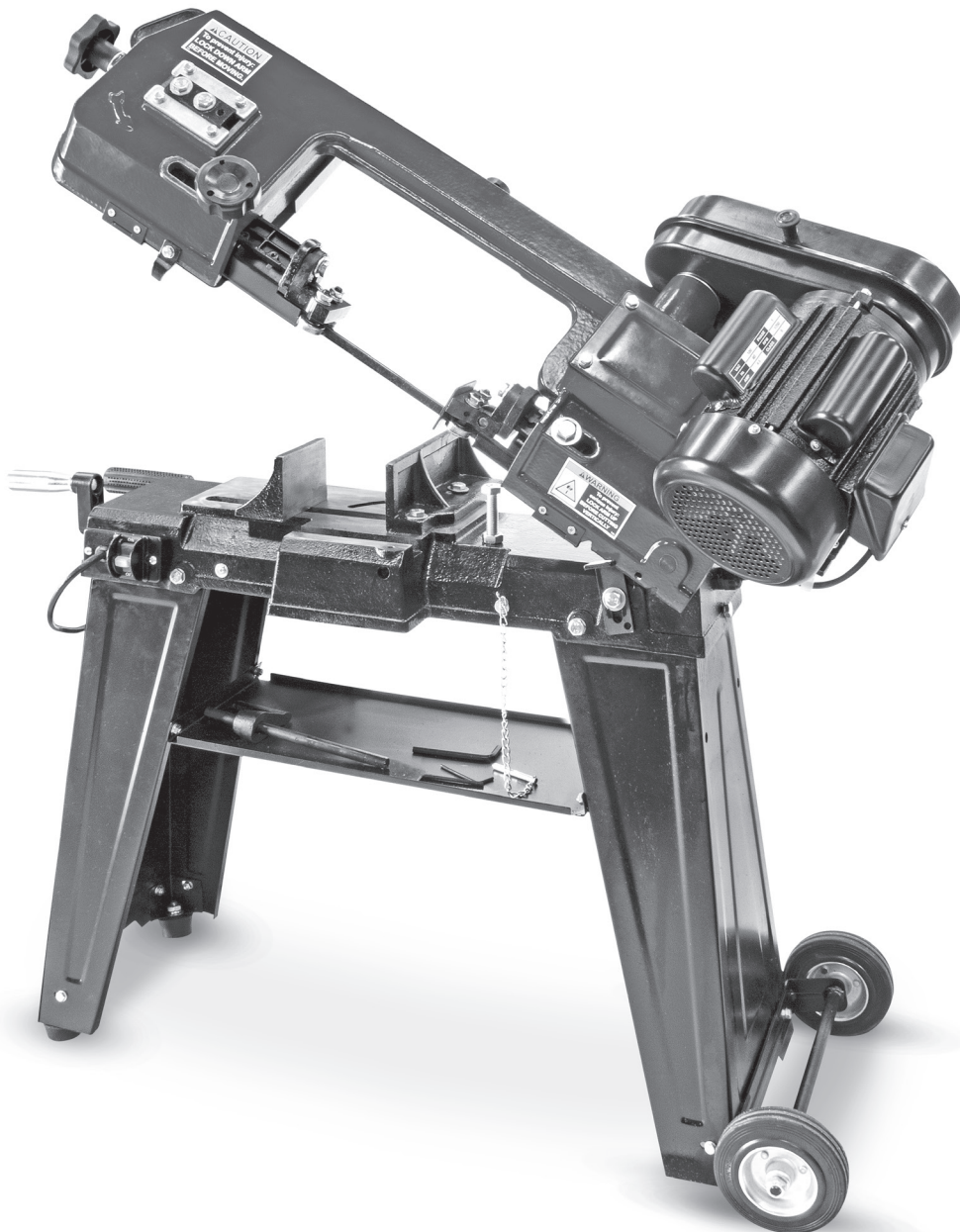


Eastwood[®]

DO THE JOB RIGHT.[®]

Item #20650

HORIZONTAL/VERTICAL BANDSAW INSTRUCTIONS



The **EASTWOOD HORIZONTAL/VERTICAL BANDSAW** is a heavy-duty professional quality tool ruggedly designed for many years of reliable service. This versatile Bandsaw has the capability to be operated in both a horizontal and vertical position while cutting tubing up to 4.5" in diameter.

