

BAKER

Products



Baker Edger/Mini-Scragg User Manual

Ellington Industrial Supply, Inc.

P. O. Box 128

Ellington, Missouri 63638 USA

Web site: www.baker-online.com E-mail: info@baker-online.com

Phone: (573) 663 – 7711 Fax: (573) 663 – 2787



TABLE OF CONTENTS

1	INTRODUCTION	3
	Machine Purpose	3
	Machine Function	3
	Definition of Terms	4
	Manual Contents Notice	5
	Machine Specifications and Requirements	5
	Warranty	6
	Defective Parts	7
	Service Policy	7
2	RULES FOR SAFE OPERATION	8
	Safety Expectations for Operating Power Equipment	8
	Control of Hazardous Energy – (Lockout / Tagout)	9
3	MACHINE FEATURES	10
4	SET-UP	11
	Receiving and Inspection	11
	Unpacking	11
	Machine Moving	11
	Machine Positioning	11
	Power and Utilities Requirements	11
	Operator Training	12
5	CHANGING BLADES	13
	Removing Blade	13
	Installing New Blade	13
	Blade Tracking	14
	Checking the Tracking	14
	Idler Wheel Adjustments	15
	Drive Wheel Adjustments	16
	Leveling Head Rigs	16
	Adjusting Right Head Rig	16
	Adjusting Left Head Rig	17
	Centering Headrigs to Conveyor	17/18
	Adjusting Band Blade Lead	18
6	SETTING GUIDES	19-20
	Cutting Width Adjustment	20
7	FEEDWORKS	21
	Feed Speed	21
	Hydraulics	21
8	OPTIONAL EQUIPMENT	21-22
9	BLADES	23
10	MAINTENANCE TASK CHECKLIST	25
	Trouble Shooting	26
	Parts and Service	26
	Recommended Spare Parts	26
	Service Contact Information	26
	Serial Number Location	26
	Wiring Diagrams	27-28

INTRODUCTION

Thank you and congratulations on the purchase of your new **Baker Band Edger/Mini-Scragg**. It has been designed to be durable, productive and easy to use. When properly ran and maintained, it will provide you with many years of profitable operation.

For safety reasons, and for your own best use of the **Baker Band Edger/Mini-Scragg**, we insist that you read this manual fully, and constantly review and refer back to it as necessary.

No one should attempt to operate or perform maintenance on this equipment until they have been trained and taken the time to read and understand the information contained in this manual.

**** FAILING TO DO SO MAY RESULT IN SERIOUS INJURY ****

Machine Purpose

The **Baker Band Edger/Mini-Scragg** was designed to save space with a compact footprint, yet gives you the same great features of larger machines. The head can be adjusted in or out while the chain conveyor stays at a fixed height making it easier to interchange and integrate with other material handling systems.



Machine Function

The **Baker Band Edger/Mini-Scragg** is equipped with two 20 HP electric motor and accepts material up to (Band Edger) 24" wide and 8" tall (or 8" in diameter), or (Mini-Scragg) logs up to 12" in diameter. Both models are capable of variable speeds from 0 – 65 feet per minute as well as Baker's exclusive guide system that includes guide plates and guide roller.



Definition of Terms

All Stop	Safety button (typically “red”) designed to immediately shut-down machine operation
Band Saw	A saw consisting of a continuous piece of flexible steel, with teeth on one side
Board Foot or Board Feet	A form of measurement where one board foot equals the volume of a board 1 inch thick by 12 inches wide and 12 inches long
Cant	The 3 or 4 sided timber left over from a log, normally the center or core of the log
Cant Hook	A device used for rolling cants or logs
Carriage	A framework on wheels that allows movement of a log back and forth past the saw blade
CFM (cubic feet per minute)	A measure of the volume of a <u>substance flowing through air</u> within a fixed period of time
Edge Guide	A straight edge that is used to guide a 3-sided flitch along a piece of material
Edger	A sawmill machine used to remove wany edges from flitches after they come off the head rig, squaring the edges and ripping the flitch into lumber
End Stop	A mechanism designed to stop the progress of an off-loading board
Fence (Arm)	A straight guide used to keep a log, cant or board a set distance from a blade or cutter
Flitch	A longitudinal section of a log with wany edges
Head Rig or Head Saw	The principle support structures on a sawmill that carries the engine, wheels and band blade used for the initial breakdown of a log
Kerf	The groove or thickness of the path cut by the saw teeth; the total amount of sawdust removed during a single cut
Lift Point	A point where pressure can and should be applied for lifting
Live Rollers	A powered roll case that mechanically moves material
Lockout / Tagout	Requires authorized employee(s) to lock and tag the energy-isolating device(s) to prevent the release of hazardous energy in order to prevent injury to employees, normally while performing maintenance or repairs
Lumber	A longitudinal section of a log after the wany edges have been removed, normally a 4-sided rectangular shaped piece
Off-load	The side of a machine where the work piece (slab, cant, board, etc.) exits
Production Rate	A produced or processed quantity measure with respect to another measured quantity of time; for example number of boards per minute
Roll-case	A mechanical apparatus with elongated cylinders used to perform rolling operation for material movement, can be both powered and/or manually operated
Slab	The exterior portion of a log removed by the saw, having one flat and one rounded portion of a log
Thin Kerf	A relative term, typically referencing band saw blades which are usually thinner than circular saw blades thus resulting in greater lumber recovery
Wany	Waning or diminished in some parts; not of uniform size throughout; sawed boards or timber that is tapered or uneven, from being cut too near the outside of the log
Yield	To generate a return for effort, an amount produced



