

Grizzly *Industrial, Inc.*®

MODEL G0659 9" x 14" VERTICAL METAL-CUTTING BANDSAW OWNER'S MANUAL



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**WARNING: NO PORTION OF THIS MANUAL MAY BE REPRODUCED IN ANY SHAPE
OR FORM WITHOUT THE WRITTEN APPROVAL OF GRIZZLY INDUSTRIAL, INC.**
#JB10244 PRINTED IN TAIWAN

 **WARNING!**

This manual provides critical safety instructions on the proper setup, operation, maintenance and service of this machine/equipment.

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

The owner of this machine/equipment 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, blade/cutter 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

Foreword

We are proud to offer the Model G0659 9"H x 14"W Vertical Metal-Cutting Bandsaw. This machine is part of a growing Grizzly family of fine metalworking machinery. When used according to the guidelines set forth in this manual, you can expect years of trouble-free, enjoyable operation and proof of Grizzly's commitment to customer satisfaction.

The specifications, drawings, and photographs illustrated in this manual represent the Model G0659 when the manual was prepared. However, owing to Grizzly's policy of continuous improvement, changes may be made at any time with no obligation on the part of Grizzly. For your convenience, we always keep current Grizzly manuals available on our website at www.grizzly.com. Any updates to your machine will be reflected in these manuals as soon as they are complete. Visit our site often to check for the latest updates to this manual!

Contact Info

We stand behind our machines. If you have any service questions, parts requests or general questions about the machine, please call or write us at the location listed below.

Grizzly Industrial, Inc.
1203 Lycoming Mall Circle
Muncy, PA 17756
Phone: (570) 546-9663
Fax: (800) 438-5901
E-Mail: techsupport@grizzly.com

If you have any comments regarding this manual, please write to us at the address below:

Grizzly Industrial, Inc.
c/o Technical Documentation Manager
P.O. Box 2069
Bellingham, WA 98227-2069
Email: manuals@grizzly.com

Functional Overview

The vertical metal-cutting bandsaw has a flexible continuous blade that cuts in one direction. The type of bandsaw blade to be used and the speed of the blade depends on the workpiece type, feed rate, and the form of the cut.

This type of bandsaw can be used for straight cuts, angular cuts, and curved or contour cuts.

Straight cuts are made by clamping the workpiece in a stationary position and using the gravity feed to move the blade through the workpiece. Adjustments can be made to fine tune the blade feed speed and pressure.

Angular cuts are made in a similar fashion with the workpiece clamped to the miter, which is rotated shown by the miter scale.

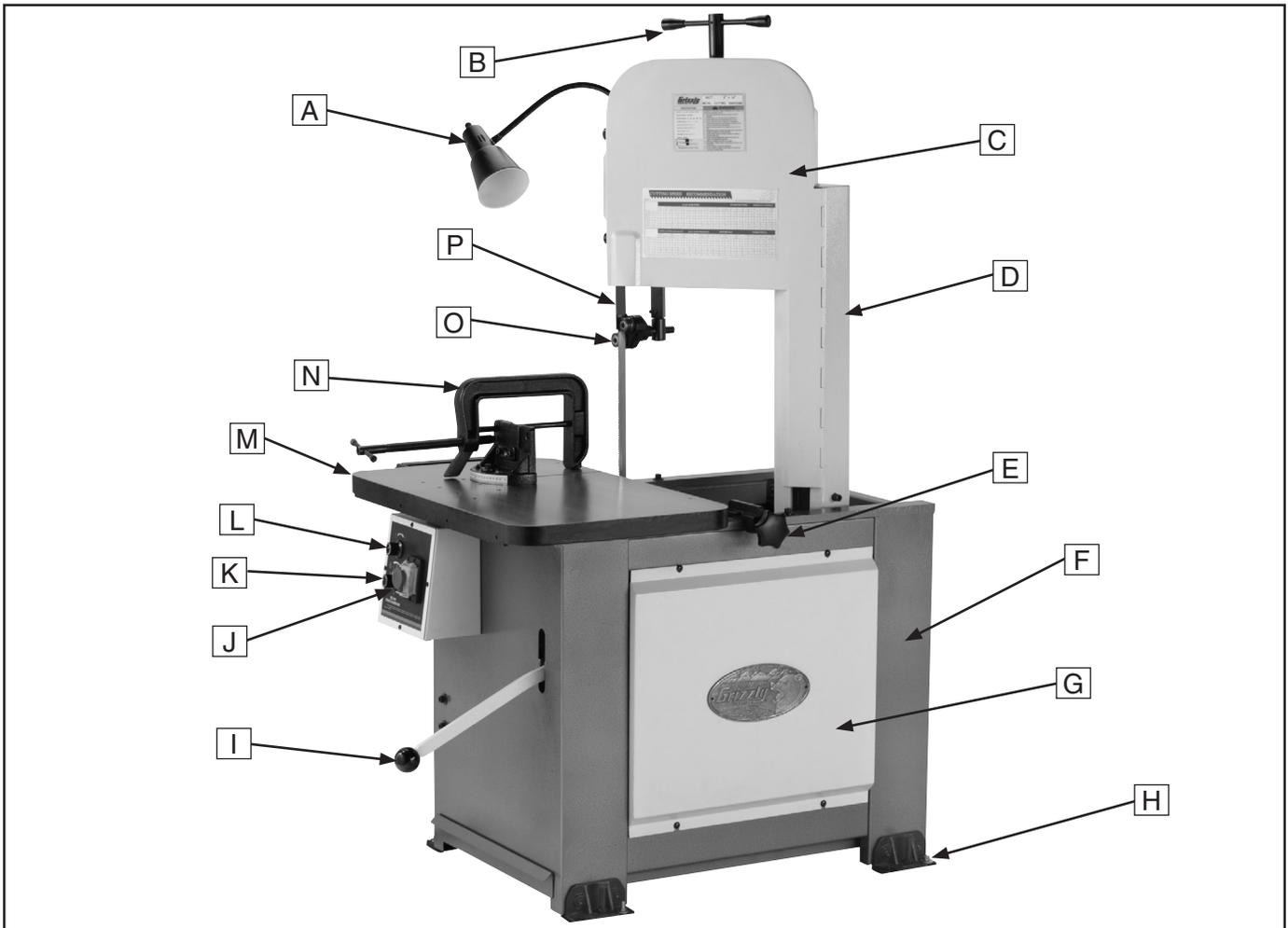
Contour cuts are made by removing the vise and locking the blade in the forward position. This locates the blade in the center of the table and allows the workpiece to be fed into and around the blade while remaining well supported by the table.

The blade is supported by upper and lower bearing blade guides that keep the blade from wandering during the cut.

The efficiency of the cutting operation can be easily checked by examining the shape and color of the metal chips produced during cutting.



Identification



- A. Work Light (110V)
- B. Blade Tension Handle
- C. Upper Wheel Door
- D. Saw Frame
- E. Saw Frame Stop Clamp
- F. Saw Base
- G. Right Side Access Cover
- H. Adjustable Mounting Foot
- I. Saw Release Lever
- J. Power Switch
- K. Feed Rate Adjust Knob
- L. Saw Release Knob
- M. Table
- N. C-Clamp Vise
- O. Blade Guide
- P. Blade Guard





MACHINE DATA SHEET

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

MODEL G0659 9" X 14" VERTICAL METAL CUTTING BANDSAW

Product Dimensions:

Weight 550 lbs.
Length/Width/Height 46" x 33" x 67"
Foot Print (Length/Width)..... 33½" x 26"

Shipping Dimensions:

Type Wood Slat
Content..... Machine
Weight..... 616 lbs.
Length/Width/Height..... 44½" x 83¼" x 71¼"

Electrical:

Switch..... ON/OFF Switch
Switch Voltage 220V
Cord Length 6 ft.
Cord Gauge 14 gauge
Recommended Circuit Size 15A
Included Plug No

Motor:

Type TEFC Capacitor Start Induction
Horsepower..... 1 HP
Voltage 220V
Phase Single-Phase
Amps 8A
Speed..... 1725 RPM
Cycle 60 Hz
Number Of Speeds 1
Power Transfer V-Belt Drive
Bearings..... Shielded and Lubricated

Main Specifications:

Operation Information

Number of Blade Speeds 4
Blade Speeds 70, 140, 280, 580 FPM
Blade Width Range ¼"-1"
Blade Length 120"
Wheel Diameter..... 14"



Main Specifications (continued):

Cutting Capacity

Miter Cut..... 45° Right, 45° Left
Maximum Cutting Capacity At 90°9" x 14" Rectangular, 3 1/8" Round
Maximum Cutting Capacity At 45°3 1/8" x 3 1/8" Rectangular, 3 1/8" Round

Table Information

Table Size (Length/Width)..... 18 1/2" x 30 1/2"
Floor to Cutting Surface of Table30 1/2"

Construction

Rails.....Steel
Table..... Precision Ground Cast Iron
Wheels..... Fully-Balance Cast Iron
Body Pre-Formed Steel
Base Pre-Formed Steel
Wheel Covers..... Pre-Formed Steel
Blade Guides..... Ball Bearing
Paint Powder Coated

Other Specifications:

Country Of Origin..... Taiwan
Warranty..... 1 Year
Serial Number Location ID Label on Upper Wheel Cover
Assembly Time 90 minutes

Features:

- Four Blade Speeds
- Blade Tension Indicator
- Swivel Vise w/Scale For Miter Cuts
- Hydraulic Feed Control
- C-Clamp For Cutting Round Stock
- Work Light
- Chip Tray
- Extension Roller



SECTION 1: SAFETY

WARNING

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.



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



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



Indicates a potentially hazardous situation which, if not avoided, **MAY** result in minor or moderate injury. It may also be used to alert against unsafe practices.

NOTICE

This symbol is used to alert the user to useful information about proper operation of the machine.

WARNING

Safety Instructions for Machinery

- 1. READ THE ENTIRE MANUAL BEFORE STARTING MACHINERY.** Machinery presents serious injury hazards to untrained users.
- 2. ALWAYS USE ANSI APPROVED SAFETY GLASSES WHEN OPERATING MACHINERY.** Everyday eyeglasses only have impact resistant lenses—they are NOT safety glasses.
- 3. ALWAYS WEAR A NIOSH APPROVED RESPIRATOR WHEN OPERATING MACHINERY THAT PRODUCES DUST.** Most types of dust (wood, metal, etc.) can cause severe respiratory illnesses.
- 4. ALWAYS USE HEARING PROTECTION WHEN OPERATING MACHINERY.** Machinery noise can cause permanent hearing loss.
- 5. WEAR PROPER APPAREL. DO NOT** wear loose clothing, gloves, neckties, rings, or jewelry that can catch in moving parts. Wear protective hair covering to contain long hair and wear non-slip footwear.
- 6. NEVER OPERATE MACHINERY WHEN TIRED OR UNDER THE INFLUENCE OF DRUGS OR ALCOHOL.** Be mentally alert at all times when running machinery.



WARNING

Safety Instructions for Machinery

7. **ONLY ALLOW TRAINED AND PROPERLY SUPERVISED PERSONNEL TO OPERATE MACHINERY.** Make sure operation instructions are safe and clearly understood.
8. **KEEP CHILDREN AND VISITORS AWAY.** Keep all children and visitors a safe distance from the work area.
9. **MAKE WORKSHOP CHILDPROOF.** Use padlocks, master switches, and remove start switch keys.
10. **NEVER LEAVE WHEN MACHINE IS RUNNING.** Turn power **OFF** and allow all moving parts to come to a complete stop before leaving machine unattended.
11. **DO NOT USE IN DANGEROUS ENVIRONMENTS.** DO NOT use machinery in damp, wet locations, or where any flammable or noxious fumes may exist.
12. **KEEP WORK AREA CLEAN AND WELL LIGHTED.** Clutter and dark shadows may cause accidents.
13. **USE A GROUNDED EXTENSION CORD RATED FOR THE MACHINE AMPERAGE.** Grounded cords minimize shock hazards. Undersized cords create excessive heat. Always replace damaged extension cords.
14. **ALWAYS DISCONNECT FROM POWER SOURCE BEFORE SERVICING MACHINERY.** Make sure switch is in OFF position before reconnecting.
15. **MAINTAIN MACHINERY WITH CARE.** Keep blades sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
16. **MAKE SURE GUARDS ARE IN PLACE AND WORK CORRECTLY BEFORE USING MACHINERY.**
17. **REMOVE ADJUSTING KEYS AND WRENCHES.** Make a habit of checking for keys and adjusting wrenches before turning machinery **ON**.
18. **CHECK FOR DAMAGED PARTS BEFORE USING MACHINERY.** Check for binding or misaligned parts, broken parts, loose bolts, and any other conditions that may impair machine operation. Repair or replace damaged parts before operation.
19. **USE RECOMMENDED ACCESSORIES.** Refer to the instruction manual for recommended accessories. Improper accessories increase risk of injury.
20. **DO NOT FORCE MACHINERY.** Work at the speed for which the machine or accessory was designed.
21. **SECURE WORKPIECE.** Use clamps or a vise to hold the workpiece when practical. A secured workpiece protects your hands and frees both hands to operate the machine.
22. **DO NOT OVERREACH.** Maintain stability and balance at all times.
23. **MANY MACHINES CAN EJECT WORKPIECES TOWARD OPERATOR.** Know and avoid conditions that cause the workpiece to "kickback."
24. **ALWAYS LOCK MOBILE BASES (IF USED) BEFORE OPERATING MACHINERY.**
25. **CERTAIN DUST MAY BE HAZARDOUS** to the respiratory systems of people and animals, especially fine dust. Be aware of the type of dust you are exposed to and always wear a respirator designed to filter that type of dust.



WARNING

Safety Instructions for Metal Cutting Bandsaws

- 1. BLADE CONDITION.** Do not operate with a dull, cracked or badly worn blade that can break during operation or decrease the performance of the bandsaw. Inspect blades for cracks and missing teeth before each use.
- 2. BLADE REPLACEMENT.** Wear gloves to protect hands and safety glasses to protect eyes when replacing the blade. When installing the new blade, make sure teeth face forward and down toward the table in the direction of blade travel.
- 3. WORKPIECE HANDLING.** Your hands can be drawn into the blade during operation if the workpiece moves unexpectedly. Always keep your hands a safe distance away from the moving blade.
- 4. 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.
- 5. FIRE HAZARD.** 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.
- 6. ENTANGLEMENT HAZARDS.** Always keep the blade guard correctly positioned and wheel doors closed and secured when bandsaw is in operation. Loose clothing, jewelry, long hair and work gloves can be drawn into working parts.
- 7. MAINTENANCE/SERVICE.** All inspections, adjustments, and maintenance are to be done with the power **OFF** and the power disconnected. Wait for all moving parts to come to a complete stop.
- 8. HOT SURFACES.** Be aware that contact with hot surfaces from machine components, ejections of hot chips, swarf and workpiece can cause burns.
- 9. EXPERIENCING DIFFICULTY.** If at any time you are experiencing difficulties performing the intended operation, stop using the machine! Contact our Technical Support Department at (570) 546-9663.

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 lessen the possibility of operator injury. If normal safety precautions are overlooked or ignored, serious personal injury may occur.

CAUTION

No list of safety guidelines can be complete. Every shop environment is different. Always consider safety first, as it applies to your individual working conditions. Use this and other machinery with caution and respect. Failure to do so could result in serious personal injury, damage to equipment, or poor work results.



SECTION 2: CIRCUIT REQUIREMENTS

220V Single-Phase

!WARNING

Serious personal injury could occur if you connect the machine to the power source before you have completed the set up process. **DO NOT** connect the machine to the power source until instructed to do so.

Amperage Draw

The Model G0659 motor draws the following amps under maximum load:

Motor Draw 8 Amps

Power Supply Circuit Requirements

We recommend connecting your machine to a dedicated and grounded circuit that is rated for the amperage given below. Never replace a circuit breaker on an existing circuit with one of higher amperage without consulting a qualified electrician to ensure compliance with wiring codes. **If you are unsure about the wiring codes in your area or you plan to connect your machine to a shared circuit, consult a qualified electrician.**

Minimum Circuit Size..... 15 Amps

Plug/Receptacle Type

Recommended Plug/Receptacle..... NEMA 6-15

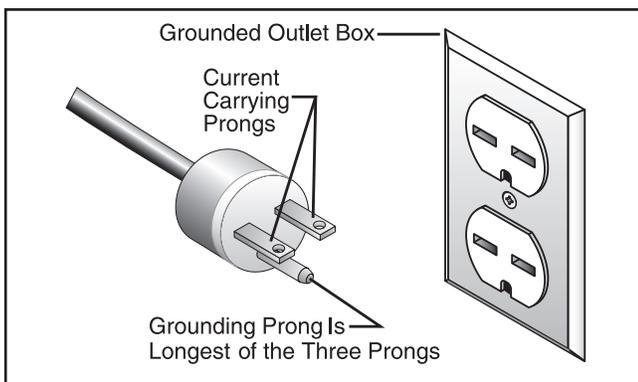
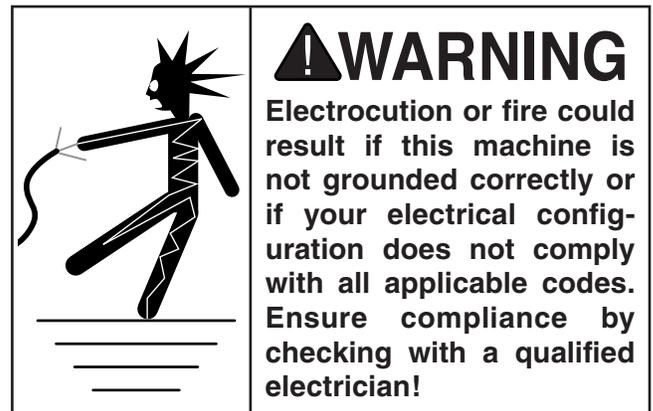


Figure 1. NEMA 6-15 plug and receptacle.

Grounding

In the event of an electrical short, grounding reduces the risk of electric shock. The grounding wire in the power cord must be properly connected to the grounding prong on the plug; likewise, the outlet must be properly installed and grounded. All electrical connections must be made in accordance with local codes and ordinances.



Extension Cords

We do not recommend the use of extension cords. Instead, arrange the placement of your equipment and the installed wiring to eliminate the need for extension cords.

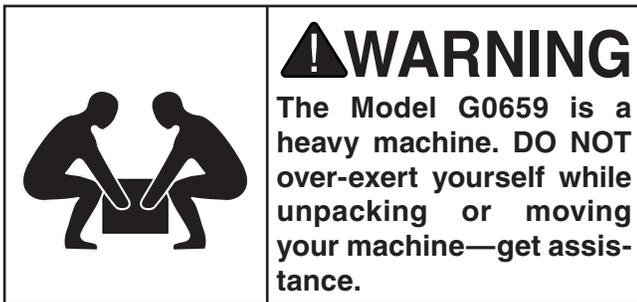
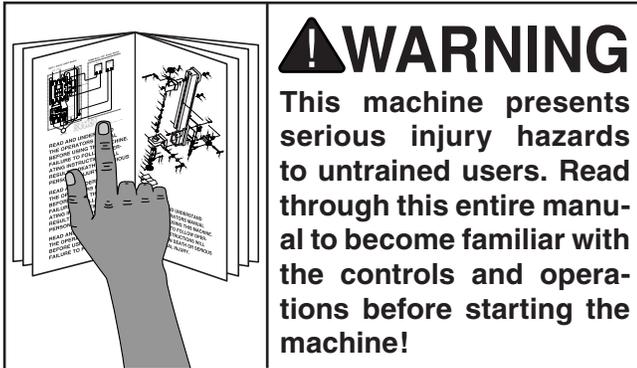
If you find it absolutely necessary to use an extension cord at 220V with your machine:

- Use at least a 14 gauge cord that does not exceed 50 feet in length!
- The extension cord must also contain a ground wire and plug pin.
- A qualified electrician **MUST** size cords over 50 feet long to prevent motor damage.



SECTION 3: SETUP

Setup Safety



Unpacking

The Model G0659 was carefully packed when it left our warehouse. If you discover the machine is damaged after you have signed for delivery, please immediately call Customer Service at (570) 546-9663 for advice.

Save the containers and all packing materials for possible inspection by the carrier or its agent. Otherwise, filing a freight claim can be difficult.

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

Inventory

After all parts have been removed from the packaging, you should have the following items:

Main Components: (Figure 2)		Qty
A.	Bandsaw Unit (not shown).....	1
B.	C-Clamp Vise	1
C.	Round Handle	1
D.	Roller Brackets	2
E.	Roller	1
F.	Counterweight	1
G.	Knob $\frac{3}{8}$ -18 x 2"	1
H.	Lock Washers $\frac{5}{16}$ " (roller).....	4
I.	Hex Bolts $\frac{5}{16}$ -18 x $\frac{5}{8}$ " (roller).....	4
J.	Vise Support Rod.....	1
K.	Hex Wrench Kit 1-10mm (not shown) ...	1 Ea.

If any nonproprietary 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.

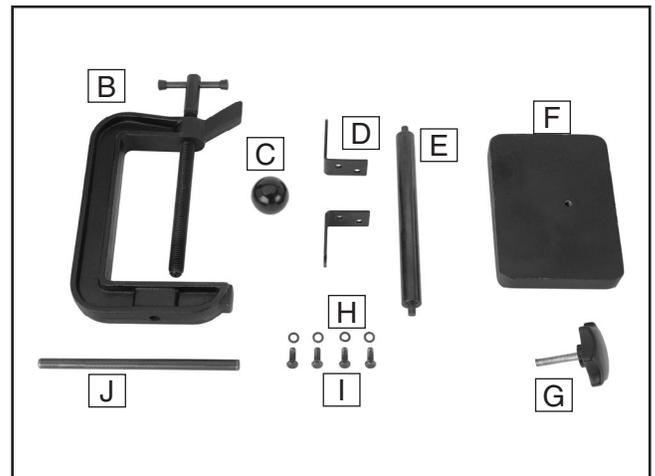


Figure 2. Inventory.

NOTICE

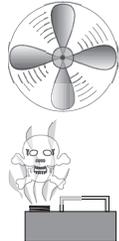
Some components on the inventory list may arrive pre-installed on the machine. Check these locations before assuming that any items from the inventory list are missing.



Clean Up

The unpainted surfaces are coated with a waxy oil to prevent corrosion during shipment. Remove this protective coating with a solvent cleaner or degreaser, such as shown in **Figure 3**. For thorough cleaning, some parts must be removed. **For optimum performance from your machine, clean all moving parts or sliding contact surfaces.** Avoid chlorine-based solvents, such as acetone or brake parts cleaner that may damage painted surfaces. Always follow the manufacturer's instructions when using any type of cleaning product.