CONTENTS

- (1) Saw Assembly
- (2) Leg Assemblies
- (4) Stand Corner Supports
- (1) Pull Handle
- (2) Wheels
- (2) Drive Pulleys
- (1) Drive Belt
- (1) Drive Pulley Cover
- (1) Work Stop
- (1) Tool Tray
- (1) Axle Assembly
- (1) Vertical Cutting Table
- (1) Vertical Cutting Table Support
- (6) M8 X 24 Bolts
- (12) M8 Flat Washers
- (6) M8 Lock Washers
- (6) M8 Nuts
- (10) M6X12 Bolts
- (2) M6X16 Bolts
- (24) M6 Flat Washers
- (12) M6 Lock Washers
- (12) M6 Nuts
- (1) 3mm Hex Key
- (1) 4mm Hex Key
- (1) 5mm Hex Key



SPECIFICATIONS

Input Voltage:	120 VAC, 60 Hz
Input Amperage:	6.5A
Plug Type:	3-prong
Cord Length:	6'- 6"
Certification:	CSA
Blade Size:	64.5" X .5" X .025", 14 TPI
Blade Speeds:	(ft./min.): 80, 120, 200
Cutting Capacity:	4.5" Round, 4" X 6" Rectangular
Maximum Cutting Angle:	55°
V-Belt Type:	0-506

SAFETY INFORMATION

The following explanations are displayed in this manual, on the labeling, and on all other information provided with this product:

⚠ DANGER

DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

⚠ WARNING

WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION

CAUTION used with the safety alert symbol, indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

⚠ NOTICE

NOTICE is used to address practices not related to personal injury.

GENERAL SAFETY RULES

⚠ WARNING

Read all instructions. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.

The term “power tool” in all of the warnings listed below refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

SAVE THESE INSTRUCTIONS

1) WORK AREA SAFETY

- a) Keep work area clean and well lit. Cluttered or dark areas invite accidents.
- b) Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes.
- c) Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

2) ELECTRICAL SAFETY

- a) Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.
- b) Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is earthed or grounded.
- c) Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
- d) Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.
- e) When operating a power tool outdoors, use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor use reduces the risk of electric shock. **NOTE: Use a minimum 14 gauge insulated cord, no longer than 25' in length.**

GENERAL SAFETY RULES

3) PERSONAL SAFETY

- a) Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.
- b) Use safety equipment. Always wear eye protection. Safety equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- c) Avoid accidental starting. Ensure the switch is in the off-position before plugging in. Carrying power tools with your finger on the switch or plugging in power tools that have the switch on invites accidents.
- d) Remove any adjusting key or wrench before turning the power tool on. A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- e) Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
- f) Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewelry or long hair can be caught in moving parts.
- g) If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of these devices can reduce dust-related hazards.

4) POWER TOOL USE AND CARE

- a) Do not force the power tool. Use the correct power tool for your application. The correct power tool will do the job better and safer at the rate for which it was designed.
- b) Do not use the power tool if the switch does not turn it on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- c) Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.
- d) Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.
- e) Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tools operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.
- f) Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- g) Use the power tool, accessories and tool bits etc., in accordance with these instructions and in the manner intended for the particular type of power tool, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from those intended could result in a hazardous situation.

5) SERVICE

- a) Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained.

ADDITIONAL SAFETY INFORMATION



⚠ WARNING SHOCK HAZARD!

- Never operate or store the Bandsaw in damp or wet conditions.
- Plug into a minimum 15 amp circuit. If using an extension cord, it must be AWG 16 or greater, no longer than 25'.



⚠ WARNING HEALTH AND INJURY HAZARD!

- Saw Blade will cut and cause injury. Always keep hands away from the cutting area and Saw Blade. Do not remove jammed cut off pieces until blade has stopped.
- To prevent injury, always use the Clamp to hold the material being cut in place.
- Inspect tool before each use for loose or broken components. Maintain proper blade tension, blade tracking, and blade bearing adjustment at all times. Do not use tool if any components are not adjusted correctly or damaged.
- Turn saw off and unplug when not in use to avoid accidental starts!
- Do not force the machine when cutting material. Excessive force applied to the saw can cause the blade to break!
- Always wear ANSI approved eye protection while operating this tool.
- This tool can emit excessive noise while operating. Wear hearing protection while in use.
- Fine dust can be created by the cutting process. Wear NIOSH approved respiratory protection while operating.
- Always support the entire length of a large work piece to prevent the Bandsaw from tipping while cutting
- Moving parts can be dangerous! Do not operate with any Guard disabled, damaged, or removed. Do not wear loose clothing, jewelry, etc. & tie back long hair. Do not put fingers near moving parts!
- Exercise caution when unpacking and replacing the Bandsaw Blade. The Blade can be under tension and suddenly un-coil causing injury.
- Metal may have sharp edges before and after cutting. Handle with gloves and avoid sharp edges.
- For optimal performance and safety, always adjust Blade Guide to just clear work piece. Excessive gap between Blade Guides can cause un-necessary stress and potential damage.