Manual Contents Notice

This manual is not totally comprehensive. It does not and cannot convey every possible safety and operational problem that may arise while using this machine. The manual will cover many of the basic and specific safety procedures needed in an industrial environment.

All federal and state laws and any regulations having jurisdiction covering the safety requirements for use of this machine take precedence over the statements in this manual. Users of this machine must adhere to such regulations.

Machine Specifications and Requirements

<p>Power: Two 20 HP motors</p> <p>Feedworks/Conveyor Motor: Driven by stand alone hydraulic unit</p> <p>Capacities: Band Edger – 24" wide x 8" tall (8" diameter) and material up to 60" long Mini-Scragg- Logs up to 12" in diameter and material up to 60" long</p> <p>Feed Speed: 0 – 65 feet per minute For both models</p>	<p>Dimensions & Weight:</p> <p>Length: 13'4" Width: 86" Height: 73" Weight: 2,500 lbs</p>	<p>Band Blades: Band Edger- 13'2" x 1-1/4" x .042 13'2" x 1" x .035 Mini-Scragg- 14'2" x 1-1/4" x .042 14'2" x 1" x .035</p> <p>Kerf: 0.072"</p> <p>Band Wheels: 28 in diameter; all-steel with crown</p> <p>Sawdust Removal: Two 6" outlets; min. 1300 CFM suction recommended at each dust removal chute</p>
---	--	--



Warranty

Ellington Industrial Supply, Inc. machinery is warranted against defects in material or workmanship starting from the date of shipment from the manufacturing plant.

This warranty is given solely to the “original purchaser” of the equipment and is in no way to be expressed or implied that it is transferable to any other parties without the written consent and approval from the CEO or Sales Manager of Baker Products.

Our one (1) year warranty period covers all items built at our manufacturing facilities including structural frame, cowlings, doors, shafting, dust chutes and guards.

We honor six (6) months of warranty coverage for miscellaneous vendor-purchased-supplied items including bearings, chain, sprockets, hydraulic components, etc.

Ninety (90) days of warranty coverage is provided on all electrical parts. All electrical components and wiring has been installed in accordance with the National Electrical Code (NEC) of the United States of America.

Ellington Industrial Supply, Inc. does not warranty this machine to meet any other requirements or jurisdiction of any electrical or safety codes of any other state, municipality, other country or jurisdiction. The purchaser assumes all risk and liability whatsoever resulting from the use thereof whether used singularly or in conjunction with other machinery or apparatus, including, but not limited to, all matters resulting from sawdust generation.

Note: *No warranty is provided on any electrical components or parts if equipment is powered or connected to a roto-phase electrical converter in order to create a three phase power supply for operational current from a single phase source.*

Any change in materials, design, or performance intended to improve any product of Ellington Industrial Supply, Inc. shall not obligate Ellington Industrial Supply, Inc. to modify any previously manufactured equipment.

This manual may contain details that if not properly followed can affect the performance of your equipment. You are responsible for proper use and maintenance of your equipment and we reserve the right to deny warranty work if deemed to be caused by a lack of proper maintenance or negligence by the owner or any of their employees.



