

*Eastwood*<sup>®</sup>

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Item #21980

# 7" X 12" HORIZONTAL/VERTICAL METAL-CUTTING BANDSAW INSTRUCTIONS



The **EASTWOOD 7" X 12" HORIZONTAL/VERTICAL METAL CUTTING BAND SAW** is a full feature, shop capable bandsaw, designed with a powerful 1 HP motor and reduction gearing for maximum cutting torque when needed. In addition to a full circulating coolant system and a hydraulically controlled downfeed, it features a quick-mount Cutting Table for conversion from Horizontal to Vertical operation.

## SPECIFICATIONS

<b>Saw Motor:</b>	3/4 HP, 9 Amps
<b>Coolant Pump Motor:</b>	1/8 HP, 0.5 Amp
<b>Coolant Pump Output:</b>	8.2 GPM Max
<b>Cord Length:</b>	6.2'
<b>Blade Size:</b>	3/4" wide x 0.035" thick x 93" long. 8TPI
<b>Blade Speed (adjustable):</b>	86, 132, 178 & 260 FPM (Feet Per Minute)

### MATERIAL CAPACITY

- Maximum material cutting range @ 90° setting with the Fixed Fence parallel and the Moveable Material Fence adjusted out to maximum width = 10" wide x 7" high.  
**NOTE:** The Fixed Fence may be relocated to provide an additional 2-1/2" of cut width, refer to the Adjustments section of this manual for details.
- Maximum cutting range both Fences parallel @ 45° setting and the Moveable Fence adjusted out to maximum width = 6" wide x 7" high.  
**NOTE:** The Fixed Fence may be relocated to provide an additional 2-1/2" of cut width, refer to the Adjustments section of this manual for details.

## CONTENTS

### INCLUDES 1

- (1) Saw assembly with Metal Cutting Blade installed [A]

### INCLUDES 2

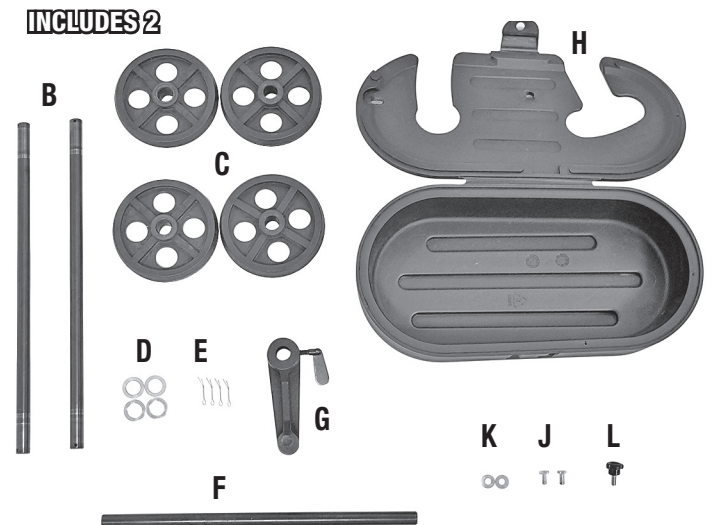
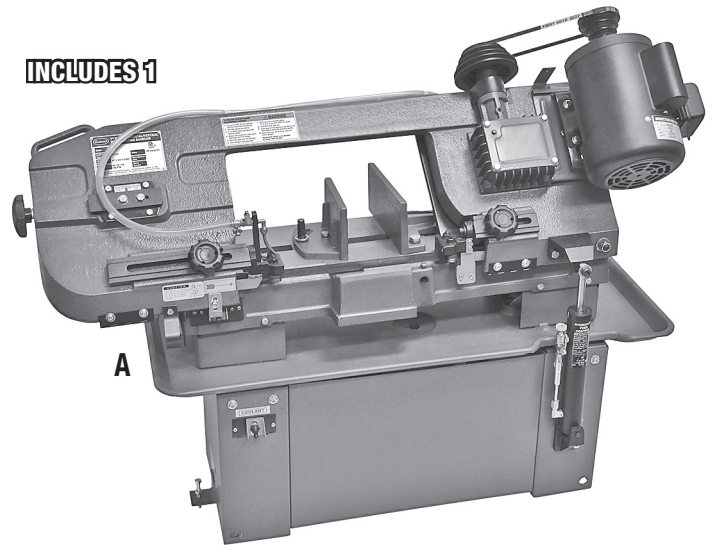
- (2) Axles [B]
- (4) Wheels [C]
- (4) 5/8" Dia. Flat Washers [D]
- (4) Cotter Pins [E]
- (1) Material Stop Fence Rod [F]
- (1) Material Stop Fence [G]
- (1) Belt Cover [H]
- (2) M6 x 12 mm Bolts [J]
- (2) 6mm Flat Washers [K]
- (1) Threaded Knob [L]

### INCLUDES 3

- (1) Vertical Cutting Table [M]

## TOOLS REQUIRED (not included)

- 10 mm wrench
- 12 mm wrenches
- 14 mm wrench
- 4mm Hex Key
- Pliers
- Angle Protractor
- Square



# 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 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.

## SAVE THESE INSTRUCTIONS

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.

### 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

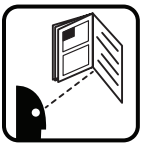
- a) Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.
- b) Avoid body contact with earthed or grounded surfaces such as pipes, radiators, 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.

### 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.



#### **⚠ READ ALL INSTRUCTIONS!**

- Thoroughly read and understand these product instructions before using the Band Saw.
- Keep these product instructions for future reference.



#### **⚠ WARNING HEALTH AND INJURY HAZARDS!**

- Dust and fine particles are generated while cutting which can contain hazardous or toxic substances. Breathing this dust can cause many serious respiratory health conditions. Always use NIOSH approved respiratory protection while using this Band Saw.
- This Saw will eject particles, dust and sparks at high velocity during operation. Wear approved eye and skin protection at all times while operating.
- Cutting with this Saw can generate excessive noise. Wear appropriate hearing protection while using.
- The moving Blade of this Saw can quickly catch loose clothing, long hair or jewelry causing serious personal injury. Keep all loose clothing, long hair and jewelry away from operating Saw.
- This Saw can quickly start up when handling while plugged in to electrical supply causing serious personal injury. Always unplug the tool from the electrical supply before changing Blade or performing maintenance.
- Sharp metal edges can cut. Always wear protective work gloves while handling.
- Moving Saw Blade can quickly cause cuts. Keep hands and fingers away from moving blade.
- This Saw Blade can quickly and violently kick back or twist while operating causing severe injury. Do not apply excessive force to Saw Cutting Head while in use. Always make sure the workpiece or material being cut is securely clamped or anchored within the included clamping devices.
- Damaged Saw Blades can shatter or break causing personal injury or property damage. If excessive vibration is felt, discontinue use immediately and disconnect tool from electrical supply. Inspect Blade and Saw components for damage. Do not resume use until resolution is found.



#### **⚠ CAUTION**

- This Saw could eject sparks which can ignite flammable materials or injure others nearby. Do not operate in the vicinity of flammable materials and keep all persons and pets away from the work area.





# ASSEMBLY

## WHEELS [C] TO BASE [A]

- With the assistance of a capable helper, raise the Saw Base [A] 3" above floor and place onto blocks of wood or other material capable of securely supporting the weight of the Saw.