	<p>⚠ WARNING Gasoline and petroleum products have low flash points and can explode or cause fire if used to clean machinery. DO NOT use these products to clean the machinery.</p>
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	<p>⚠ CAUTION Many cleaning solvents are toxic if inhaled. Minimize your risk by only using these products in a well ventilated area.</p>
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G2544—Solvent Cleaner & Degreaser
A great product for removing the waxy shipping grease from your machine during clean up.

<p>Call 1-800-523-4777 To Order</p>	
--	---

Figure 3. Cleaner/degreaser available from Grizzly.

Site Considerations

Floor Load

Refer to the **Machine Data Sheet** for the weight and footprint specifications of your machine. Some residential floors may require additional reinforcement to support both the machine and operator.

Placement Location

Consider existing and anticipated needs, size of material to be processed through each machine, and space for auxiliary stands, work tables or other machinery when establishing a location for your new machine. See **Figure 4** for the minimum working clearances.

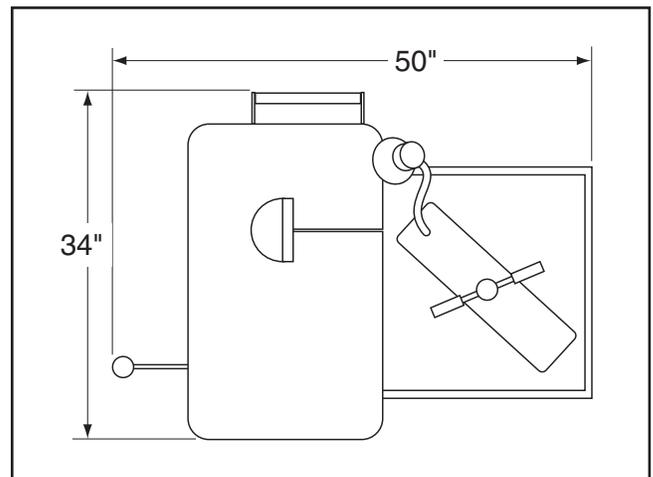
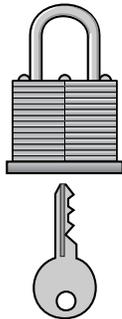
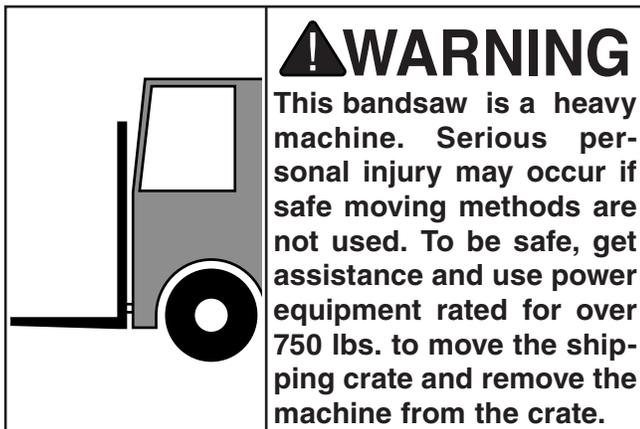


Figure 4. Minimum working clearances.

	<p>⚠ CAUTION Children and visitors may be seriously injured if unsupervised. Lock all entrances to the shop when you are away. DO NOT allow unsupervised children or visitors in your shop at any time!</p>
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Moving & Placing



To lift and move the bandsaw:

1. Remove the chip tray from the bandsaw base.
2. Position the forklift forks under the bandsaw base, as shown in **Figure 5**.

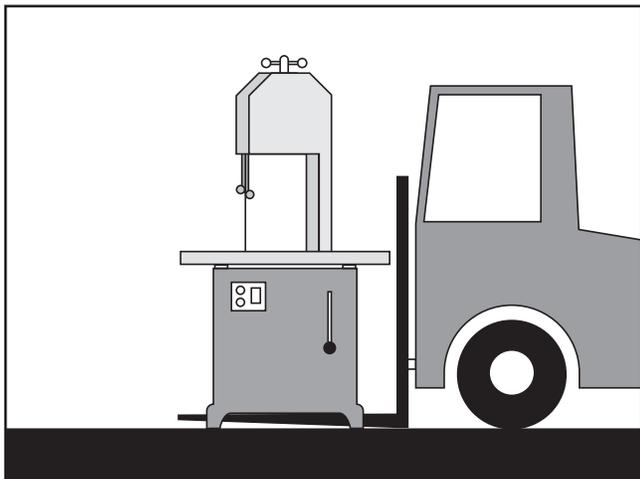


Figure 5. Lifting bandsaw on forklift forks.

Leveling Machine

Tools Needed:	Qty
Wrench 19mm	1
Level	1

Once your new machine is in place, it must be leveled. The four corners of the machine base have leveling bolts for this purpose.

To level the machine:

1. Loosen the lock nuts on all four corners, then adjust the leveling bolts until all four touch the floor (**Figure 6**).

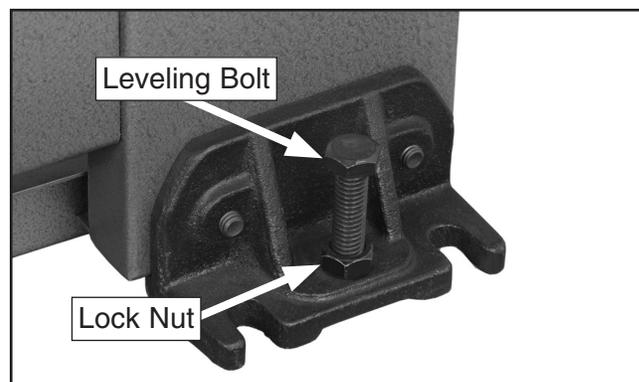


Figure 6. Leveling feet.

2. Using a level as a guide, level the machine by adjusting one side up or down, as needed. Turn the leveling bolt clockwise to lift the foot and counterclockwise to lower the foot. Be sure to adjust each side in small, equal increments.
3. Once the machine is level in one direction, rotate the level 90° and check again for level.
4. Again adjust the feet as needed. Be sure to use small, equal increments on each side.
5. Re-check for level in both the left-to-right and front-to-rear directions. Re-adjust if necessary.
6. Once the machine is level, tighten the leveling lock nuts, taking care to not turn the leveling bolts.



Mounting to Shop Floor

Although not required, we strongly recommend that you mount your new machine to the floor to prevent tipping. Because this is an optional step and floor materials may vary, floor mounting hardware is not included.

Bolting to Concrete Floors

Anchor studs and lag bolts (**Figure 7**) are two popular methods for anchoring an object to a concrete floor. We suggest you research the many options and methods for mounting your machine and choose the best that fits your specific application.

NOTICE

Anchor studs are stronger and more permanent alternatives to lag bolts; however, they will stick out of the floor, which may cause a tripping hazard if you decide to move your machine.

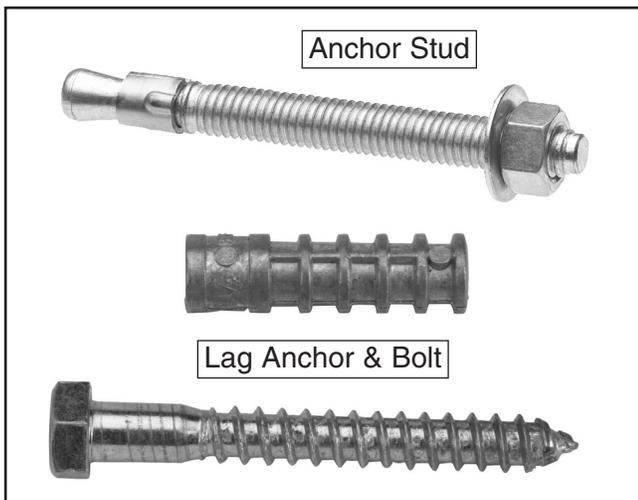


Figure 7. Typical fasteners for mounting to concrete floors.

NOTICE

We strongly recommend securing your machine to the floor if it is hardwired to the power source. Consult with your electrician to ensure compliance with local codes.

Removing Shipping Bracket

Tools Needed:	Qty
Hex Wrench $\frac{5}{16}$ "	1
Level	1

To protect your new machine from damage during shipping, a metal bracket secures the saw frame to the machine base. Before use, this bracket must be removed.

To remove the shipping bracket:

1. Remove the four cap screws and washers indicated in **Figure 8**.



Figure 8. Removing shipping bracket.

2. Remove the shipping bracket and store it for later use. If the bandsaw is moved in the future, the shipping bracket must be reinstalled to prevent damage to the machine and potential hazards during moving.



Assembly

To assemble the bandsaw:

1. Attach one of the roller brackets with two hex bolts and lock washers, as shown in **Figure 9**.

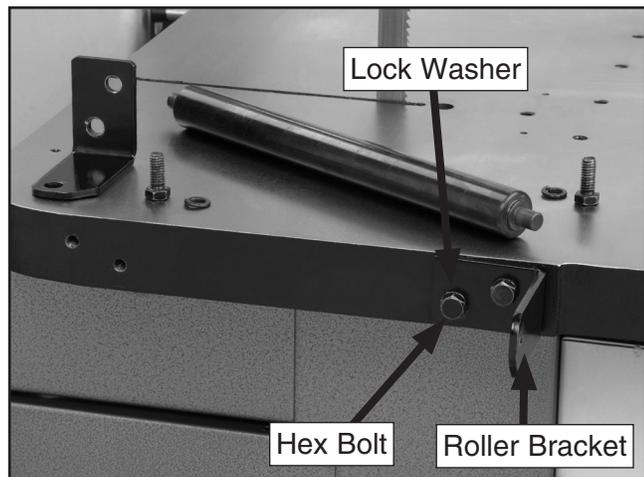


Figure 9. Roller bracket.

2. Slide one end of the roller into the attached bracket, slide the other bracket over the other end of the roller, then attach the bracket to the table with the remaining hex bolts and lock washers (**Figure 10**).

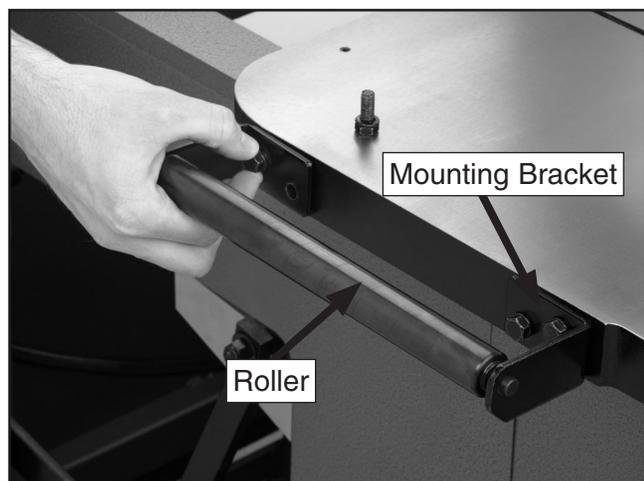


Figure 10. Mounting roller.

3. Slide the counterweight onto the counterweight rail and secure in position with the lock knob (**Figure 11**).

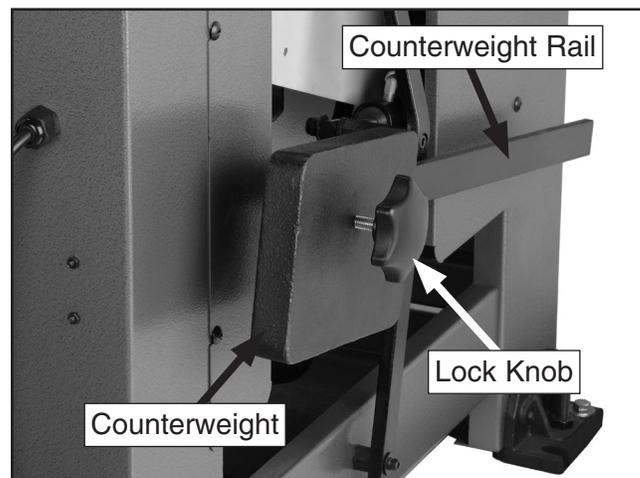


Figure 11. Counterweight installation.

4. Twist the knob onto the saw frame release lever until it is snug (**Figure 12**).

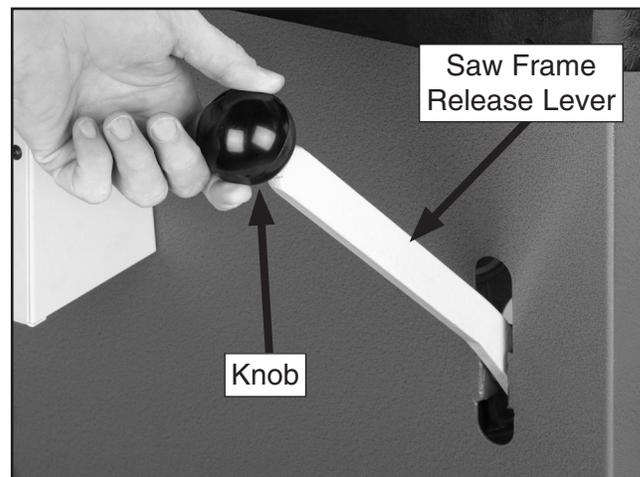


Figure 12. Saw frame release lever knob.



Test Run

Once the setup is complete, test run your machine to make sure it runs properly and is ready for regular operation.

The test run consists of verifying the following: 1) The motor powers up and runs correctly, and 2) the machine is in working order.

If, during the test run, you cannot easily locate the source of an unusual noise or vibration, stop using the machine immediately, then review **Troubleshooting** on **Page 37**.

If you still cannot remedy a problem, contact our Tech Support at (570) 546-9663 for assistance.

To test run the machine:

1. Make sure you have read the safety instructions at the beginning of the manual and that the machine is setup properly.
2. Make sure all tools and objects used during setup are cleared away from the machine.
3. Connect the machine to the power source.
4. Verify that the machine is operating correctly by turning the machine ON. To operate the switch, slide the red button up to open the stop latch, then press the green start button under the latch.

—When operating correctly, the machine runs smoothly with little or no vibration or rubbing noises.

—Investigate and correct strange or unusual noises or vibrations before operating the machine further. Always disconnect the machine from power when investigating or correcting potential problems.
5. Turn the machine **OFF**.
6. Continue to **Recommended Adjustments** before using machine further.

Recommended Adjustments

For your convenience, the adjustments listed below have been performed at the factory.

Because of the many variables involved with shipping, however, we recommend that you at least verify the following adjustments to ensure the best possible results from your new machine before putting it into use.

Step-by-step instructions for these adjustments can be found in the **OPERATIONS** section starting on **Page 16**.

Factory adjustments that should be verified:

1. Saw Frame Stop (refer to **Page 21**).
2. Blade Guides (refer to **Page 27**).
3. V-Belt Pulley Alignment (refer to **Page 39**).
4. Wheel alignment (refer to **Page 40**).



SECTION 4: OPERATIONS

Operation Safety

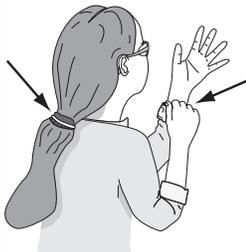
⚠️ WARNING

Damage to your eyes and lungs could result from using this machine without proper protective gear. Always wear safety glasses and a respirator when operating this machine.



⚠️ WARNING

Loose hair and clothing could get caught in machinery and cause serious personal injury. Keep loose clothing and long hair away from moving machinery.



⚠️ WARNING

ELECTROCUTION HAZARD

This bandsaw is not designed to be used with water soluble cutting fluid or coolant. If needed, use a small amount of oil-based lubricant.

NOTICE

If you have never used this type of machine or equipment before, WE STRONGLY RECOMMEND that you read books, trade 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.

Basic Controls

Use the descriptions and figures below to become familiar with the basic controls of your bandsaw.

Saw Release Knob: Starts and stops the movement of the saw frame. Allows the feed rate to remain unchanged when performing repetitive cutting tasks.

Feed Rate Adjust Knob: Adjusts the feed rate of the blade through the workpiece.

Bandsaw Start/Stop Switch: Turns power **ON/OFF** to the bandsaw motor.

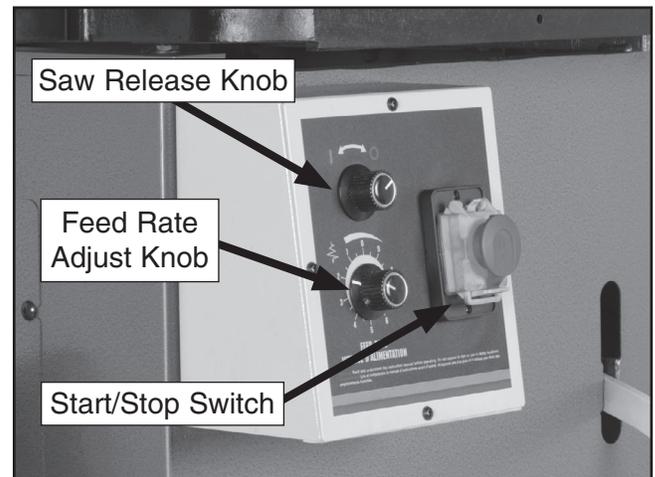


Figure 13. Model G0659 controls.

⚠️ WARNING

The bandsaw blade is sharp and can easily cut your hand or fingers. Always disconnect the power and wear heavy leather gloves when making adjustments to or near the blade.



C-Clamp Vise: Holds workpiece in position during cutting. Graduated for setting angled cuts.

Stop Clamp: Used to set the depth-of-cut. Also can be placed behind the saw frame to lock the saw in the forward position for contour cutting.

Saw Release Lever: Releases the saw for cutting and returns it to the starting position.

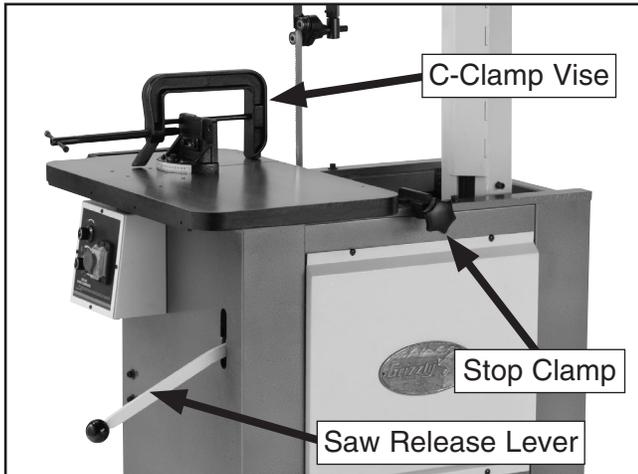


Figure 14. Model G0659 controls.

Blade Tension Handle: Sets and releases the blade tension when changing blades.

Work Lamp: Lights the cutting area.

Blade Guide: Supports the blade during cutting operations. Should be adjusted to approximately 1/2" above the workpiece for maximum support.

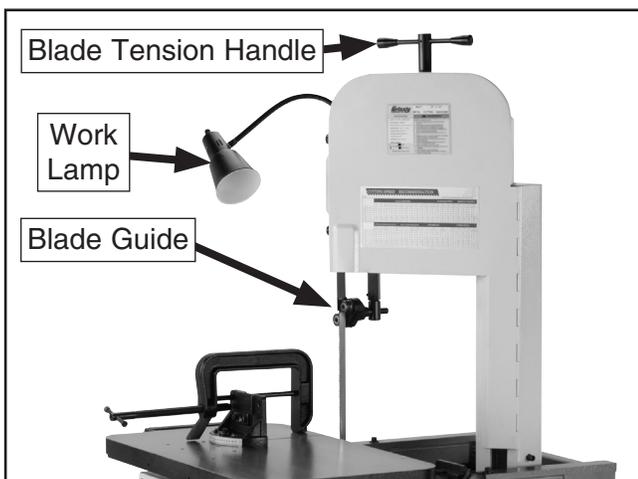


Figure 15. Model G0659 electrical controls.

Feed Pressure Counterweight: Adjusts the pressure that the blade exerts on the workpiece.

Counterweight Lock Knob: Locks the counterweight in the desired position.

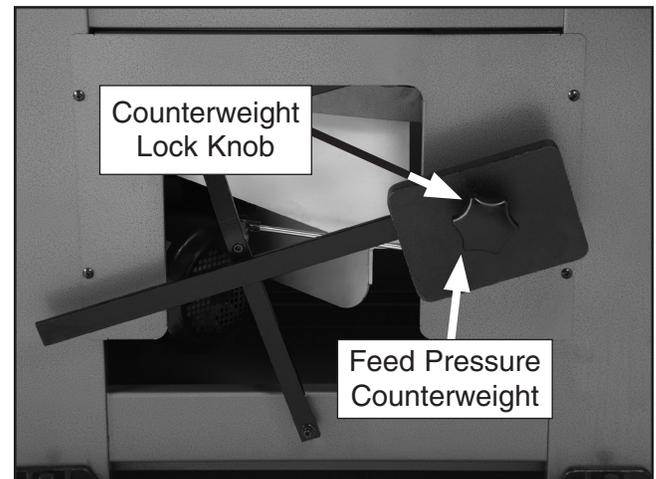


Figure 16. Counterweight controls.

Upper Wheel Tracking Adjustment: Adjusts blade tracking (Page 29).

Blade Post Lock Knob: Locks the blade guides in position.

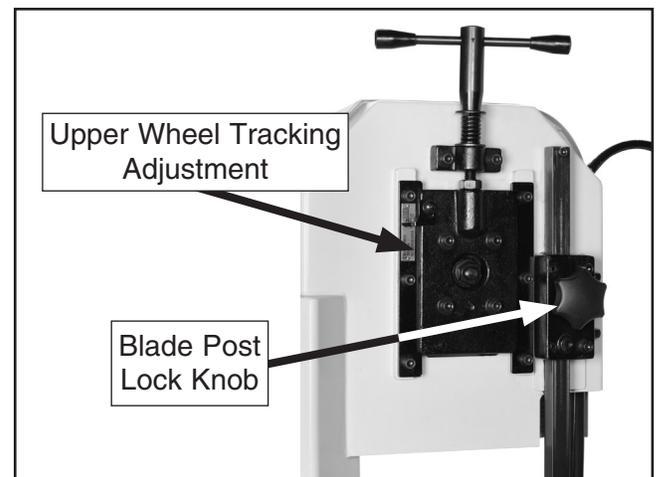


Figure 17. Model G0659 blade controls.



Clamp Vise

Angle Adjustments

1. The lock pins secure the vise angle at 90°. For angles other than 90°, remove the lock pins from the vise. If they do not pull out by hand, turn the lock nuts clockwise to release the pins from their holes (Figure 18).