Defective Parts

Parts claimed defective must be returned freight prepaid, to our plant in Ellington, Missouri. Any part determined defective due to faulty workmanship or materials will be replaced or repaired (at our option) free of charge, F.O.B. our plant. This warranty does not cover expendable items (i.e. drive belts, band wheels, conveyor belting, blades, cutters, guides, etc.). Except as expressly provided herein, this warranty is in lieu of all other warranties, expressed or implied, including a warranty of merchantability or fitness for a particular purpose. This warranty is “void” if any part of the unit has been tampered with, modified, altered, or operated with parts other than supplied or recommended by Ellington Industrial Supply, Inc. In no event shall Ellington Industrial Supply, Inc. be liable for special, indirect, incidental or consequential damages, however arising, including but not limited to, the loss of earnings or the cost of downtime.

Service Policy

In the event that you have any problems, call us at (573) 663-7711 any time between 8:00 AM and 5:00 PM (CST), Monday through Friday. A member of our trained staff will answer any questions you may have. We charge nothing for this service.

The only charge is for replacement parts not covered by warranty or after our inspection we deem that the problem is due to operator error or lack of proper maintenance or neglect.

If it is necessary for a member of our service department to visit your plant at your request, there will be a charge for this service. Call our service department for current prices.

Retain this Information for your Records

Model Number:
Serial Number:
Date of Purchase:
Power Source:.....
Dust Removal:

Ellington Industrial Supply, Inc.

P. O. Box 128

Ellington, Missouri 63638 USA

Web site: www.baker-online.com E-mail: info@baker-online.com

Phone: (573) 663 – 7711 Fax: (573) 663 – 2787

RULES FOR SAFE OPERATION

The purpose of safety symbols and signage is to draw your attention to real or possible hazardous conditions that may exist when operating this equipment. Please remember that safety symbols and signage alone do not eliminate danger and are not substitute for proper training and education regarding operational hazards.

	<p>This symbol and warning indicates a potentially hazardous situation, which, if not avoided, <u>will</u> result in death or serious injury.</p>
	<p>This symbol and warning indicates a potentially hazardous situation, which, if not avoided, <u>could</u> result in death or serious injury.</p>
	<p>This symbol and warning indicates a potentially hazardous situation, which, if not avoided, <u>may</u> result in minor or moderate injury.</p>
	<p>This warning provides notice and instruction regarding a potentially hazardous situation, which, if not avoided <u>will</u> result in serious injury or death.</p>

SAFETY EXPECTATIONS FOR OPERATING POWER EQUIPMENT

ALWAYS...

- ENSURE THAT TRAINED PERSONNEL OPERATE, MAINTAIN AND REPAIR THIS EQUIPMENT
- **TURN POWER OFF AND LOCKOUT / TAGOUT PRIOR TO PERFORMING MAINTENANCE**
- KEEP WORK AREA CLEAN AND WELL LIGHTED TO MINIMIZE OR ELIMINATE HAZARDS
- KEEP CHILDREN AND VISITORS AWAY FROM OPERATING EQUIPMENT
- OPERATE THE EQUIPMENT AT THE RATE IT WAS DESIGNED FOR
- KEEP GUARDS IN PLACE WHEN OPERATING EQUIPMENT
- REMOVE TOOLS BEFORE RESUMING OPERATION
- USE PROPER EXTENSION CORD
- WEAR PROPER APPAREL AND AVOID LOOSE CLOTHING AND ACCESSORIES THAT COULD GET CAUGHT IN MOVING PARTS
- ALWAYS WEAR SAFETY GLASSES AND HEARING PROTECTION
- AVOID "KICK-BACK" BY KNOWING WHAT CONDITIONS CAN CREATE IT
- CHECK DAMAGED PARTS AND REPAIR OR REPLACE THEM IMMEDIATELY

NEVER...

- LEAVE MACHINERY RUNNING OR UNATTENDED, ALWAYS TURN POWER OFF
- OPERATE EQUIPMENT WHEN TIRED, FATIGUED OR UNDER THE INFLUENCE OF DRUGS OR ALCOHOL
- ALLOW UNTRAINED PERSONNEL TO OPERATE, MAINTAIN OR REPAIR THIS EQUIPMENT

No list of safety expectations can ever be complete as every work environment is as different as are the people operating the equipment.

Always keep safety as your highest priority and always use this machine with caution and respect.

Control of Hazardous Energy – (Lockout / Tagout)

Lockout / Tagout (LOTO) refers to specific practices and procedures to safeguard employees from the unexpected energy, startup of machinery/equipment, or the release of hazardous energy during service or maintenance activities.

