15" BANDSAW

MODEL G1148

INSTRUCTION MANUAL

REVISED APRIL, 1999. PRINTED IN U.S.A.

TABLE OF CONTENTS

SECTION 1: SAFETY

⚠WARNING

For Your Own Safety Read Instruction Manual Before Operating This Equipment

The purpose of safety symbols is to attract your attention to possible hazardous conditions. This manual uses a series of symbols and signal words which are intended to convey the level of importance of the safety messages. The progression of symbols is described below. Remember that safety messages by themselves do not eliminate danger and are not a substitute for proper accident prevention measures.

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

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

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

NOTICE — **This symbol is used to alert the user to useful information about proper operation of the equipment.**

⚠WARNING
Safety Instructions For Power Tools

1. **KEEP GUARDS IN PLACE** and in working order.
2. **REMOVE ADJUSTING KEYS AND WRENCHES**. Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning on**.**
3. **KEEP WORK AREA CLEAN**. Cluttered areas and benches invite accidents.
4. **DON'T USE IN DANGEROUS ENVIRONMENT**. Don't use power tools in damp or wet locations, or where any flammable or noxious fumes may exist. Keep work area well lighted.
5. **KEEP CHILDREN AND VISITORS AWAY**. All children and visitors should be kept a safe distance from work area.
6. **MAKE WORK SHOP CHILD PROOF** with padlocks, master switches, or by removing starter keys.
7. **DON'T FORCE TOOL**. It will do the job better and safer at the rate for which it was designed.
8. **USE RIGHT TOOL.** Don't force tool or attachment to do a job for which it was not designed.

⚠WARNING
Safety Instructions For Power Tools

9. **USE PROPER EXTENSION CORD**. Make sure your extension cord is in good condition. Conductor size should be in accordance with the chart below. The amperage rating should be listed on the motor or tool nameplate. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. Your extension cord must also contain a ground wire and plug pin. Always repair or replace extension cords if they become damaged.

Minimum Gauge for Extension Cords

	LENGTH		
AMP RATING	**25ft**	**50ft**	**100ft**
0-6	18	16	16
7-10	18	16	14
11-12	16	16	14
13-16	14	12	12
17-20	12	12	10
21-30	10	10	No

10. **WEAR PROPER APPAREL.** Do not wear loose clothing, gloves, neckties, rings, bracelets, or other jewelry which may get caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair.

11. **ALWAYS USE SAFETY GLASSES.** Also use face or dust mask if cutting operation is dusty. Everyday eyeglasses only have impact resistant lenses, they are NOT safety glasses.

12. **SECURE WORK.** Use clamps or a vise to hold work when practical. It's safer than using your hand and frees both hands to operate tool.

13. **DON'T OVERREACH.** Keep proper footing and balance at all times.

14. **MAINTAIN TOOLS WITH CARE.** Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.

15. **DISCONNECT TOOLS** before servicing and changing accessories, such as blades, bits, cutters, and the like.

16. **REDUCE THE RISK OF UNINTENTIONAL STARTING.** Make sure switch is in off position before plugging in.

17. **USE RECOMMENDED ACCESSORIES.** Consult the owner's manual for recommended accessories. The use of improper accessories may cause risk of injury.

18. **CHECK DAMAGED PARTS.** Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.

19. **NEVER LEAVE TOOL RUNNING UNATTENDED. TURN POWER OFF.** Don't leave tool until it comes to a complete stop.

⚠WARNING

Additional Safety Instructions For The Bandsaw

1. Do not operate your bandsaw with dull or badly worn blades. Dull blades require more effort to use and are difficult to control. Inspect blades before each use.
2. Never position fingers or thumbs in line with the cut, use a push stick. Serious injury could occur.
3. Always support round stock in a V-block.
4. Ensure that the machine sits firmly on the floor before use. Any “wobbles” must be corrected by shimming or blocking before operation.
5. Make sure blade has been properly tensioned.
6. Always feed stock evenly and smoothly. Do not force or twist blade while cutting, especially when sawing small radii.
7. This machine is not designed to cut metal or other material except wood.
8. When replacing blades, make sure teeth face down towards the table. The force of the cut is always down.
9. Do not manually stop or slow blade after turning the saw off.
10. Habits – good and bad – are hard to break. Develop good habits in your shop and safety will become second-nature to you.

⚠WARNING

Operating this equipment has the potential to propel debris into the air which can cause eye injury. Always wear safety glasses or goggles when operating equipment. Everyday glasses or reading glasses only have impact resistant lenses, they are not safety glasses. Be certain the safety glasses you wear meet the appropriate standards of the American National Standards Institute (ANSI).

⚠WARNING

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.

⚠WARNING

Like all power tools, there is danger associated with the Model G1148 15" Bandsaw. Accidents are frequently caused by lack of familiarity or failure to pay attention. Use this tool with respect and caution to lessen the possibility of operator injury. If normal safety precautions are overlooked or ignored, serious personal injury may occur.

SECTION 2: CIRCUIT REQUIREMENTS

110V Operation

The Model G1148 is wired for 110V, single phase operation only. The ¾ HP motor will safely draw 13 amps at 110V. The motor can also be run on 220V where it will draw 6.5 amps, however additional changes may be necessary to make this work. See the Wiring Diagram near the back of this manual for more information.

Fusing

A 15-amp slow-blow fuse or circuit breaker should be used on the 110V circuit this bandsaw is connected to. Circuits rated any higher are not adequate to protect the motor from power surges. If you operate this sander on any circuit that is already close to its capacity, it might blow a fuse or trip a circuit breaker. However, if an unusual load does not exist and a power failure still occurs, contact a qualified electrician or our service department.

Extension Cords

If you find it necessary to use an extension cord with the Model G1148, make sure the cord is rated Hard Service (grade S) or better. Refer to the chart in the standard safety instructions to determine the minimum gauge for the extension cord. The extension cord must also contain a ground wire and plug pin. Always repair or replace extension cords when they become worn or damaged.

Grounding

In the event of an electrical short, grounding reduces the risk of electric shock by providing a path of least resistance to disperse electric current. This tool is equipped with a power cord having an equipment-grounding conductor. **See Figure 1.** The outlet must be properly installed and grounded in accordance with all local codes and ordinances.

⚠WARNING

This equipment must be grounded. Verify that any existing electrical outlet and circuit you intend to plug into is actually grounded. If it is not, it will be necessary to run a separate 12 A.W.G. copper grounding wire from the outlet to a known ground. Under no circumstances should the grounding pin from any three-pronged plug be removed. Serious injury may occur.

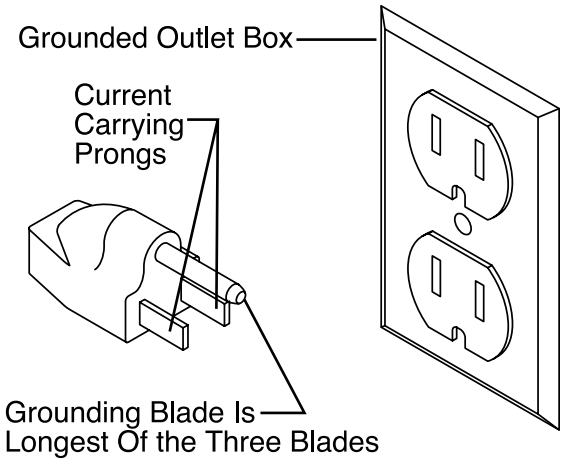

Figure 1. Grounded plug configuration.