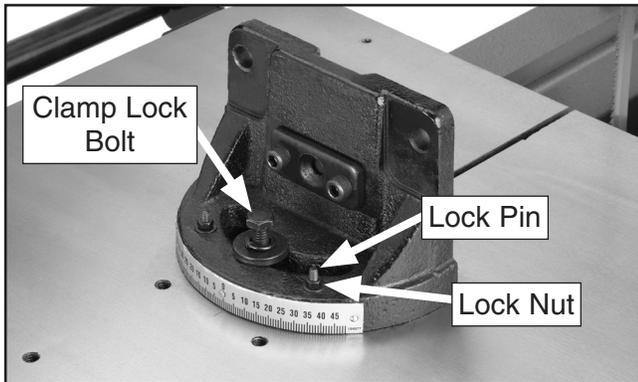


Figure 18. Clamp vise angle.

2. Loosen the clamp lock bolt, rotate the clamp to the desired angle, then tighten the clamp lock bolt.

C-Clamp Vise installation

1. Place the C-clamp vise over the vise base, then insert the vise rod into the clamp base, as shown in Figure 19.

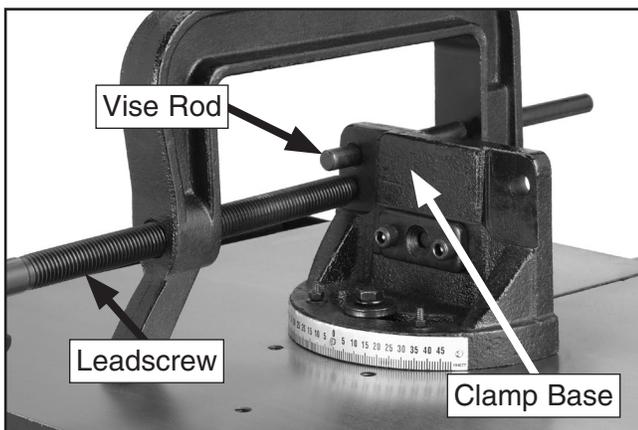


Figure 19. C-clamp vise.

2. Turn the leadscrew to tighten the clamp and secure the workpiece. Be sure the clamp is not in the path of the saw blade.

Note: When clamping workpieces at angles, it may be necessary to position the clamp on the other side of the vise to avoid interfering with the blade travel.

C-Clamp Vise Removal

1. Remove the lock pins from the vise by turning the lock nuts clockwise to release the pins from the holes (Figure 20).

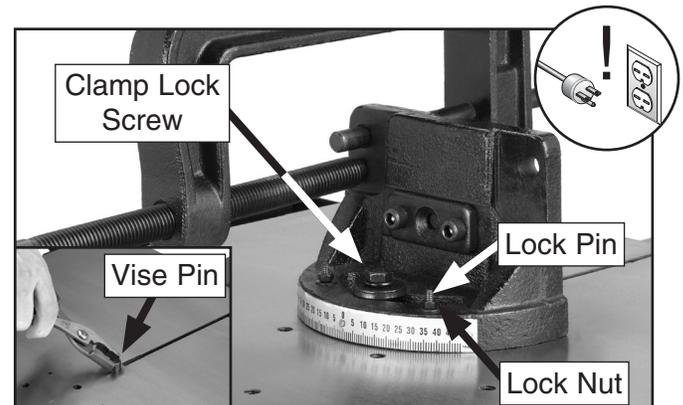


Figure 20. C-clamp vise removal.

2. Remove the clamp lock bolt and the entire clamp vise assembly. Use pliers to carefully remove the vise pin from the table.



Cutting Depth

To adjust the depth of cut:

1. Use the saw release lever to move the saw to the desired depth-of-cut, then adjust the stop clamp so that it is snug against the saw frame stop. This will prevent the saw from moving beyond that point (**Figure 21**).



Figure 21. Depth of cut adjust.

NOTICE

This bandsaw will damage the vise and table if the depth of cut and saw frame stop are not properly adjusted. Before making any cuts, check that the blade will not contact the table or vise when it is positioned all the way forward.

Feed Rate

The feed rate is the rate at which the saw frame travels. On the Model G0659, the feed rate is controlled hydraulically by a knob on the control panel. The optimal feed rate depends on the type and dimensions of stock being cut as well as the blade being used. The optimal feed rate is determined by observing the chips produced by the cut, as described on **Page 33**.

To adjust the feed rate:

1. Be sure the saw is at the start position by pushing the saw release lever all the way down (**Figure 22**).

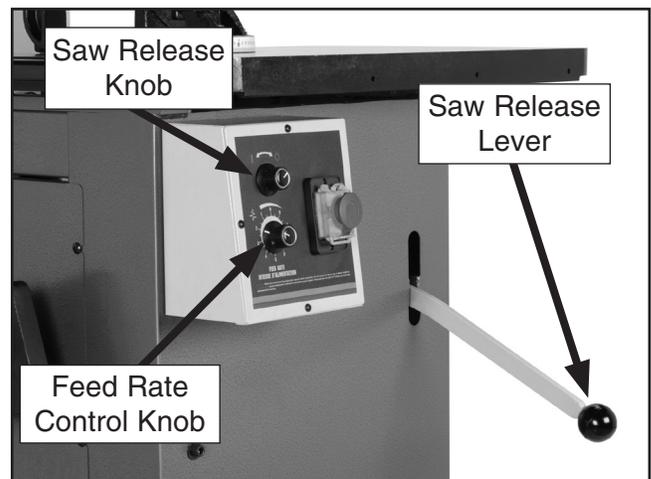


Figure 22. Adjusting feed rate.

2. Rotate the feed rate control knob to "0". This will prevent the saw frame from moving.
3. Turn the saw release knob to the left, then lift the saw release lever to release the saw frame.
4. Slowly turn the feed rate control knob counterclockwise to increase the feed rate.



Feed Pressure

The force with which the saw moves through the workpiece is the feed pressure. On the Model G0659, the feed pressure is controlled by a counterweight mechanism located on the base of the machine. The optimal feed pressure depends on the type and dimensions of the stock being cut as well as the blade being used. The optimal feed pressure is best determined by observing the chips produced by the cut, as described on **Page 33**.

To adjust the feed pressure:

1. Loosen the counterweight lock knob, then slide the counterweight. Moving the counterweight toward the front of the machine increases feed pressure while moving the counterweight towards the back of the machine decreases feed pressure (**Figure 23**).

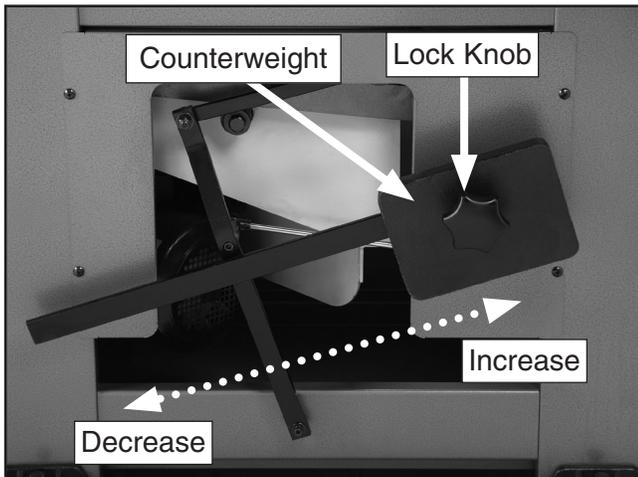


Figure 23. Adjusting feed pressure.

2. Once the counterweight is positioned, tighten the lock knob.

Guide Post

The guide post assembly is used for two purposes: 1) To properly position the blade guard to protect the operator from the exposed blade between the workpiece and the upper wheel housing, and 2) to position the upper blade guides close to the workpiece for blade support.

In order to cut accurately and safely, position the bottom of the upper blade guides approximately $\frac{1}{2}$ " above the workpiece when the saw frame is at its lowest point. This positioning provides the greatest blade support and minimizes the amount of blade exposed to the operator during operation.

To properly position the guide post:

1. DISCONNECT BANDSAW FROM POWER!
2. Support the guide post with one hand and loosen the lock knob with the other until the guide post slides freely (**Figure 24**).

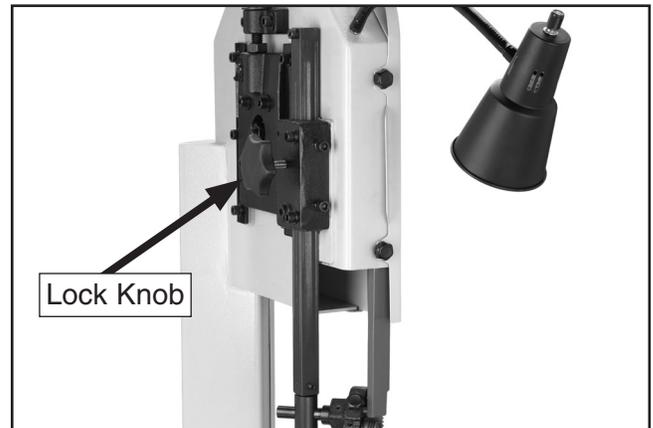


Figure 24. Guide post.

3. Position the bottom of the upper blade guides approximately $\frac{1}{2}$ " above the workpiece when the saw frame is at its lowest point, then re-tighten the lock knob to secure the setting.



Adjusting Saw Frame Stop

The saw frame stop controls the overall forward movement of the saw frame. The proper setting will ensure that the blade cuts completely through the workpiece without cutting into the table or the vise. Adjust the frame saw stop whenever the blade is changed, fails to cut completely through the workpiece, or contacts the vise.

To adjust the saw frame stop:

1. Make sure the blade tracks properly and is correctly tensioned.
2. DISCONNECT BANDSAW FROM POWER!
3. Remove the stop clamp, turn both hydraulic knobs on the control panel counterclockwise to release the saw frame, then lift the saw release lever to bring the saw frame all the way forward. The saw frame will come to rest on the saw frame stop (**Figure 25**).

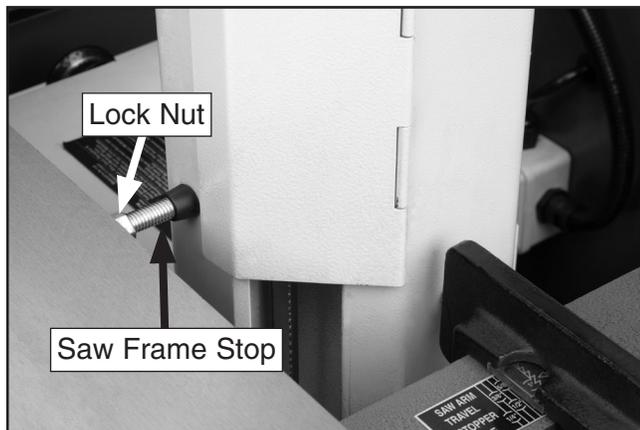


Figure 25. Saw frame stop.

4. Loosen the lock nut on the saw frame stop, then turn the saw frame stop as needed to position the blade as close to the vise as possible without touching it. This is the ideal saw frame stop position.
5. Without turning the saw frame stop, tighten the lock nut.

Locking Blade

To lock the blade in the forward position:

1. Remove the stop clamp, then release the saw frame by lifting the saw release lever. Allow the saw frame to move all the way forward, as shown in **Figure 26**.

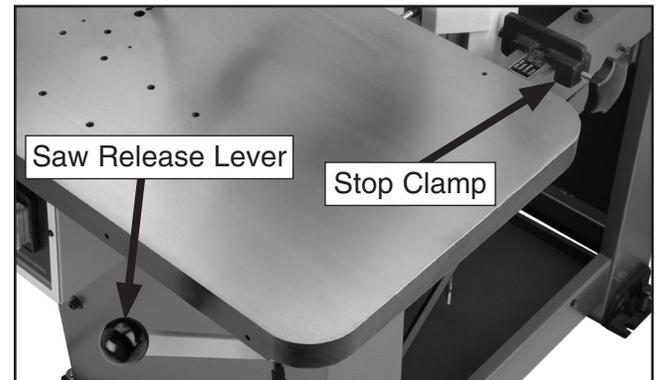


Figure 26. Saw frame moved forward.

2. Place the stop clamp behind the saw frame rest, as shown in **Figure 27**.

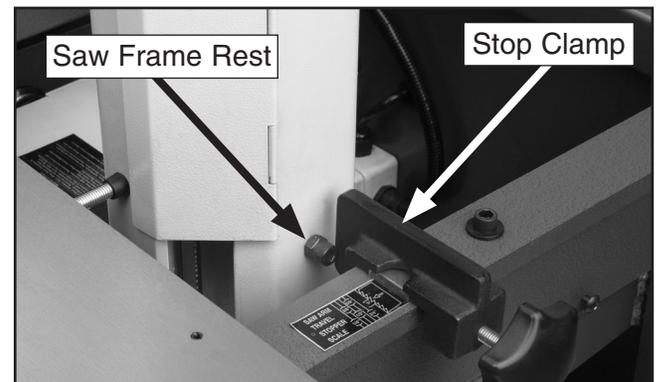


Figure 27. Saw frame locked forward.

3. Slide the stop clamp forward against the saw frame rest. Apply pressure to secure the saw frame in the forward position, then tighten the stop clamp knob.



Blade Selection

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

Blade Terminology

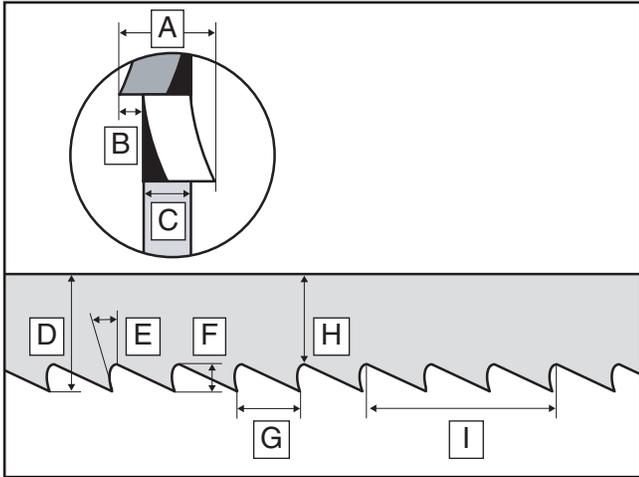


Figure 28. Bandsaw blade terminology.

- A. **Kerf:** The amount of material removed by the blade during cutting.
- B. **Tooth Set:** The amount each tooth is bent left or right from the blade.
- C. **Gauge:** The thickness of the blade.
- D. **Blade Width:** The widest point of the blade measured from the tip of the tooth to the back edge of the blade.
- E. **Tooth Rake:** The angle of the tooth face from a line perpendicular to the length of the blade.
- F. **Gullet Depth:** The distance from the tooth tip to the bottom of the curved area (gullet).
- G. **Tooth Pitch:** The distance between tooth tips.
- H. **Blade Back:** The distance between the bottom of the gullet and the back edge of the blade.
- I. **TPI:** The number of teeth per inch measured from gullet to gullet.

Blade Length

Measured by the blade circumference, blade lengths are usually unique to the brand of your bandsaw and the distance between the wheels. The Model G0659 uses a 120" blade.

Blade Width

Measured from the back of the blade to the tip of the blade tooth (the widest point), blade width is often the first consideration given to blade selection. Blade width dictates the largest and smallest curve that can be cut, as well as how accurately it can cut a straight line—generally the wider the blade, the straighter it will cut. The Model G0659 uses a 1/4"–1" wide blade.

Always pick the blade width that best suits your operation.

Curve Cutting: Use the chart in **Figure 29** to choose the correct blade for curve cutting. Determine the smallest radius curve that will be cut on your workpiece and use the corresponding blade width.

The list below serves as a general guideline for the minimum radius curve that can be cut by common blade widths. The actual radius will vary depending on the material being cut and its thickness, of the workpiece.

Width	Radius
3/16"	3/8"
1/4"	5/8"
3/8"	1 1/4"
1/2"	2 1/2"
5/8"	3 3/4"
3/4"	5 1/2"
1"	7 1/2"

Figure 29. Blade width radii.



Tooth Set

Three common tooth sets are standard, wavy, and raker (see **Figure 30**), each removing material in a different manner to make the kerf in the workpiece.

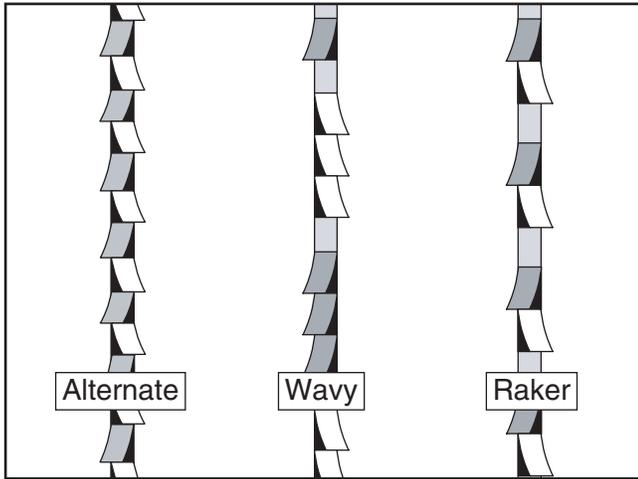


Figure 30. Bandsaw tooth sets.

Alternate: An all-purpose arrangement of bending the teeth evenly left and right of the blade. Generally used for milder metals.

Wavy: Generally three or more teeth in a group that are bent one way, followed by a non-set tooth, then another group bent the other way. Recommended for straight cuts in thin metals or thin-wall tubing.

Raker: Three teeth in a recurring group—one bent left, next one bent right, and then a non-set tooth. The raker is ideal for most contour cuts.

Tooth Type

The most common tooth types are described below and illustrated in **Figure 31**.

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

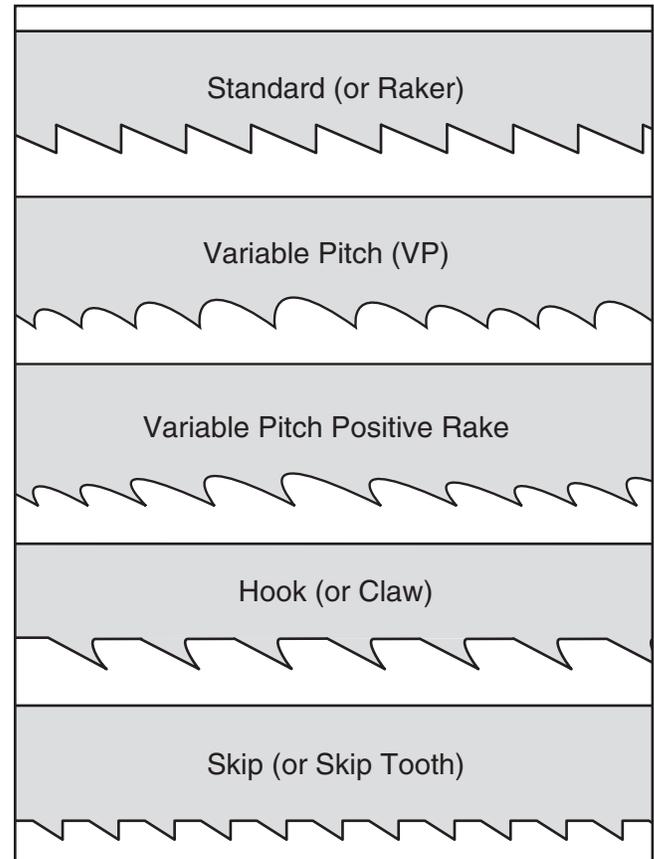


Figure 31. Bandsaw blade tooth types.

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

Variable Pitch with Positive Rake: Varying gullet depth and tooth spacing, a positive rake angle, better chip formation, and aggressive cutting.

Hook or Claw: Wide gullets (round or flat), equally spaced teeth, positive rake angle, and fast cut with good surface finish.

Skip or Skip Tooth: Wide, flat gullets, a "0" rake angle, equally spaced teeth, and recommended for non-ferrous materials.



Blade Pitch (TPI)

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

To select the correct blade pitch:

1. Measure the material thickness. This measurement is the length of cut taken from where the tooth enters the workpiece, sweeps through, and exits the workpiece.
2. Refer to the left-most column of the cutting speed recommendation chart in **Figure 32**, and read down to find the workpiece thickness you need to cut.

3. In the applicable row, read across to the right and find the column of the material you are cutting. Listed in the box is the minimum TPI recommended for the variable tooth pitch blades.
4. Read towards the bottom of the column to the "F.P.M." row. This figure is the recommended feet per minute blade speed for the material you are cutting. Refer to the speed chart on the machine or **Changing Speeds, Page 30**, to adjust the Model G0659 to the closest appropriate speed.

CUTTING SPEED RECOMMENDATION																					
		S.A.E & NE STEEL											STAINLESS STEEL				FERROUS CASTINGS				
		NER024 NE8949	TUNG. 71360 7260	SI-MANG NE9255 NE262	CHROM. SAE51200 SAE51710	CHR-VAN SAE6135 SAE6150	CHROM. SAE5120 NE32100C	MOLYB. SAE4023 SAE4820	NI-CHR. SAE3115 SAE3310	NICKEL SAE2317 SAE2345	MANG. SAE1330 NE1350	FREE-CUTTING SAE1111 SAE1141	CARBON SAE1008 SAE1095	STAIN. STEEL 304	STAIN. STEEL 316	STAIN. STEEL 416	STAIN. STEEL 430	MBEH- ANITE	MALL IRON	CAST STEEL	GRAY CAST IRON
SAW PITCH /TEETH PER INCH	1/16" to 1/4"	18	18	18	24	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
	1/4" to 1"	14	14	14	14	14	14	14	14	14	14	14	14	10	10	12	12	10	12	14	14
	1" to 3"	12	12	10	10	12	12	12	12	12	12	10	10	8	8	8	8	8	8	12	10
	3" to 6"	8	8	6	6	8	6	6	8	8	8	6	6	6	6	6	6	6	8	6	6
	6" UP	4B	4B	3B	4B	4B	4B	4B	4B	4B	3B	3B	4B	3B	3B	4B	4B	4B	4B	4B	4B
	SAW SPEED	F.P.M	140	140	270	140	140	270	270	140	270	270	270	70	70	140	140	140	270	270	270
M.P.M	43	43	84	43	43	84	84	43	84	84	84	84	21	21	43	43	43	84	84	84	
		COPPER & COPPER BASE ALLOYS					ALUM. & ALUM. BASE ALLOYS					NON METALS					OTHER STEELS				
		NICKEL ALUM. BRONZE	MANG. BRONZE	PHOS- PHOR BRONZE	BRASS	COPPER MED. HARD	MAGNE- SIUM	ALUM.	DURA- LUMIN 17&24ST	DURA- LUMIN 14ST	NEOP- RENE	BAKE- LITE	HARD RUBBER	FIBRE	BUIL- DERS BOARD	WOOD	TUBING THIN WALL	ARMOR PLATE	NICKEL IRON	HIGH SPEED	TOOL STEEL GENERAL
SAW PITCH /TEETH PER INCH	1/16" to 1/4"	18	18	18	18	18	14	18	18	18	14	14	24	24	14	14	32	18	18	24	24
	1/4" to 1"	12	12	14	14	10	10	10	10	10	10	18	18	8	8	14	12	12	14	18	18
	1" to 3"	10	8	10	8	8	6	6	6	8	8	6	6	6	6	14	10	10	12	14	14
	3" to 6"	6	6	6	6	6	4B	6	6	6	6	4B	4B	4B	4B	4B	14	8	6	8	8
	6" UP	4B	4B	4B	3B	4B	3B	3B	3B	3B	4B	3B	4B	3B	3B	3B	14	4B	4B	4B	4B
	SAW SPEED	F.P.M	270	270	525	525	525	525	525	525	525	525	525	525	525	525	140	270	270	140	270
M.P.M	84	84	160	160	160	160	160	160	160	160	160	160	160	160	160	43	84	84	43	84	

Figure 32. General guidelines for blade selection and speed chart.



