P9743294-3	INT RETAINING RING 26MM
315	P9743315	GUIDE PIVOT ASSEMBLY RIGHT V2.01.02
315-1	P9743315-1	GUIDE PIVOT RIGHT V2.01.02
315-2	P9743315-2	BEARING 22MM X 8MM 608ZZ
315-3	P9743315-3	INT RETAINING RING 26MM
316	P9743316	GUIDE PIVOT ASSEMBLY LEFT V2.01.02
316-1	P9743316-1	GUIDE PIVOT LEFT V2.01.02
316-2	P9743316-2	BEARING 22MM X 8MM 608ZZ
316-3	P9743316-3	INT RETAINING RING 26MM
317V4	P9743317V4	ADJUSTABLE BRACKET ASSY FRONT V4.04.06
317V4-1	P9743317V4-1	ADJUSTABLE BRACKET FRONT V3.04.06
317V4-2	P9743317V4-2	BEARING 22MM X 8MM 608ZZ
317V4-3	P9743317V4-3	BLADE ADJUSTER REAR
317V4-4	P9743317V4-4	BEARING PIN
317V4-5	P9743317V4-5	FLAT WASHER 5/16
317V4-6	P9743317V4-6	LOCK WASHER 5/16
317V4-7	P9743317V4-7	CAP SCREW 5/16-18 X 1-1/4
317V4-8	P9743317V4-8	CARBIDE GUIDE
317V4-9	P9743317V4-9	CAP SCREW M6-1 X 16
317V4-10	P9743317V4-10	LOCK WASHER 3/8
317V4-11	P9743317V4-11	HEX NUT 3/8-24

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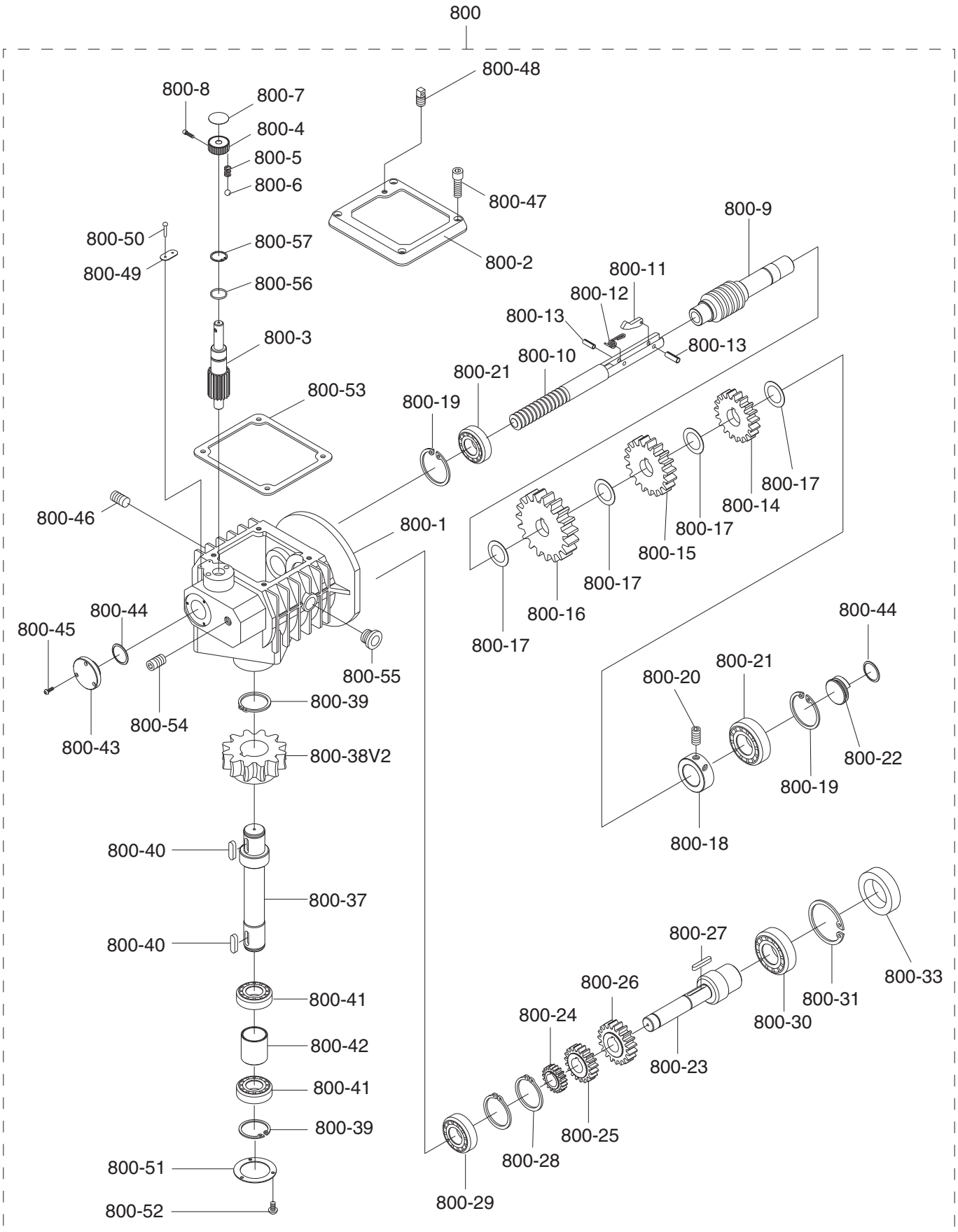
Gearbox