SECTION 3: GENERAL INFORMATION

Commentary

Grizzly Industrial, Inc. is proud to offer the Model G1148 15" Bandsaw. This saw is a part of Grizzly's growing family of fine woodworking 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 G1148 features a heavy-duty, stamped, and welded sheet metal body, a cast-iron tilting table, adjustable fence, miter gauge and a 3/4 HP motor. A 2" dust port is built-in to the lower housing. The saw comes prewired and ready to operate at 110V.

We are also pleased to provide this manual with the G1148. It was written to guide you through assembly, review safety considerations, and cover general operating procedures. It represents our latest effort to produce the best documentation possible. If you have any criticisms that you feel we should pay attention to in our next printing, please write to us at the address below:

Grizzly Industrial, Inc.
C/O Technical Documentation
P.O. Box 2069
Bellingham, WA 98227-2069

Most importantly, we stand behind our machines. If you have any service questions or parts requests, please call or write us at the location listed below.

Grizzly Industrial, Inc.
2406 Reach Road
Williamsport, PA 17701
Phone: (570) 326-3806
Fax: (800) 438-5901

E-Mail: techsupport@grizzlyindustrial.com
Web Site: http://www.grizzlyindustrial.com

The specifications, drawings, and photographs illustrated in this manual represent the Model G1148 as supplied when the manual was prepared. However, owing to Grizzly's policy of continuous improvement, changes may be made at any time with no obligation on the part of Grizzly. Whenever possible, though, we send manual updates to all owners of a particular tool or machine. Should you receive one, we urge you to insert the new information with the old and keep it for reference.

⚠CAUTION

To operate this or any power tool safely and efficiently, it is essential to become as familiar with it as possible. The time you invest before you begin to use your Model G1148 will be time well spent. DO NOT operate this machine until you are completely familiar with the contents of this manual. Serious personal injury may occur.

Unpacking

The bandsaw is shipped from the factory in a carefully packed carton. If you find the machine to be damaged after you've signed for delivery and the truck and driver are already gone, you will need to file a freight claim with the carrier. Save the containers and all packing materials for inspection by the carrier or their agent. Without the packing materials, filing a freight claim can be difficult. If you need advice regarding this situation, please call us.

⚠WARNING

The G1148 is a very heavy machine (175 lbs. shipping weight). DO NOT over-exert yourself while unpacking or moving your machine – get assistance. In the event that your machine must be moved up or down a flight of stairs, be sure that the stairs are capable of supporting the combined weight of people and the machine. Serious personal injury may occur.

NOTICE

Please keep all packaging materials until you are satisfied that the machine is in good condition. Should you need to file a freight claim, the carrier's agent will require inspection of those materials. Settling a claim can be difficult if packaging is not available.

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

Piece Inventory

With all the parts removed from the container, you should have:

- Bandsaw Unit with Blade
- Motor
- Stand Parts
- Fasteners
- Miter Gauge
- Table and Mounting Bracket
- Fence Assembly
- Belt

If anything is missing, call or write to the appropriate regional service department listed in the General Information section. If anything is damaged, please follow the procedures described to the left.

The following list details the fasteners needed to assemble the Model G1148. In the rare event that any standard hardware is missing (e.g., a nut or bolt), we would be happy to replace it, but it would probably be quicker and less expensive if you were to buy replacements from your local hardware store.

FASTENERS

QTY.	DESCRIPTION	LOCATION
32	5/16" - 18 x 5/8" Carriage Bolts	Stand
32	5/16" Hex Nuts	Stand
32	5/16" Flat Washers	Stand
32	5/16" Lock Washers	Stand
4	3/8" - 16 x 3" Hex Bolts	Base/Stand
8	3/8" Washers	Base/Stand
4	3/8" - 16 Hex Nuts	Base/Stand
4	Fence Spacers	Rails/Table
4	1/4" - 20 x 3/4" Cap Screws	Rails/Table
2	5/16" - 18 x 1 1/4" Hex Bolts	Body/Table
2	5/16" - Flat Washers	Body/Table
4	5/16" - 18 x 5/8" Carriage Bolts	Motor/Base
4	5/16" Flat Washer	Motor/Base
4	5/16" Hex Nuts	Motor/Base

Clean Up

The unpainted surfaces are coated with a waxy oil to protect them from corrosion during shipment. Remove this protective coating with a solvent cleaner or citrus-based degreaser. Avoid chlorine-based solvents as they may damage painted surfaces should they come in contact. Always follow the usage instructions on the product you choose for clean up.

⚠CAUTION

Many of the solvents commonly used to clean machinery can be highly flammable, and toxic when inhaled or ingested. Always work in well-ventilated areas far from potential ignition sources when dealing with solvents. Use care when disposing of waste rags and towels to be sure they do not create fire or environmental hazards. Keep children and animals safely away when cleaning and assembling this machine.

⚠WARNING

Do not use gasoline or other petroleum-based solvents to remove this protective coating. These products generally have low flash points which makes them extremely flammable. A risk of explosion and burning exists if these products are used. Serious personal injury may occur.

⚠CAUTION

All die-cut metal parts have a sharp edge (called "flashing") on them after they are formed. This is generally removed at the factory. Sometimes a bit of flashing might escape inspection, and the sharp edge may cause cuts or lacerations when handled. Please examine the edges of all die-cut metal parts and file or sand the edge to remove the flashing before handling.

Site Considerations

FLOOR LOAD

Your G1148 Bandsaw represents a large weight load in a small footprint. Most commercial or residential shop floors should be sufficient to carry the weight of the machine. If you have any question about the floor structure being able to support the weight, contact your local city building inspector or a qualified civil engineer or contractor.

WORKING CLEARANCES

Working clearances can be thought of as the distances between machines and obstacles that allow safe operation of every machine without limitation. Consider existing and anticipated machine needs, size of material to be processed through each machine, and space for auxiliary stands and/or work tables. Also consider the relative position of each machine to one another for efficient material handling. Be sure to allow yourself sufficient room to safely run your machines in any foreseeable operation.

LIGHTING AND OUTLETS

Lighting should be bright enough to eliminate shadow and prevent eye strain. Electrical circuits should be dedicated or large enough to handle combined motor amp loads. Outlets should be located near each machine so power or extension cords are not obstructing high-traffic areas. Be sure to observe local electrical codes for proper installation of new lighting, outlets, or circuits.

⚠CAUTION

Make your shop "child safe". Ensure that your workplace is inaccessible to youngsters by closing and locking all entrances when you are away. Never allow visitors in your shop when assembling, adjusting or operating equipment.

SECTION 4: ASSEMBLY

Beginning Assembly

Most of your bandsaw has been assembled at the factory. The remainder of the machine should be fairly easy to assemble in your shop. The assembly process is organized in steps. Please follow these steps in sequence. We also recommend that you review the diagrams and parts lists to become familiar with all the parts before you begin.

THE FOLLOWING TOOLS WILL BE NEEDED:

10mm and 12mm wrenches, a set of metric Allen® wrenches, flathead screwdriver, Phillips® screwdriver, and a 6" or 8" adjustable wrench.

NOTE: Threads on the fasteners are USA standard coarse. The heads, however, are metric.

⚠CAUTION

All die-cut metal parts have a sharp edge (called "flashing") on them after they are formed. This is generally removed at the factory. Sometimes a bit of flashing might escape inspection, and the sharp edge may cause cuts or lacerations when handled. Please examine the edges of all die-cut metal parts and file or sand the edge to remove the flashing before handling.

Stand

To begin stand assembly, keep all the stand parts within easy reach. To ease assembly, build the stand upside down on a bench, then place it upright on the floor.

1. Place the 2 short upper braces (#81) upside down on a flat, hard surface. Place the 2 long upper braces (#83) inside the short braces so that the carriage bolt holes line up.