Blade Breakage

Many conditions may cause a bandsaw blade to break. Blade breakage is unavoidable, in some cases, since it is the natural result of the peculiar stresses that bandsaw blades must endure. Blade breakage is also due to avoidable circumstances. Avoidable blade breakage is most often the result of poor care or judgement on the part of the operator when mounting or adjusting the blade or support guides.

The most common causes of blade breakage are:

- Faulty alignment or adjustment of the blade guides.
- Forcing or twisting a wide blade around a short radius.
- Feeding the workpiece too fast.
- Dull or damaged teeth.
- Over-tensioned blade.
- Top blade guide assembly set too high above the workpiece. Adjust the top blade guide assembly so that there is approximately 1/2" between the bottom of the assembly and the workpiece.
- Using a blade with a lumpy or improperly finished braze or weld.
- Continuously running the bandsaw when not in use.
- Leaving the blade tensioned when not in use.
- Using the wrong pitch (TPI) for the workpiece thickness. The general rule of thumb is to have not less than two teeth in contact with the workpiece at all times during cutting.

Blade Care & Break-In

Blade Care

A bandsaw blade is a delicate piece of steel that is subjected to tremendous strain. You can obtain longer use from a bandsaw blade if you give it fair treatment and always use the appropriate feed rate for your operation.

Be sure to select blades with the proper width, set, type, and pitch for each application. The wrong choice of blades will often produce unnecessary heat and will shorten the life of your blade.

A clean blade will perform much better than a dirty blade. Dirty or gummed up blades pass through the cutting material with much more resistance than clean blades. This extra resistance also causes unnecessary heat.

Blade Break-In

The sharp teeth tips and edges of a new blade are extremely sharp, and cutting at full feed rate may cause fracturing of the beveled edges of the teeth and premature blade wear.

To properly break-in a new blade:

1. Choose the correct speed for the blade and material of the operation.
2. Reduce the feed pressure by half for the first 50–100 in² of material cut.
3. To avoid twisting the blade when cutting, adjust the feed pressure when the total width of the blade is in the cut.
4. Use the **Chip Inspection Chart** on **Page 33** to check the blade efficiency.



Blade Tensioning

NOTICE

To prolong blade life, release the tension on the blade if the machine will be idle for an extended period of time.

Proper blade tension reduces the risk of blade breakage and improves cutting performance.

To correctly tension the blade:

1. DISCONNECT BANDSAW FROM POWER!
2. Open the upper wheel door, and raise the blade post and upper blade guide assembly to the highest position.
3. Check the side-to-side deflection of the blade midway between the upper blade guide and the table. The proper amount of deflection should be approximately $\frac{3}{8}$ " when moderate pressure is applied (see **Figure 33**).

Note: The quickest and easiest way to check blade tension is to use the Model H5408 Blade Tensioning Gauge (refer to **Page 34**)

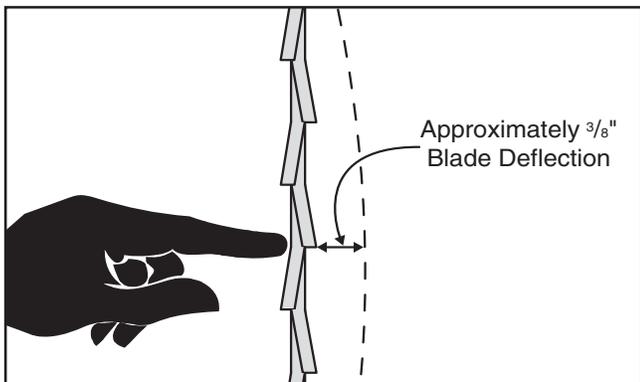


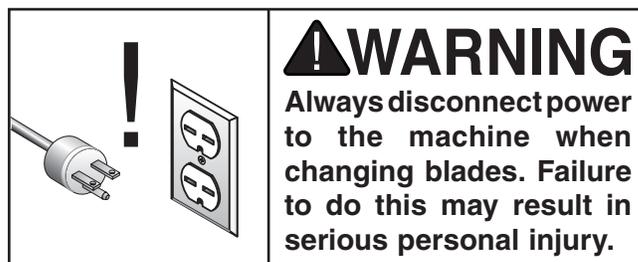
Figure 33. Blade deflection when correctly tensioned.

4. Make small adjustments to the blade tensioning handwheel, then rotate the top wheel by turning the gearbox pulley several times before checking the blade deflection again. Repeat this step until you are satisfied.

Note: Make sure the blade tracks next to, but not touching, the upper wheel flange as you rotate the upper wheel by hand.

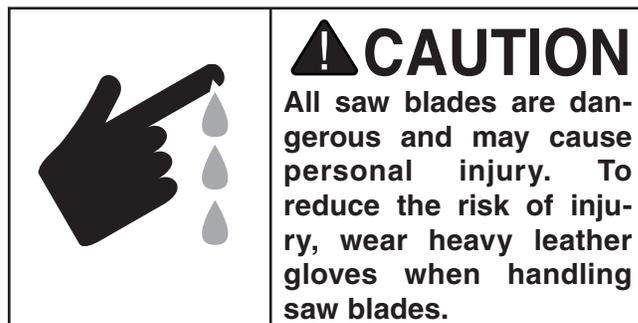
5. Close the upper wheel door and reposition the guide post.

Blade Changes



WARNING

Always disconnect power to the machine when changing blades. Failure to do this may result in serious personal injury.



CAUTION

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

To replace the blade:

1. DISCONNECT BANDSAW FROM POWER!
2. Open the upper wheel doors.
3. Release tension on the blade by rotating the tensioning handwheel.
4. Put on heavy gloves, then slide the blade off the upper and lower wheels.
5. Install a new blade in reverse order. Before returning the saw to use, be sure to properly tension the blade, check the tracking, and break it in.

Note: Make sure the teeth are pointing down toward the table. If the teeth will not point downward in any orientation, the blade is inside out. Remove the blade and twist it right side-out.



Adjusting Blade Guides

Tools Needed:	Qty
Hex Wrench 4mm.....	1
Slotted Screwdriver	1

The blade guides provide side-to-side support to help keep the blade straight while cutting. Properly adjusted blade guides are essential to making accurate cuts.

The ideal blade guide position on the Model G0659 accomplishes the following:

- The blade guides exert enough force on the blade to hold it parallel to the path of the cut.
- The blade is held square to the table.
- The blade is supported during operation by the flanges on the blade guides, but does not ride directly upon them.
- The blade is not forced to bend excessively as it passes through the blade guides.

Upper and Lower Guide Bearing Adjustment

1. Make sure the blade tracks properly and is correctly tensioned.
2. DISCONNECT BANDSAW FROM POWER!
3. Familiarize yourself with the blade guide controls shown in **Figure 34**.

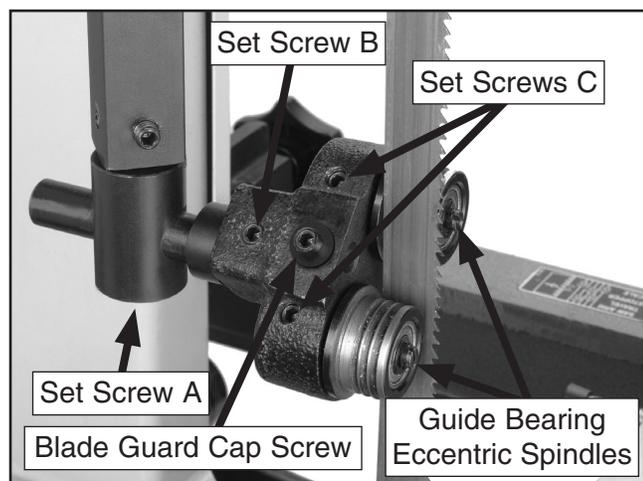


Figure 34. Upper blade guide controls.

Note: In most cases, the only adjustment necessary is to adjust the guide bearing eccentric spindles. This adjustment is outlined in **Steps 4–6** below. If the proper positioning cannot be accomplished by turning the eccentric spindles, you must re-position the lower and upper blade guide assemblies, as outlined later in this section.

4. Loosen set screws C (**Figure 35**).

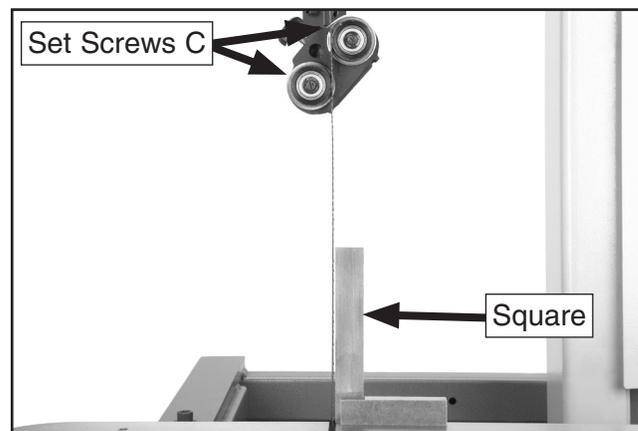


Figure 35. Blade squared.

5. Adjust the blade guides by turning the slotted eccentric spindles as necessary so the blade is held flat between the blade guide wheels but not so tight that the blade must bend between them (**Figure 36**). Make sure the blade remains square to the table.

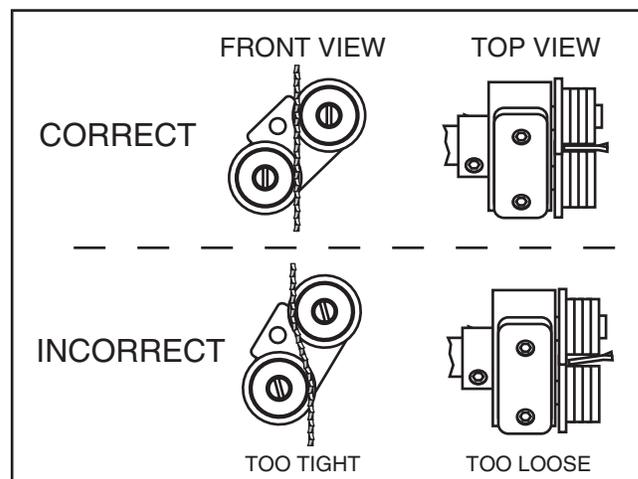


Figure 36. Blade guide wheel position.

6. Tighten the set screws.
7. Repeat **Steps 4–6** for the lower blade guide assembly.



Lower Blade Guide Assembly Adjustment

When it is not possible to accomplish the necessary blade guide positioning with the eccentric spindles alone, the entire blade guide assembly must be re-adjusted. First position the lower blade guide assembly, then the upper blade guide assembly.

To position the lower blade guide assembly:

1. DISCONNECT BANDSAW FROM POWER!
2. Move the saw frame forward until it is up to, but not yet entering the slot in the table, as shown in **Figure 37**, then lock the frame in place using the saw frame stop clamp.

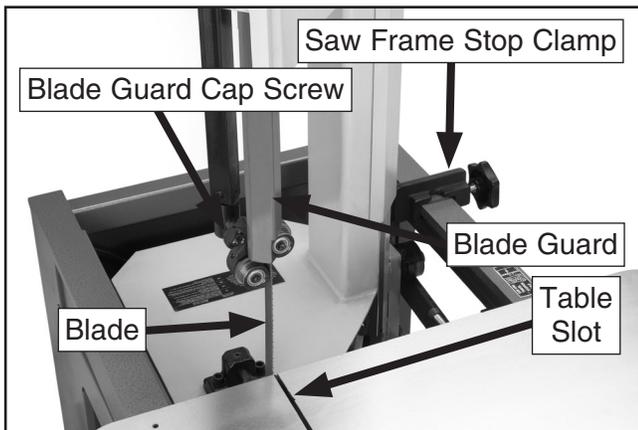


Figure 37. Blade guide setup.

3. Open the upper wheel door, loosen the blade guard cap screw and remove the blade guard.
4. Loosen set screws A, B, and C on the lower blade guide assembly (**Figure 38**).

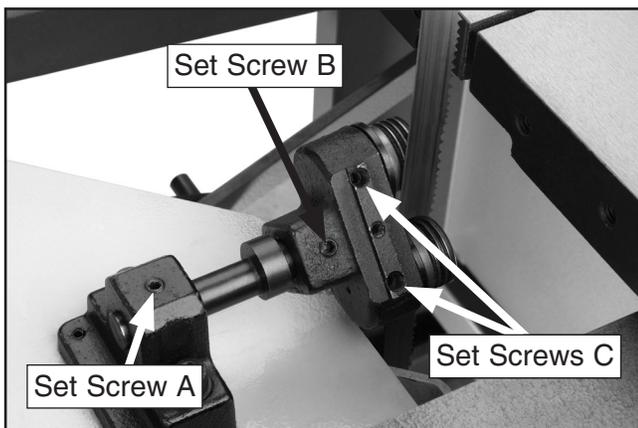


Figure 38. Lower blade guide assembly.

5. Wearing gloves, hold the blade in-line with the path of the saw and centered over the slot in the table. Rotate the eccentric shaft so the blade guide assembly is centered over the blade, as shown in **Figure 39**, then tighten set screw A.

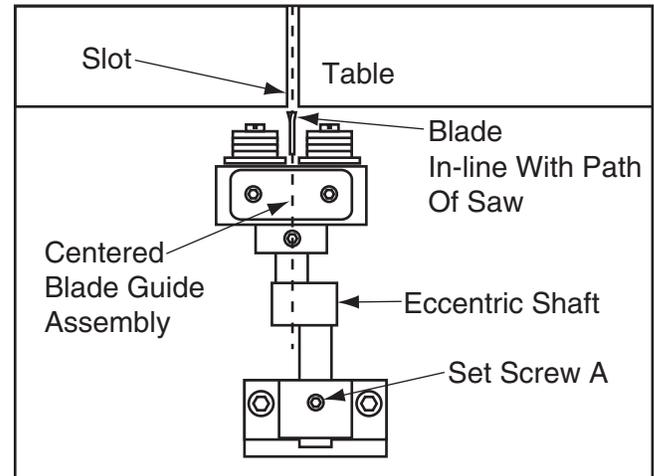


Figure 39. Lower blade guide.

6. Rotate the blade guide assembly and apply just enough pressure to hold the blade flat against both guide rollers. Rotate the eccentric spindles so their slots are oriented vertically, as shown in **Figure 40**. This positions the blade guides in the center of their range of motion to facilitate later adjustments.
7. Tighten set screws C.

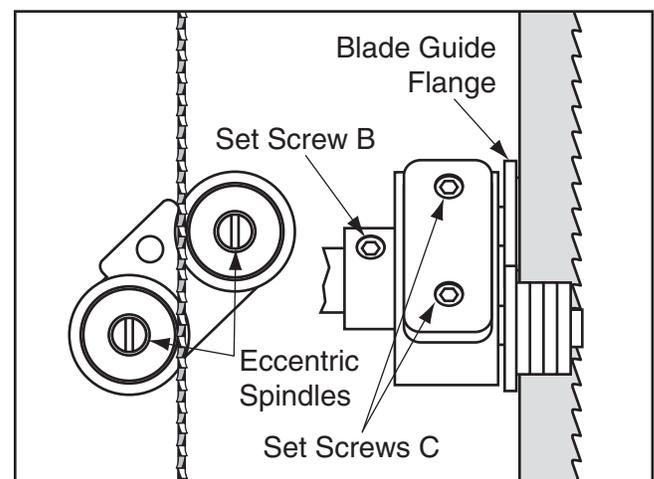


Figure 40. Blade guide positioning.



- While still holding the blade guide assembly in position as described in **Step 6**, slide the blade guide assembly in or out as necessary so the roller guide flange is directly behind, but not touching the back of the blade, then tighten set screw B (**Figure 40**).

Upper Blade Guide Assembly Adjustment

Adjusting the upper blade guide assembly follows the same procedure as adjusting the lower blade guide assembly. The additional consideration is that the upper blade guide assembly must also hold the blade square to the table.

To position the upper blade guide assembly:

- DISCONNECT BANDSAW FROM POWER.
- Loosen set screws A, B, and C on the upper blade guide assembly.
- Wearing gloves, hold the blade square to the table. Rotate the eccentric shaft (**Figure 39**) so the blade guide assembly is centered over the blade, as shown in **Figure 41**, then tighten the cap screw located in the bottom of the guide post.

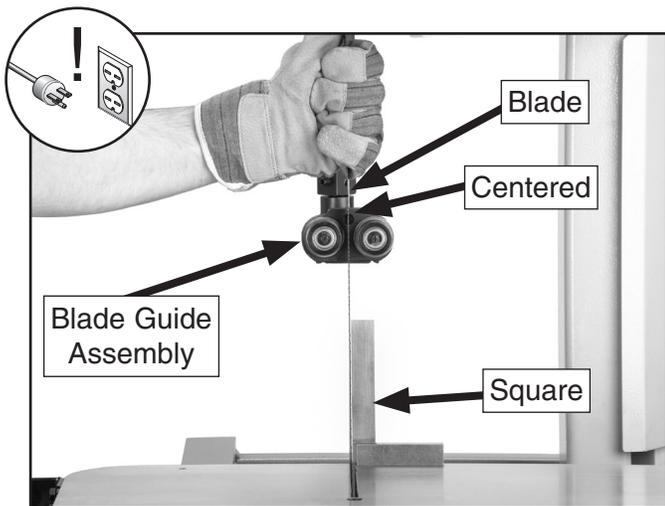


Figure 41. Centered blade guide assembly.

- Repeat **Lower Blade Guide Assembly Adjustment, Steps 6–8** to complete adjustment of the upper blade guides.
- Replace the blade guard and close the upper door.

Blade Tracking

"Blade Tracking" refers to how the blade rides on the wheels. When tracking correctly, the blade rides just next to, but not touching the wheel flange. Blade tracking is primarily controlled by adjusting the upper wheel tilt.

Another way to track the blade is known as "Coplanar Tracking." Coplanar tracking involves aligning the wheels so they are parallel and aligned (see **Wheel Alignment** on **Page 40**). When wheels are coplanar, vibration and heat are reduced during operation.

⚠ WARNING

Blade tracking on the Model G0659 must be adjusted with the saw running. To reduce the risk of serious injury, keep hands clear from all moving parts and touch only the parts indicated in the following instructions. In addition, wear eye protection whenever the machine is running.

To adjust the blade tracking:

- Open the upper wheel cover and familiarize yourself with the wheel, the wheel flange, the blade, and the relationship between the blade and wheel flange (**Figure 42**).

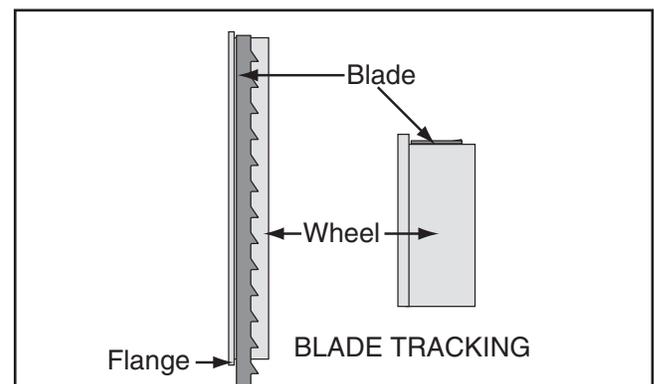


Figure 42. Center tracking profiles.



2. Locate the cap screws indicated in **Figure 43**. Loosen the upper screws one half turn and the lower screws 2 full turns. **DO NOT** remove these screws.

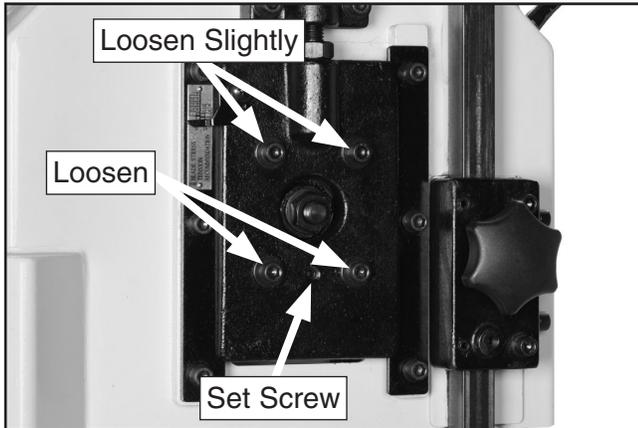


Figure 43. Blade tracking adjustments.

3. Turn the bandsaw **ON**. Keep the saw frame locked in the starting position.
4. While watching the space between the blade and wheel flange, turn the set screw counterclockwise. This will move the blade away from the flange. As soon as the blade begins to move away from the flange, turn the set screw as necessary to stabilize the blade approximately $\frac{1}{8}$ " from the flange.
5. Slowly turn the set screw clockwise to move the blade back towards the flange. When the blade is running up against, but not touching the flange, turn the set screw as necessary to stabilize the blade tracking.
6. Turn the bandsaw **OFF**.
7. Tighten the cap screws, then recheck the blade tracking. If the tracking needs further adjustment, repeat **Steps 4-7** until the tracking is correct.
9. Close the upper wheel cover.

Note: For the best performance from your saw, regularly maintain proper blade tracking.

NOTICE

Changes in the blade tension may change the blade tracking.