This requires that a designated individual turn off and disconnect the machinery/equipment from its energy source(s) before performing service or maintenance and that the authorized employee(s) lock and tag the energy-isolating device(s) to prevent the release of hazardous energy and take steps to verify that the energy has been isolated effectively.

List of Related Terms

Affected Employee	An employee whose job requires them to operate a machine or piece of equipment on which service or maintenance is being performed.
Authorized Employee	A person who locks or implements a tagout system procedure on machines or equipment to perform service or maintenance on that machine or equipment. An authorized employee and an affected employee may be the same person when the affected employee's duties also include performing service or maintenance.
Energy Source	Any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy.
Lockout	The placement of a lockout device (such as a lock) on an energy-isolating device, in accordance with an established procedure that ensures the device and the equipment cannot be operated until the lockout device is removed.
Servicing and / or Maintenance	Workplace activities such as constructing, installing, setting up, adjusting, inspecting, modifying, maintaining or servicing machines or equipment. These activities include lubrication, cleaning or un-jamming of machines or equipment, and making adjustments or tool changes where the employee may be exposed to the unexpected energy, start-up of equipment or release of hazardous energy.
Tagout	The placement of a tagout device (such as a tag) on an energy-isolating device, in accordance with an established procedure that ensures the device and the equipment may not be operated until the tagout device is removed.

Example of lockout tags, lockout hasp and keyed lock



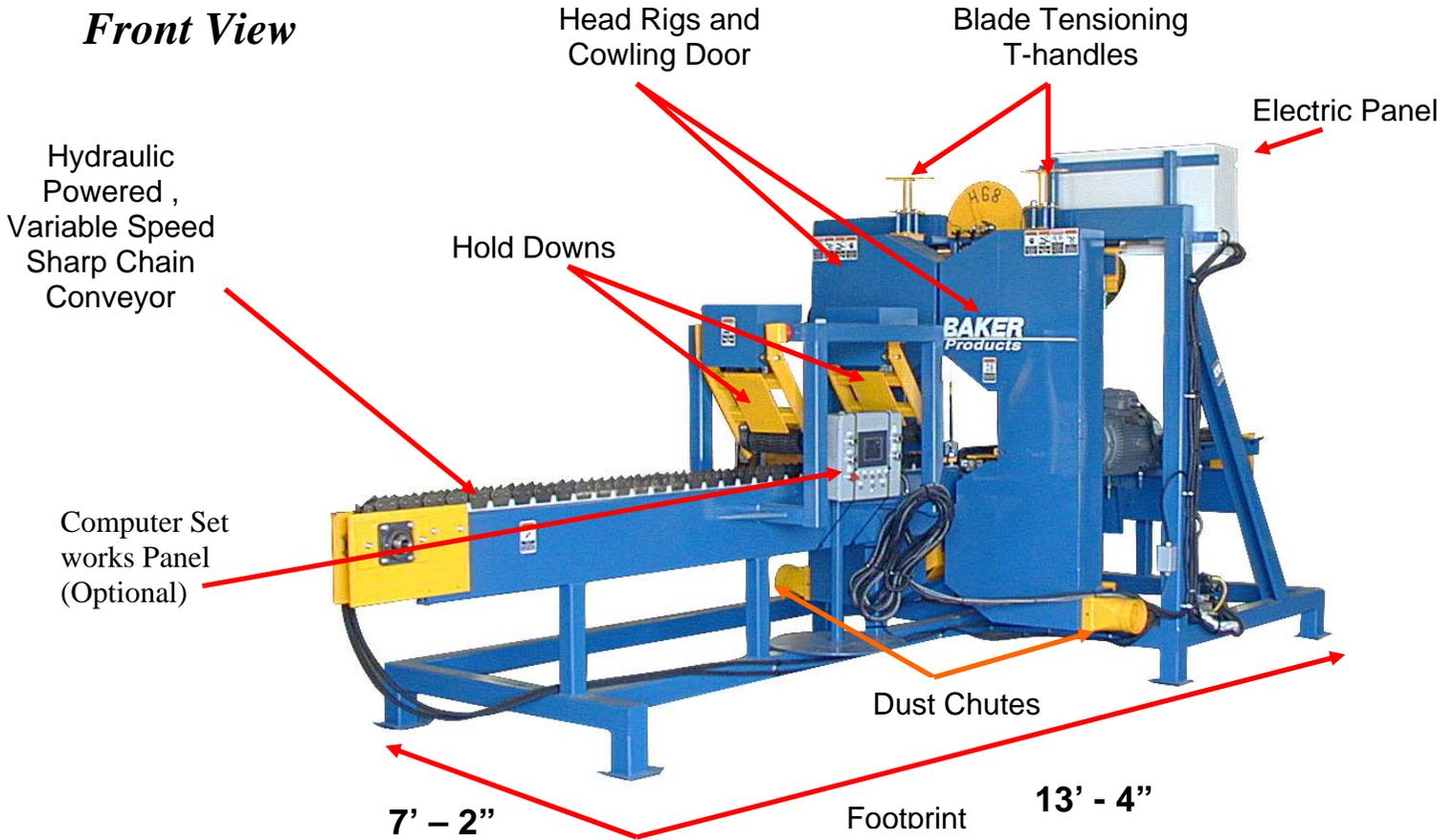
The Fatal Five Main Causes of Lockout/Tagout Injuries