ASSEMBLY

⚠ WARNING

Always wear ANSI-approved eye protection while assembling this tool.

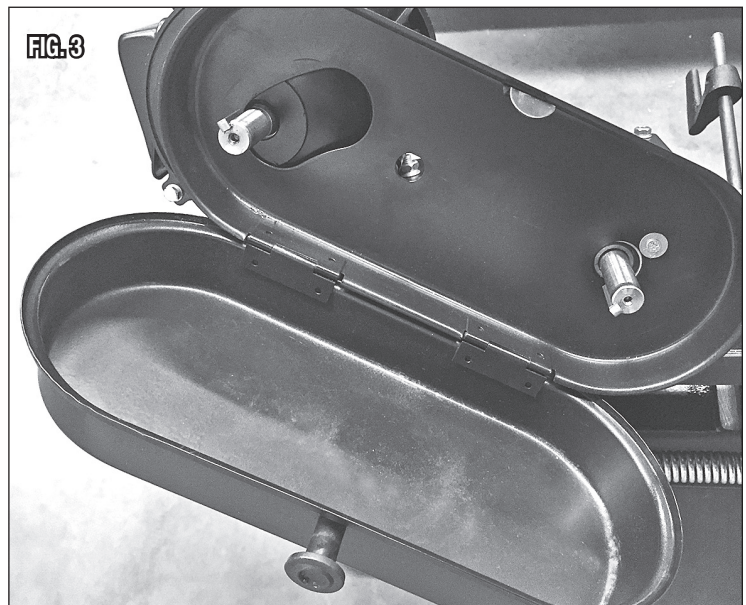
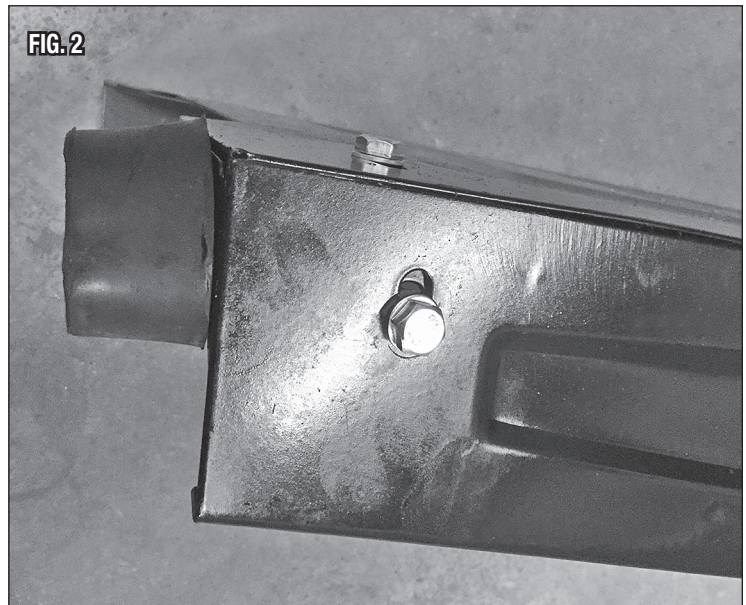
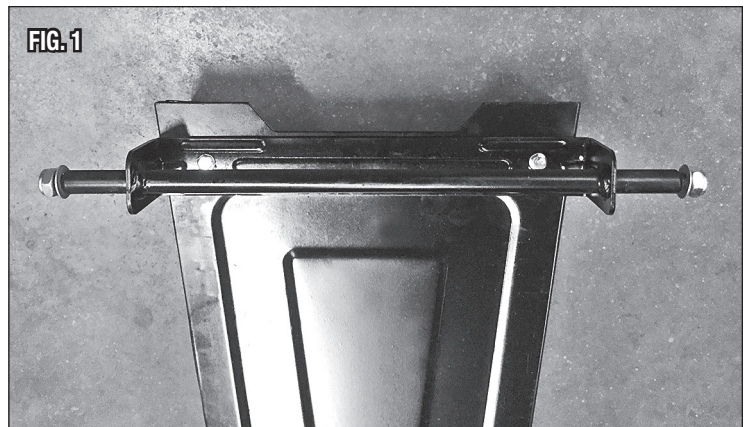
This Bandsaw is heavy. To prevent injury, lift heavy components with the help of an assistant.