Changing Speeds

The Model G0659 has four blade speeds. These speeds are determined by the position of the V-belt in one of the four available pulley grooves. Refer to the chart below or on the saw frame base for blade speeds and their respective belt positions (**Figure 44**).

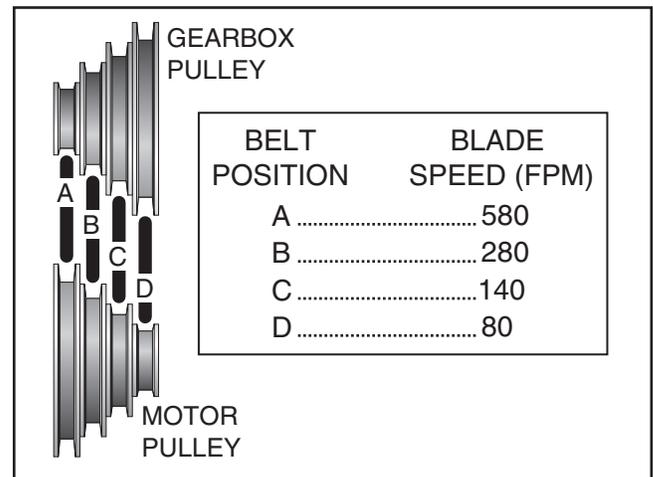


Figure 44. Belt positions.

To change the blade speed:

1. **DISCONNECT BANDSAW FROM POWER!**
2. Release the saw frame and allow it to come to rest in the forward position.
3. Remove the right side access cover to expose the motor, gearbox, belt and pulleys.
4. Lift up on the motor to release tension from the belt. While still lifting the motor, reposition the belt in the desired position, then carefully lower the motor.
5. Turn the belt by hand to make sure it is properly seated in the pulley grooves.
6. Replace the right side access cover.



Workpiece Inspection

Some metal workpieces are not safe to cut with a vertical metal cutting bandsaw; instead, a different tool or machine should be used.

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

- **Small or Thin Workpieces:** Small or thin workpieces are dangerous to cut if held by hand—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 and keep your fingers away from the blade. 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.
- **Round/Unstable Workpieces:** Workpieces that cannot be properly supported or stabilized without a vise or jig should not be cut on a vertical metal-cutting bandsaw. Examples are chains, cables, round or oblong-shaped workpieces, 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 gasses 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.

Cutting Tips

- Keep the upper blade guides adjusted to approximately $\frac{1}{2}$ " above the workpiece when the saw frame is at its lowest point to provide proper support for the blade during cutting operations.
- Replace, sharpen, and clean blades as necessary. Make adjustments periodically to keep the saw running in top condition.
- Use light and even pressure while cutting. Light contact with the blade makes it easier to follow lines and prevents extra friction.
- Avoid twisting the blade when cutting around tight corners. Use the proper width of blade for the radius of the corner and make relief cuts.
- Misusing the bandsaw or using incorrect techniques is unsafe and results in poor cuts. Remember—the blade does the cutting with the operator's guidance.
- Never start a cut with the blade in contact with the workpiece, and do not start a cut on a sharp edge of the workpiece.
- Pay attention to the characteristics of the chips when cutting—they are good indicators of proper blade speed and feed rate. **Figure 45** on **Page 33** shows the basic chip characteristics and what they mean.



Straight Cuts

Once you have familiarized yourself with all of the adjustments necessary for making safe and accurate straight cuts, proceed through the following instructions to perform the cut:

1. Verify that the blade tension (**Page 26**) and blade tracking (**Page 29**) are correct.
2. Adjust the vise clamp to the desired angle.
3. Adjust the depth of cut.
4. Clamp the workpiece into the C-clamp vise. If possible, first use a scrap piece similar to your final workpiece. This will allow you to make the needed adjustments before cutting your actual workpiece.
5. Be sure that the saw frame is at the start position by pushing the saw release lever all the way down.
6. Turn the frame release knob to the right (**OFF**).
7. Turn feed rate knob to "0".
8. Turn the motor **ON**.
9. Turn the frame release knob to the left (**ON**).
10. Lift the release lever.
11. Slowly increase the feed rate to feed the saw into the workpiece. **DO NOT** apply pressure by pulling up on the saw release lever.
12. When the cut is complete, turn **OFF** the motor and allow the blade to come to a stop.
13. Lower the saw release lever to return the blade to the starting position and turn the frame release knob to the right (**OFF**).
14. Inspect the cut as described in the **Chip Inspection Chart on Page 33**, and make any necessary adjustments. Make additional test cuts if necessary.

Freehand Cuts

To create freehand cuts with the Model G0659, the saw frame must be locked in the forward position and the table must be cleared to allow the workpiece to move freely around the blade.

To prepare the G0659 for freehand cuts:

1. **DISCONNECT BANDSAW FROM POWER!**
2. Remove the vise and clamp from the table (**Page 18**).
3. Lock the blade in the forward position (**Page 21**).
4. Make sure the blade you are using is the proper width for any curves you are planning to cut. Refer to the minimum radii table on **Page 22**.
5. Connect the bandsaw to power.

When cutting curves, simultaneously feed and turn the stock carefully so the blade follows the layout line without twisting. If a curve is so abrupt that it is necessary to repeatedly back up and cut a new kerf, use a narrower blade, a blade with more TPI (teeth per inch), or make more relief cuts.

Relief cuts are made through the waste portion of the workpiece and stop at the layout line. Relief cuts reduce the chance that the blade will be pinched or twisted during the cut.

⚠ WARNING
ELECTROCUTION HAZARD

This bandsaw is not designed to be used with water soluble cutting fluid or coolant. If needed, use a small amount of oil-based lubricant.



Chip Inspection Chart

The best method of evaluating the performance of your cutting operation is to inspect the chips that are formed. Refer to the chart below for chip inspection guidelines.

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

Figure 45. Chip inspection chart.



SECTION 5: ACCESSORIES

G7315—Super Heavy-Duty Mobile Base

Mobilize your machine with this popular patented mobile base. The unique outrigger-type supports increase stability and lower machine height. This heavy duty mobile base is rated for up to a 1300 lb. capacity.

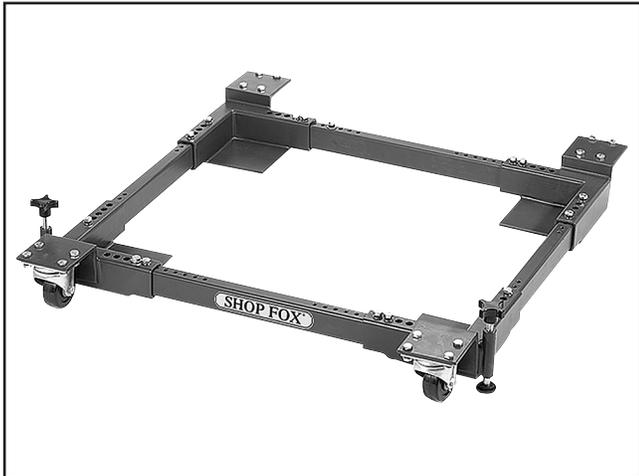


Figure 46. G7315 SHOP FOX® Mobile Base.

G1928—Bandsaw Handbook

This is the bandsaw bible. Covers step-by-step instructions for basic/advanced cutting techniques. Also includes advanced maintenance, service and troubleshooting procedures, as well as information on bandsaw history/design and blade metallurgy. 320 pages.

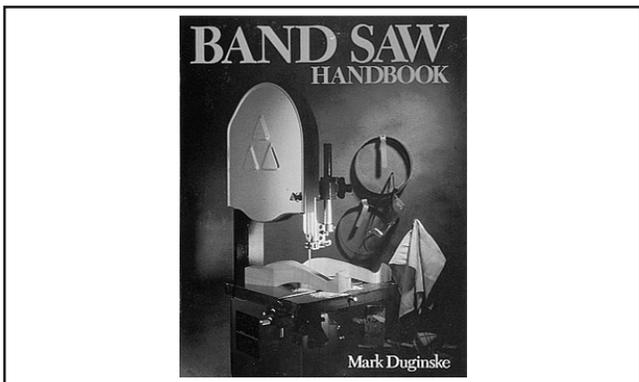


Figure 47. Bandsaw handbook.

Grizzly Bandsaw Blades

MODEL	LENGTH	WIDTH	TPI	GAUGE
T20517	120"	1"	3-4 VP	0.035
T20518	120"	1"	4-6 VP	0.035
T20519	120"	1"	5-8 VP	0.035
T20520	120"	1"	6-10 VP	0.035
T20521	120"	1"	8-12 VP	0.035
T20522	120"	1"	10-14 VP	0.035

H5408—Blade Tensioning Gauge

The Blade Tensioning 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.

The Blade Tensioning Gauge is made of lightweight, cast aluminum for optimum accuracy. Bright color coding makes it easy to use and easy to read. The Blade Tensioning Gauge comes in a handy metal box with instructions on the lid.



Figure 48. H5408 Blade Tensioning Gauge.

Call 1-800-523-4777 To Order



SECTION 6: MAINTENANCE



Schedule

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

Daily:

- Check/correct loose mounting bolts.
- Check/correct damaged or dull saw blade.
- Check/correct worn or damaged wires.
- Clean/protect table.
- Clean metal chips from upper and lower wheel areas, and empty bottom chip tray.
- Correct any other unsafe condition.

Monthly:

- Check for V-belt tension, damage, or wear.
- Lubricate the tension leadscrew and guide post.
- Remove the blade and clean the wheels.
- Clean and grease the rails on which the saw frame moves.
- Lubricate the pivot points of all levers.
- Check gearbox oil level.

Yearly:

- Drain & refill gearbox.

Cleaning

Use a brush and a shop vacuum to remove chips and other debris from the machine. Keep the table rust-free with regular applications of products like G96® Gun Treatment, SLIPIT®, or Boeshield® T-9.

Once a month, remove the blade and thoroughly clean all metal chips or built-up grease from the wheel surfaces. Redress the rubber tires if necessary.

Redressing Rubber Tires

As the bandsaw ages, the rubber tires on the wheel may need to be redressed if they become hardened or glazed over. Redressing the rubber tires improves blade tracking and reduces vibration/blade lead.

If the rubber tires become too worn, then blade tracking will become extremely difficult. At that point, redressing will no longer be effective, and the rubber tires must be replaced.

To redress the rubber tires:

1. DISCONNECT BANDSAW FROM POWER!
2. Put on heavy gloves and remove the blade.
3. Use a brush and shop vacuum to clean any chips from the rubber tires.
4. Lightly sand the circumference of both the upper and lower wheel with 100 grit sandpaper. Only redress the rubber enough to expose a fresh rubber surface.



Lubrication

Bearings

The bearings on your bandsaw are factory lubricated and sealed. Leave them alone unless they need to be replaced.

Blade Tension Leadscrew

When needed, brush a light coat of multi-purpose grease on the tension leadscrew and guide post to maintain smooth operation (see **Figure 49**).

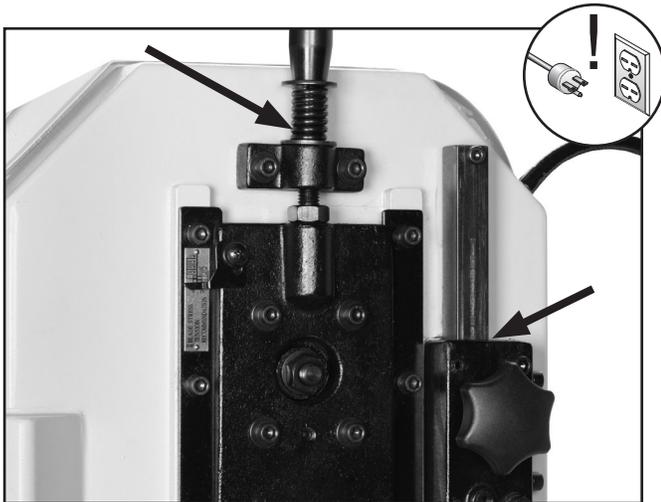


Figure 49. Tension leadscrew and guidepost.

Saw Release Lever Mechanism

Grease the pivot points of all of the levers associated with the saw release lever and the counterweight mechanism, and clean and lubricate the saw frame rails (**Figure 50**).

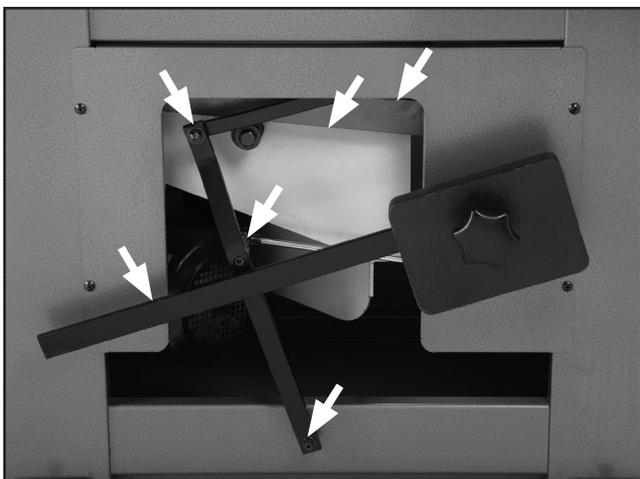


Figure 50. Lubrication points example.

Gearbox (Figure 51)

Use a mirror to inspect the oil level through the sight glass. If the level is low, inspect for leaks and replace seals if necessary, then refill to the level indicated on the sight glass.

Change gear box oil by removing the drain plug on the lower edge of the gear box (out of view). Replace the drain plug and refill through the fill cap with SAE-90 oil. Fill to the mark indicated on the sight glass.

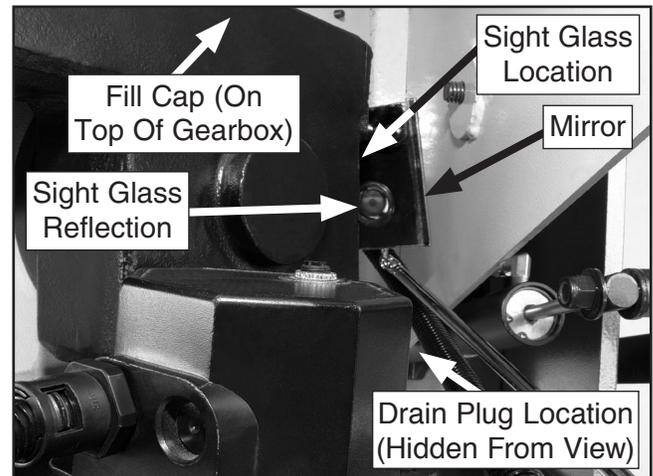


Figure 51. Gearbox lubrication.

Chip Tray

The chip tray catches most of the metal chips produced during cutting and must be periodically removed and cleaned to avoid a buildup of waste material and potential corrosion.

To remove the chip tray:

1. Pull the tray out of the front of the machine. Remember that the metal chips in the tray may add significant weight to the tray and make it difficult to slide out.
2. Using help, if necessary, lift the tray and dispose of the metal chips. Use a brush to sweep away any chips still left in the tray, then lightly coat the tray with a spray rust-inhibitor such as Boeshield™ T-9 or Slipit™.
3. Replace the tray. It may be necessary to lift the back of the tray to get it into position.



SECTION 7: SERVICE

Review the troubleshooting and procedures in this section to fix or adjust your machine if a problem develops. If you need replacement parts or you are unsure of your repair skills, then feel free to call our Technical Support at (570) 546-9663.

Troubleshooting

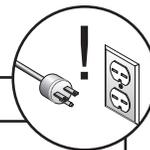


Motor & Electrical

Symptom	Possible Cause	Possible Solution
Machine does not start or a breaker trips.	<ol style="list-style-type: none"> 1. Plug/receptacle is at fault or wired incorrectly. 2. Motor connection wired incorrectly. 3. Wall fuse/circuit breaker is blown/tripped. 4. Power supply switched OFF or is at fault. 5. Wiring is open/has high resistance. 6. Motor ON/OFF switch is at fault. 7. Motor is at fault. 	<ol style="list-style-type: none"> 1. Test for good contacts; correct the wiring. 2. Correct motor wiring connections. 3. Ensure circuit size is suitable for this machine; replace weak breaker. 4. Ensure power supply is switch on; ensure power supply has the correct voltage. 5. Check for broken wires or disconnected/corroded connections, and repair/replace as necessary. 6. Replace faulty ON/OFF switch. 7. Test/repair/replace.
Machine stalls or is overloaded.	<ol style="list-style-type: none"> 1. Feed rate/cutting speed too fast for task. 2. Machine is undersized for the task. 3. Blade is slipping on wheels. 4. Motor connection is wired incorrectly. 5. Plug/receptacle is at fault. 6. Pulley/sprocket slipping on shaft. 7. Motor is at fault. 	<ol style="list-style-type: none"> 1. Decrease feed rate/cutting speed (Page 19/Page 30). 2. Use sharp blade with lower TPI; reduce the feed rate/depth of cut. 3. Adjust blade tracking and tension to factory specifications (Page 29/Page 26). 4. Correct motor wiring connections. 5. Test for good contacts; correct the wiring. 6. Replace loose pulley/shaft. 7. Test/repair/replace.
Machine has vibration or noisy operation.	<ol style="list-style-type: none"> 1. Motor or component is loose. 2. Blade weld is at fault or teeth are broken. 3. Blade is at fault. 4. V-belt worn or loose. 5. Pulley is loose. 6. Motor mount loose/broken. 7. Machine is incorrectly mounted or sits unevenly. 8. Motor fan is rubbing on fan cover. 9. Motor bearings are at fault. 	<ol style="list-style-type: none"> 1. Inspect/replace stripped or damaged bolts/nuts, and re-tighten with thread locking fluid. 2. Replace blade. 3. Replace warped, bent, or twisted blade; resharpen dull blade. 4. Inspect/replace belt. 5. Realign/replace shaft, pulley, setscrew, and key as required. 6. Tighten/replace. 7. Tighten/replace anchor studs in floor; relocate/shim machine. 8. Replace dented fan cover; replace loose/damaged fan. 9. Test by rotating shaft; rotational grinding/loose shaft requires bearing replacement.



Cutting Operations



Symptom	Possible Cause	Possible Solution
Machine slows when operating.	<ol style="list-style-type: none"> 1. Feed rate is set too high. 2. Blade is dull. 	<ol style="list-style-type: none"> 1. Reduce feed rate (Page 19). 2. Replace blade (Page 26).
Ticking sound when the saw is running.	<ol style="list-style-type: none"> 1. Blade weld contacting guide/support bearings (a light tick is normal). 2. Blade weld may be failing. 	<ol style="list-style-type: none"> 1. Use file or stone to smooth and round the back of the blade. 2. Inspect and replace blade if necessary (Page 26).
Vibration when cutting.	<ol style="list-style-type: none"> 1. Loose or damaged blade. 2. Metal buildup on wheels. 	<ol style="list-style-type: none"> 1. Tighten or replace blade (Page 26). 2. Clean all metal chips from rubber tires on wheels.
Rough or poor quality cuts.	<ol style="list-style-type: none"> 1. Feed rate is set too high. 2. Blade guides adjusted incorrectly. 	<ol style="list-style-type: none"> 1. Reduce feed rate (Page 19). 2. Re-adjust all blade guides and support bearings.
Cuts are not square (vertically).	<ol style="list-style-type: none"> 1. Blade is not square to the table. 	<ol style="list-style-type: none"> 1. Adjust upper blade guides so blade is square to table (Page 27)

Miscellaneous

Symptom	Possible Cause	Possible Solution
Blade tension scale is grossly inaccurate.	<ol style="list-style-type: none"> 1. The spring in the blade tension mechanism has lost its "spring." This is caused by not releasing the blade tension when not in use or frequently over-tensioning the bandsaw. 	<ol style="list-style-type: none"> 1. Replace spring in the blade tension mechanism, then take better care of the bandsaw by releasing tension when not in use and not over-tensioning the blade.
Wheel is noisy.	<ol style="list-style-type: none"> 1. Wheel bearing is worn out. 	<ol style="list-style-type: none"> 1. Replace the wheel bearing.
Blade does not track consistently, correctly, or at all.	<ol style="list-style-type: none"> 1. Wheels are not coplanar or aligned with each other. 2. Rubber tires on wheels are worn out. 	<ol style="list-style-type: none"> 1. Adjust wheels to be coplanar/aligned with each other (Page 40). 2. Redress the rubber tires on the wheels (Page 35); replace the rubber tires on the wheels.



V-Belt Pulley Alignment

Periodically check the V-belt for signs of wear. If you notice one side of the belt is worn more than the other, the belt pulleys are likely misaligned. The correct alignment of the motor and lower wheel pulleys help to ensure proper power transmission and reduce V-belt heat and wear during operation.

To align the V-belt pulleys:

1. DISCONNECT FROM POWER!
2. Remove the right side base cover and use a straightedge across both pulleys, as shown in **Figure 52**, to check the pulley alignment.
 - If the pulleys are aligned, no further action is necessary.
 - If they are not aligned, continue with **Step 3**.

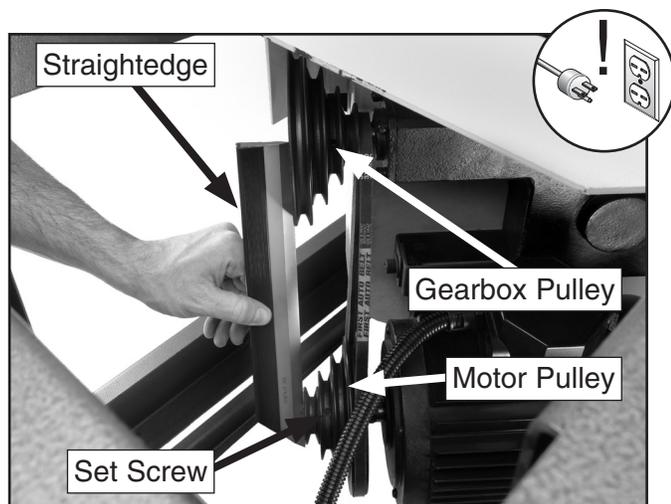


Figure 52. Checking pulley alignment.

3. Loosen the motor pulley set screw, align the motor pulley with the gearbox pulley, then tighten the set screw.
4. Replace the right side base cover.

Tensioning/ Replacing V-Belt

To ensure optimum power transfer from the motor to the blade without slipping, the V-belt must be in good condition and operate under proper tension. Blade tension is maintained by the weight of the motor and requires no adjustments. Check the condition of the belt at least every three months for signs of wear, slipping, or oiliness—check more often if the bandsaw is used daily.