1. **Failure to stop equipment**
2. **Failure to disconnect from a power source**
3. **Failure to dissipate (bleed, neutralize) residual energy**
4. **Accidental re-starting of equipment**
5. **Failure to clear work areas before re-starting**

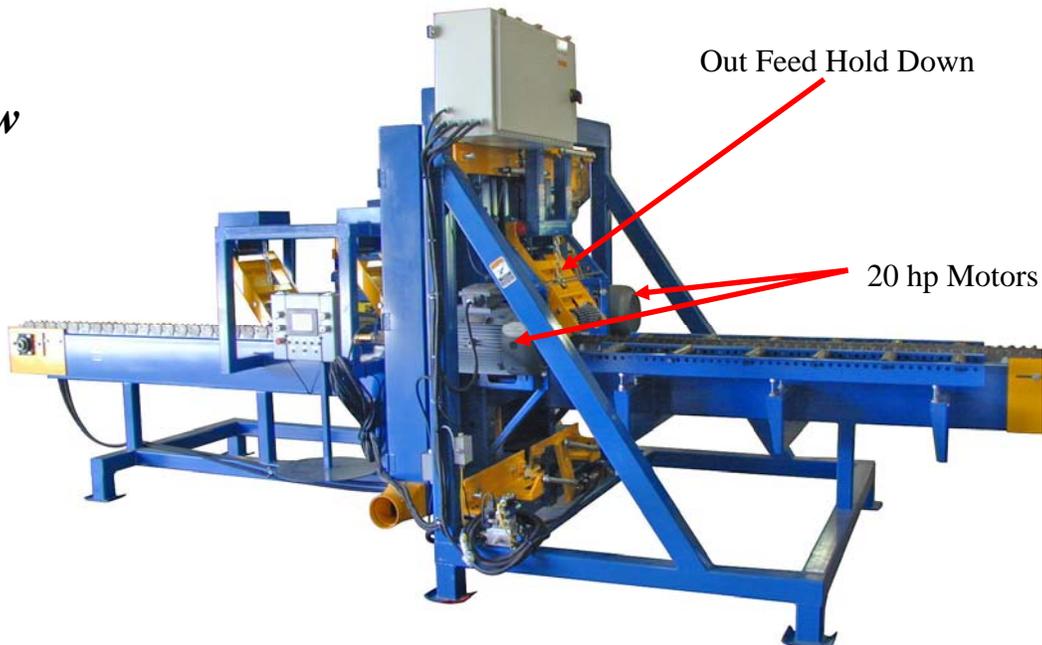
MACHINE FEATURES

We want to highlight the unique and special features of the **Baker Band Edger/Mini-Scragg**.

Front View



Rear View



SET-UP

Receiving and Inspection

- Upon receipt and prior to signing transport carrier's documents, conduct a walk-around and visual inspection of your new equipment. Note any damage in writing upon the carrier's bill of lading and contact us immediately.

Note: *All new equipment is assembled and thoroughly tested prior to shipment, however damage may occur during transit, which could cause the machine to not operate correctly during start-up.*

Unpacking

- If machine was delivered via flatbed trailer, remove straps or chains securing it in place.
- If machine was delivered by container you will need to remove all tie downs and any wedge material used to hold the machine in place.

Machine Moving

- Lift machine at the indicated lift points only.
 - Use a safety strap to avoid tip-over.
- Transport machine to the installation site.