1. Unfold the two Leg Assemblies
2. Install the two Stand Corner Supports without feet and the Axle Assembly onto a Leg Assembly. Fasten the Axle Assembly with M6 X 16 Bolts, Washers, and Nuts and the Corner Supports with M6 X12 Bolts Washers and Nuts (**FIG. 1**).
3. Slide Wheels onto the Axle Assembly and fasten with the pre-installed nuts
4. Install the two Stand Corner Supports with feet onto the other Leg Assembly and fasten with M6 X 12 Bolts, Washers, and Nuts (**FIG. 2**).
5. Insert Handle into the holes located at the top of the Leg Assembly without wheels.
6. With the help of an assistant, place the Bandsaw assembly on to a pair of sawhorses or on the corner of a sturdy workbench.
7. Attach Leg Assemblies to the Bandsaw with M8 X 24 Bolts, Washers, and Nuts. Do not fully tighten.
8. With the help of an assistant, place the Bandsaw with Legs back on ground.
9. Install Tool Tray and fasten with M6 X 12 Bolts, Washers, and Nuts.
10. With the Bandsaw in a flat and level location, fully tighten all fasteners.
11. Install the Pulley Motor Cover over the Motor and Gear shafts and fasten with the pre-installed fasteners (**FIG. 3**).

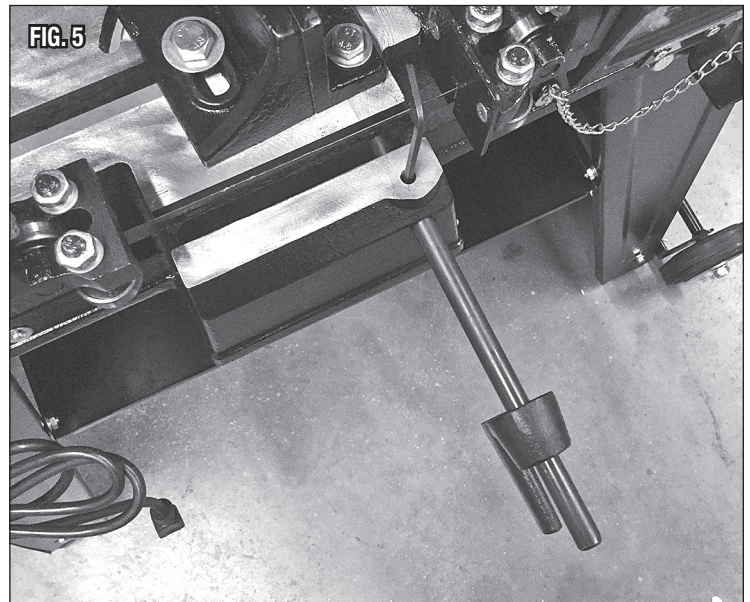
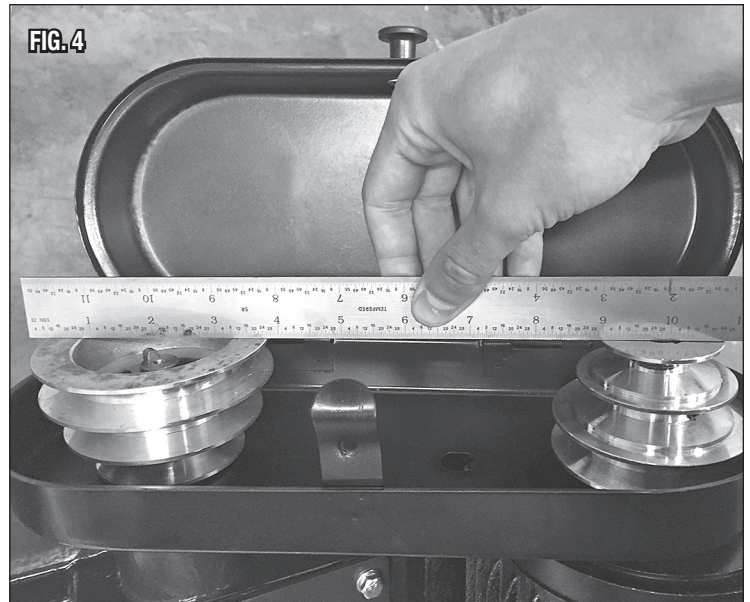
⚠ NOTICE

- Use caution to prevent loss of Shaft Keys.