To check/replace the V-belt:

1. DISCONNECT BANDSAW FROM POWER!
2. Remove the right side base cover.
3. Make sure the motor and lower wheel pulleys are correctly aligned.
4. Inspect the V-belt for any signs of glazing, cracking, side wear, fraying, or any other excessive wear.

—If the V-belt is in good shape, no further action is required. Replace the right side base cover. If not, continue below.

5. Lift up on the motor to release pressure from the belt, then roll the belt off the motor pulley. Remove the belt.
6. Place the new belt over the gearbox pulley. Lift the motor and roll the belt over the motor pulley, then carefully lower the motor.
7. Replace the right side base cover.

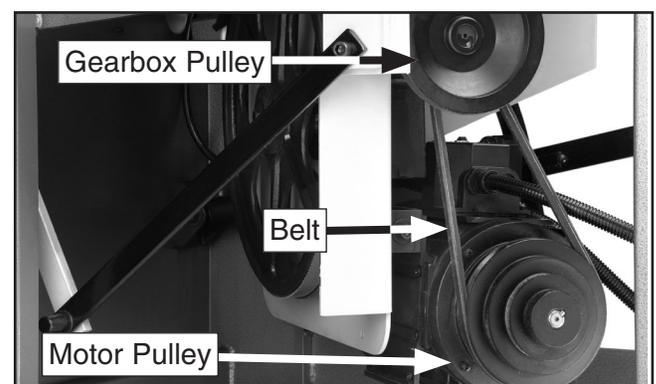


Figure 53. V-belt replacement.



Wheel Alignment

Materials Needed:	Qty
54" Long 2x4	1

Tools Needed:	Qty
Wrench 14mm	1
Hex Wrench $\frac{5}{16}$ "	1
Hex Wrench 5mm.....	1
Coplanarity Gauge (see Figure 54).	1

If the proper blade tracking cannot be accomplished by adjusting the tracking as outlined on **Page 29**, the wheels must be checked for coplanarity and re-aligned.

To check if the wheels are parallel and coplanar:

1. Make the "Coplanarity Gauge" shown in **Figure 54**.

Note: For best results, straighten the 2x4 with a jointer before cutting.

2. DISCONNECT BANDSAW FROM POWER!
3. Move the saw frame to its rearmost position. Open the upper wheel cover.
4. Place your coplanarity gauge up against both wheels in the position shown in **Figure 55**, making sure that the gauge fully extends across the wheels.

—If the wheels are coplanar (in the same plane), the gauge will evenly touch the top and bottom of both wheels and no further adjustments are necessary.

—If the wheels are NOT coplanar, continue with the following procedures to bring both wheels into correct alignment with one another.

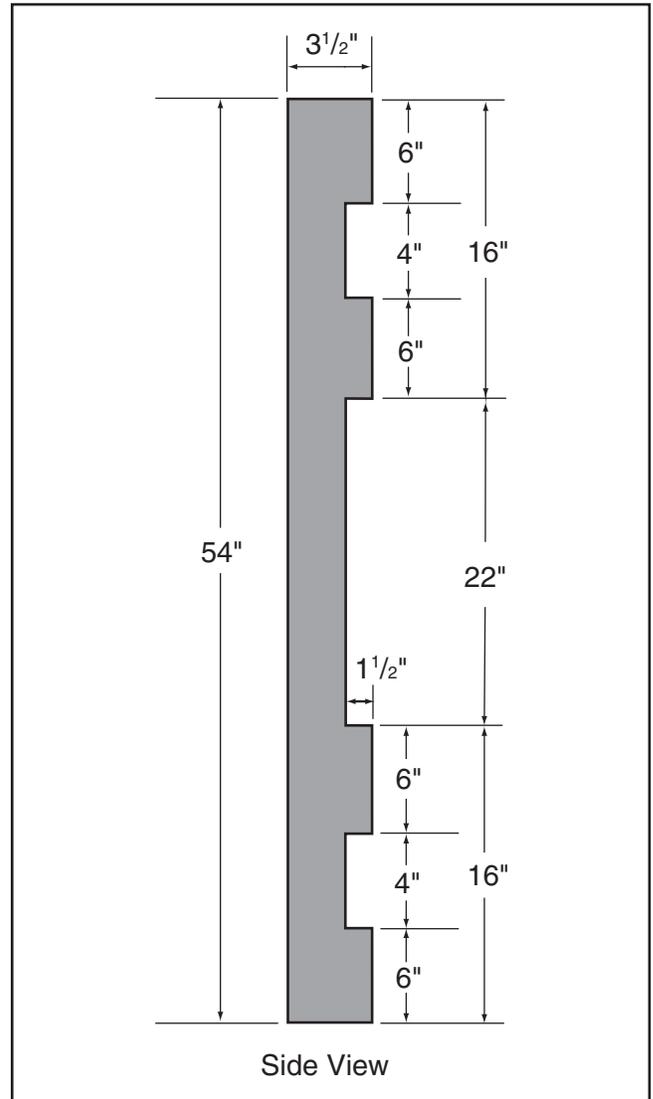


Figure 54. Dimensions of coplanarity gauge.

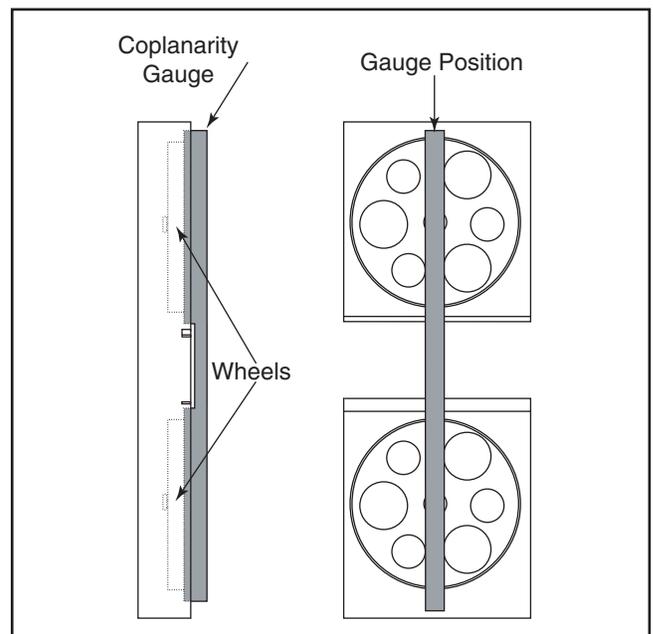


Figure 55. Coplanarity gauge positions.



The adjustments on the Model G0659 allow the upper and lower wheels to be tilted relative to each other to reach coplanarity.

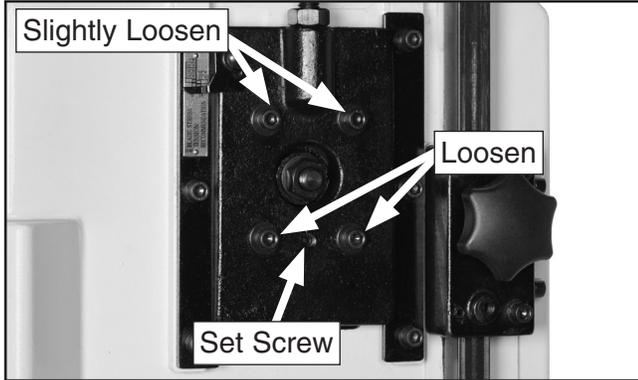


Figure 56. Upper wheel adjustments.

To adjust the wheel coplanarity:

1. Detension the blade.
2. Behind the upper wheel, loosen the cap screws indicated in **Figure 56**. Only slightly loosen the upper two cap screws. This minimizes lateral movement of the upper wheel and ensures accurate adjustments.
3. Through the lower wheel, loosen the three hex nuts indicated in **Figure 57**. Only slightly loosen the upper two hex nuts. This again minimizes lateral movement of the lower wheel and ensures accurate adjustments.

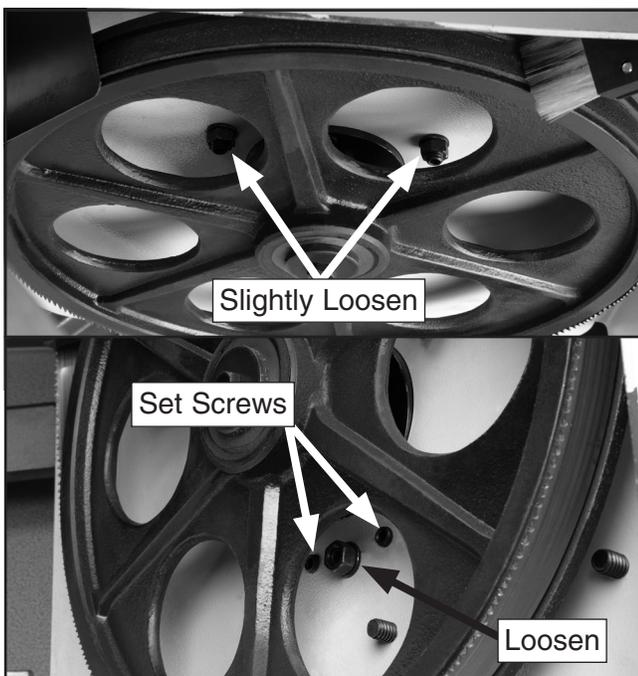


Figure 57. Lower wheel adjustments.

4. Locate the set screws indicated in **Figures 56–57**. Adjusting these set screws changes the angle of the wheels.
5. Properly tension the blade (**Page 26**).
6. Again use your coplanarity gauge to check the tilt of the upper and lower wheels. If possible, have an assistant hold the gauge while you make adjustments to the set screws. Adjust as necessary until the gauge touches the top and bottom of both wheels, as shown in **Figure 58**.

Note: *The two set screws on the lower wheel assembly must be adjusted in equal increments to ensure proper wheel alignment.*

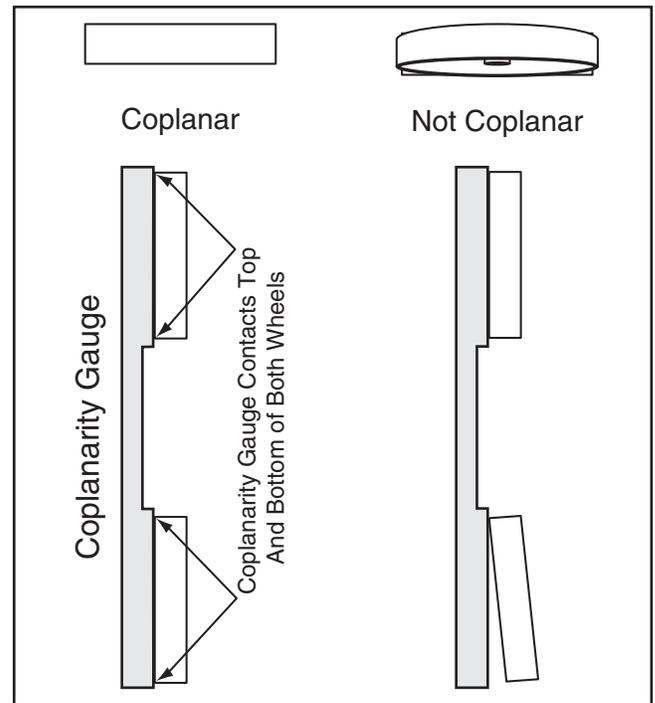


Figure 58. Wheel coplanar example.

7. Tighten the four upper cap screws and three lower hex nuts.
8. Before returning the saw to service, adjust the tracking (**Page 29**), and the blade guides (**Page 27**).



Blade Scraper & Wheel Brush

The lower wheel compartment contains the blade scraper and wheel brush. These are designed to clean chips off the blade and wheel tire as the bandsaw is operating. Always adjust the blade scraper and wheel brush at the same time.

To adjust the blade scraper and brush:

1. DISCONNECT BANDSAW FROM POWER!
2. Lock the saw frame in the rearmost position, then remove the right side cover.
3. Loosen the screws that hold the blade scraper in place (**Figure 59**).

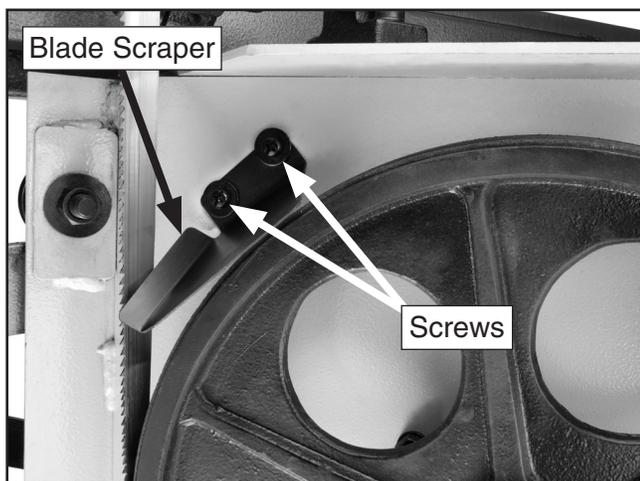


Figure 59. Blade scraper.

4. Reposition the blade scraper as close as possible to the blade without touching it, then re-tighten the screws.
5. Loosen the screws that hold the wheel brush in place (**Figure 60**).

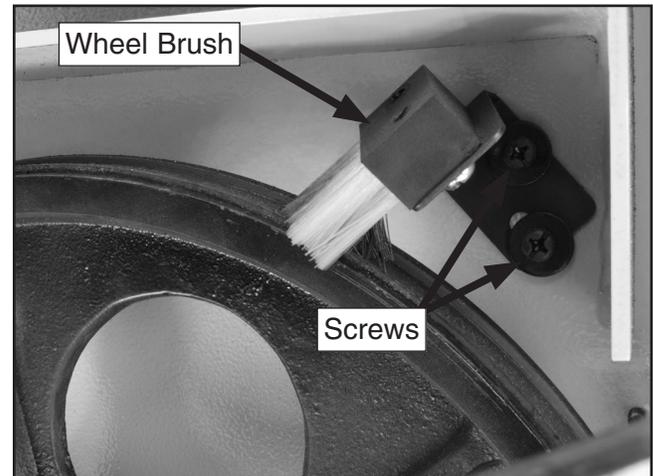


Figure 60. Wheel brush.

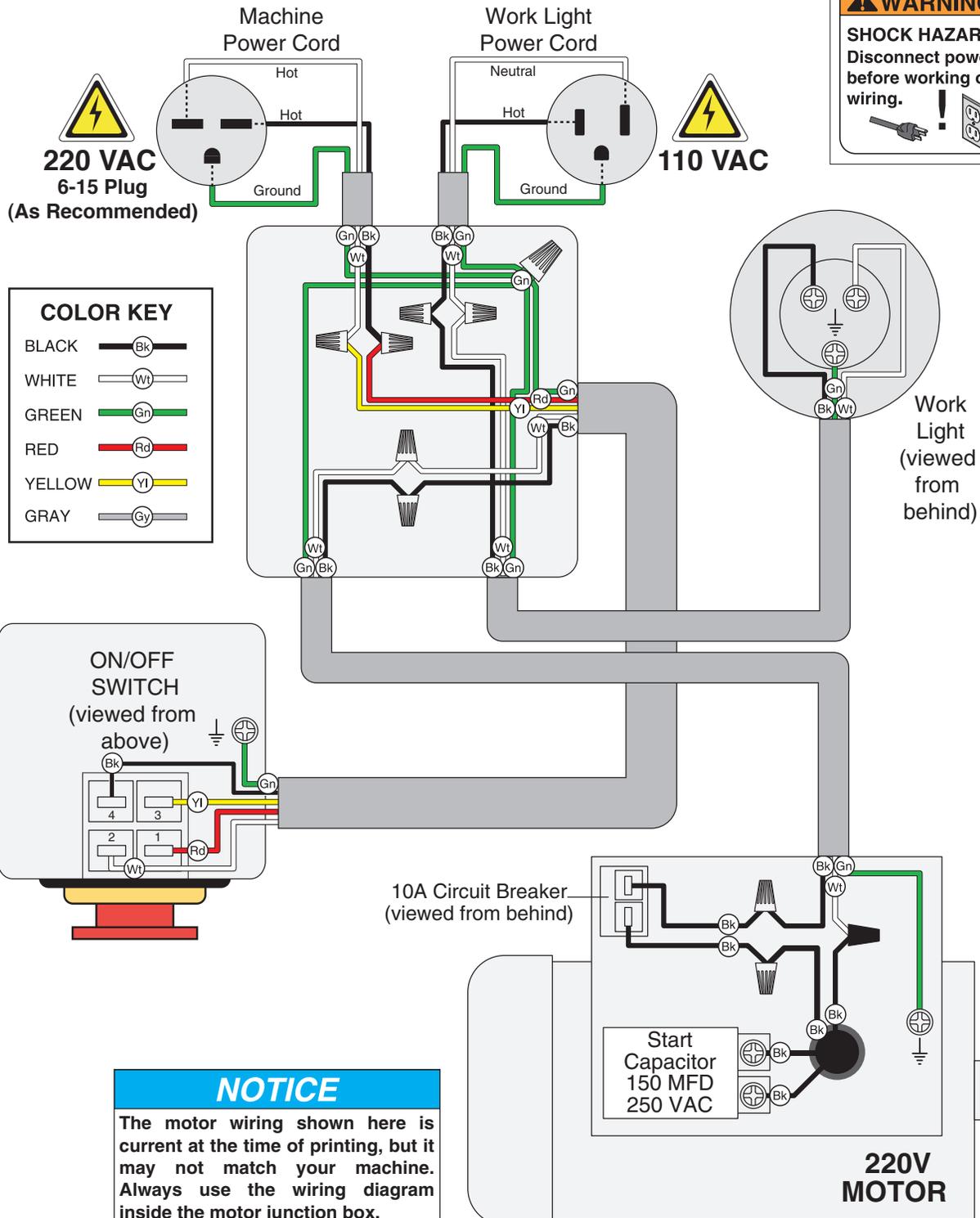
6. Adjust the wheel brush so that it makes good contact with the wheel but the bristles are not overly bent, then re-tighten the screws.
7. Replace the side cover.



G0659 Wiring Diagram



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



NOTICE
The motor wiring shown here is current at the time of printing, but it may not match your machine. Always use the wiring diagram inside the motor junction box.



G0659 Electrical Components



Figure 61. Motor junction box wiring.



Figure 63. Power switch.



Figure 62. Lamp switch.

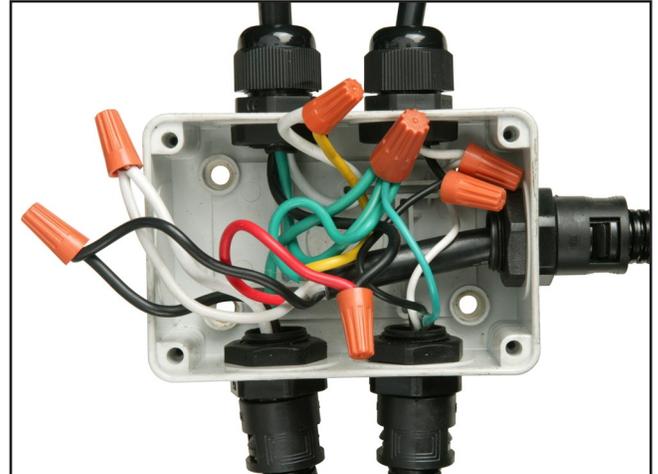


Figure 64. Lamp junction box wiring.



G0659 Hydraulic System Schematic



NOTICE

This hydraulic schematic will help you identify hydraulic system components. It is not intended to be a how-to repair guide. Seek assistance from a professional hydraulic technician whenever servicing or repairing the hydraulic system.

⚠ WARNING

Before servicing the hydraulic system always lock the saw frame using the saw release lever and saw frame stop. This will prevent pressurization of the hydraulic system and keep the saw frame from moving. Ignoring this warning can lead to the saw frame moving unexpectedly, resulting in crushing or pinching injuries, or hydraulic fluid poisoning, which is a serious and potentially fatal injury.

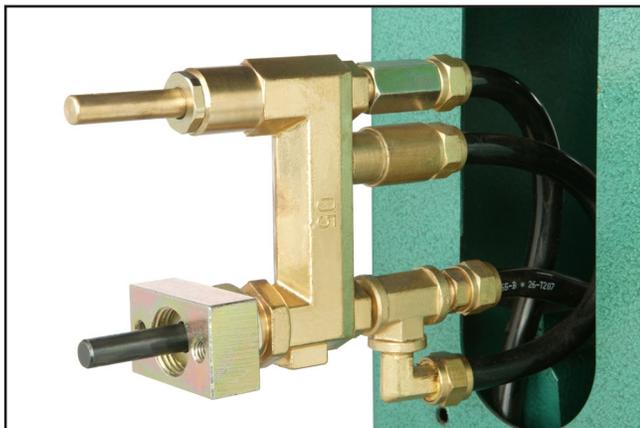
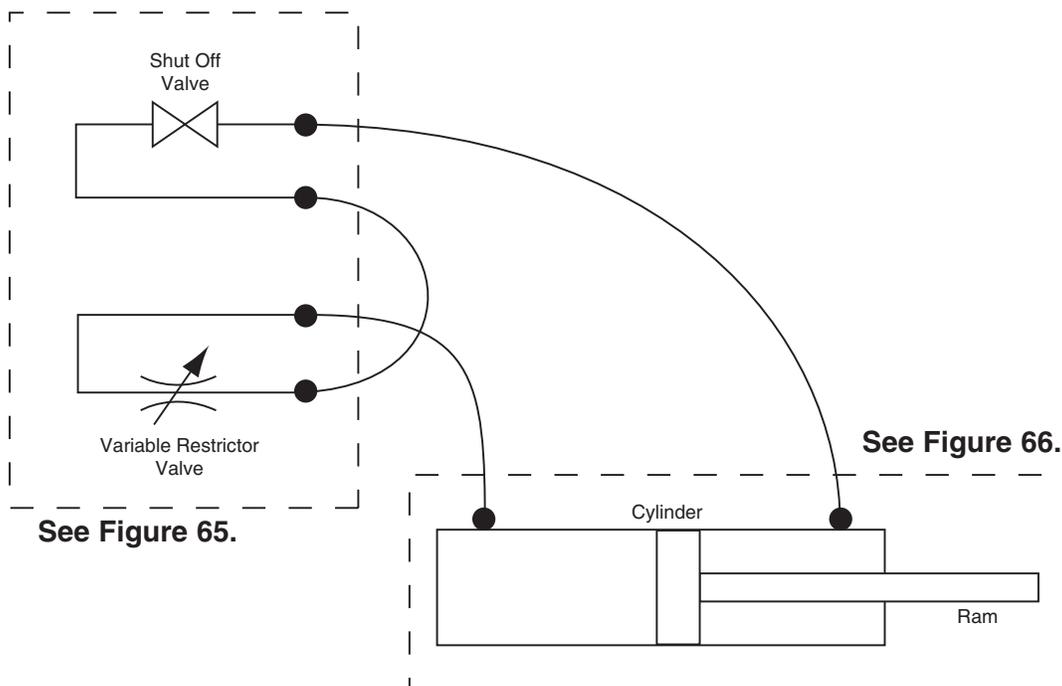


Figure 65. Hydraulic valve block.