2. Secure the legs to each corner formed by the long and short upper braces. Use 4 carriage bolts, nuts, and washers for each corner. **Finger tighten only.**

3. Secure the lower braces between the legs (#85). Since the legs are angled, the lower braces are directional, if the holes don't line up easily, rotate the lower brace so that they do. Don't try to force it. Tighten securely.

4. Tighten the carriage bolts on the upper braces.

5. Turn the stand right side up and place where the bandsaw will be located.

Figure 3. Bandsaw stand assembly.

Bandsaw Unit

This bandsaw is relatively heavy and awkward to handle. We strongly recommend that you get assistance. The bandsaw unit is also very unstable until it is permanently mounted to the stand. Use care so the bandsaw unit does not tip.

1. Place the bandsaw on the stand with assistance and align the four (4) holes in the base over the four (4) mounting holes in the stand.

2. Loosely secure the bandsaw base to the stand with the four (4) $^{3}/_{8}$" - 16 x 3" hex bolts, nuts, and washers provided.

3. Wiggle the bandsaw back and forth on the stand to ensure that the bandsaw stand is seated properly. Ensure that the stand is symmetrical when viewed from the front and the side. Tighten fasteners securely.

NOTICE

Ensure that the Model G1148 is located on a flat, level surface. This will maximize the stability of the machine and ensure that adjustments are accurate. For conditions where permanent mounting is possible, you may consider adding L-brackets at the bottom of the stand to enable you to bolt the machine to your shop's floor. This type of mounting will minimize vibration and provide a more stable work environment.

Motor, Pulley, V-Belt

1. Align the mounting slots on the motor over the mounting slots on the base of the bandsaw. Be sure that the V-Belt (#28), which is already installed over the wheel pulley (#30), fits over the motor pulley (#29).

2. Insert the 4 carriage bolts through the slots. Use washers on the underside. Finger tighten the nuts for now.

3. Slip the V-Belt into the grooves of the wheel and motor pulleys. Be sure grooves you choose are aligned. For general woodworking, use fastest blade speed (i.e. the smaller diameter wheel pulley groove combined with the larger diameter motor pulley groove).

NOTE: For resawing and cutting operations with wider blades, use the slow speed (i.e. the larger diameter wheel pulley groove combined with the smaller diameter motor pulley groove). When using the slow speed, do not feed stock too fast. This will cause possible blade breakage, stalling, and extremely poor cuts.

4. Check for proper pulley alignment by placing a plumb line on the outside edge of the upper pulley so that it overlaps the motor pulley. If the line touches both pulleys evenly, the pulleys are aligned. If the line does not touch both pulleys evenly, wiggle the motor until the pulleys come into alignment. If proper alignment is still not attained, loosen the setscrew (#62) on the motor pulley and push the pulley in or out to achieve proper alignment. Remember to retighten the setscrew when finished. **See Figure 4**.

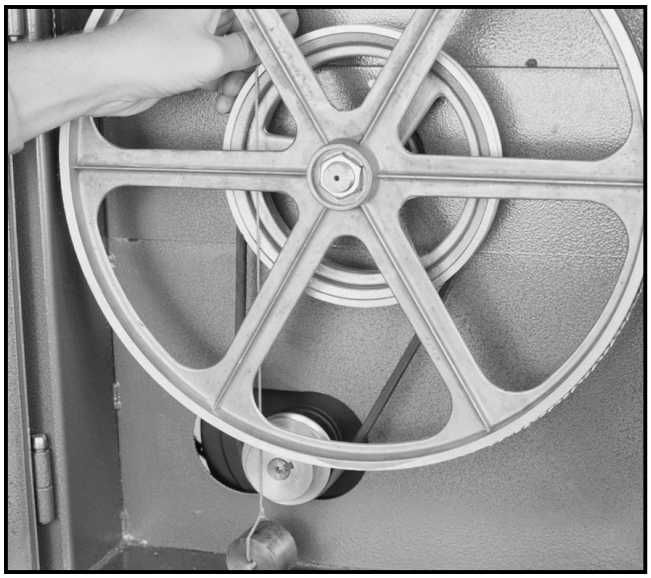

Figure 4. Adjusting pulley alignment

G1148 15" Bandsaw

5. Adjust the V-Belt tension by sliding the motor along the slots. Proper tension is achieved when the belt can be deflected approximately 3/4" with moderate finger pressure.

6. Tighten the carriage bolts securely. Re-check belt tension and pulley alignment.

Bandsaw Table

The bandsaw table (#70) secures to the trunnions (#74). The trunnions mount to the table support bracket (#74) and the table support bracket anchors to the bandsaw unit. The trunnions are pre-mounted to the table. To mount the bandsaw table:

1. Remove the two table bracket mounting bolts (#78) from the bandsaw body. **Figure 5** shows them removed.

2. There are two alignment pins (#50) that cross diagonally between the bracket mounting bolts. See **Figure 5**. Place the table bracket on the body over the alignment pins and secure it to the bandsaw with the two bolts.

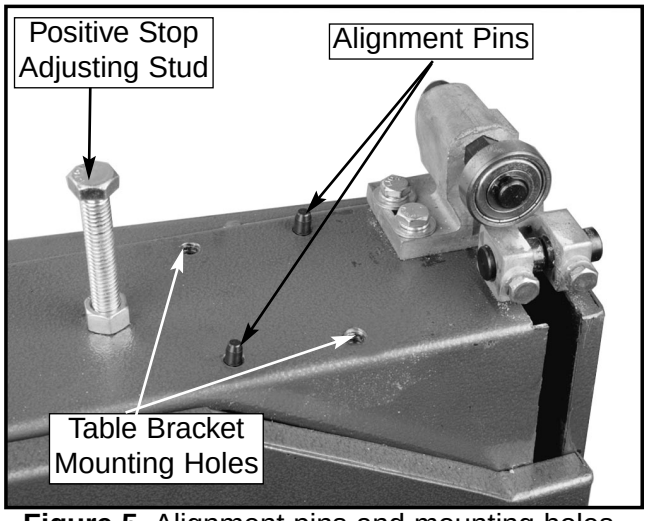

Figure 5. Alignment pins and mounting holes.

3. Remove the two star knobs (#77), table insert (#68), and tapered pin (#71) from the table.

4. Slip the table past the blade through the table slot, rotate the table 90°, and set the table trunnions onto the bracket. Make sure the trunnion bolts (#72) drop through the support bracket. **See Figure 6**.

5. Secure the table to the support bracket by tightening the two star knobs onto the trunnion bolts. Remember to position the table so that the miter slot is to the right of the blade as you face the front of the bandsaw.

6. Place the table insert in the table top and slide the tapered pin so it fits snugly in the hole on the side of the table. Do not use excessive force or the table will warp.

IMPORTANT: The tapered table pin must be in position when operating the bandsaw.

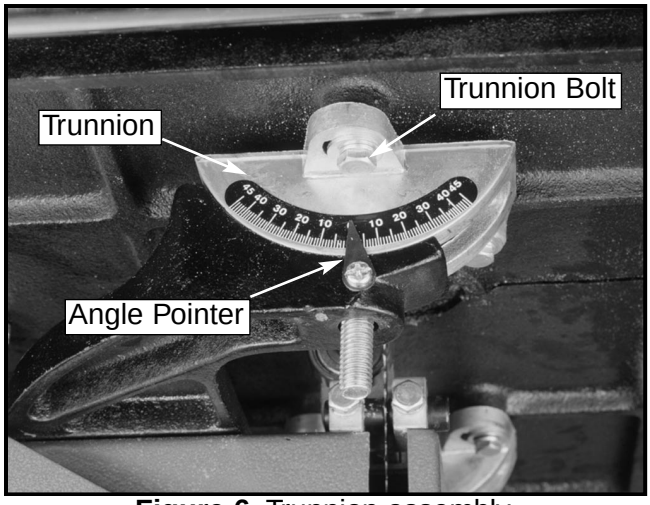

Figure 6. Trunnion assembly.