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Gearbox Parts List

REF	PART #	DESCRIPTION
800	P9743800	COMPLETE GEARBOX V4.01.08
800-1	P9743800-1	GEARBOX
800-2	P9743800-2	GEARBOX COVER
800-3	P9743800-3	SPEED CHANGE GEAR SHAFT
800-4	P9743800-4	SPEED KNOB
800-5	P9743800-5	COMPRESSION SPRING
800-6	P9743800-6	STEEL BALL 8MM
800-7	P9743800-7	SPEED INDICATOR DIAL
800-8	P9743800-8	CAP SCREW M5-.8 X 27
800-9	P9743800-9	WORM SHAFT
800-10	P9743800-10	SPEED CHANGE ROD
800-11	P9743800-11	SPEED CHANGE KEY
800-12	P9743800-12	TORSION SPRING
800-13	P9743800-13	ROLL PIN 3 X 10
800-14	P9743800-14	GEAR
800-15	P9743800-15	GEAR
800-16	P9743800-16	GEAR
800-17	P9743800-17	GEAR SPACER
800-18	P9743800-18	LOCK COLLAR
800-19	P9743800-19	INT RETAINING RING 35MM
800-20	P9743800-20	SET SCREW M6-1 X 6
800-21	P9743800-21	BALL BEARING 6003LLB
800-22	P9743800-22	COVER
800-23	P9743800-23	GEAR SHAFT
800-24	P9743800-24	GEAR
800-25	P9743800-25	GEAR
800-26	P9743800-26	GEAR