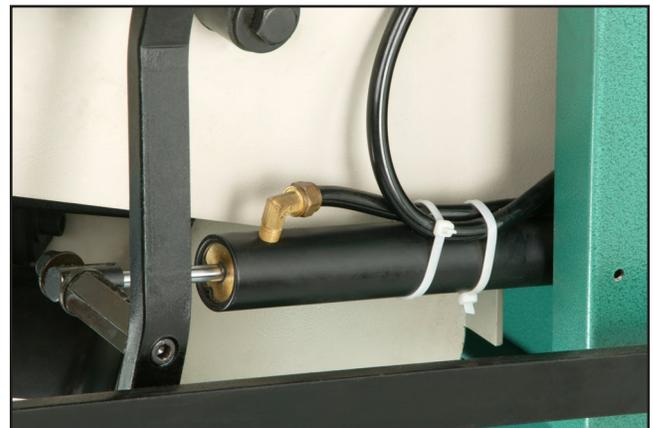
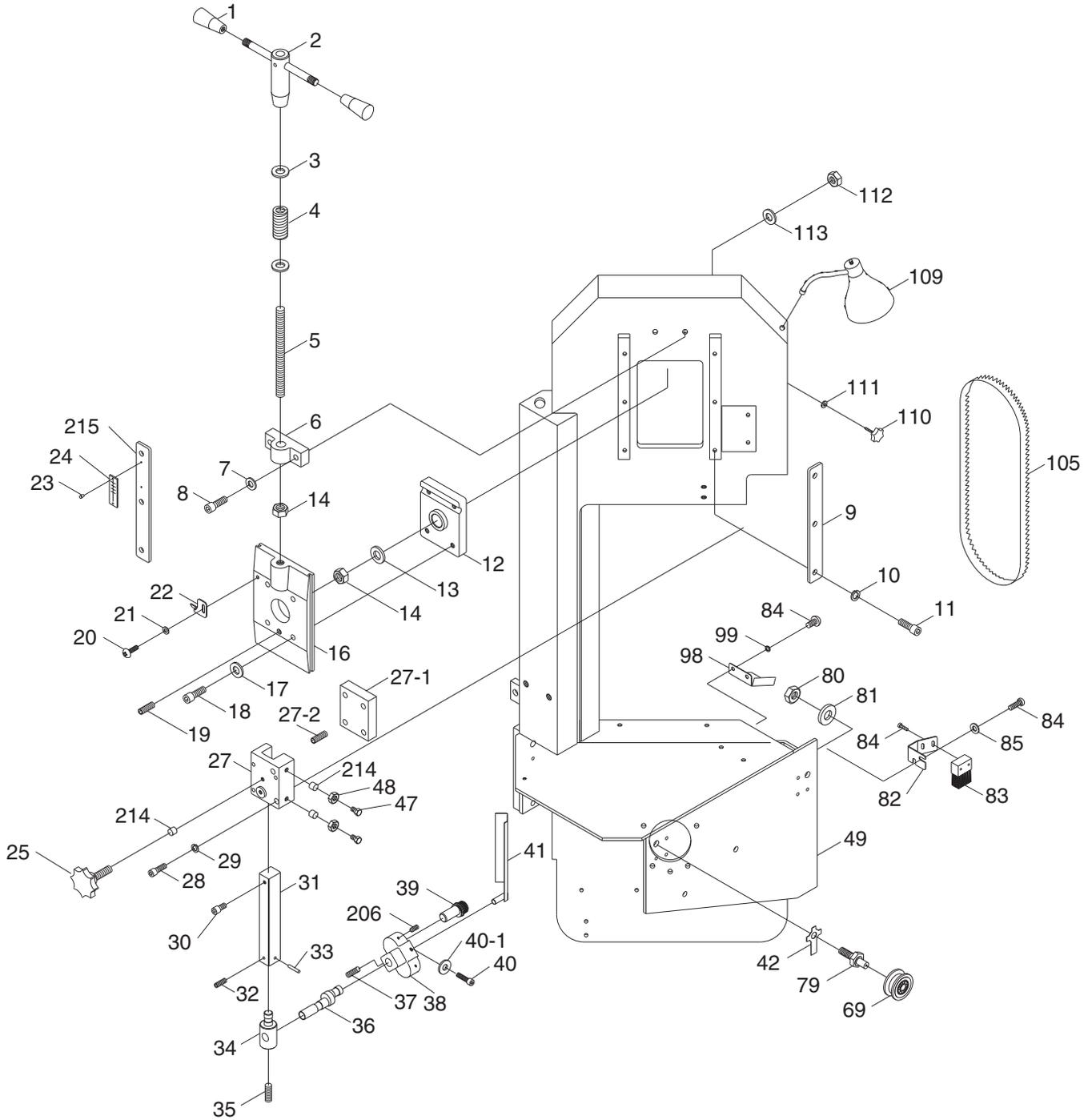


Figure 66. Hydraulic ram.



Upper Saw Frame Breakdown



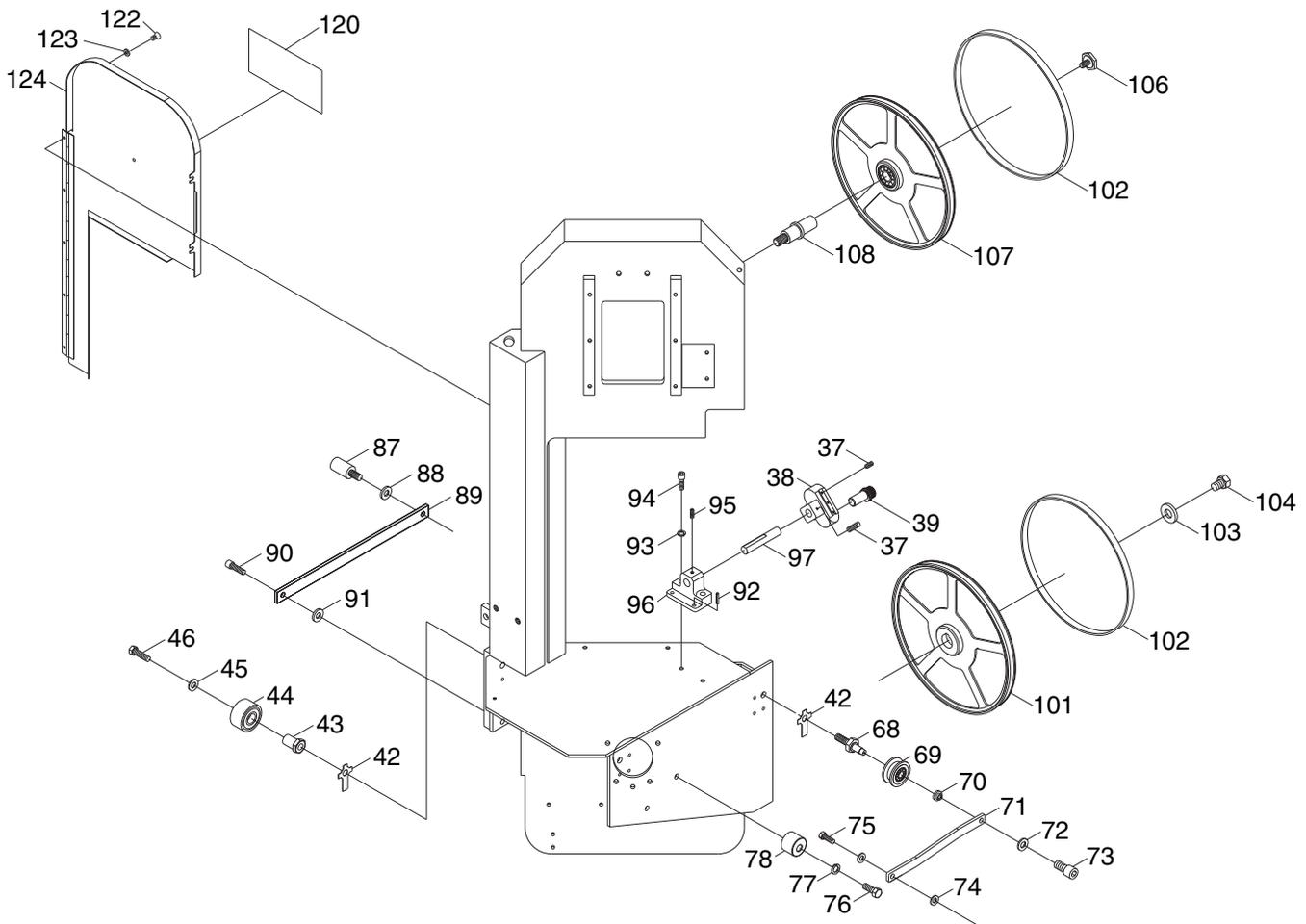
Upper Saw Frame Parts List

REF	PART #	DESCRIPTION
1	P0659001	KNOB
2	P0659002	HANDLE
3	PW14	FLAT WASHER 5/8
4	P0659004	COMPRESSION SPRING
5	P0659005	BLADE TENSION LEADSCREW
6	P0659006	LEADSCREW BRACKET
7	PW02	FLAT WASHER 3/8
8	PSB26	CAP SCREW 3/8-16 X 1-1/2
9	P0659009	GIB
10	PLW04	LOCK WASHER 3/8
11	PSB16	CAP SCREW 3/8-16 X 3/4
12	P0659012	SHAFT HOLDER
13	P0659013	SPACER
14	PN04	HEX NUT 5/8-11
16	P0659016	SLIDE PLATE
17	PW02	FLAT WASHER 3/8
18	PSB102	CAP SCREW 3/8-16 X 1-3/4
19	PSS52	SET SCREW 3/8-16 X 3/4
20	PS12	PHLP HD SCR 1/4-20 X 5/8
21	PW06	FLAT WASHER 1/4
22	P0659022	TENSION INDICATOR
23	P0659023	RIVET
24	P0659024	TENSION LABEL
25	P0659025	KNOB 3/8-16 X 1
27	P0659027	GUIDE POST BRACKET
27-1	P0659027-1	EXPANSION PLATE
27-2	PSS11M	SET SCREW M6-1 X 10
28	PSB29	CAP SCREW 3/8-16 x 2-1/2
29	PLW04	LOCK WASHER 3/8
30	PSB17	CAP SCREW 1/4-20 X 3/8
31	P0659031	GUIDE POST
32	PSS10	SET SCREW 1/4-20 X 5/8
33	PRP49M	ROLL PIN 5 X 25

REF	PART #	DESCRIPTION
34	P0659034	GUIDE POST HEAD
35	PSS02	SET SCREW 5/16-18 X 3/8
36	P0659036	UPPER ECCENTRIC SHAFT
37	PSS08	SET SCREW 5/16-18 X 1/2
38	P0659038	GUIDE BRACKET
39	P0659039	GUIDE BEARING ASSEMBLY
40	PSB01	CAP SCREW 1/4-20 X 5/8
40-1	PW06	FLAT WASHER 1/4
41	P0659041	BLADE GUARD
42	P0659042	ROLLER WHEEL PLATE
47	PB24	HEX BOLT 3/8-16 X 1-1/4
48	PN08	HEX NUT 3/8-16
49	P0659049	BODY FRAME
69	P0659069	ROLLER WHEEL ASSEMBLY
79	P0659079	ECCENTRIC BOLT
80	PN41	HEX NUT 1/2"-12
81	PW01	FLAT WASHER 1/2
82	P0659082	BRUSH HOLDER
83	P0659083	BRUSH
84	PS04	PHLP HD SCR 1/4-20 X 1/2
85	PW06	FLAT WASHER 1/4
98	P0659098	CHIP GUARD
99	PW06	FLAT WASHER 1/4
105	P0659105	BANDSAW BLADE 3/4 X 120
109	P0659109	WORK LIGHT
110	P0659110	DOOR KNOB 1/4-20 X 1/2
111	PW06	FLAT WASHER 1/4
112	PN08	HEX NUT 3/8-16
113	PW02	FLAT WASHER 3/8
206	PSS08	SET SCREW 5/16-18 X 1/2
214	P0659214	BUSHING
215	P0659215	GIB



Lower Saw Frame Breakdown and Parts List

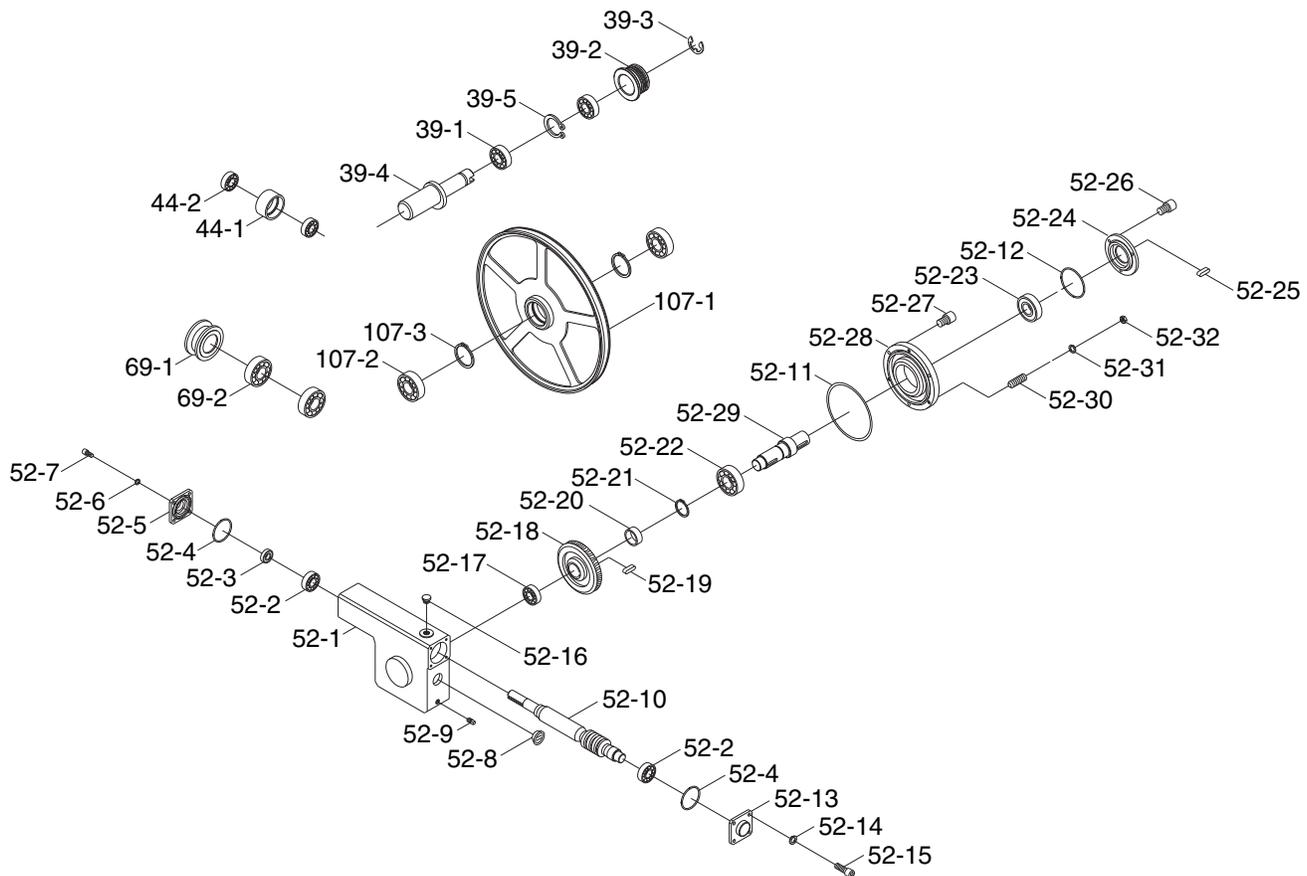


REF	PART #	DESCRIPTION
37	PSS08	SET SCREW 5/16-18 X 1/2
38	P0659038	GUIDE BRACKET
39	P0659039	GUIDE BEARING ASSEMBLY
42	P0659042	ROLLER WHEEL PLATE
43	P0659043	ECCENTRIC SHAFT BUSHING
44	P0659044	LOWER ROLLER ASSEMBLY
45	PW01	FLAT WASHER 1/2
46	PSB97	CAP SCREW 1/2-12 X 2-1/2
68	P0659068	ECCENTRIC BOLT
69	P0659069	ROLLER WHEEL ASSEMBLY
70	PW06	FLAT WASHER 1/4
71	P0659071	COUNTERWEIGHT LEVER
72	PW06	FLAT WASHER 1/4
73	PSB04	CAP SCREW 1/4-20 X 1/2
74	PW02	FLAT WASHER 3/8
75	PB16	HEX BOLT 3/8-16 X 1-1/2
76	PB56	HEX BOLT 1/2-12 X 1-3/4
77	PLW07	LOCK WASHER 1/2
78	P0659078	ECCENTRIC BUSHING
87	P0659087	SHAFT BOLT
88	PW02	FLAT WASHER 3/8

REF	PART #	DESCRIPTION
89	P0659089	HANDLE LEVER
90	PSB19	CAP SCREW 3/8-16 X 1-1/4
91	PW02	FLAT WASHER 3/8
92	PRP03M	ROLL PIN 5 X 20
93	PLW04	LOCK WASHER 3/8
94	PSB102	CAP SCREW 3/8-16 X 1-3/4
95	PSS02	SET SCREW 5/16-18 X 3/8
96	P0659096	LOWER BLADE GUIDE MOUNT
97	P0659097	LOWER BLADE GUIDE SHAFT
101	P0659101	DRIVE WHEEL
102	P0659102	TIRE
103	PW02	SPECIAL WASHER
104	PB18	HEX BOLT 3/8-16 X 1
106	P0659106	SPECIAL BOLT
107	P0659107	IDLER WHEEL ASSEMBLY
108	P0659108	IDLER WHEEL SPINDLE
120	P0659120	TOOTH SELECTION LABEL
122	PS07	PHLP HD SCR 1/4-20 X 3/8
123	PW06	FLAT WASHER 1/4
124	P0659124	WHEEL COVER



Gearbox Breakdown and Parts List

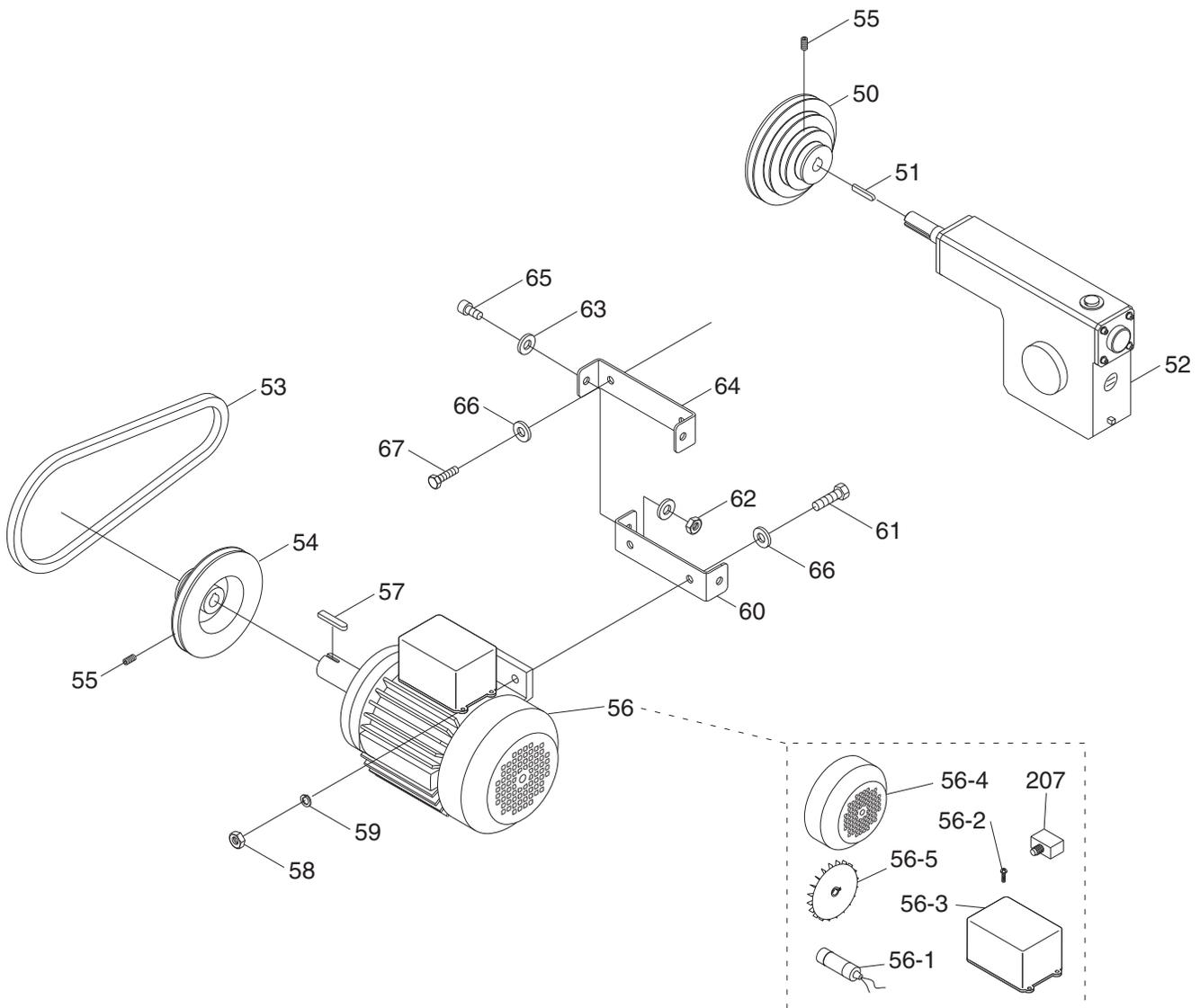


REF	PART #	DESCRIPTION
39-1	P627	BALL BEARING 627ZZ
39-2	P0659039-2	BLADE GUIDE WHEEL
39-3	PEC07M	E-CLIP 7MM
39-4	P0659039-4	ECCENTRIC SHAFT
39-5	PR57M	INT RETAINING RING 22MM
44-1	P0659044-1	LOWER ROLLER
44-2	P6204	BALL BEARING 6204ZZ
52-1	P0659052-1	GEAR BOX HOUSING
52-2	P6204	BALL BEARING 6204ZZ
52-3	P0659052-3	TC OIL SEAL
52-4	PORP046	O-RING 45.7 X 3.5 P46
52-5	P0659052-5	COVER
52-6	PLW02	LOCK WASHER 1/4
52-7	PSB05	CAP SCREW 1/4-20 X 3/4
52-8	P0659052-8	OIL LEVEL GAGE
52-9	P0659052-9	OIL STOPPER
52-10	P0659052-10	WORM GEAR SHAFT
52-11	P0659052-11	O-RING 113.97 X 2.62
52-12	P0659052-12	O-RING 61.6 X 2.62
52-13	P0659052-13	END SEAL COVER
52-14	PLW02	LOCK WASHER 1/4
52-15	PSB05	CAP SCREW 1/4-20 X 3/4