Machine Positioning (*Placement, Leveling, Alignment*)

- For optimum performance, designate a solid and level foundation that is covered and dry, free of environmental elements such as rain or snow that could cause electrical or slip hazards.
- Provide a minimum of 3 feet of clear workspace in front of the electrical panel.
- Provide a minimum of 15 feet of clear workspace in front of in-feed and off-load areas.

Power and Utilities Requirements

- For safe and effective operation confirm your incoming voltage and available amperage is equal to what the machine has been wired for at the factory.



- ***A qualified electrician should complete electrical connections and check for correct motor directional rotation.***

- Ensure all wiring and electrical connections are located in a safe position and away from any hazardous conditions.
- Efficient dust and chip removal requires a minimum of 1300 CFM suction at each of the machine dust removal chutes. This is an end user/owner responsibility.



Operator Training

According to many OSHA, ANSI, STATE, and LOCAL CODES, it is the EMPLOYER'S RESPONSIBILITY to:

- Permit only trained and authorized employees to operate and maintain equipment.
- Inspect and maintain guards, safety devices and start/stop controls.
- Instruct, train and supervise the safe method of work.

Be sure personnel are properly trained and safety rules are clearly understood before operating or performing maintenance.

- ✓ Operator
- ✓ Machine
- ✓ Guards
- ✓ Devices
- ✓ Instructions

*All of these together make up the safety system.
Failure of any one of these factors will increase
accident potential.*

FREE TRAINING ON PROPER SET-UP AND OPERATION IS AVAILABLE ON SITE AT THE MANUFACTURER'S FACILITY. START UP ASSISTANCE AND ON SITE TRAINING IS ALSO AVAILABLE FOR A FEE AT POINT OF INSTALLATION. CALL BAKER PRODUCTS SERVICE DEPARTMENT FOR A PRICE QUOTE IF REQUIRED.

Changing Blades

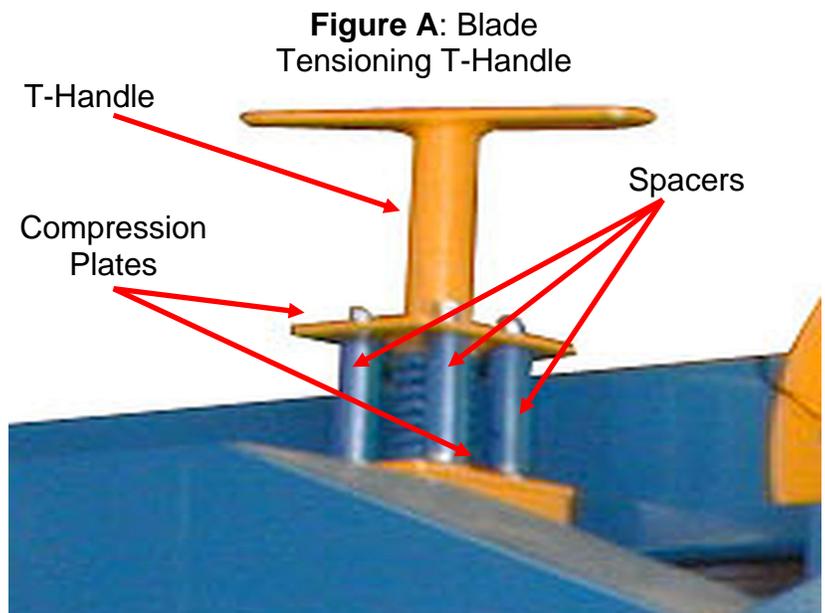
On spring tensioning systems, blade tension should be regulated from 25,000-30,000 lbs. of strain on an approved tension meter gauge. Ask your blade supplier if they can get a tension meter. If you do not maintain proper blade tension, blade life will suffer.

Removing blade

- 1: Turn power off, lock out, tag out, and allow the mill to come to a complete stop before proceeding.
- 2: Open the *headrig door* after unlocking the *slide lock*. **Never open headrig door while the blade is in motion.**
- 3: Loosen *T-handle* on *spring tensioner* at the top of the *headrig* (See figure A). This will allow the *idler wheel* to move toward center, loosening the blade.
- 4: Pull *blade* out of *guides* and remove. If *blade* is not loose enough to remove, go back to step 3.