12. Install the larger Pulley onto the Motor shaft with the largest pulley closest to the motor.
13. Install the smaller Pulley onto the Worm Gear Shaft with the smallest Pulley closest to the gear box.



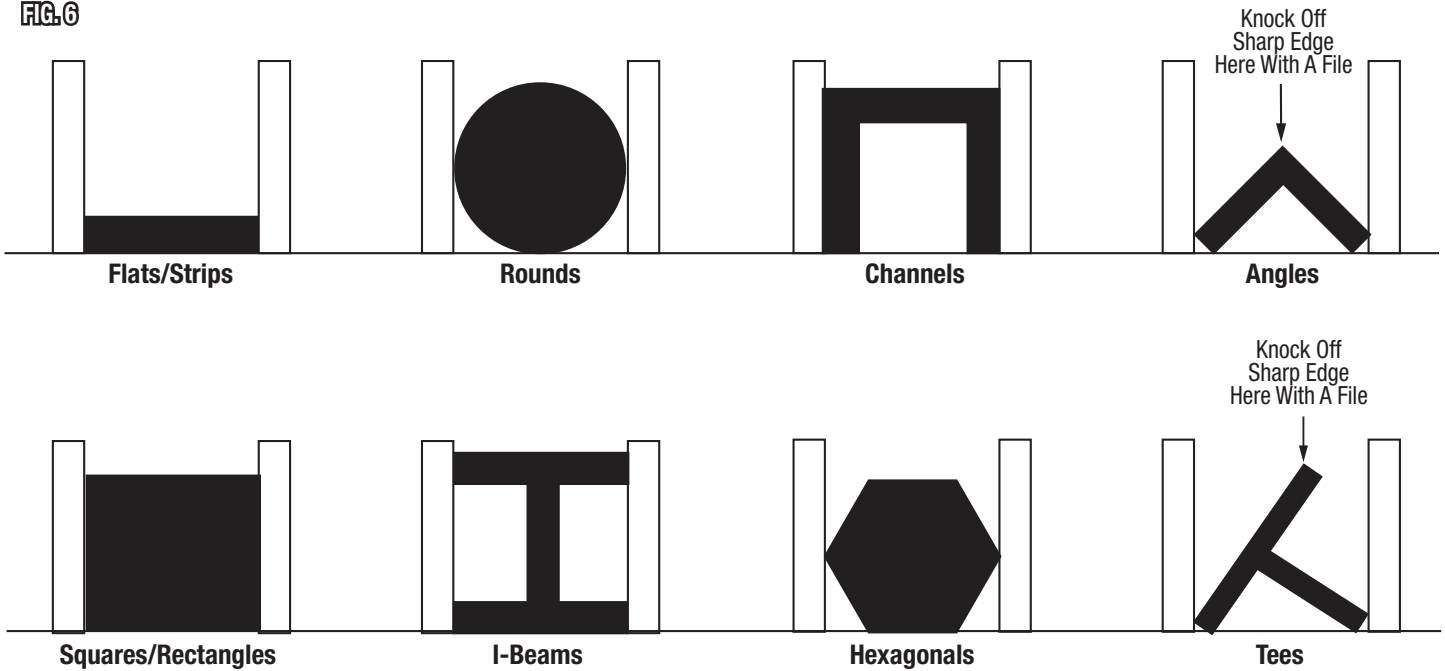
1. Using a straight edge align the top of both Pulleys with one another to ensure optimum performance. (Fig. 4)
2. With the Pulleys aligned, tighten Set Screws.
3. Loosen Motor Tension Bolt, pivot Motor up and install V-belt onto Pulleys.
4. Release the motor, allowing its weight to tension the V-belt, and tighten the motor lock bolt.
5. Slide work stop into place and tighten set screw (FIG. 5).
6. Before operating Bandsaw, it is recommended to square the vise and table bed to the blade. Use a machinist's square to ensure that the blade is perpendicular to both the back side of the vise and the bed of the table. Adjust as necessary.