### **CAUTION**

**Saw must be securely supported before adding wheels.**

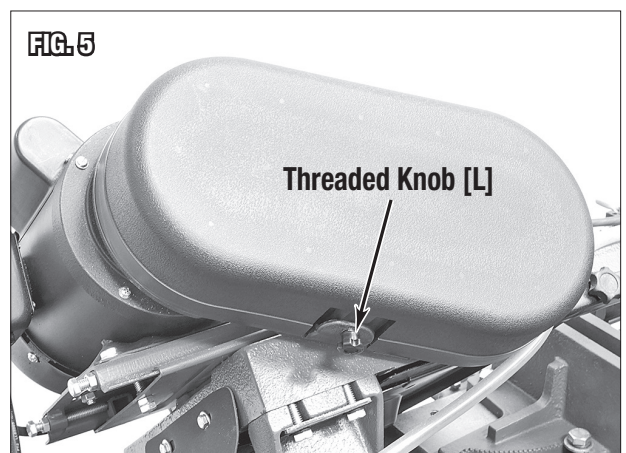
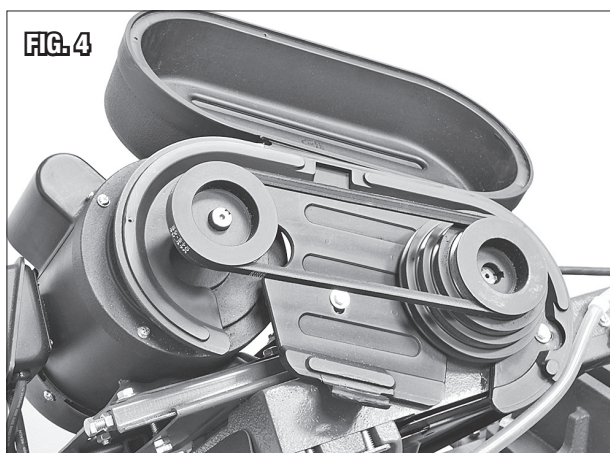
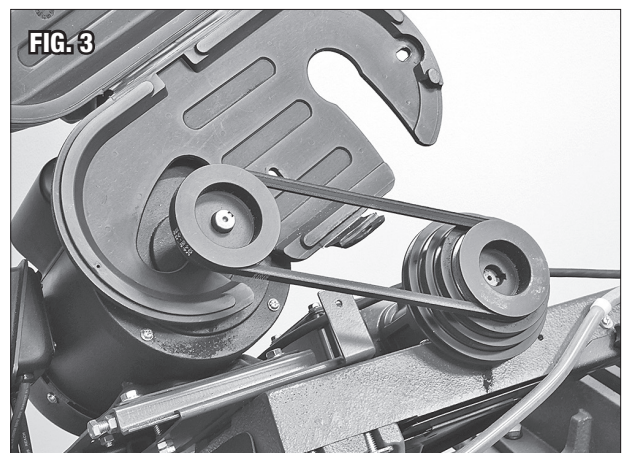
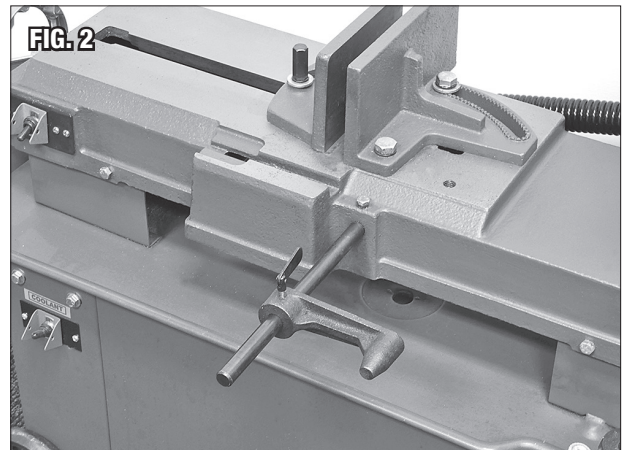
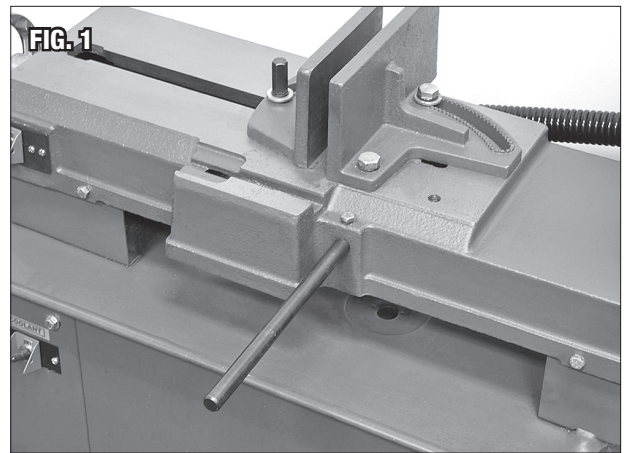
- Pass an Axle [B] through the holes in the lower corners of the Saw Base.
- Slide a Wheel [C] onto Axle [B], add 5/8" Flat Washer [D] and insert a Cotter Pin [E] into hole at tend of Axle.
- Bend cotter pin legs as required to retain Wheel.
- Repeat for remaining Axle, Wheels, Washers and Cotter Pins.
- Carefully remove support blocks and lower the Saw Base onto the Wheels.

## MATERIAL STOP FENCE [G] TO SAW BASE [A]

- Insert the Material Stop Fence Rod [F] into the hole at the front of the Saw Table casting and secure in place by tightening the mounting bolt (FIG 1).
- Slide Material Stop Fence [G] onto the Stop Fence Rod [F] and secure by tightening the wing screw (FIG 2).

## BELT COVER [H] TO MOTOR AND CUTTING HEAD

- Slip the cutouts in the back of the Belt Cover [H] around the Motor and Blade Drive Shafts and behind the Pulleys and align the mounting holes with casting of the Cutting Head (FIG 3).
- Attach the Belt Cover [H] with the two M6 Bolts [J] and 6mm Washers [K] (FIG 4).
- Close the lid of the Belt Cover and secure with the included Threaded Knob [L] (FIG 5).

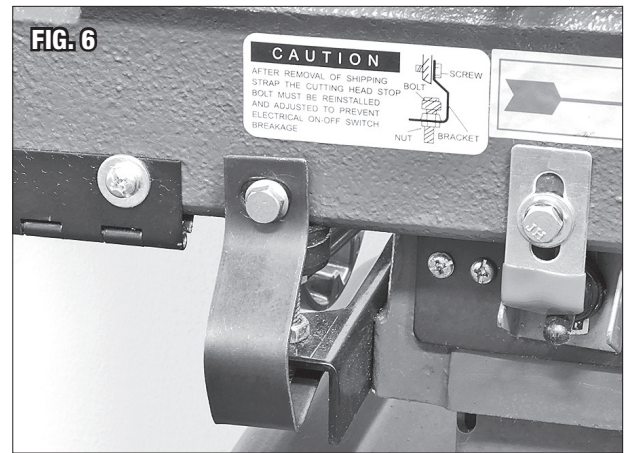


## REMOVING CUTTING HEAD TO TABLE BASE SHIPPING RETAINING STRAP

Note that a steel strap is attached to both the pivoting Cutting Head and the Cast Table of the Saw Base. (Refer to the diagram on the Caution Label located above the Retaining Strap). This strap must be removed to allow the Cutting Head to be lifted and rotated upward. To do so:

- Remove the M6 Screw securing the upper slotted hole of the Retaining Strap to the Cutting Head (**FIG 6**).
- Unthread the Nut from the lower end of the Cutting Head Stop Bolt & Pad (**FIG 6**).
- Remove the Shipping Retaining Strap.

**NOTE:** The Shipping Retaining Strap, Nut and Screw should be stored for potential future reuse. Should the Band Saw ever need to be transported, the Retaining Strap must be re-installed to prevent severe damage to the unit.



## SAW SET-UP FOR USE

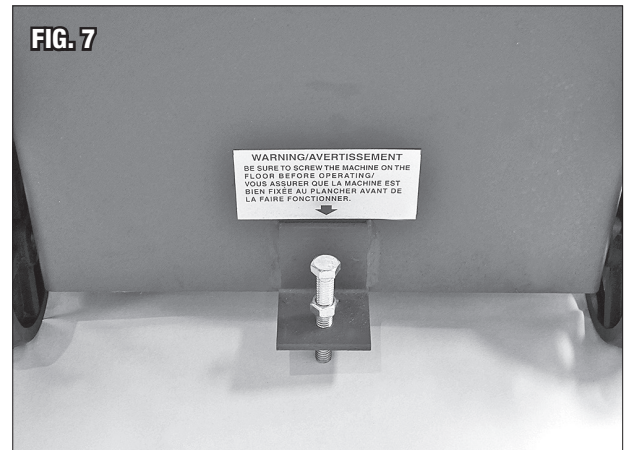
### SAW LOCATION

- Place the Saw on a clean, level and grit free surface. It is strongly recommended that the machine be placed on a concrete or other flame-resistant floor material due to the potential ejection of sparks while cutting.
- Keep power cord away from and out from under the Metal Cutting Saw Blade. The unit is equipped with a 6.2' [1.9 m] long, grounded, 16 ga. power cord. Plug into a properly grounded, 20 Amp outlet. If an extension cord is required, use 16 ga. or heavier. Do not exceed 25'.
- Allow sufficient room around Saw for material extension and easy access to the Coolant Reservoir at the rear of the Base.

### ANCHOR BOLT

The 3/8-16 x 2.5" Anchor Bolt is located on a tab extending from the bottom center of the left side of the Saw Base (as viewed from the front) (**FIG 7**). Due to the tendency for the Saw to "walk" from vibrations generating during the cutting operation as well as the possibility of tipping to the right when using the Saw in the Vertical position, it is **STRONGLY RECOMMENDED** that the Anchor Bolt be firmly attached to the floor. This can be accomplished on a concrete floor by drilling for and inserting an 3/8-16 masonry anchor to the floor. Alternative floor materials will require similar attachment methods.

The Anchor Bolt should be threaded into the Anchor and the Locknut used to take up any slack, draw the tab down and create tension.





## COOLANT

The Band Saw features a pump-driven Coolant System with a 2.5 Gallon [9.4 Liter] capacity Coolant Tank accessible by the open area at the rear of the Base.

To Set-up for use:

- Position the Saw to allow unhampered access to the rear of the Base (**FIG 8**).
- Use **ONLY** a good quality, water based cutting coolant

### ⚠ NOTICE

**DO NOT** use a solvent or petroleum-based coolant in this Band Saw. Doing so may cause permanent damage to the Pump and Circulatory System.

### ⚠ CAUTION

The Saw **MUST** be disconnected from the power source and the Pump Switch **MUST** be in the OFF position before proceeding.