⚠WARNING

DO NOT attempt to operate this machine before completing the assembly and adjustment instructions. Be sure that the switch is off and the cord is disconnected from the power source at all times until assembly and adjustment are complete and you have reviewed all safety guidelines. Serious injury could occur.

Fence and Rails

The last item to install is the rip fence (assembled around #114). Notice that the front and back edges of the table have four (4) counterbored and threaded holes. These holes accept the spacers (#86) and cap screws (#88) that attach the fence rails to the table (#87). See **Figure 7**.

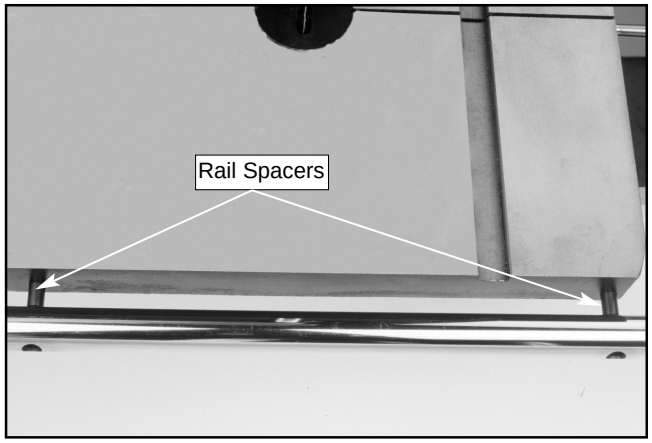

Figure 7. Rail attachment points.

1. Secure the fence rails to the table with the four (4) 1/4" - 20 x 3/4" cap screws and spacers provided. For maximum fence travel to the left of the blade, install the rails so the longer 10 3/4" segment between the end of each rail and the mounting hole is located to the left side of the table (facing the front of the bandsaw).

2. To mount the fence on the left side of the blade, remove the blade from the bandsaw. If you wish to mount the fence to the right side of the blade, it will be necessary to remove the fence from the rails before changing blades.

3. The fence locking handle and knob should both be loose (#107, #91). Slide the fence onto the fence rails. Ensure that the fence slides easily. Give the fence rails a shot of light oil or silicon spray if needed.

NOTE: When the fence is to the left of the blade, the fence must be positioned near the center of the table in order to open the lower wheel cover.

Table Insert

The table insert provides support for materials being cut. It can also be removed for increased access to the lower blade guide.

The insert is supported by a lip formed in the table casting. No adjustment should be necessary beyond placing the insert in the hole in the table top.

The insert should be flush with the table top when inserted in position. If the insert sits too high in relation to the table, inspect the bottom of the insert and the top of the lip. If burrs or bumps exist, use a fine flat file or a rotary tool to smooth. If the insert fits too low, use small pieces of masking tape to raise the level of the insert.

NOTICE

Though the notch in the insert has been engineered to remain unobstructed at all table angles, use care to inspect blade clearance when preparing to make angled cuts. If the blade touches the side of the insert, refer to the blade guide, and blade tensioning and tracking adjustments in the next section.

⚠WARNING

DO NOT attempt to operate this machine before completing the assembly and adjustment instructions. Be sure that the switch is off and the cord is disconnected from the power source at all times until assembly and adjustment are complete and you have reviewed all safety guidelines. Serious injury could occur.

⚠CAUTION

The saw blade is dangerously sharp. Use extra care when handling the blade, or working near it. Serious injury is possible.

SECTION 5: ADJUSTMENTS

Bandsaw Controls

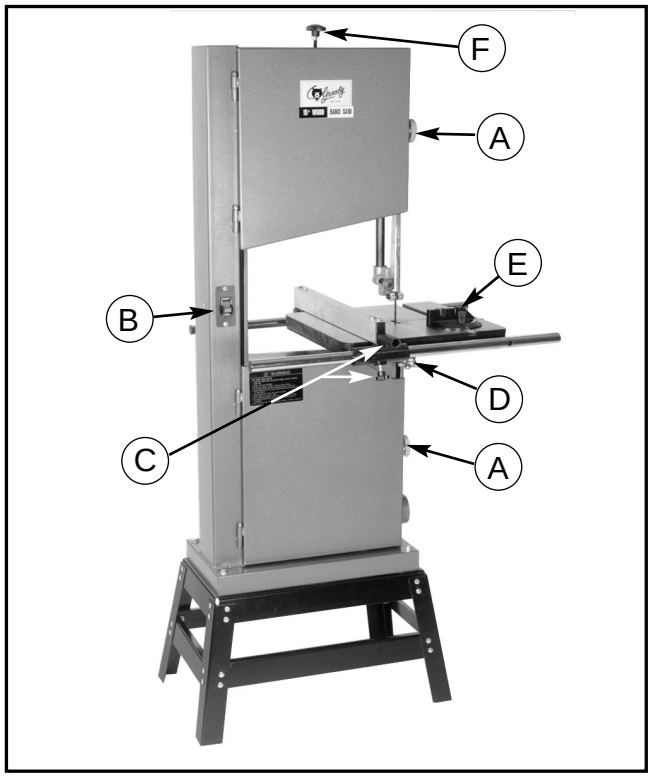

Figure 8. General controls.

General control and adjustment locations are shown in **Figure 8** above and are described in this section.

A. These two guard locking knobs (#46) secure the upper and lower wheel covers (#24, #25). The covers are only opened to change a blade or make an adjustment to blade tracking. Blade changing and tracking will be explained later in this section.

B. This is the toggle switch (#16) that the controls the motor. Power is controlled by up and down movement.

C. This handle (#107) and knob (#91) locks the rip fence in place.

D. These star knobs (#77) are used to lock the table in position.

E. The miter gauge slides in the milled groove in the table and can be set at 45° left and right. Use the miter gauge for crosscutting and miter-cutting.

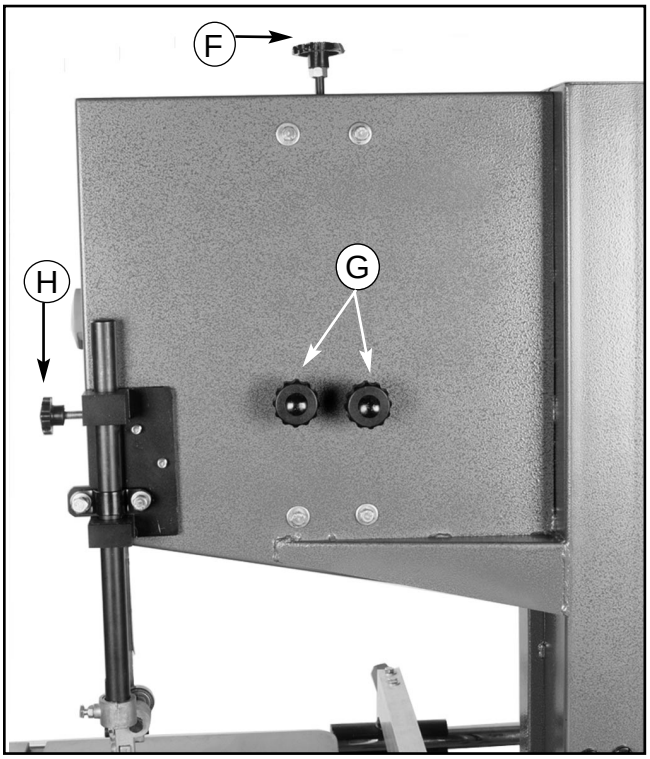

Figure 9. Upper Controls.