CLAMPING MATERIAL

Pieces to be cut must be properly clamped in the jaws of the saw. Review Fig 6 for references as how to clamp different shapes of material stock.

FIG.6



DETERMINING BLADE SPEED

The Eastwood Horizontal / Vertical Bandsaw is capable of operating at blade speeds of 80, 120 and 200 feet per minute. The best way to determine if the cutting speed is correct is to examine the chips from the cut. The following rules apply for examining the cutting chips:

- Burned heavy chips = Reduce Feed and Speed
- Powder like chips = Increase Feed
- Curled silver chips = Ideal Feed and Speed

FIG 7 provides a good reference to determine the necessary speed for material being cut.

FIG.7

Material	Speed (RPM)	Pulley Groove	
		Spindle	Motor
Tool Steel, Stainless Allow Steels, Bearing Bronze	80		
Medium to High Carbon Steels, Hard Brass or Bronze	120		
Low to Medium Carbon Steels, Soft Brass, Aluminum, Plastic	200		

HORIZONTAL OPERATION

⚠ WARNING

- Thoroughly read and understand these product instructions before using the Bandsaw.
- Always use the Clamp to hold the material in place.
- Inspect tool before each use for loose or broken components. Do not use tool if any components are damaged.
- Turn saw off and unplug when not in use to avoid accidental starts!
- Do not force the machine when cutting material. Excessive force applied to the saw can cause the blade to break!
- Always wear ANSI approved eye protection while operating this tool.
- This tool can emit excessive noise while operating. Wear hearing protection while in use.
- Fine dust can be created by the cutting process. Wear NIOSH approved respiratory protection while operating.

⚠ CAUTION

- Moving parts can be dangerous! Do not wear loose clothing, jewelry, etc. & tie back long hair. Do not put fingers near moving parts!
- Metal may have sharp edges before and after cutting, handle with gloves and avoid sharp edges.

1. Raise Bandsaw Head.
2. Adjust Vise to the desired angle and securely clamp workpiece in the Vise.
3. Ensure that the work piece and Bandsaw are stable and there are no obstructions in the path of the cut.
4. Adjust spring tension for the proper feed rate.
5. Adjust Blade Guides so that they are as close to the work piece as possible without coming in contact with the work piece.
6. Start Bandsaw and wait for the blade to achieve full speed.
7. Lower Bandsaw Head onto the work piece and allow the spring tension to control the feed rate of the Bandsaw Head.
8. Upon the completion of a cut, the saw will automatically shut off. At this time it is safe to raise the Bandsaw Head and remove the work piece.

VERTICAL SETUP

To setup the Bandsaw for vertical cutting operations the following steps must be taken.

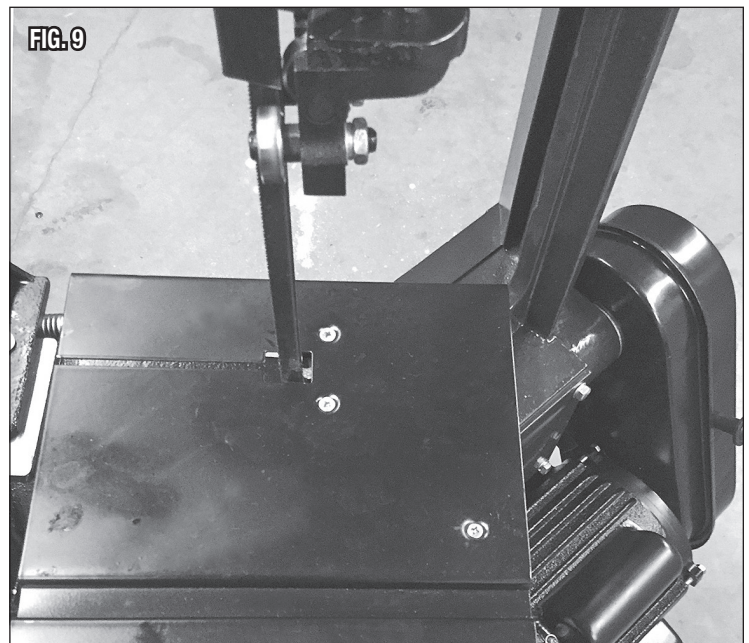
1. Unplug Bandsaw.
2. Raise Bandsaw Head to the Vertical position and lock in place with the latch and safety pin (FIG. 8).
3. Remove the two screws fastening the blade guide cover and remove cover.
4. Install Vertical Cutting Table and fasten with previously removed screws (FIG. 9).
5. Install the table support bracket with pre-installed hex bolt and a M6X12 flat head screw, washer, and nut.
6. Use the adjustment bolt to level the cutting surface as needed.