REF	PART #	DESCRIPTION
800-27	P9743800-27	KEY 5 X 5 X 35
800-28	P9743800-28	EXT RETAINING RING 17MM
800-29	P9743800-29	BALL BEARING 6003LLB
800-30	P9743800-30	BALL BEARING 6007LLB
800-31	P9743800-31	INT RETAINING RING 62MM
800-33	P9743800-33	OIL SEAL
800-37	P9743800-37	DRIVE GEAR SHAFT
800-38V2	P9743800-38V2	WORM GEAR V2.01.12
800-39	P9743800-39	EXT RETAINING RING 25MM
800-40	P9743800-40	KEY 6 X 6 X 20
800-41	P9743800-41	BALL BEARING 6205LLB
800-42	P9743800-42	BEARING SPACER
800-43	P9743800-43	COVER
800-44	P9743800-44	O-RING
800-45	P9743800-45	BUTTON HD CAP SCR M5-.8 X 12
800-46	P9743800-46	PLUG
800-47	P9743800-47	CAP SCREW M6-1 X 20
800-48	P9743800-48	VENT PLUG
800-49	P9743800-49	SCALE
800-50	P9743800-50	RIVET
800-51	P9743800-51	BEARING COVER
800-52	P9743800-52	PHLP HD SCR M5-.8 X 10
800-53	P9743800-53	GASKET
800-54	P9743800-54	PLUG
800-55	P9743800-55	SIGHT GLASS
800-56	P9743800-56	O-RING 15.8 X 2.4 P16
800-57	P9743800-57	INT RETAINING RING 25MM

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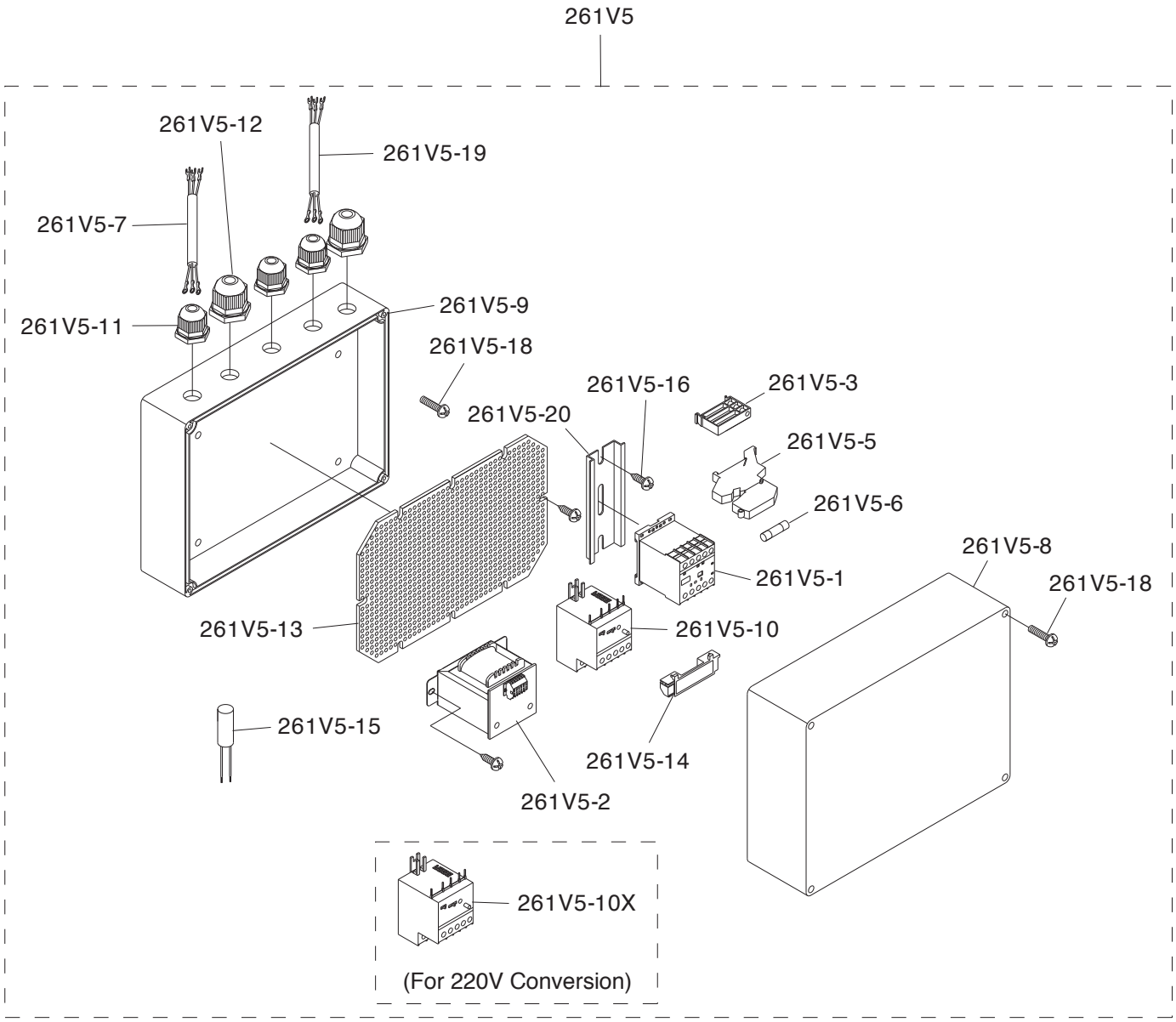
Electrical Box