Now, direct your attention to the controls located around the upper part of the saw. See **Figure 9**.

F. This knob (#8) is used to control blade tension. Turning clockwise (from the front) increases tension; counter-clockwise decreases tension.

G. These knobs (#14) control blade tracking by setting the angle of the upper wheel. Note that the knobs have locking nuts in place.

H. This knob (#93) locks the upper blade guide assembly (assembled around #58) in position. The upper guide should be adjusted to within 1/4" of the workpiece for optimum blade support.

Tension/Tracking

Proper blade tension and tracking are important for optimum bandsaw performance. **See Figure 9** for bandsaw tension and tracking control locations.

TENSION

Since a wide range of blades will work well in this saw, proper blade tension ultimately depends on the type and size of blade you use. Thinner blades require less tension than wide blades. Too much tension will result in blade breakage. A properly tensioned blade will track the cutting line accurately and the cut will be smoother.

Proper blade tension can best be achieved by determining the amount of blade deflection:

1. Ensure that the power is off and the saw is unplugged. Raise the upper guide assembly all the way.

2. Press, with moderate pressure, on the face of the blade with your thumb.

3. Turn the tensioning knob at the top of the machine to change the amount of tension. The blade should flex about 1/4".

If the tension seems correct, make the other adjustments to the saw (aligning guides, tracking, speed, table and fence) and test run it. If the blade is not cutting properly, the tension may be incorrect and you'll need to readjust the tension. Remember to reduce the blade tension when the saw will not be in use, this will help to prevent premature wear or breakage of the blade and/or rubber tires.

TRACKING

To adjust tracking, disconnect the bandsaw from the power source and adjust the upper and lower guide assemblies away from the blade. Loosen the locknuts on the tracking control knobs and turn the knobs clockwise or counter-clockwise while turning the upper wheel by hand. The blade should track so the body of the blade is centered on the upper wheel and tire. Turn the wheel by hand at least three full turns to ensure that the blade is tracking in its final position. Retighten the locknuts. Recheck the tracking. Do not attempt to adjust the tracking on the lower wheel.

WARNING

Operating this equipment has the potential to propel debris into the air which can cause eye injury. Always wear safety glasses or goggles when operating equipment. Everyday glasses or reading glasses only have impact resistant lenses, they are not safety glasses. Be certain the safety glasses you wear meet the appropriate standards of the American National Standards Institute (ANSI).

WARNING

DO NOT attempt to assemble, adjust, or maintain this machine while it is running. Turn off the switch, disconnect the bandsaw from its power source and wait for all moving parts to come to a complete stop before attempting any adjustments or maintenance. Failure to do so could result in serious injury.

Blade Guides

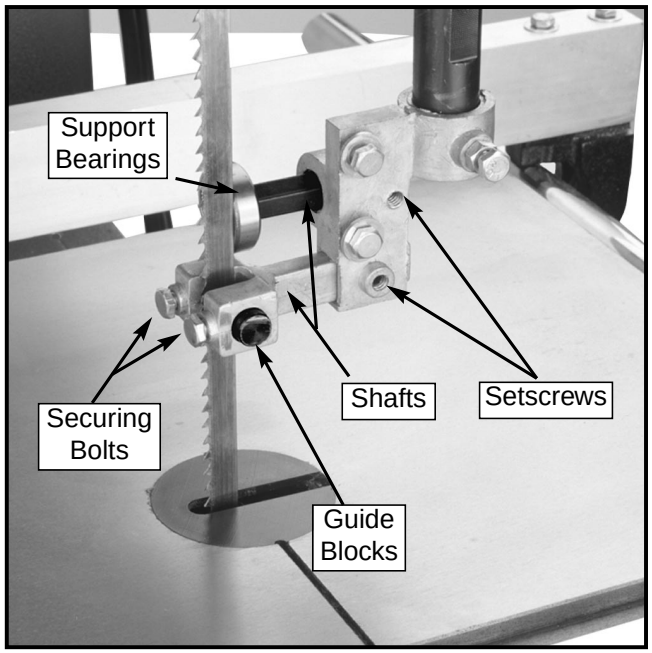

Figure 10. Upper guide adjustments.

Whenever changing a blade or adjusting tension and tracking, the upper and lower blade support bearings and guide blocks must be re-adjusted. Always adjust the assemblies away from the blade before installing a new blade or making blade tracking adjustments. After blade tension and tracking are set correctly, re-adjust the upper and lower support bearings and guide block assemblies into position. **See Figures 10 and 11** for locations.

UPPER GUIDES

Adjustment of the upper guides is a two-part procedure, consisting of adjustments to both the support bearings and guide blocks. They are as follows:

Support Bearings - The support bearings back-up the blade during the sawing operation. To adjust the support bearings, loosen the setscrews securing the support bearing shafts. Push or pull the shafts so that the upper and lower support bearings are within $^{1}/_{64}$" behind the blade. Retighten the setscrews.

Guide Blocks - The guide blocks ensure that the blade is not pushed too far laterally. To adjust the guide blocks, loosen the setscrews securing the guide block shafts. Adjust evenly so that the front of the blocks are $^{1}/_{64}$" behind the gullet line (**See Figure 13**) of the blade. Then loosen the guide block securing bolts (#65). Take a short piece of transparent tape and wrap one thickness of tape around the blade. Move the portion of the blade with the tape so that it is between the guide blocks. Carefully pinch both blocks without disturbing the blade. Tighten the securing bolts and remove the tape. This provides a clearance of approximately .004".

LOWER GUIDES

Adjustments for the lower guides are identical to those for the upper guides. Use **Figure 11** to identify the lower guide assembly components.

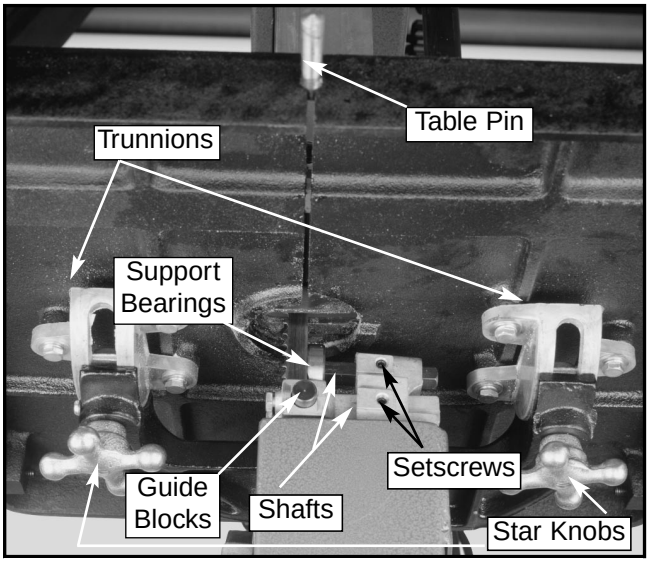

Figure 11. Lower guide adjustments.

CAUTION

The bandsaw blade is dangerously sharp. Use extreme caution when working near the saw blade. Failure to exercise care could result in severe injury.

G1148 15" Bandsaw

Table Adjustment

The bandsaw table will tilt left 10° and right 45° from horizontal. There is a positive stop adjusting stud (#49) so the table can be re-set perpendicular to the blade after tilting it left or right. **See Figure 5**. To tilt the table:

1. Loosen the two star knobs below the trunnions. **See Figure 11** for location.

2. Position the table to the desired angle. Refer to the angle gauge on the table support bracket.

3. Tighten the star knobs.

NOTE: If setting table tilt to the left, first tilt the table to the right, loosen the check nut (#94) on the positive stop adjusting stud, remove the stud, and then tilt the table to the left.