REF	PART #	DESCRIPTION
52-16	P0659052-16	OIL FILLER
52-17	P6205	BALL BEARING 6205ZZ
52-18	P0659052-18	TRANSMISSION GEAR
52-19	P0659052-19	KEY 8 X 7 X 28
52-20	P0659052-20	BUSHING
52-21	PR15M	EXT RETAINING RING 30MM
52-22	P6206	BALL BEARING 6206ZZ
52-23	P0659052-23	OIL SEAL
52-24	P0659052-24	MAIN OIL SEAL COVER
52-25	P0659052-25	KEY 8 X 7 X 30
52-26	PSB41	CAP SCREW 10-24 X 1/2
52-27	PSB05	CAP SCREW 1/4-20 X 3/4
52-28	P0659052-28	MAIN SHAFT COVER
52-29	P0659052-29	OUTPUT SHAFT
52-30	P0659052-30	SET SCREW 3/8-16 X 1-1/4
52-31	PLW04	LOCK WASHER 3/8
52-32	PN08	HEX NUT 3/8-16
69-1	P0659069-1	ROLLER WHEEL
69-2	P6201	BALL BEARING 6201ZZ
107-1	P0659107-1	IDLER WHEEL
107-2	P6205	BALL BEARING 6205ZZ
107-3	PR26M	INT RETAINING RING 52MM



Drive Unit Breakdown and Parts List



REF	PART #	DESCRIPTION
50	P0659050	GEAR BOX PULLEY
51	PK02M	KEY 5 X 5 X 40
52	P0659052	GEAR BOX ASSEMBLY
53	PVM32	V-BELT M-32 3L320
54	P0659054	DRIVE PULLEY WHEEL
55	PSS01M	SET SCREW M6-1 X 10
56	P0659056	MOTOR 1HP 220V 1725 RPM
56-1	PC150B	S CAPACITOR 150M 250V 1-1/2 X 2-3/8
56-2	PS08M	PHLP HD SCR M5-.8 X 12
56-3	P0659056-3	MOTOR JUNCTION BOX
56-4	P0659056-4	MOTOR FAN COVER
56-5	P0659056-5	MOTOR FAN

REF	PART #	DESCRIPTION
57	PK02M	KEY 5 X 5 X 40
58	PN08	HEX NUT 3/8-16
59	PLW04	LOCK WASHER 3/8
60	P0659060	INNER MOTOR MOUNT BRACKET
61	PB18	HEX BOLT 3/8-16 X 1
62	PN08	HEX NUT 3/8-16
63	PW02	FLAT WASHER 3/8
64	P0659064	OUTER MOTOR MOUNT BRACKET
65	PSB14	CAP SCREW 3/8-16 X 1
66	PW02	FLAT WASHER 3/8
67	PB21	HEX BOLT 3/8-16 X 3/4
207	P0659207	OVERLOAD SWITCH 10A



Table Base Parts Breakdown

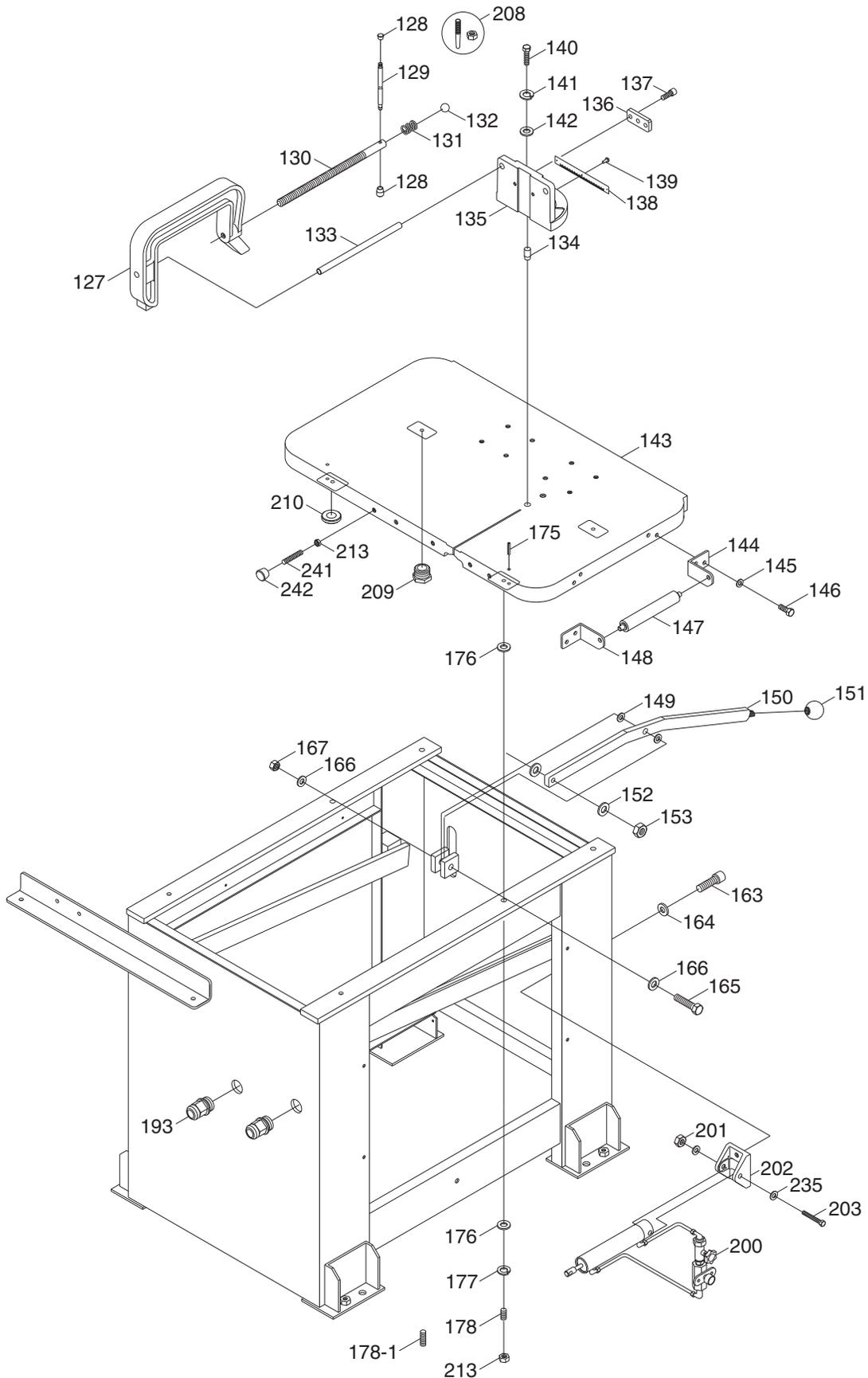


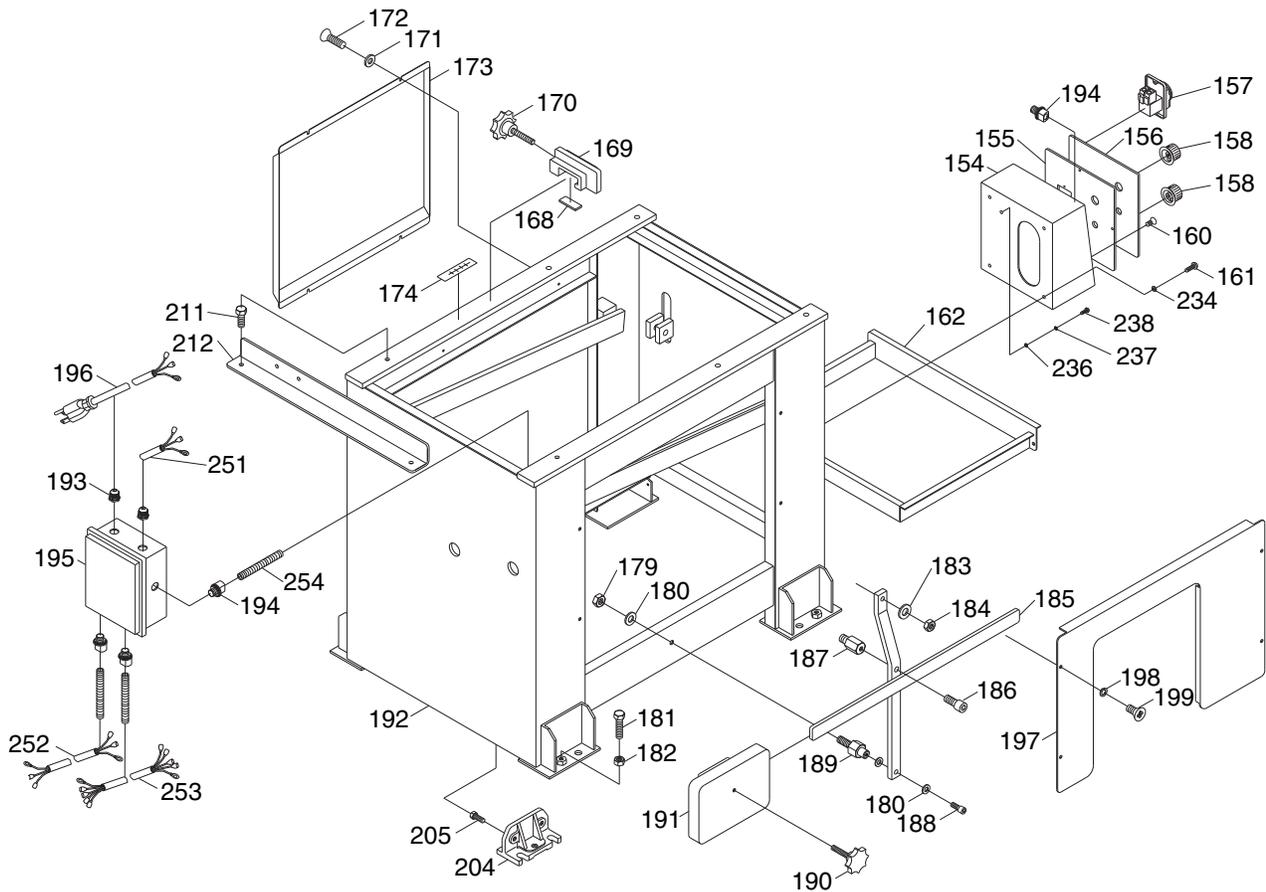
Table Base Parts List

REF	PART #	DESCRIPTION
127	P0659127	C-CLAMP VISE
128	P0659128	HANDLE CAP
129	P0659129	LEADSCREW HANDLE
130	P0659130	LEADSCREW
131	P0659131	COMPRESSION SPRING
132	P0659132	STEEL BALL 1/4
133	P0659133	C-CLAMP MOUNTING ROD
134	P0659134	PIVOT PIN
135	P0659135	VISE BASE
136	P0659136	BRACKET
137	PSB03	CAP SCREW 5/16-18 X 1
138	P0659138	DEGREE LABEL
139	P0659139	RIVET 2 X 5
140	PB25	HEX BOLT 3/8-16 X 1-3/4
141	PLW04	LOCK WASHER 3/8
142	PW02	FLAT WASHER 3/8
143	P0659143	TABLE
144	P0659144	FRONT ROLLER BRACKET
145	PLW01	LOCK WASHER 5/16
146	PB32	HEX BOLT 5/16-18 X 5/8
147	P0659147	ROLLER
148	P0659148	REAR ROLLER BRACKET
149	PW01	FLAT WASHER 1/2
150	P0659150	SAW RELEASE LEVER
151	P0659151	BALL KNOB

REF	PART #	DESCRIPTION
152	PW02	FLAT WASHER 3/8
153	PN08	HEX NUT 3/8-16
163	PSB16	CAP SCREW 3/8-16 X 3/4
164	PW02	FLAT WASHER 3/8
165	PB20	HEX BOLT 1/2-12 X 2-1/2
166	PW01	FLAT WASHER 1/2
167	PN41	HEX NUT 1/2"-12
175	PRP29M	ROLL PIN 5 X 45
176	PW02	FLAT WASHER 3/8
177	PLW04	LOCK WASHER 3/8
178	PSS36	SET SCREW 3/8-16 X 2
178-1	P0659178-1	SET SCREW 3/8-16 X 2-1/2
193	P0659193	LIQUID-TITE STRAIN RELIEF
200	P0659200	HYDRAULIC CYLINDER ASSEMBLY
201	PN08	HEX NUT 3/8-16
202	P0659202	CYLINDER SUPPORT
203	PB35	HEX BOLT 3/8-16 X 2-1/2
208	P0659208	TAPER PIN ASSEMBLY
209	P0659209	BUSHING
210	P0659210	TABLE SPACER
213	PN08	HEX NUT 3/8-16
235	PW02	FLAT WASHER 3/8
241	P0659241	THREADED ROD 3/8-16 X 2-1/2
242	P0659242	PLASTIC STOP



Cabinet Base Breakdown and Parts List

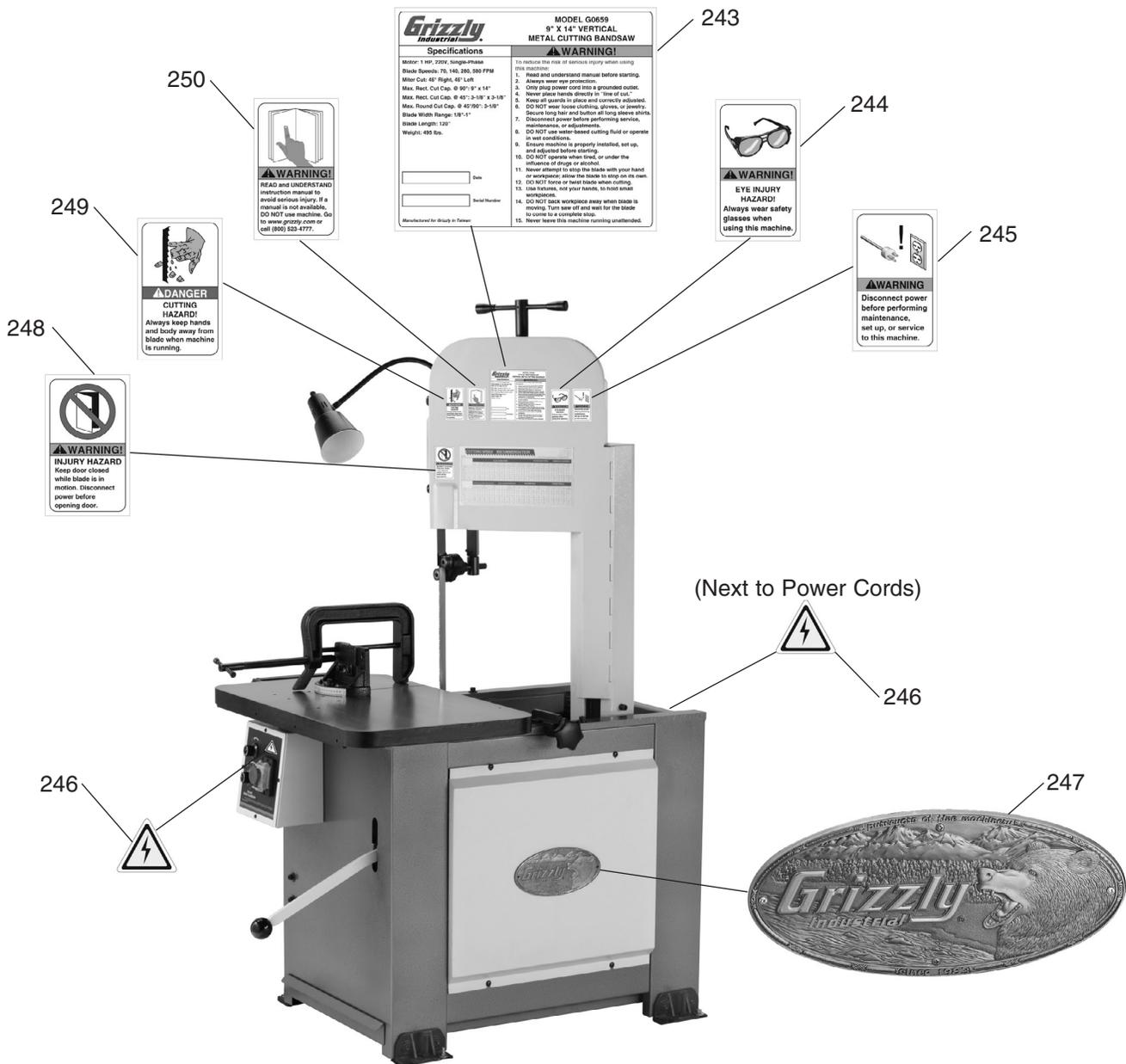


REF	PART #	DESCRIPTION
154	P0659154	CONTROL BOX
155	P0659155	CONTROL BOX COVER
156	P0659156	CONTROL BOX LABEL
157	P0659157	ON/OFF SWITCH
158	P0659158	HYDRAULIC KNOB
160	PFH03	FLAT HD SCR 1/4-20 X 1/2
161	PS01	PHLP HD SCR 10-24 X 1/2
162	P0659162	CHIP TRAY
168	P0659168	INDICATOR PLATE
169	P0659169	STOP CLAMP
170	P0659170	KNOB 3/8-16 X 2
171	PW06	FLAT WASHER 1/4
172	PS12	PHLP HD SCR 1/4-20 X 5/8
173	P0659173	STAND SIDE PLATE
174	P0659174	SAW FRAME POSITION LABEL
179	PN08	HEX NUT 3/8-16
180	PW02	FLAT WASHER 3/8
181	PB20	HEX BOLT 1/2-12 X 2-1/2
182	PN41	HEX NUT 1/2"-12
183	PW02	FLAT WASHER 3/8
184	PN08	HEX NUT 3/8-16
185	P0659185	BALANCE WEIGHT RAIL
186	PSB07	CAP SCREW 5/16-18 X 3/4
187	P0659187	PIVOT COUPLER

REF	PART #	DESCRIPTION
188	PSB01	CAP SCREW 1/4-20 X 5/8
189	P0659189	MOUNTING COUPLER
190	P0659190	KNOB 3/8-16 X 2
191	P0659191	BALANCE WEIGHT
192	P0659192	CABINET
193	P0659193	LIQUID-TITE STRAIN RELIEF
194	P0659194	THREADED STRAIN RELIEF
195	P0659195	JUNCTION BOX
196	P0659196	LIGHT POWER CABLE
197	P0659197	LEFT SUPPORT PLATE
198	PW06	FLAT WASHER 1/4
199	PS04	PHLP HD SCR 1/4-20 X 1/2
204	P0659204	FOOT BRACKET
205	PB21	HEX BOLT 3/8-16 X 3/4
211	PB07	HEX BOLT 5/16-18 X 3/4
212	P0659212	FIXED PLATE
234	PW03	FLAT WASHER #10
236	PW02M	FLAT WASHER 5MM
237	PTLW02M	EXT TOOTH WASHER 5MM
238	PS19M	PHLP HD SCR M5-.8 x 6
251	P0659251	MAIN POWER CABLE
252	P0659252	POWER CABLE
253	P0659253	CONTROL WIRE
254	P0659254	CONDUIT



Safety Labels Breakdown and Parts List



REF	PART #	DESCRIPTION
243	P0659243	MACHINE ID LABEL
244	P0659244	EYE INJURY HAZARD LABEL
245	P0659245	DISCONNECT FROM POWER LABEL
246	PLABEL-14	ELECTRICITY LABEL

REF	PART #	DESCRIPTION
247	P0659247	GRIZZLY LABEL PLATE
248	P0659248	DOOR INJURY LABEL
249	P0659249	BLADE WARNING LABEL
250	PLABEL-12	READ MANUAL 2\"/>

⚠️ WARNING

Safety labels warn about machine hazards and ways to prevent injury. The owner of this machine **MUST** maintain the original location and readability of the labels on the machine. If any label is removed or becomes unreadable, **REPLACE** that label before using the machine again. Contact Grizzly at (800) 523-4777 or www.grizzly.com to order new labels.





WARRANTY CARD

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

The following information is given on a voluntary basis. It will be used for marketing purposes to help us develop better products and services. **Of course, all information is strictly confidential.**

1. How did you learn about us?

Advertisement Friend Catalog
 Card Deck Website Other:

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

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

3. What is your annual household income?

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

4. What is your age group?

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

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

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

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

0-2 3-5 6-9 10+

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

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

9. Would you allow us to use your name as a reference for Grizzly customers in your area?
Note: We never use names more than 3 times. Yes No

10. Comments: _____

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BELLINGHAM, WA 98227-2069



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TAPE ALONG EDGES--PLEASE DO NOT STAPLE

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Grizzly Industrial, Inc. warrants every product it sells for a period of **1 year** to the original purchaser from the date of purchase. This warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence, accidents, repairs or alterations or lack of maintenance. This is Grizzly's sole written warranty and any and all warranties that may be implied by law, including any merchantability or fitness, for any particular purpose, are hereby limited to the duration of this written warranty. We do not warrant or represent that the merchandise complies with the provisions of any law or acts unless the manufacturer so warrants. In no event shall Grizzly's liability under this warranty exceed the purchase price paid for the product and any legal actions brought against Grizzly shall be tried in the State of Washington, County of Whatcom.

We shall in no event be liable for death, injuries to persons or property or for incidental, contingent, special, or consequential damages arising from the use of our products.

To take advantage of this warranty, contact us by mail or phone and give us all the details. We will then issue you a "Return Number," which must be clearly posted on the outside as well as the inside of the carton. We will not accept any item back without this number. Proof of purchase must accompany the merchandise.

The manufacturers reserve the right to change specifications at any time because they constantly strive to achieve better quality equipment. We make every effort to ensure that our products meet high quality and durability standards and we hope you never need to use this warranty.

Please feel free to write or call us if you have any questions about the machine or the manual.

Thank you again for your business and continued support. We hope to serve you again soon.

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