- Partially remove the Coolant Tank from its chamber and add a minimum of 2 Gallons [7.5 Liters] of a good quality, water based cutting coolant through the Strainer at the left side compartment of the Coolant Tank (**FIG 8**).
- Set the Coolant Tank back into position.
- Verify that the return hose is in the proper place in the Strainer and there is no pinching or binding of the feed hose at this time.
- Return the Saw to the desired position.

## HYDRAULIC FEED CYLINDER RESISTANCE/FEED-RATE ADJUSTMENT

The Hydraulic Feed Cylinder is equipped with a Feed Rate Control Knob designed to easily adjust the rate of drop of the Cutting Head (**FIG 9**).

### ⚠ NOTICE

The Feed Rate Knob displays the numbers 0 through 8 however, it rotates a total of 2-1/2 turns in the range of operation. The numbers are for reference only.

- Threading the Knob *Clockwise* until it stops will set the Feed Rate to Zero.
- Back out the Knob one full turn to set the initial Feed Rate and adjust as necessary.
- Rotate *Clockwise* to *decrease* Feed Rate, *Counter-Clockwise* to *increase* Feed Rate.

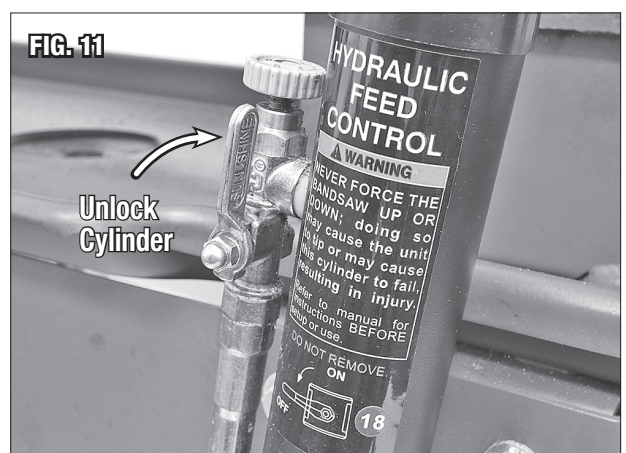
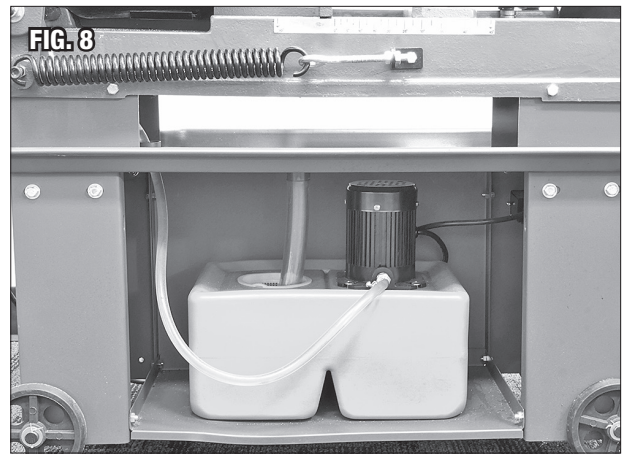
Always start with the lowest Feed-Rate setting to minimize Blade wear and heat generation.

## CYLINDER LOCK

The Hydraulic Feed Cylinder also has a Lock Lever located just below the Feed Rate Control Knob. This is used to lock the Cutting Head in the vertical position when performing maintenance or using the Vertical Table Feature.

**To Lock:** Rotate the Lever 90° down to a horizontal position, in a Counter-Clockwise direction (**Fig 10**).

**To Unlock:** Rotate the Lever back to vertical position (**FIG 11**).



# BASIC SAW OPERATION

## ▲ NOTICE

The following is a general description of the Saw Operation Procedure; there are many adjustments that must be made to properly use the Saw. They are outlined in great detail in following sections of this Manual.

- Raise the Cutting Head and rotate the Lock Lever Counter-Clockwise 90° down to a horizontal position locking the entire Cutting Head in the UP, vertical position to allow free access to the Cutting Deck.
- Loosen the Mounting Bolts and adjust the Fixed Fence (**FIG 12**) to the desired angle of the cut. Always verify with a square for 90° or protractor for other angles. Securely tighten the Mounting Bolts.
- Place the workpiece on the Cutting Deck and use the Material Stop Fence if needed.
- Using the Handwheel (**FIG 13**) move the Material Clamp inward to secure the workpiece and, if necessary, adjust the angle of the Material Clamp to match the desired cut angle by loosening then tightening the Lock Bolt (**FIGS 14 & 15**). **NOTE:** The Material Clamp is designed with a Quick-Clamp feature. Backing off (rotating Counter-Clockwise) the Handwheel approximately 1/2 turn will disengage the Clamp Drive Nut from the Drive Screw thread, allowing it to be quickly slid along the Cutting Deck toward or away from the Fixed Stop Fence.
- Plug the Power Cord into the nearest 120 VAC, grounded, 20 Amp electrical outlet. Be sure the power cord is away from the Saw Blade.

## ▲ NOTICE

**ALWAYS** allow the Blade to reach full operating speed before contacting the workpiece. **NEVER** let the Blade rest on the workpiece then start the Saw Motor.

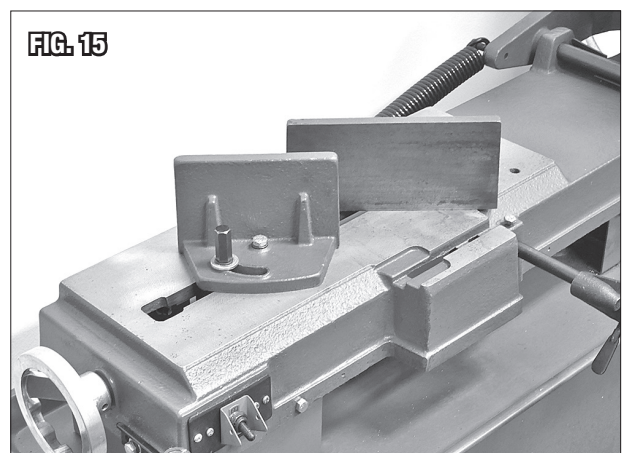
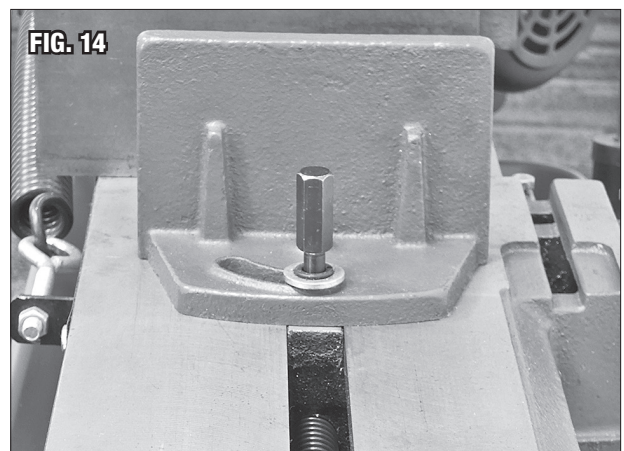
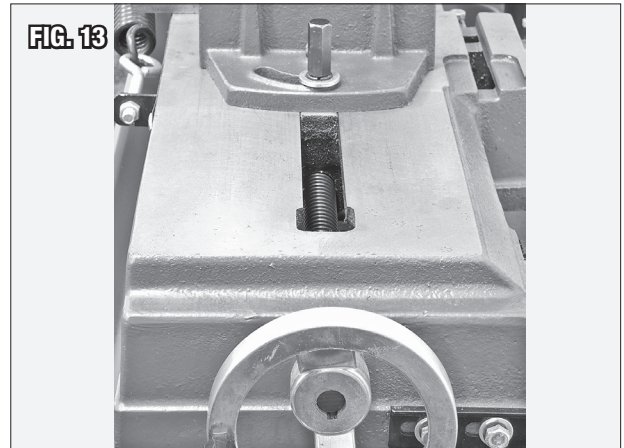
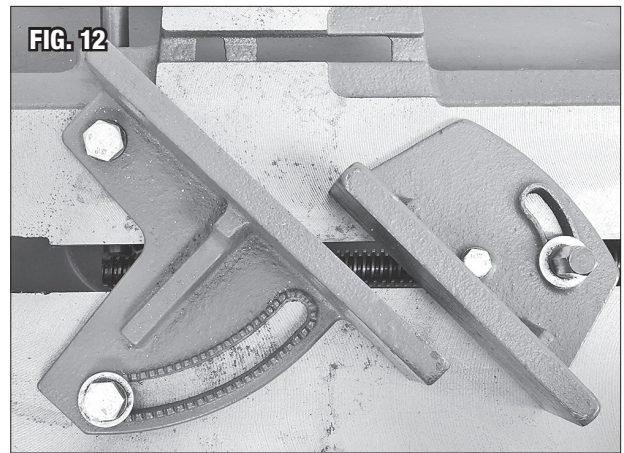
- With one hand on the cast-in handle of the Cutting Head and the other hand kept away from the Blade, very carefully, rotate the Lock Lever Clockwise 90° up to the vertical position releasing it.
- Slowly lower the Cutting Head down onto the Base.
- Set the Hydraulic Cylinder Feed-Rate as described in the Hydraulic Cylinder Feed-Rate section on Page 7 of this manual.
- Let the Blade do the cutting. **DO NOT** apply excessive force or serious personal injury, death and or serious damage to the saw can occur.
- The Saw will automatically switch off when the cut is completed.