VERTICAL OPERATION

⚠ WARNING

- Thoroughly read and understand these product instructions before using the Bandsaw.
- Inspect tool before each use for loose or broken components. Do not use tool if any components are damaged.
- Turn saw off and Unplug when not in use to avoid accidental starts!
- Do not force the machine when cutting material. Excessive force applied to the saw can cause the blade to break!
- Always wear ANSI approved eye protection while operating this tool.
- This tool can emit excessive noise while operating. Wear hearing protection while in use.
- Fine dust can be created by the cutting process. Wear NIOSH approved respiratory protection while operating.



⚠ CAUTION

- Moving parts can be dangerous! Do not wear loose clothing, jewelry, etc. & tie back long hair. Do not put fingers near moving parts!
- Metal may have sharp edges before and after cutting, handle with gloves and avoid sharp edges.

1. Ensure that the work piece and Bandsaw are stable and there are no obstructions in the path of the cut.
2. While keeping both hands on the work piece in a safe location, gradually feed the workpiece into the blade while applying downward pressure. Do not force the tool.
3. Turn saw off immediately after each cut.

MAINTENANCE

⚠ CAUTION

- Exercise caution when unpacking and replacing the Bandsaw Blade. The Blade can be under tension and suddenly un-coil causing injury.
- Inspect tool before each use for loose or broken components. Maintain proper blade tension, blade tracking, and blade bearing adjustment at all times. Do not use tool if any components are not adjusted correctly or damaged.
- Thoroughly read and understand these product instructions before maintaining the Bandsaw.

IMPORTANT NOTE: The following maintenance should be performed before each use:

- Check tightness of all hardware.
- Inspect Saw Blade for damage and proper alignment with vise.
- Inspect for damaged power cords or connections.
- Check belt condition and tension.
- Inspect for broken parts or components.

PERIODIC MAINTENANCE

- Lubricate Vise Screw.
- Lubricate Gear Box.

BLADE REPLACEMENT

1. Unplug Bandsaw from power.
2. Raise Bandsaw Head to the vertical position and insert the locking pin to prevent rotation.
3. Raise lower blade cover and remove thumb screw to open access cover.
4. Loosen the tension knob located on top of the Bandsaw Head and slip the blade off the upper and lower wheels.
5. Install the new blade through both blade guide bearings and around both wheels. The teeth should face downwards between the guide bearings.
6. Ensure the back of the blade is against the shoulder of the upper and lower wheels.
7. Tighten tension knob to optimum blade tension (See section: Blade Tension).
8. Close access cover.

BLADE TRACKING

Blade tracking has been preset at the factory and under normal conditions will rarely need to be adjusted. If the blade tracking does need to be adjusted, follow the steps below.

1. Unplug Bandsaw from power.
2. Raise Bandsaw Head to the vertical position and insert the locking pin to prevent rotation.
3. Raise lower blade cover and remove thumb screw to open access cover.
4. Loosen, but do not remove the lowest hex bolt on the blade tracking mechanism.
5. Adjust the tracking set screw while considering the following recommendations: Tightening the tracking set screw will move the blade closer to the shoulder of the upper wheel. Loosening the tracking set screw will move the blade away from the shoulder of the upper tracking wheel (**FIG.10**).
6. Tension the blade (see section: Blade Tension).
7. Reconnect power and ensuring that all objects are away from the blade, turn on the Bandsaw. The blade should track along the shoulder of the wheel without rubbing against the shoulder. Adjust as necessary.