Installing new blade

- 1: Put proper length blade over the *bottom wheel (driven wheel)*, through the *guides* and over the *top wheel (idler wheel)* with the teeth facing forward. Be sure the points of the teeth are aimed **down** as they pass through the *guides*. (***It may be necessary to turn the blade inside out to achieve proper installation***).
- 2: Make sure the *blade gullet* is **flush** with the face of the wheel to avoid knocking out the set.
- 3: Turn *T-handle* on the *spring tensioner* clockwise until any one of the *metal spacers* is held tight enough between the plates that you can no longer freely turn it. (See Figure A). Only one needs to be tight.
- 4: Manually turn the wheels about 4 or more revolutions to be sure blade is tracking properly prior to attempting to start the drive motor.



Blade Tracking

The blade must be installed and properly tensioned (see “**Changing Blades**”) before beginning this procedure. Guides should be in a position where they are just barely touching the blade.

The blade tracking is properly set in the factory. It may occasionally be knocked out. This should explain how to check and reset it.

Checking the Tracking

Open the headrig door after unlocking the *slide lock*. Rotate the top wheel several rotations in the direction it cuts. Examine the position of the blade on both the right and left sides of the wheel. The bottom of the blade gullet should be flush with front of the wheel. If the blade is not in the position described above, the tracking should be adjusted.

If tracking appears to be correct after the above procedure, your saw will cut without major problems due to blade tracking. However, now rotate the top wheel several rotations in the other direction. Check the blade in the same way as outlined above. If the blade does not track properly backward, then you may experience hard-to-identify problems, which may limit your saw’s capabilities. In this case, it is advisable to adjust the tracking using the following procedures.

The important part of the tracking is that the faces of the wheels should be lined up. This can be checked with a straightedge. (See Figure B.) Use this method to set the tracking using the adjusters shown in the illustrations and descriptions to the right. All adjustments for blade tracking involve bolts located on the back side of the headrig. (See Figure C.)