## ▲ CAUTION

Keep your body and any objects out of the path of chips and sparks which will be ejected from the saw!

## ▲ NOTICE

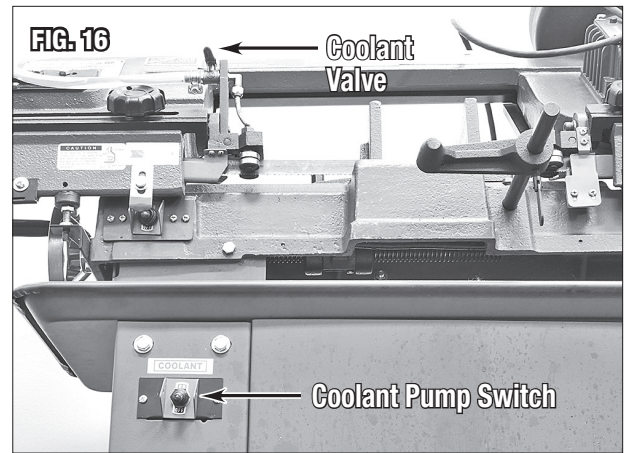
During the first few days of break-in operation the worm gear drive will run hot. Unless the temperature exceeds 200 degrees Fahrenheit there is no cause for alarm.





## COOLANT SYSTEM OPERATION

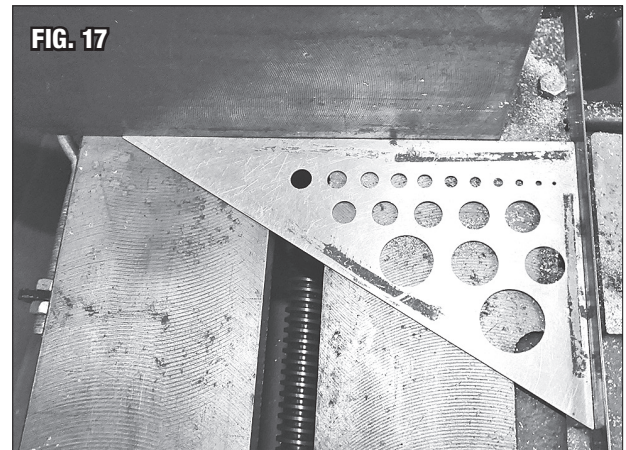
- To start the Coolant flow, turn the Coolant Pump Switch to the “ON” position (FIG 16). Coolant will run only when the main Saw Switch is ON.
- Open the Coolant Flow Valve at the Right-Side Blade Support and Rollers (FIG 16)  
**NOTE:** The Coolant flow can be regulated by the amount the Flow Valve is opened.



## BLADE BREAK-IN PROCEDURE

New Blades are very sharp and therefore have a tooth geometry that is easily damaged if a very careful break-in procedure is not followed. Follow the Blade manufacturer’s instructions for break-in of specific Blades on specific materials. The following procedure will be adequate for break-in of the Blade furnished with your Eastwood Saw if being used on low alloy ferrous materials.

1. Clamp a round section of scrap material in the workpiece Material Clamp. The workpiece should be 2 inches or larger in diameter.
2. Configure the Saw on low speed. Start the cut with a very light Feed-Rate (as described in the Hydraulic Cylinder Feed-Rate section on Page 7 of this manual).
3. When the Saw has completed 1/3 of the cut, increase Feed-Rate slightly and allow the Saw to complete the cut.
4. Keeping the same Hydraulic Cylinder Feed-Rate setting, begin a second cut on the same or similar workpiece.
5. When the Blade has completed about 1/3 of the 2nd cut increase the Feed Rate by turning out the Feed-Rate Control Knob. Watch chip formation until cutting is at its most efficient rate (see “Evaluating Cutting Performance” on Page 16 of this manual) and allow saw to complete the cut.
6. The Blade is now ready for normal service.



## ADJUSTMENTS

**⚠ DANGER INJURY HAZARD!**  
Disconnect the Bandsaw from the power supply before beginning ANY of the following adjustments!

### FIXED STOP FENCE SQUARE TO BLADE

To provide horizontally square cuts, the Blade must be checked for squareness in relation to the Cutting Head Deck (FIG 17).

**To check for square:** Place a machinist’s square against the face of the Stop Fence and along the Blade.

**If adjustment is required:** Loosen both the center pivot bolt and the slot mounted bolt (FIG 12), set the face square to the Blade then retighten.

**NOTE:** This must be done whenever the Fixed Stop Fence position is altered for angle cuts.

### BLADE FACE SQUARE TO DECK ADJUSTMENT

To produce consistent, vertically square cuts, the Blade must be checked for squareness in relation to the Cutting Head Deck (**FIG 18**).

**NOTE:** This is checked on both Blade Carriages on either side of the cutting opening.

This is done by placing a machinist's square along the top surface of the Cutting Deck and the face of the Blade nearest to the respective Carriage.

If the Blade is found to be out of square in either direction: Loosen the socket head Lockscrew and rotate the Bearing Carrier so that the Blade is square to the Deck, then retighten Lockscrew.

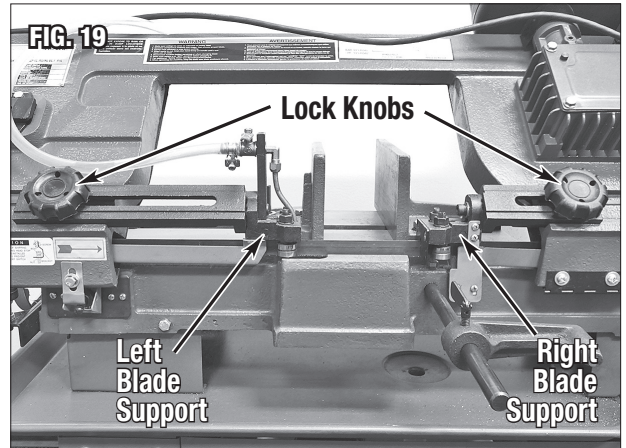
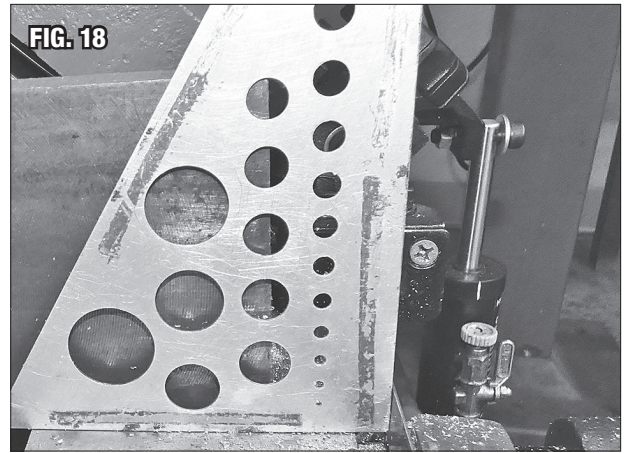
Repeat for opposite Bearing Carrier.

### BLADE SUPPORT POSITION ADJUSTMENT

The Blade Supports contain the Blade Support Rollers which guide and support the Blade as it passes through while cutting.

Every time the saw is reconfigured to accept a different size material, the Blade Support positions will need to be spread apart or brought closer to accommodate the cutting width (**FIG 19**).

**To adjust:** Loosen the Lock Knobs and slide the Blade Supports in or out as required to bring the Blade Support Rollers as close to the workpiece as possible.





## BLADE SPEED BELT/ADJUSTMENT

The Eastwood Band Saw is designed with 4 available Blade Speed settings, each determined by the material hardness to be cut (**FIG 20**). Some recommended Blade Speed settings are described in the **BLADE SPEED/BELT POSITION CHART** below. If a specific material is not listed, a general “Harder the material, the slower the Blade speed” rule should be followed. For specific Blade Speed information, consult a Machinery’s Handbook.