To adjust the positive stop so the table will be perpendicular (90°) to the blade:

1. Loosen the two star knobs and the checknut securing the positive stop adjusting stud.

2. Raise the upper blade guide assembly and place a 6" machinist's square or try-square on the table against the blade. Adjust the positive stop adjusting stud so that the table will stop at a 90° angle to the blade.

3. Secure the star knobs and lock the positive adjusting stud by tightening the checknut. Ensure that the stud does not turn while tightening the checknut. Set the angle pointer (#105) to zero.

The table can be shifted side to side to properly align the miter slot and the blade:

1. Loosen the 6 trunnion bolts (#75) underneath the table.

2. Use the largest width blade available installed in the machine. Lay a straightedge along side the blade and inspect it closely to make sure it is parallel to the blade. Make sure there is no deflection of the blade from the straightedge. Measure the distance between the edge of the miter gauge slot and the straightedge at points **A** and **B**. **See Figure 12.** Distance **A** should be approximately equal to distance **B.** Adjust the table slightly until these distances are equal.

3. Secure the table by re-tightening the trunnion bolts. Recheck table position to ensure that unwanted shifting did not occur during re-tightening.

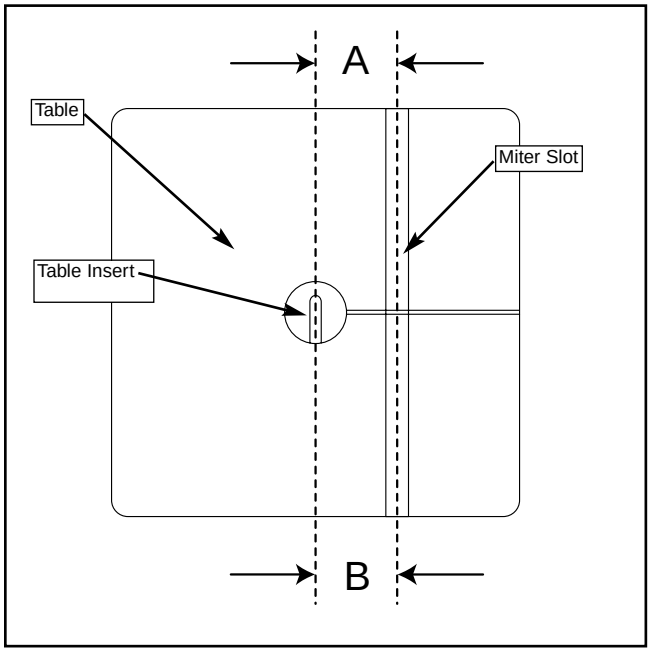

Figure 12. Squaring table to blade.

The table should also be 90° to the back of the blade. If the table is not perpendicular to the back of the blade, shim the table in the desired direction with washers. Remove the trunnion bolts and add washers between the table and trunnion so the table tilts in the desired direction. Electrical washers are very thin and will allow fine adjustment.

⚠CAUTION

The bandsaw blade is dangerously sharp. Use extreme caution when working near the saw blade. Failure to exercise care could result in severe injury.

Fence Adjustment

Align the fence to the miter slot by first loosening the two (2) bolts (#109) nearest the operator. Lock the lower lock knob and measure between the front edge of the fence (#114) and the front edge of the miter slot. Compare this to a measurement taken at the back of the fence and the miter slot. Swing the fence to correct for any difference and measure again. When satisfied that both front and back measurements are equal, carefully tighten the two bolts at the top of the fence.

Fence operation is controlled by the threaded handle and knob located on the front of the fence. The handle, when screwed tight, locks the fence to the rear rail. The knob on the lower side of the fence, when screwed tight, locks the fence to the front rail. To change the fence position, loosen the handle and knob and slide the fence along the rails. To relock the fence always tighten the lower knob first. This helps the fence to square itself to the rails. Then lock the top handle to secure the fence.

Dust Collection

The G1148 has an integral 4'' dust port built-in to the lower wheel housing. You will achieve best results if you connect the machine to a dust collection system when you are using the saw. This helps to keep the blade and wheels clear of chips and dust. Plus there is the added benefit of having less dust put into the air of your shop. Connect your dust collection hose securely to this port using hose clamps, and activate the dust collection system at the time you start the bandsaw.

Speed Changes

Loosen the motor mounting bolts and move motor accordingly to slacken the V-Belt. It should now be easy to roll the belt onto the pulleys of choice. There are two pulleys on both the lower bandsaw wheel and the motor shaft. The belt should be on either the inner or outer pulley on both the upper and lower wheels. When the belt is on the pulleys closest to the motor (inner pulleys) the speed is 2600 RPM. When it is on the outer pulleys the speed is 1750 RPM. Never cross the belt from the inner to the outer pulleys.

Tighten the motor mounting bolts and readjust the belt tension and check the alignment according to the instructions provided in the Maintenance Section.

⚠WARNING

The Model G1148 15" Bandsaw is a powerful, professional-quality machine, designed and built to provide outstanding results when used cautiously and with respect. Like any machine of its type, the Model G1148 has some inherent dangers, which, when used with a lack of care, can result in serious injury or fatality. Please do not attempt to use this machine without familiarizing yourself with the instructions for assembly, adjustment, and safe operation. Failure to do so could result in serious personal injury, as well as property damage and damage to the machine.

⚠WARNING

Operating this equipment has the potential for respiratory damage to occur due to the level of airborne dust it produces. Always wear a dust mask or respirator when operating equipment.

SECTION 6: OPERATIONS

The bandsaw is one of the most versatile machines in the shop. It can cut miters, compound angles, simple and complex curves, circles, and a wide variety of irregular shapes. It can also rip and crosscut, as well as cut a variety of joints. The bandsaw will also resaw stock into thinner boards.

Pre-Run Check

There are many adjustment points and compensating differences to consider when operating this type of saw. Therefore, cutting results can be somewhat unpredictable if some or all of the crucial adjustments are neglected. Here are a few simple things you can do to increase the predictability of your bandsaw's performance:

1. **Always use a sharp, high-quality blade.** Although you might save a few dollars initially, buying a cheap blade will give you cheap results. As a rule, spending more now saves you money later.

2. **Use the right blade for the job.** Resawing with a 1/16" blade or doing scrollwork with a 1" blade are extreme examples of using the wrong blade for the job.

3. **Allow the saw to cut. Don't force the workpiece into the blade.** When cutting curves or irregular shapes, remember that while negotiating a curve, the blade should still be cutting wood. Simply turning the workpiece will only bind the blade and could break it.

4. **Maintain your bandsaw in top condition.** See the following section of this manual for maintenance procedures.

Bandsaw Blades

A bandsaw blade is a delicate piece of steel subjected to tremendous strain. Be sure you use quality blades of the proper width for the various types of cutting operations. The Grizzly G1148 15" bandsaw accepts 103" blades.

Always use the widest blade possible for the workpiece you are cutting. Use narrow blades only for sawing small, abrupt curves and for fine, delicate work. Bandsaw blades can be purchased welded, set, and sharpened ready-for-use from most saw shops. We also supply bandsaw blades in widths of 1/8", 1/4", 3/8", 1/2", and 3/4", for this saw. Please refer to our current catalog for prices and ordering information.

Always select and use good-quality saw blades and choose the right blade for the job. Poor quality blades and improper use are often the cause of premature blade failure.

Many conditions can lead to breakage. Blade breakage is, in some cases, unavoidable, since it is the natural result of the peculiar stresses that bandsaw blades are subjected to. Blade breakage is also due to avoidable causes. Avoidable 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: (1) faulty alignment and adjustment of the guides; (2) forcing or twisting a wide blade around a curve or short radius; (3) feeding too fast; (4) tooth dullness or absence of sufficient set; (5) excessive tension; (6) upper blade guide assembly set too high above the workpiece; (7) using a blade with a lumpy or improperly finished weld; and (8), continuously running the bandsaw when not in use.