REF	PART #	DESCRIPTION
261V5	P9743261V5	ELECTRICAL BOX ASSEMBLY V5.10.13
261V5-1	P9743261V5-1	CONTACTOR TECO CU-18 24V
261V5-2	P9743261V5-2	TRANSFORMER TBSM RF-017
261V5-3	P9743261V5-3	DIN RAIL END CAP
261V5-5	P9743261V5-5	FUSE HOUSING 281-611
261V5-6	P9743261V5-6	FUSE 2A 5 X 20MM
261V5-7	P9743261V5-7	CONTROL BOX CORD 16G 3W 48"
261V5-8	P9743261V5-8	ELECTRICAL BOX COVER
261V5-9	P9743261V5-9	ELECTRICAL BOX
261V5-10	P9743261V5-10	OL RELAY TECO RHU-10/30K2 24.5-30A 110V

REF	PART #	DESCRIPTION
261V5-10X	P9743261V5-10X	OL RELAY TECO RHU-10/12.5K1 9-12.5A 220V
261V5-11	P9743261V5-11	STRAIN RELIEF TYPE-3 PG11
261V5-12	P9743261V5-12	STRAIN RELIEF TYPE-3 PG13.5
261V5-13	P9743261V5-13	NET PANEL
261V5-14	P9743261V5-14	CLIP
261V5-15	P9743261V5-15	ARRESTOR 1UF 120OHM
261V5-16	P9743261V5-16	TAP SCREW M5 X 15
261V5-18	P9743261V5-18	PHLP HD SCR 1/4-20 X 1/2
261V5-19	P9743261V5-19	PUMP SWITCH CORD 18G 3W 30"
261V5-20	P9743261V5-20	DIN RAIL