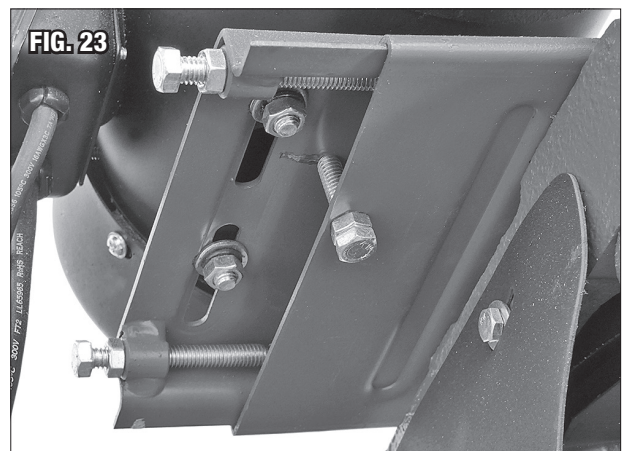
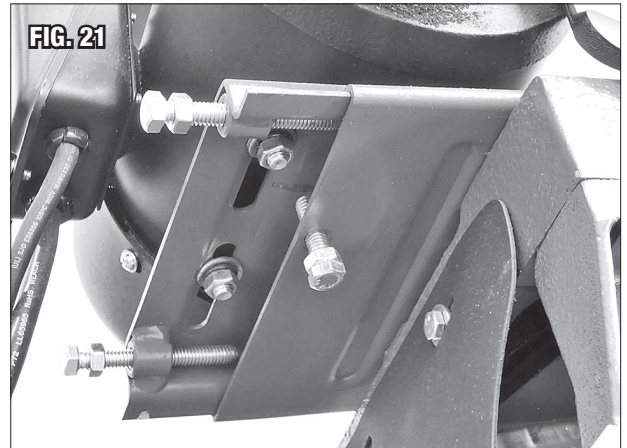
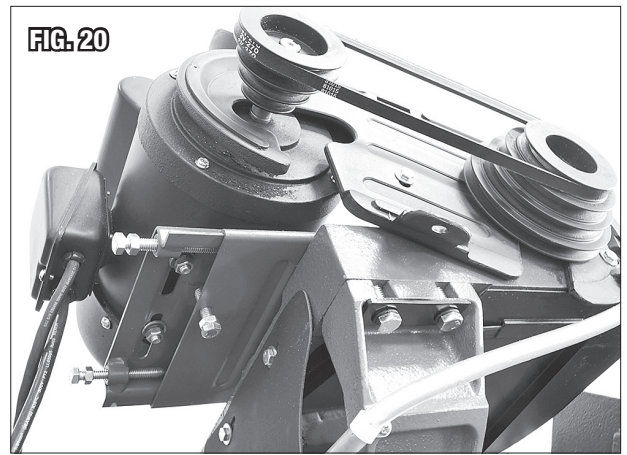
This is accomplished by physically removing the Drive Belt and relocating it to another set of Pulleys in the same plane.

To do so:

1. Place the Cutting Head in the Down position.
2. Remove the Threaded Knob of the Belt Housing Lid. Flip the Belt Housing Lid open.
3. Loosen and back-off the Locknuts on the two Longitudinal, Belt Tensioning Bolts located on the end of the Motor Plate (**FIG 21**).
4. Loosen the Locknut of the single Vertical Tension Locking Bolt (**FIG 21**).
5. Back off the two Longitudinal Bolts and the single Lockbolt until the Motor Plate can be moved inward, and the Belt tension is slackened (**FIG 21**).
6. Remove the Belt from the current pairing of Pulley Grooves and move it to the desired set.
7. Alternating sides 1/2 turn at a time, turn in the two Longitudinal Bolts until the belt is tightened (only 1/2” of deflection when pressed in from the side) (**FIG 22**).
8. Thread in the Locknuts of the longitudinal Tensioning Bolts (**FIG 23**).
9. Tighten the Vertical Tension Locking Bolt and its Locknut (**FIG 23**).
10. Close the Belt Housing Lid and replace the Threaded Knob.

## BLADE SPEED/BELT POSITION CHART

Material	Blade Speed	Motor Pulley Diameter	Driven Pulley Diameter
Tool Steel, Stainless Steel, Bearing Bronze	86 F.P.M.	1.65”	3.13”
High Carbon Steel, Hard Brass, Hard Bronze, Hard Alloy Aluminum	132 F.P.M.	2.20”	3.80”
Low Carbon Steel, Soft Brass, Copper	178 F.P.M.	2.63”	4.31”
Softer Aluminum, Phenolic, Plastics	260 F.P.M.	3.13”	4.91”



### MOVING THE FIXED FENCE TO THE ALTERNATE POSITION

The Fixed Fence is bolted to the Cutting Deck (FIG 24) and can be rotated from parallel to a maximum 45° angled position by loosening the two mounting bolts, rotating it and re-tightening the bolts. A protractor should be used to accurately determine the desired angle.

The Alternate position provides an additional 2-1/2" of cutting width. To move: Loosen and remove the two bolts attaching the Fixed Fence to the Deck and move it to the alternate set of tapped holes located 2-1/2" to the left (FIG 24).

Reinstall the bolts, use a square to provide alignment with the Blade face and tighten the bolts as required.

### CUTTING HEAD VERTICAL STOP

The Vertical Stop (FIG 25) is located adjacent to the Cutting Head pivot. It is designed to stop the Cutting Head positively at 90° when it is raised. This is set at the factory when assembled and should not require adjustment. If an adjustment should be required from continued wear:

- Loosen locknut.
- Using a 90° square between the top deck of the Saw Base and the Blade, raise or lower the head of the Vertical Stop Bolt as needed.
- Retighten locknut.

### CUTTING HEAD HORIZONTAL STOP

The Horizontal Stop (FIG 26) is located adjacent to the Power ON/OFF Switch. It is designed to stop the Cutting Head positively on the Saw Base when it is lowered.

#### ▲ NOTICE

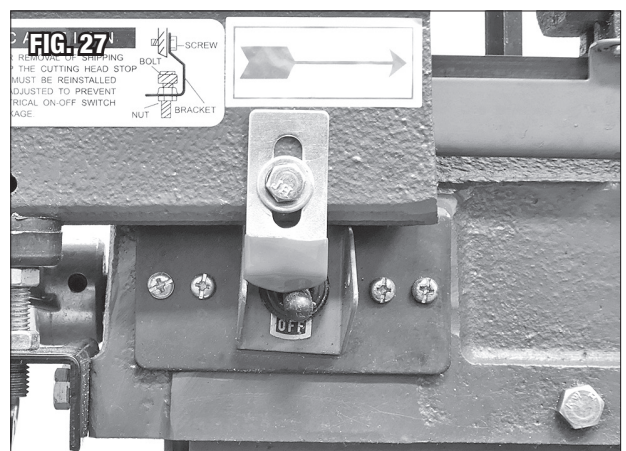
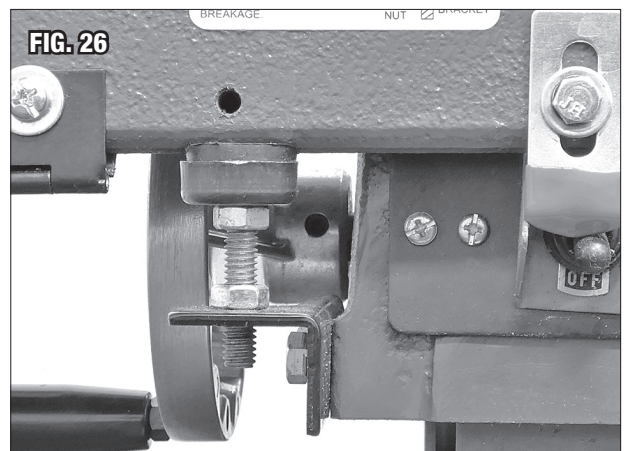
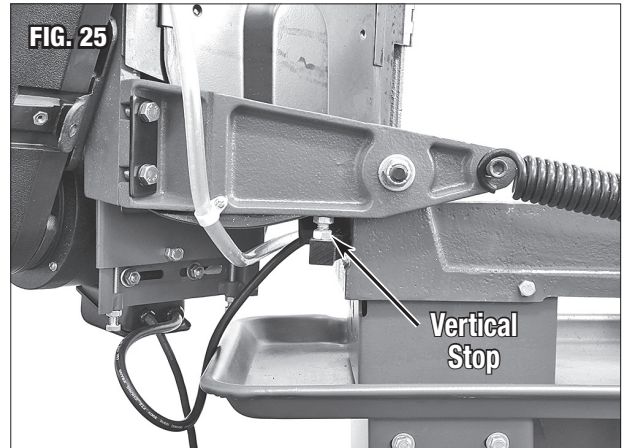
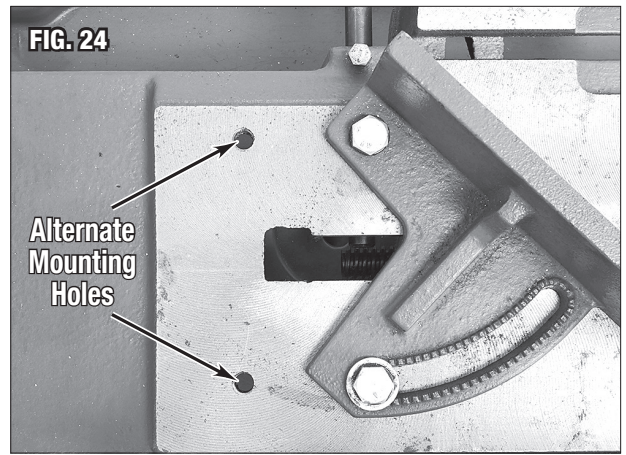
This is a critical adjustment that prevents the Saw Blade from cutting into the casting of the Saw Base. This position is set at the factory when assembled and should not require adjustment. If an adjustment should be required from continued rubber pad wear:

- Loosen locknut.
- Use a 3/8" thick spacer under the Blade teeth in the recessed cutting of the top deck of the Saw Base.
- Raise or lower the head of the Vertical Stop Bolt as needed.
- Retighten locknut.