BLADE TENSION

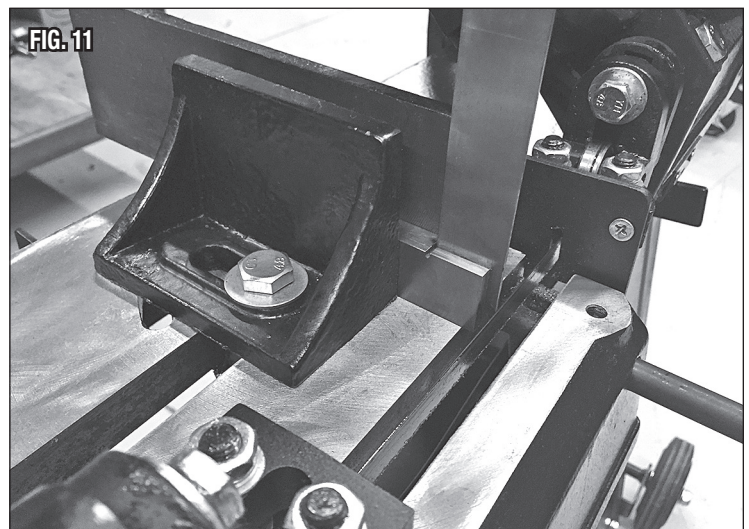
Blade Tension has been preset for the blade included from the factory but must be reset after each blade replacement. To set blade tension follow the steps below.

1. Unplug Bandsaw from power.
2. Ensure blade is tracking properly against the shoulder of the wheel without rubbing (see section: Blade Tracking).
3. Adjust blade guides as far apart as possible.
4. Tighten adjustment knob so that the blade is just tight enough to complete a cut without slipping. Measurable blade deflection should be .004" or less.

BLADE GUIDE BEARING ADJUSTMENT

Blade Guide bearings must be adjusted properly to ensure a square cut. Each Blade Guide Assembly has one bearing with an eccentric bushing to allow for adjustment.

1. Unplug Bandsaw from power.
2. With the vise perpendicular to the blade, place a machinists square against the face of the vise and the blade (**FIG.11**).
3. If the machinists square does not evenly contact the blade while against the vise, adjust the eccentric bushings as needed so that the square evenly contacts the blade while the blade is in contact with the guide bearings.



TROUBLESHOOTING

PROBLEM	CAUSE	CORRECTION
Bandsaw Slows Down Excessively During Cut	Feed Rate is Too High	Tighten Spring Tensioner to reduce feed rate.
	Incorrect Blade for Material Being Cut	Follow material guidelines for each specific saw blade.
Blade is Becoming Dull at a Rapid Pace	Cutting Speed is Too Fast	Adjust blade speed to match the material being cut.
	Incorrect Blade for Material Being Cut	Follow material guidelines for each specific saw blade.
	Blade has Too Little Tension	Increase Blade tension (see section: Blade Tension).
Overheating	Forcing Machine to Complete Cut	Allow the Spring Tensioner to feed material into the saw. Do not push down on the Saw Head.
	Saw Blade is Dull or Damaged	Replace Saw Blade.
	Excessive Blade Tension	Decrease Blade tension (see section: Blade Tension).
	Excessive V-Belt Tension	Allow the weight of the Motor to set V-Belt tension.
	Incorrect Blade for Material Being Cut	Follow material guidelines for each specific saw blade.
Excessive Blade Breakage	Improper Blade Tension	Adjust Blade tension (see section: Blade Tension).
	Improper Blade Speed	Adjust blade speed to match the material being cut.
	Work Piece is Not Secured in Vise	Workpiece must be securely clamped in the vise.
	Blade is Not Tracking Properly	Adjust Wheel alignment so that the Blade tracks along the shoulder of the Wheel (see section: Blade Tracking).
	Incorrect Blade for Material Being Cut	Follow material guidelines for each specific saw blade.
	Saw is Starting While Blade is Resting on Workpiece	Saw must be started and then slowly lowered onto the workpiece.
	Blade Guides Need Adjusting	Adjust Blade Guides (see section: Blade Guide Bearing Adjustment).

ADDITIONAL AVAILABLE ITEMS

- #20651 Replacement Blade
- #11797 Throatless Bench Shear
- #20198 8" Straight Shear
- #14042 Versa-Bend Sheet Metal Brake
- #28187 Bead Roller Kit with Mandrels
- #20257 Sheet Metal Layout Kit – 5 Piece Kit
- #21115 High Capacity Tubing Bender
- #20447 Professional Tubing Notcher
- #20521 4" Metal Bender
- #20638 Expander Wheel

If you have any questions about the use of this product, please contact

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