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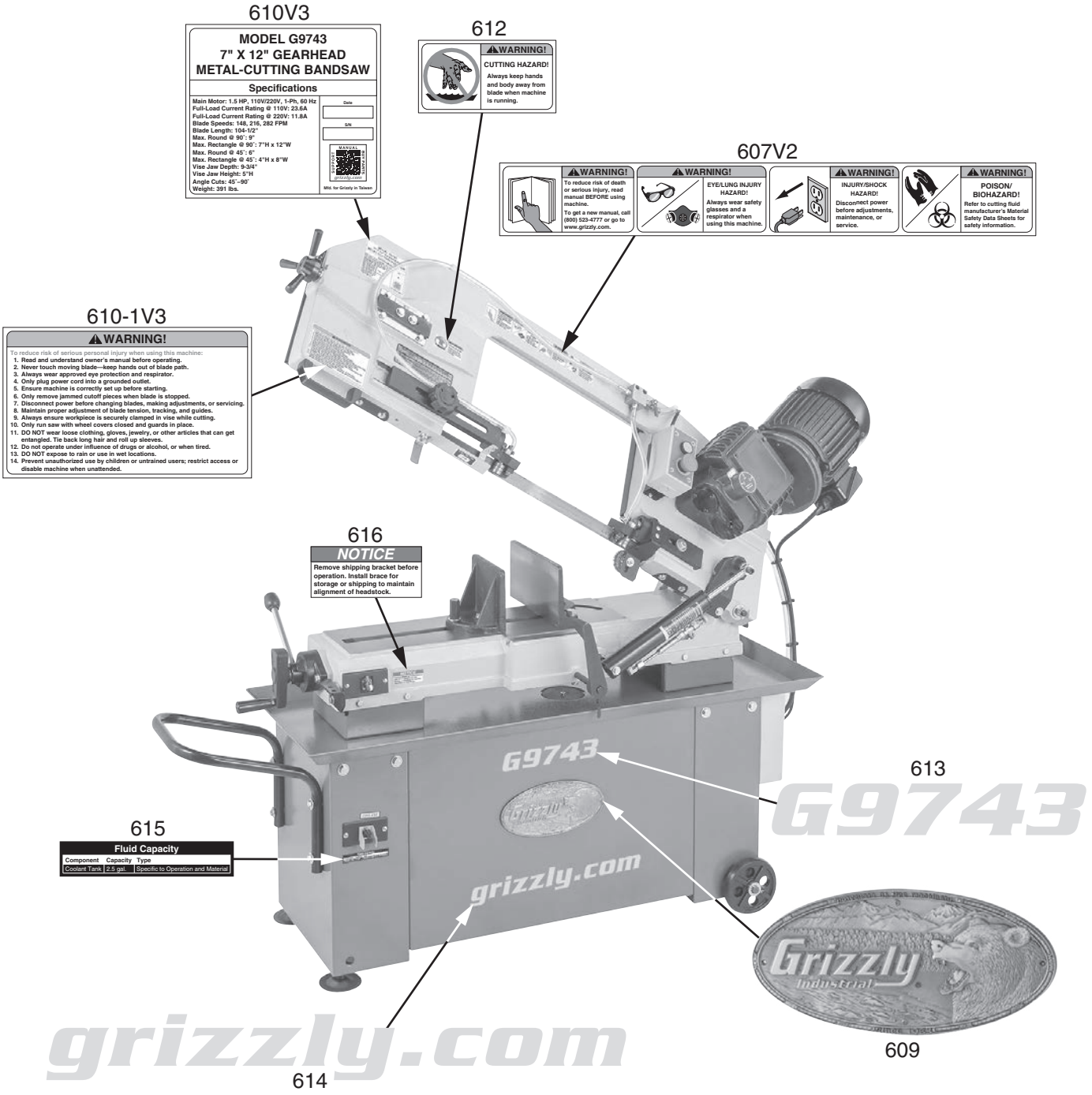
Labels & Cosmetics (Front)



REF	PART #	DESCRIPTION
607V2	P9743607V2	COMBO WARNING LABEL V2.05.23
609	P9743609	GRIZZLY NAMEPLATE SMALL
610V3	P9743610V3	MACHINE ID LABEL V3.05.23
610-1V3	P9743610-1V3	MACHINE WARNINGS LABEL V3.05.23
612	P9743612	CUTTING HAZARD LABEL

REF	PART #	DESCRIPTION
613	P9743613	MODEL NUMBER LABEL
614	P9743614	GRIZZLY.COM LABEL
615	P9743615	FLUID CAPACITY LABEL
616	P9743616	SHIPPING BRACKET LABEL