### AUTOMATIC MOTOR SWITCH-OFF STOP

If the Motor and Blade continue to run after the workpiece is cut through, the Motor Switch/Depth Stop needs adjustment. To do so:

1. Unplug the Saw.
2. Remove the workpiece.
3. Loosen the Automatic Motor Switch Off Stop screw (FIG 27).
4. Raise or lower the Automatic Motor Switch Off Stop to push the Switch in the Down, "OFF" position with the Cutting Head in the fully lowered position.
5. Re-tighten screw.
6. Raise Cutting Head and Switch on Motor.
7. Lower Cutting Head and check that the Automatic Motor Switch Off Stop switches off Motor with the Cutting Head in the full down position.





## COUNTERBALANCE SPRING

A Counterbalance Spring is located in a horizontal position at the rear of the Saw Base and is attached to both the Saw Base and the pivoting Cutting Head (**FIG 28**). The Counterbalance Spring provides assistance with lifting and lowering the weight of the Cutting Head.

### ⚠ CAUTION

The Counterbalance Spring tension is carefully set at the factory and should never require adjustment. Changing the Counterbalance Spring tension can cause a serious safety hazard.

If tension is adjusted too lightly, it can exert excessive weight and pressure on the Blade resulting in rapid Blade wear, excessive heat and Blade metal fatigue.

If tension is set too tightly, it can decrease the pressure on the Blade, greatly reducing the cutting effectiveness.

## BLADE BRUSH ADJUSTMENT

The Blade Brush (**FIG 29**) is designed to continually wipe the Blade teeth of chips. It is set at the factory, however, with extended use, it may periodically require adjustment. To do so, loosen the two mounting screws and move the brush bristles inward, toward the Blade teeth, providing approx. .06" of contact, then retighten screws. Note that the Blade Brush may also be removed and reversed for additional life, if required.

## BLADE TENSION ADJUSTMENT

The Blade Tension is indicated by reading the position of the White Gauge mark in relation to the Blue and Yellow blocks on the Band Dynamic Tension label (**FIG 30**).

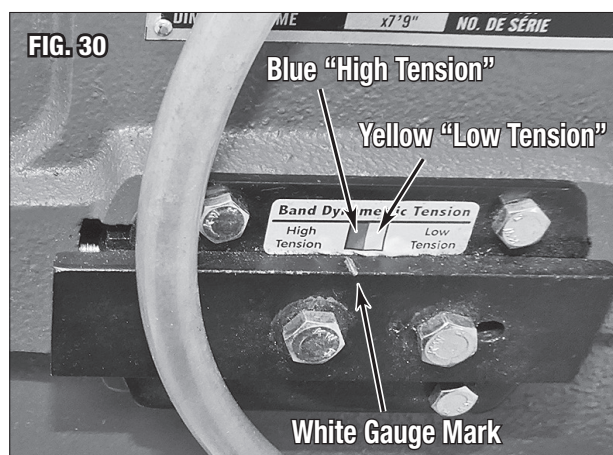
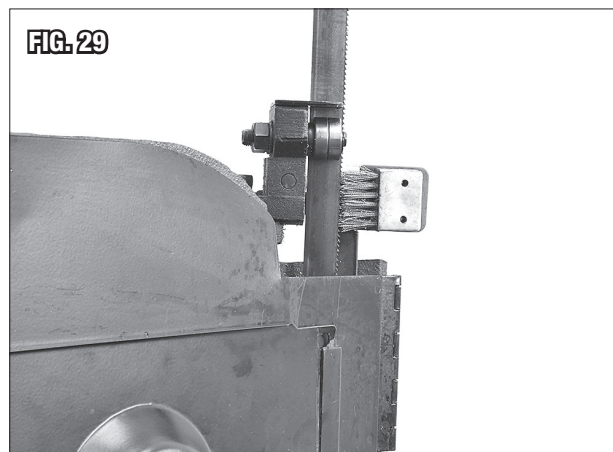
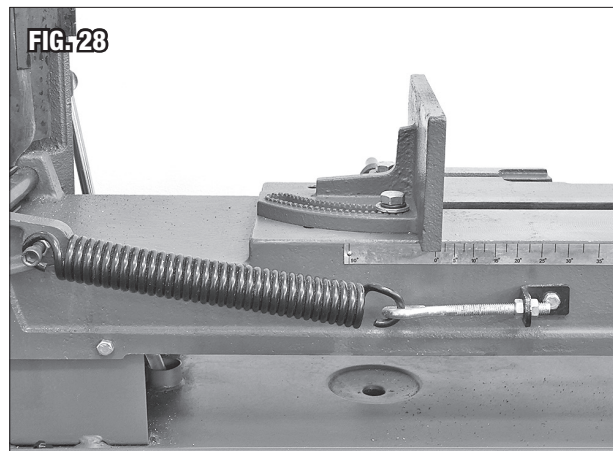
The Blade Tension is initially set at the factory and should not require adjustment for some time. After extended use, the Blade will stretch somewhat and may require minor periodic tension adjustments. The need for a tensioning adjustment will become known if the Blade exhibits signs of slippage, excessive vibration or increased noise while operating.

### ⚠ WARNING INJURY HAZARD!

DO NOT overtighten Blade or it could suddenly fail causing severe personal injury! NEVER adjust the White Gauge Mark beyond the edge of the Blue "HIGH TENSION" block of the Band Dynamic Tension label.

### Basic Tension Adjustment:

1. Turn on Saw and allow to run with no load and observe the position of the White Gauge mark on the Blade Tension Gauge (**FIG 30**).
2. Turn the Tension Adjustment Knob inward **1/4 of a turn** and once again observe the pointer position on the Blade Tension Gauge. The White Gauge mark position will move a small amount toward the Blue "HIGH TENSION" direction.
3. If required, a 2nd 1/4 turn increment may be made while carefully observing the pointer position.
4. Continue use of the saw.
5. The previous steps may be done over a period of time allowing for the gradual stretching and wear of the Blade.
6. When the White Gauge mark position has eventually reached the edge of the Blue "HIGH TENSION" side, the Blade should be replaced. Follow the "Blade Replacement" procedure in the Maintenance Section of this Manual.



## BLADE TRACKING ADJUSTMENT

The Blade Tracking is precisely set at the factory at assembly and should never require adjustment. This adjustment must be completed by qualified persons only. Failure to comply may cause serious injury.

### **⚠ WARNING INJURY HAZARD!**

Blade tracking adjustment requires repeated running of the saw, stopping, opening the Guard and observing the Blade. **DO NOT RUN WITH REAR GUARD OPEN!** This adjustment must be completed by qualified persons only! Performing Tracking adjustments may cause the Blade to suddenly jump off the Wheels while running causing serious injury.

### **If the Blade is running off the edge of the Blade Idler Wheel;**

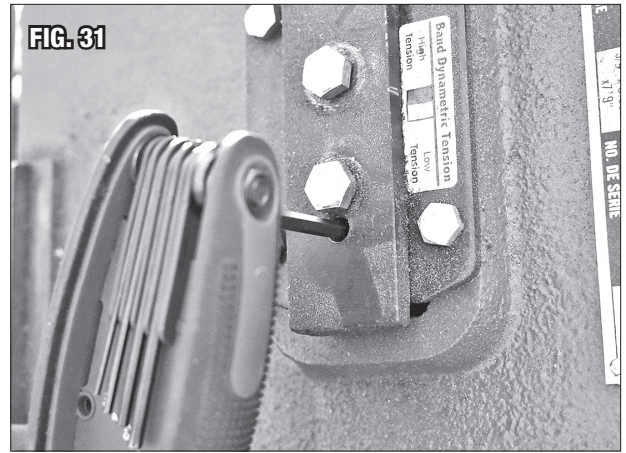
The most likely cause is a worn or fatigued Blade. **STOP USE IMMEDIATELY** and first replace the Blade following the Blade Replacement procedure in the Maintenance Section of this Manual.

The second most common cause of the Blade running off the edge of the wheels is improper Blade tension adjustment. Adjust the Blade Tension following the Blade Tension Adjustment procedure in the Maintenance Section of this Manual.

### **⚠ CAUTION**

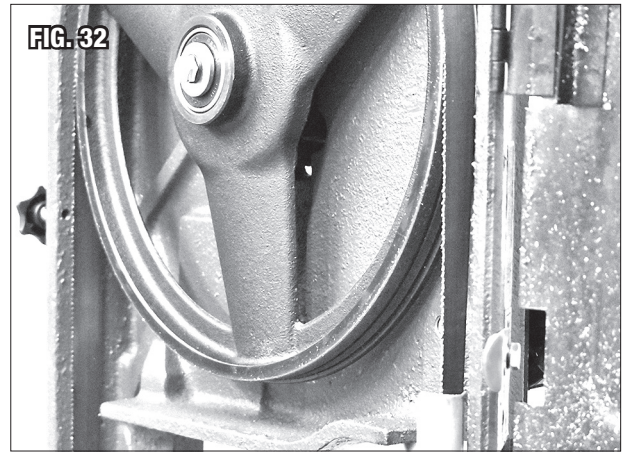
Continued use will cause permanent damage to the Saw and serious personal injury could occur.