Changing Blades

To remove the blade, ensure the power is disconnected and:

1. Loosen tension on the blade by turning the tension control knob counter-clockwise when facing the front of the saw. **See Figure 9**.

2. Remove the table insert (#68) and table pin (#71).

3. Adjust upper and lower guide blocks away from the blade.

4. Open the upper and lower wheel covers and slide the blade off both wheels. ***Use caution, the blades are sharp!***

5. Rotate the blade 90° so it will slide through the slot in the table.

NOTE: When removing or installing wide blades, it may be convenient to completely remove the upper and lower guide blocks. ***Be sure to replace them before cutting!***

To replace the blade, ensure that the power is disconnected and:

1. Slide the blade through the table slot, ensuring that the teeth are pointing down toward the table.

   If the teeth will not point downward in any orientation, the blade is inside out. See **Figure 13** for typical blade geometry. Put on heavy gloves, remove the blade, and twist it until it is right side out. Re-install the blade.

2. Slip the blade through the upper and lower guides and mount over the upper and lower wheels.

3. Apply tension to the blade by turning the tension control knob. Refer to blade tensioning instructions earlier in this section.

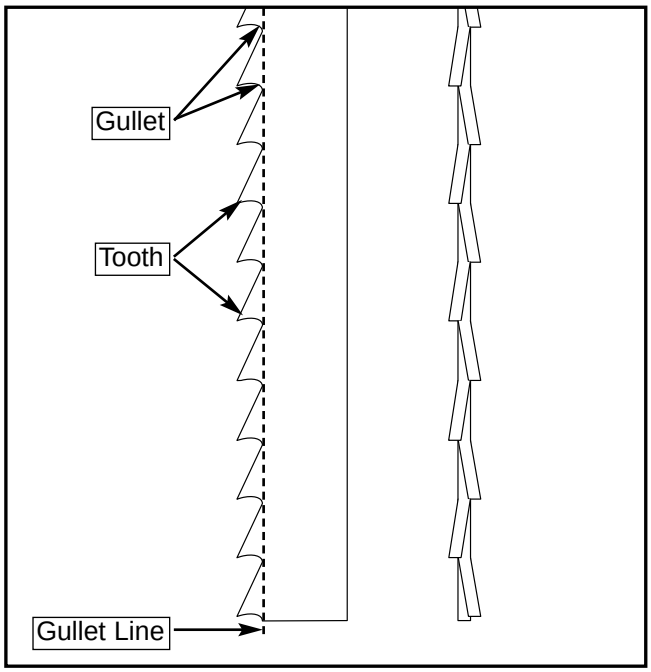

Figure 13. Side and front views of a standard bandsaw blade.

4. Rotate the upper wheel manually and check blade tracking.

5. Adjust the upper and lower guide blocks and bearings as described earlier in this section.

6. Close the wheel covers. Turn the yellow guard locking knobs to lock them shut.

7. Replace the table insert and table pin, being sure not to use excessive force.

⚠WARNING

Use extreme caution when replacing blades. Teeth are dangerously sharp and coiled blades are prone to spring when released from their packaging. Use gloves and safety glasses or goggles whenever handling blades. Failure to do so could result in serious personal injury.

Ripping

Ripping is the process of cutting a board into two or more thinner boards. The maximum board width that can be ripped is limited by the distance between the blade and the support column. maximum cutting height of the bandsaw. Maximum cutting width for this bandsaw is 14 5/8".

The G1148 bandsaw is capable of ripping, provided the saw is set up properly. Use common sense when ripping. Attempting to rip too thick or too dense a board may put excessive strain on the blade and be dangerous.

The important consideration when ripping is blade selection. Generally, the wider blade, the better. In most applications, a hook or skip tooth style will be sufficient. Also, since most ripped lumber will be planed or sanded smooth, you can choose blades with fewer teeth-per-inch. While blades with fewer teeth-per-inch produce rougher cuts, these types of blades offer larger gullet capacities for clearing sawdust, less heat buildup, and yield more horsepower per tooth.

To perform ripping operations:

1. The bandsaw must be adjusted correctly. See Blade Tension/Tracking section.
2. The table must be square to the blade. See Table Adjustment Section.
3. Use the widest blade available. The blade must also be in good condition.
4. Use a fence to guide work.
5. Draw a reference line on the edge of the board.
6. Support ends of the board if necessary.
7. Feed work slowly and evenly.

Stacked Cuts

One of the benefits of a bandsaw is its ability to cut multiple copies of a particular shape by stacking a number of workpieces together.

Before making stacked cuts, it is essential to ensure that both the table and the blade are properly adjusted to 90°. Otherwise, any error will be compounded with each piece cut from the top to the bottom of the stack.

To complete a stacked cut:

1. Align your pieces from top to bottom to ensure that each piece has adequate scrap to provide a clean, unhampered cut.
2. Using brads in the waste portion of each piece, secure all the pieces together.
3. Lay out the shape you intend to cut on the face of the top piece.
4. Make relief cuts perpendicular to the outline of your intended shape in areas where changes in blade direction could strain the woodgrain or cause the blade kerf to bind.
5. Cut the stack of pieces as though you were cutting a single piece. Follow you layout line with the blade kerf on the waste side of your line.

Cutting Curves

When cutting curves, simultaneously feed and turn the stock carefully so that the blade follows the layout line without being twisted. If a curve is so abrupt that it would be necessary to repeatedly back up and cut a new kerf, use either a narrower blade or a blade with more set to avoid that. A blade with more set can cut relatively tighter radii; however, the cut is usually rougher than cuts produced by blades with medium set.

Always make short cuts first, then proceed to the longer cuts. Relief cuts will also reduce the chance that the blade will be pinched or twisted. Relief cuts are cuts made through the waste portion of the workpiece and are stopped at the layout line. As you cut along the layout line, waste wood is released from the workpiece, alleviating any pressure on the back of the blade. Relief cuts also make backing the workpiece out easier, if needed. The table below lists blade widths and corresponding minimum radii each blade will cut.

BLADE WIDTH	MINIMUM RADII
1/8"	3/16"
3/16"	5/16"
1/4"	5/8"
3/8"	1 1/2"
1/2"	2 1/2"
5/8"	4"
3/4"	5 1/2"

Resawing

Resawing is the process of cutting a board into two or more thinner boards. Each new board is the same width and length as the original board, but the thickness is less. The maximum board width that can be resawn is limited by the maximum cutting height of the bandsaw. Maximum cutting height for this bandsaw is 7 7/8".

Use common sense when resawing; attempting to resaw a board that is too wide or too dense may put excessive strain on the blade and be unsafe.

Again, the important consideration when resawing is blade selection. When selecting a blade, keep in mind that generally, a wider blade is easier to control. The blade should be of the best quality in order to handle the increased stress. In most applications a hook or skip tooth style will work fine. Also, since most resawn lumber will be planed smooth, you can choose blades with fewer teeth per inch (3 to 6). While blades with fewer teeth per inch produce rougher cuts, these types of blades offer larger gullet capacities for clearing sawdust, less heat build up, and yield more horsepower per tooth.

NOTE: When operating with wide blades, run the bandsaw at the slowest speed.

To resaw lumber, follow the procedure below:

1. The blade must be adjusted correctly.
2. The table must be square to the blade.
3. Use the widest blade that will fit this saw (3/4"). The blade must also be in good condition.
4. Use the fence to guide the work.
5. Support ends of the board if necessary.
6. Feed work slowly and evenly.