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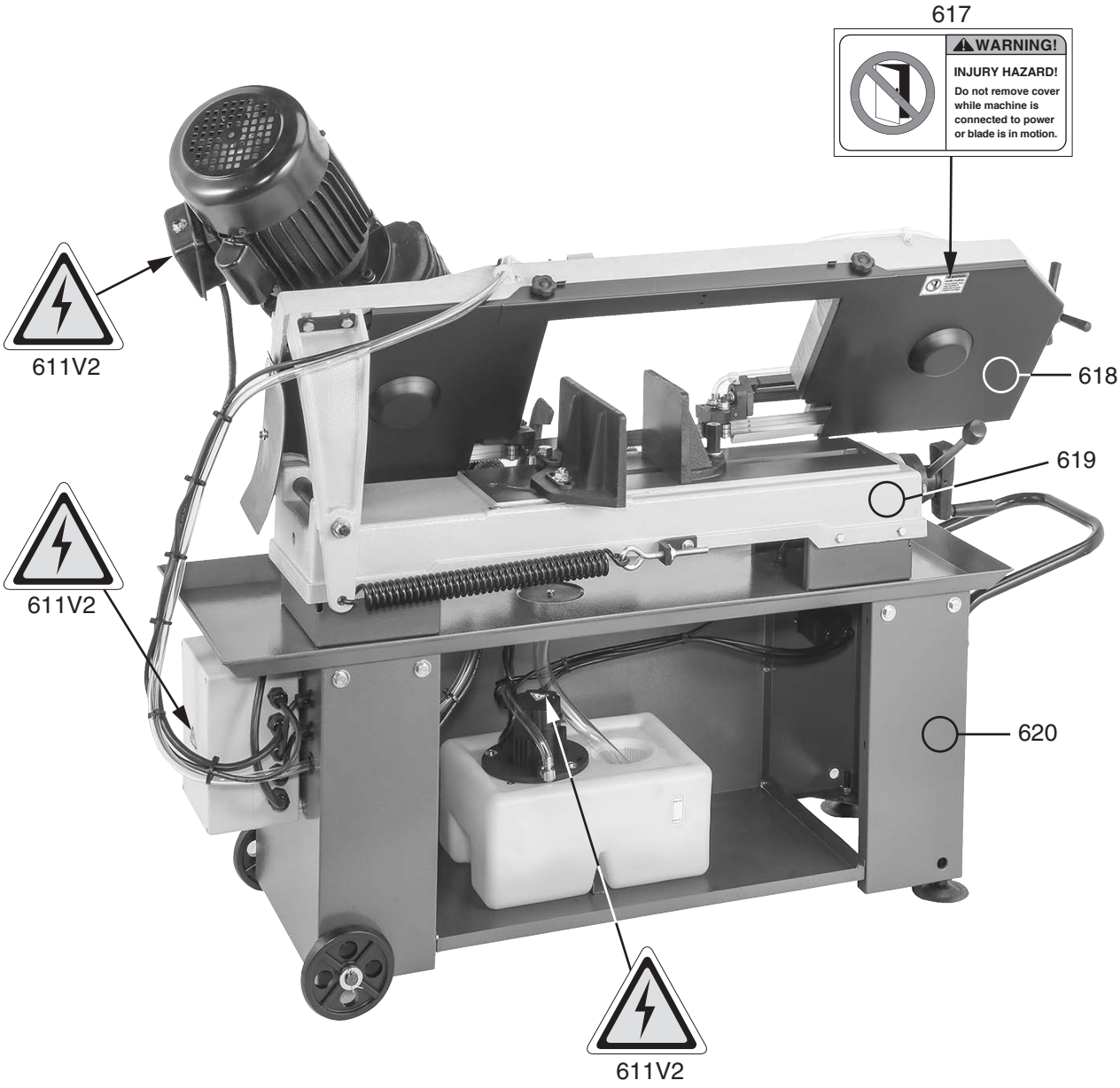
Labels & Cosmetics (Rear)



REF	PART #	DESCRIPTION
611V2	P9743611V2	ELECTRICITY LABEL V2.11.05
617	P9743617	DO NOT REMOVE COVER LABEL
618	P9743618	TOUCH-UP PAINT, GRIZZLY BLACK

REF	PART #	DESCRIPTION
619	P9743619	TOUCH-UP PAINT, GRIZZLY BEIGE
620	P9743620	TOUCH-UP PAINT, GRIZZLY GREEN

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