If, after Blade Replacement or Blade Tension Adjustment; the Blade continues to run off the edge of the Blade Idler or Drive Wheels, this may be an indication that some wear is occurring in the Blade Spindle or damage has occurred in the Blade drive structure. Note that the inner side of the Blade Idler and Drive Wheels have a raised shoulder while the outer edges do not (**FIG 31**).



**If Blade tracking requires adjustment:**

1. Adjust Blade Speed to the slowest 86 FPM as described in the Blade Speed Belt/Adjustment section of this Manual.
2. Raise the Cutting Head and rotate the Lock Lever Counter-Clockwise 90° down to a horizontal position locking it in the UP position.
3. Open the hinged Blade Guard by removing two Threaded Knobs and swinging it open.
4. Check Blade Tracking:
  - Blade should be very close to but not against the Idler Wheel Shoulder. Also, the outer edge of the Idler Wheel should be even with the bottom of the Blade teeth (**FIG 31**).
  - Close the Blade Guard.
  - Run saw 30 seconds.
  - Stop, open Guard and observe Blade position on the Idler Wheel.



**▲ NOTICE**

While performing the following steps, do not allow Blade to run excessively tight against the Idler Wheel shoulder. Excessive rubbing will damage wheel and/or Blade.

**▲ CAUTION**

This adjustment is extremely sensitive! Turning the Tracking Set Screw a small amount will affect the Blade Tracking by a large amount! Turn the Tracking Set Screw in *1/4 turn increments only* and allow about 30 seconds of running to allow Blade to re-track.

**▲ WARNING INJURY HAZARD!**

**DO NOT RUN WITH REAR GUARD OPEN!** Performing Tracking adjustments may cause the Blade to suddenly jump off the Wheels while running causing serious injury.

5. If Blade is not tracking properly, adjust the Tracking by altering the Idler Wheel angle as follows:
  - Insert a 4mm Hex Key (Not Included) into the Tracking Set Screw (**FIG 32**).
  - To move the Blade Tracking closer to Idler Wheel Shoulder; Turn the Tracking Set Screw Clockwise.
  - To move the Blade Tracking closer to the Idler Wheel outer edge; Turn the Tracking Set Screw Counterclockwise.
6. If the above adjustments have corrected the tracking, retighten the Idler Wheel Spindle Bolts and re-check Tracking and repeat steps 4 & 5 if required.
7. When Tracking adjustment is complete; close and secure the hinged Blade Guard and return the Blade Speed to the desired setting.



## CONFIGURING BANDSAW FOR VERTICAL USE

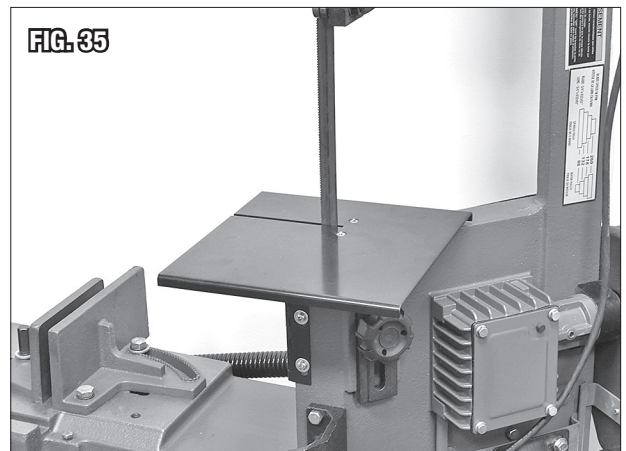
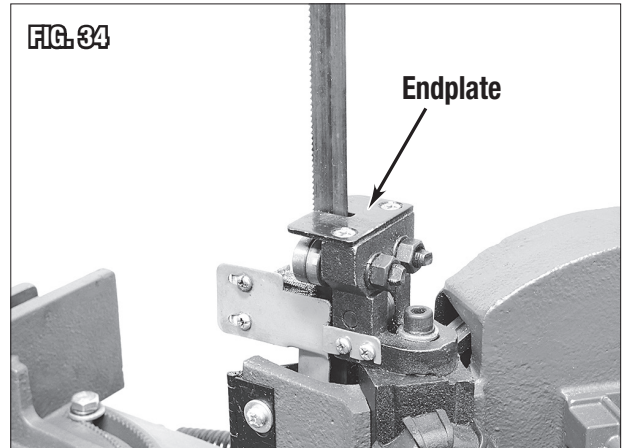
1. Disconnect Saw from power source.
2. Raise the Cutting Head and rotate the Lock Lever Counter-Clockwise 90° down to a horizontal position locking it in the UP position (**FIG 33**).
3. Remove the two Phillips Head Screws attaching the Endplate to the Lower Blade Support (**FIG 34**) and remove it.
4. Set the Vertical Cutting Table **[M]** in place around the Blade and on top of the Lower Blade Support and secure it with the two previously removed Phillips Head Screws (**FIG 35**).



## EVALUATING CUTTING PERFORMANCE

The best method to determine if the Saw is set-up properly and the Blade is cutting at maximum efficiency is to observe the chips formed by the cutting Blade.

- If chip formation is powdery the feed rate is much too light, or the Blade is dull.
- If the chips formed are curled, but colored, blue or straw-colored from heat generated during the cut, then the feed rate is too high.
- If the chips are slightly curled and are not colored by heat, the Blade is sufficiently sharp and it's cutting at its most efficient rate.





# MAINTENANCE

## **⚠ CAUTION INJURY HAZARD!**

Unplug the Bandsaw from the power supply before beginning ANY of the following adjustments!

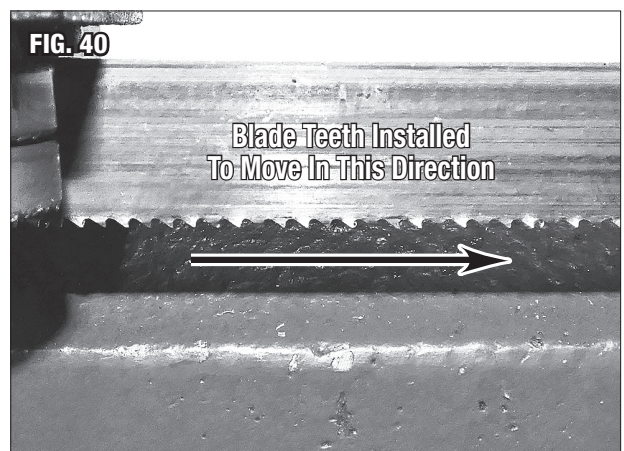
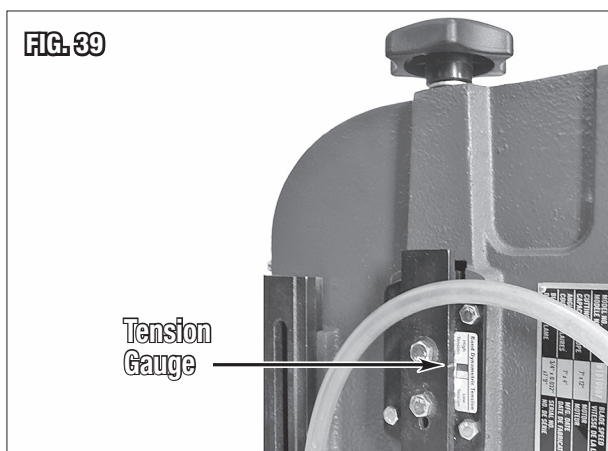
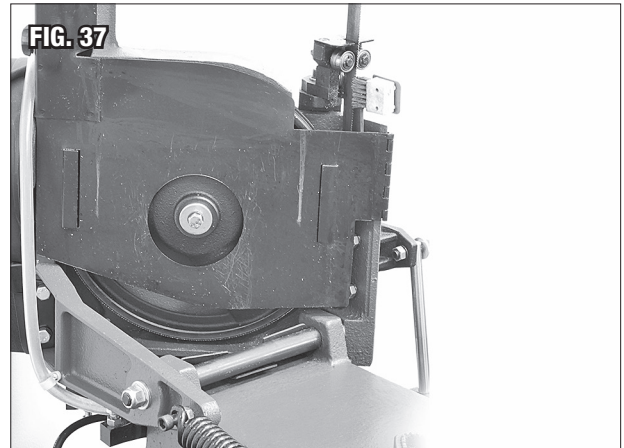
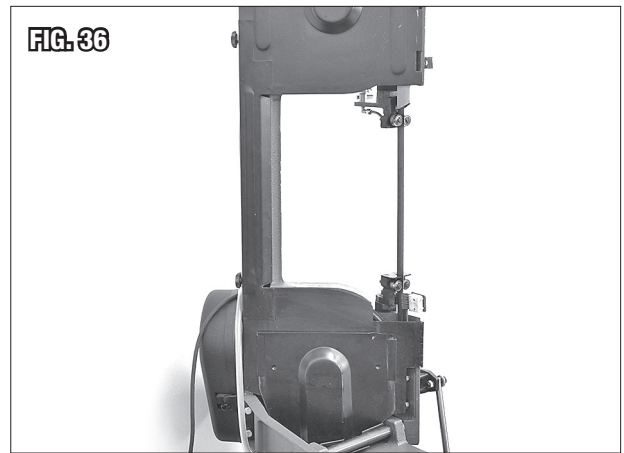
### BLADE REPLACEMENT

#### Blade Removal

1. Raise the Cutting Head and rotate the Lock Lever Counter-Clockwise 90° down to a horizontal position locking it in the UP position (FIGS 33 & 36).
2. Slide the Lower Blade Guard Clearance Panel upward and remove it (FIG 37).
3. Open the hinged Blade Guard by removing two Threaded Knobs and swinging it open (FIG 38).
4. If Blade is not broken, release tension on Blade by rotating the Blade Tensioning Knob Clockwise (FIG 39) so that the White Gauge Mark moves into the Yellow "LOW TENSION" block of the Band Dynamic Tension label (FIG 39).
5. Slip the Blade off the Wheels and from between the Blade Support Rollers.
6. If Blade was previously broken in use, pull out the remnant of the broken Blade then rotate the Blade Tensioning Knob Clockwise (FIG 39) so that the White Gauge Mark moves into the Yellow "LOW TENSION" block of the Band Dynamic Tension label (FIG 39).