When using a fence to guide the board, the actual line of cut may not be parallel to the fence. In fact, most bandsaw blades will not cut exactly parallel to the fence (even when the fence is set parallel to the miter gauge slot). There are usually a number of reasons for this:

1. Teeth are set unequally from side to side.
2. Teeth are dull on one side.
3. Blade tension is too tight or too loose.

IMPORTANT: Do not force the wood into the blade during cutting. This will distort the blade, cause excessive heat and often results in blade breakage as well as miscut lumber.

SECTION 7: MAINTENANCE

Table

The table and other non-painted surfaces on the Model G1258 should be protected against rust and pitting. Wiping the saw clean after every use ensures that moisture from wood dust isn't allowed to trap moisture against bare metal surfaces.

Some woodworkers recommend using automotive paste wax on exposed steel and cast iron surfaces. The wax provides a layer of protection, as well as reducing friction between lumber and the table, making cuts faster and smoother. Avoid waxes that contain silicone or other synthetic ingredients. These materials can find their way into lumber that's being worked, and can make staining and finishing difficult. If you use paste wax, make sure that it's 100% Carnauba wax.

NOTICE

Do not use paraffin or similar waxes on your saw's table. They can leave residues which will make cutting more difficult over time. Do not use silicon based lubricants. They can rub off onto the wood and prevent it from taking stains and finishes properly.

V-Belts

To ensure optimum power transmission from the motor to the blade, the V-belt must be in good condition and operate under proper tension. Belts should be checked for cracks, fraying and wear. Belt tension should be checked at least every 3 months; more often if the bandsaw is used daily.

The V-belt is accessed via the bottom cover #25:

1. Squeeze the center of each V-belt.
2. Note the amount of deflection. Deflection should be approximately ¾".

⚠CAUTION

Make your workshop "child-safe." Remove all safety keys from this and other machinery when they're not in use. Place sharp tools and blades high enough to discourage curious fingers. Store lubricants, finishes and other harmful chemicals where they can't be easily reached. Lock your workshop securely when you are away.

⚠WARNING

Operating this equipment has the potential to propel debris into the air which can cause eye injury. Always wear safety glasses or goggles when operating equipment. Everyday glasses or reading glasses only have impact resistant lenses, they are not safety glasses. Be certain the safety glasses you wear meet the appropriate standards of the American National Standards Institute (ANSI).

Lubrication

Shielded and pre-lubricated ball bearings require no lubrication for the life of the bearings. All bearings are standard sizes and replacements can be purchased from our parts department or bearing supply store.

As for other items on this machine, such as adjustment controls, an occasional “shot” of light oil is just about all that is necessary. Before applying, however, wipe off any sawdust with a clean cloth, towel or dry paint brush and spray on the lubricant. Ensure that oil does not get on the pulleys or V-belts because it could cause belt deterioration and slipping.

Miscellaneous

Always be aware of the condition of your bandsaw before using it. Routinely check the condition of the following items and repair or replace as necessary.

1. Loose mounting bolts.
2. Worn switch.
3. Worn or damaged blade.
4. Worn or damaged support bearings or guide bearings.

SECTION 8: CLOSURE

The following pages contain general machine data, parts diagrams and Warranty/Return information for your Model G1148 Bandsaw.

If you need parts or help in assembling your machine, or if you need operational information, we encourage you to call our Service Department. Our trained service technicians will be glad to help you.

If you have comments dealing specifically with this manual, please write to our Bellingham, Washington location using the address in the Introduction. The specifications, drawings, and photographs illustrated in this manual represent the Model G1148 as supplied when the manual was prepared. However, due to Grizzly's policy of continuous improvement, changes may be made at any time with no obligation on the part of Grizzly. Whenever possible, though, we send manual updates to all owners of a particular tool or machine. Should you receive one, add the new information to this manual and keep it for reference.

We have included some important safety measures that are essential to this machine's operation. While most safety measures are generally universal, Grizzly reminds you that each workshop is different and safety rules should be considered *as they apply to your specific situation.*

We recommend you keep a copy of our current catalog for complete information regarding Grizzly's warranty and return policy. If you need additional technical information relating to this machine, or if you need general assistance or replacement parts, please contact the appropriate regional Service Department listed in the introduction.

Additional information sources are necessary to realize the full potential of these machines. Trade journals, woodworking magazines, and your local library are good places to start.

The Model G1148 bandsaw was specifically designed for wood cutting operations. **DO NOT MODIFY AND/OR USE THIS BANDSAW FOR ANY OTHER PURPOSE. Modifications or improper use of this tool will void the warranty.** If you are confused about any aspect of this machine, **DO NOT** use it until you have answered all your questions.

WARNING

Like all power tools, there is danger associated with the Model G1148 Bandsaw. Use these tools with respect and caution to lessen the possibility of mechanical damage or operator injury. If normal safety precautions are overlooked or ignored, injury to the operator or others in the area is likely.

TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
Motor will not start.	1. Low voltage. 2. Open circuit in motor or loose connections.	1. Check power line for proper voltage. 2. Inspect all lead connections on motor for loose or open connections.
Motor will not start; fuses or circuit breakers blow.	1. Short circuit in line cord or plug. 2. Short circuit in motor or loose connections. 3. Incorrect fuses or circuit breakers in power line.	1. Inspect cord or plug for damaged insulation and shorted wires. 2. Inspect all connections on motor for loose or shorted terminals or worn insulation. 3. Install correct fuses or circuit breakers.
Motor overheats.	1. Motor overloaded. 2. Air circulation through the motor restricted.	1. Reduce load on motor. 2. Clean out motor to provide normal air circulation.
Motor stalls (resulting in blown fuses or tripped circuit).	1. Short circuit in motor or loose connections. 2. Low voltage. 3. Incorrect fuses or circuit breakers in power line. 4. Motor overloaded.	1. Inspect connections on motor for loose or shorted terminals or worn insulation. 2 Correct the low voltage conditions. 3. Install correct fuses or circuit breakers. 4. Reduce load on motor.
Machine slows when operating.	1. Applying too much pressure to workpiece. 2. Blade is dull	1. Feed workpiece slower. 2. Replace blade
Blade does not run evenly on wheels or runs off.	1. Tracking is not adjusted properly. 2. Rubber tire on wheel is damaged or worn 3. Wheels are not co-planar.	1. Adjust tracking. 2. Replace rubber tires. 3. Adjust wheel co-planarity.
Blade does not cut evenly	1. Blade tension is incorrect. 2. Tooth set is uneven. 3. Teeth are sharper on one side than the other.	1. Adjust tension. 2. Replace blade, or have it professionally sharpened. 3. Replace blade, or have it professionally sharpened. 1. Use file or stone to smooth and round the back of the blade.
Ticking sound when the saw is running.	1. Blade weld contacting support bearing. 2. Blade weld may be failing.	2. Inspect and replace blade if necessary. 1. Reduce side pressure.
Blade contacting table insert.	1. Excessive side pressure when cutting. 2. Table improperly adjusted.	2. Adjust table. 1. Adjust wheels co-planar. 2. Re-install tires.
Excessive vibration.	1. Wheels not co-planar. 2. Tires incorrectly installed. 3. Bent or worn out blade. 4. Wheels out of balance.	3. Replace blade. 4. Replace wheels 1. Feed workpiece straight into the blade.
Burn marks on the edge of the cut.	1. Too much side pressure when feeding workpiece. 2. Blade too wide for size of radius being cut.	2. Install a smaller width blade, and/or increase blade tension.

WARRANTY AND RETURNS

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

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

To take advantage of this warranty, contact us by mail or phone and give us all the details. We will then issue you a "Return Number", which must be clearly posted on the outside as well as the inside of the carton. We will not accept any item 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.