#### Blade Installation

1. Make sure that the Blade Tension Knob was adjusted so that White Gauge Mark was moved into the Yellow "LOW TENSION" block of the Band Dynamic Tension label (FIG 39).
2. Place new Blade over Wheels and between the Roller Guides with the cutting teeth set in the proper direction (FIG 40).
3. Push on side of Blade to test tension. Finger pressure should cause approximately 0.004" deflection. Rotate Blade tension Knob until proper tension is achieved. For more precise measurement use a Blade tension gauge (not included).
4. Close the hinged Blade Guard, secure with the two Threaded Knobs and slide the Lower Blade Guard Clearance Panel back down into place.
5. Plug the Saw in, and run with no load for several minutes, switch off and re-check the Blade tension.
6. Re-adjust tension if necessary.
7. Follow Blade Break in procedure as described in this Manual.

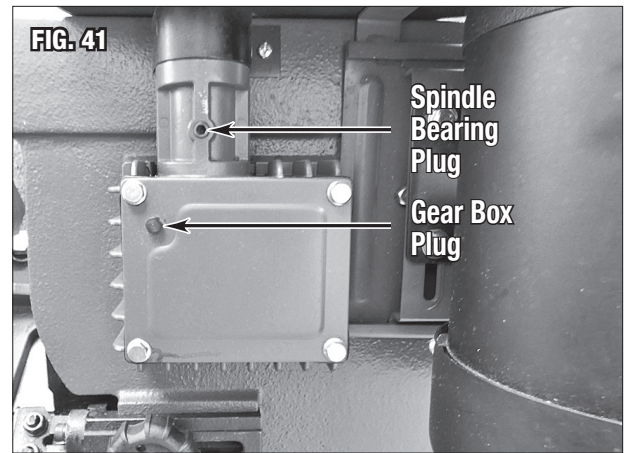


## LUBRICATION

- Spindle Bearing: Remove Threaded Plug with hex key (not included) (**FIG 41**). Add several drops of a good quality, 30W motor oil weekly.
- Main Cutting Head pivot shaft. Add a good quality, 30W motor oil as needed.
- Material Clamp Drive Nut, threaded shaft and bearing points. Add several drops of a good quality, 30W motor oil as needed.
- Drive Gears: Remove Hex Plug in Gear Box Cover (**FIG 41**). Oil level should be clearly visible through threaded hole. Add a good quality 80/90W Gear Oil if needed.
- The drive gears run in an oil bath and will not require a lubricant change more often than once a year, unless the lubricant is accidentally contaminated, or a leak occurs because of improper replacement of the gear box cover.

### **⚠ NOTICE**

During the first few days of operation the worm gear drive will run hot. Unless the temperature exceeds 200 degrees Fahrenheit there is no cause for alarm.



## STORAGE

- Unplug Saw from power source.
- Close Coolant Valve.
- Lower Cutting Head to horizontal cutting position. Wrap cord securely around Saw.
- Clean Cutting Head, Saw Base Deck and Blade Rollers of excessive chips.
- Store in a clean, dry, dampness free area preferably covered with plastic sheeting.

## TROUBLESHOOTING

PROBLEM	CAUSE	CORRECTION
Does Not Run When Switch Is Turned On	No power to Saw	Check 120 VAC input plug connection.
		Check for tripped circuit breaker. The Saw operates on a 15 Amp Minimum circuit, 20 Amp is strongly recommended.
Motor Runs Too Slow/ Develops Low Power	Excessive voltage drop due to local power company voltage supply	Use at another location or at a time when voltage is higher.
	Excessive voltage drop due to Under-sized and or too long of an extension cord used	Extension cords not recommended. If necessary, use only 14 Gauge or larger cord and limit length to 25'.
Blade Does Not Cut All The Way Through Material	Blade worn	Check blade tooth condition and replace per "BLADE REPLACEMENT" section in these instructions.
	Cutting Head Horizontal Stop Pad out of adjustment	Check blade depth and if necessary, adjust per Cutting Head Stop Pad Adjustment Procedure outlined under the "ADJUSTMENTS" section in these instructions.
Blade Cuts Into Casting of Saw Base Deck	Cutting Head Horizontal Stop Pad out of adjustment	Adjust per Cutting Head Stop Pad Adjustment Procedure outlined under the "ADJUSTMENTS" section in these instructions.

# TROUBLESHOOTING

PROBLEM	CAUSE	CORRECTION
<b>Excessive Noise and/or Vibration</b>	Blade likely cracked or damaged. <b>WARNING: This is an extremely unsafe condition!</b>	Discontinue use and replace blade.
<b>Excessive Blade Breakage</b>	Incorrect blade tension	Adjust blade tension.
	Improper Blade speed	Refer to Machinery's Handbook.
	Workpiece loose in Material Clamp	Securely clamp Material Clamp.
	Blade wears on wheel flange	Adjust blade tracking.
	Blade Teeth too coarse for material	Use appropriate blade for material. Refer to Machinery's Handbook.
	Teeth in contact with workpiece before saw is started	Place blade in contact with workpiece after the motor is running.
	Misaligned Blade Guides	Adjust Blade Guides.
	Blade too thick for wheel diameter	Use thinner blade.
	Crack at weld, poor annealing of blade	Replace blade.
<b>Premature Dulling of Blade Teeth</b>	Improper blade break-in	Follow proper blade break-in procedure.
	Excessive blade speed, blade teeth overheating	Decrease speed. Refer to Machinery's Handbook.
	Inadequate feed rate	Adjust cylinder dial setting as needed.
	Improper tooth pitch for material	Refer to Machinery's Handbook.
	Hard spots or scale on material	Scale: Reduce speed and increase feed rate. Hard spots: Increase feed rate.
	Work hardening of material (especially stainless steel)	Increase feed rate by lowering number variable Resistance Control Dial.
	Blade installed backwards	Remove blade and twist inside out.
	Insufficient blade tension	Adjust as needed.
<b>Cuts Not Square</b>	Blade not square to Fixed Material Fence & Material Clamp	Adjust Fixed Material Fence & Material Clamp square to blade.
	Blade surface not perpendicular to table	Adjust blade guides until perpendicular.
	Workpiece shifting in Material Clamp	Properly secure workpiece by tightening Material Clamp. If the workpiece is irregular shaped use appropriate clamping devise or jig.
	Low blade tension	Increase tension.
	Blade guides out of adjustment	Adjust blade guides.
	Blade is worn, cutting erratically	Replace blade.
	Feed pressure is too great	Reduce feed pressure.
	Blade guides set incorrectly	Readjust blade guide assemblies.
	Incorrect blade tooth count in relation to workpiece material	Check Machinery's Handbook for recommended blade type.

# TROUBLESHOOTING

PROBLEM	CAUSE	CORRECTION
<b>Finish Surface of Workpiece is Rough</b>	Improper blade break-in	Follow proper blade break-in procedure.
	Improper speed or feed rate	Adjust as needed.
	Dull or damaged teeth	Replace blade.
	Poor weld on blade	Replace blade or reweld blade.
	Incorrect choice of blade	Check Machinery's Handbook for recommended blade type.
<b>Miter Cuts Are Not Accurate</b>	Improper setting of Material Clamp	Use adjustable square or protractor to verify angle setting.
	Blade worn, not cutting straight	Replace blade.
<b>Blade Twisting</b>	Cut is binding blade	Decrease feed pressure.
	Too much blade tension.	Decrease blade tension.
<b>Motor Overheats</b>	Excessive pressure being applied while cutting	Reduce load on motor. Increase speed or decrease feed pressure.
	Air circulation through motor is restricted	Use a brush and compressed air to remove debris.
<b>Sporadic or No Coolant Flow</b>	Low coolant level	Add coolant to tank.
	Filter screen clogged	Clean filter screen.
	Pump motor faulty	Replace pump.

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

The Eastwood Technical Assistance Service Department: 800.343.9353 >> email: tech@eastwood.com

PDF version of this manual is available at eastwood.com

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