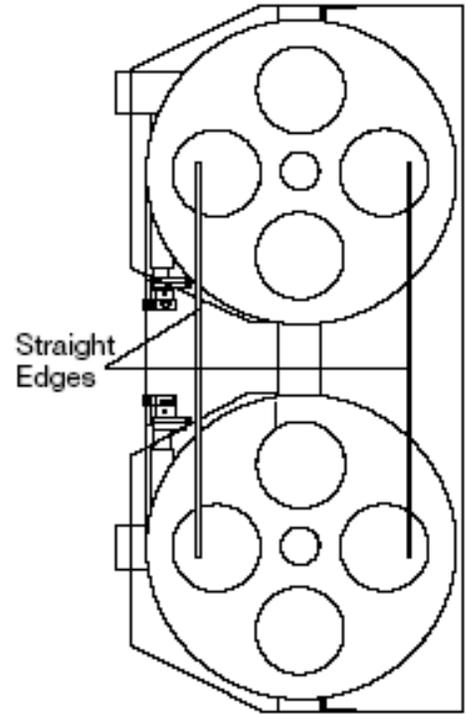


Figure B: Checking Wheel Alignment

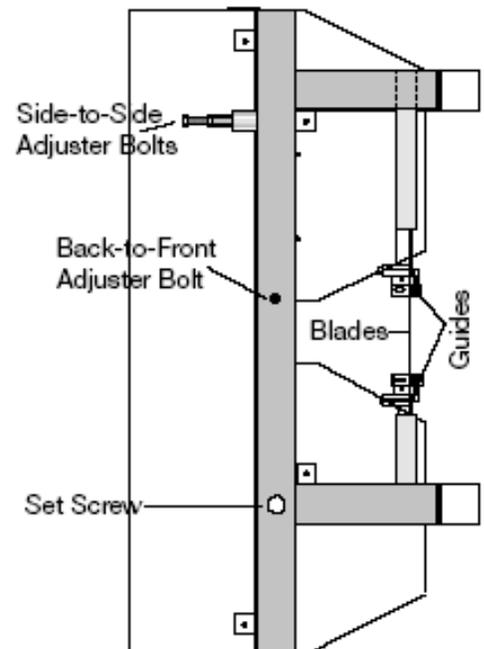


Figure C: Back Side of Headrig

Idler Wheel Adjustments

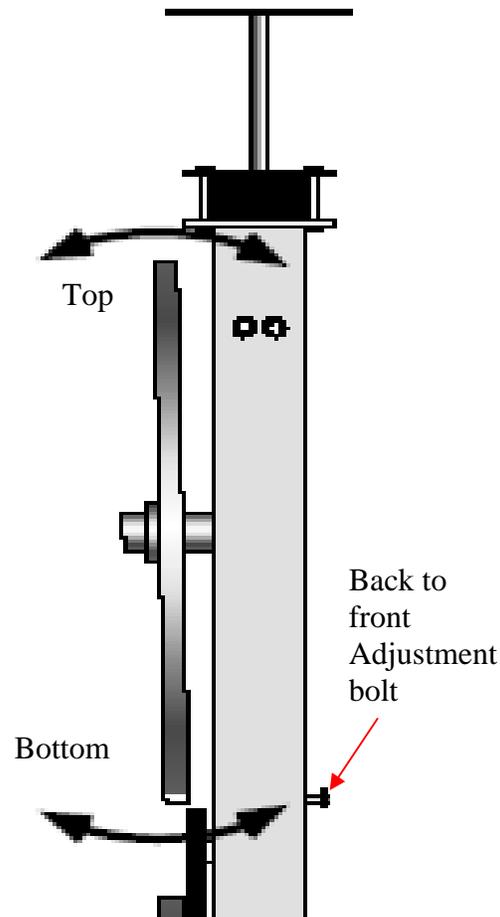
The idler wheel is the top wheel. This wheel is used to adjust tracking problems. Your tracking adjusters are located on the square tube on the back side of the headrig. Notice two bolts, one behind the other, on this tube. These side-to-side adjuster bolts cause the wheel to tilt left or right. Back-to-front adjustments require a different bolt. The back-to-front adjuster bolt is a small brass bolt located across from the motor on the side of the tube facing you. This bolt tilts the wheel forward or backward. Use these bolts to adjust the idler wheel so that it is lined up with the face of the drive wheel. When the faces appear to be lined up, fine tune it using the following procedure.

Back-to-Front Adjustments

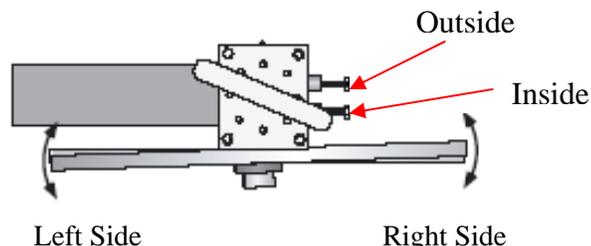
- 1: Rotate the wheel several rotations in the direction of the cut. Examine the position of the blade. The bottom of the blade gullet should be flush with the face of the wheel on all sides. If not, proceed to step 2.
- 2: If the blade needs to come forward at the top of the wheel, turn the back-to-front adjuster bolt clockwise. If the blade needs to go back at the top of the wheel, turn the back-to-front adjuster bolt counterclockwise.
- 3: Manually turn the wheel several rotations and check the tracking as in step 1. If the bottom of the blade gullet is not flush with the front of the wheel, repeat the above procedure.
- 4: Rotate the wheel several rotations in the other direction and repeat the procedure.

Side-to-Side Adjustments

- 1: With the back-to-front alignment set correctly, compare the blade's position on the left side of the wheel to its position on the right side of the wheel. The bottom of the blade gullet should be flush with the front of the wheel. If it is not, proceed to step 2.
- 2: If the right side of the wheel should go back, loosen the inside (closest to the wheel) side-to-side adjuster bolt and then tighten the outside one. If the left side of the wheel should go back, loosen the outside side-to-side adjuster bolt and tighten the inside one. Whatever you do to the outside bolt, you must do the opposite to the inside bolt or you will lock up the wheel.



**Figure D: Side View
Covering Removed
Effect of Back-to-Front
Adjustment**



**Figure E: Top View Covering Removed
Effect of Side-to-Side Adjusters**

3: Manually turn the wheel several rotations in the direction of the cut and check the tracking as in step 1. If the bottom of the blade gullet is not flush with the front of the wheel on both the right and left sides, repeat the above procedure. Do the same after rotating the wheel in the other direction.

Drive Wheel Adjustments

The drive wheel is the bottom wheel. Its position is set in the factory. In most cases, the drive wheel will never have to be moved. If you find that you must move this wheel, the distance between the back piece of sheet metal and the back of the wheel should be $2 \frac{3}{8}$ ". A set screw located below the motor on the square tube can be loosened to move the drive wheel in or out, or to completely remove the wheel.

Note: *It is important to re-dimple the spindle after moving or replacing it.*

Note: *When blade is tracking properly, the blade gullet should be flush with the front side of the wheels.*

Leveling Headrigs

The headrigs are leveled at the factory so that the blades run perfectly perpendicular to the material handling conveyor. If there is ever a need to adjust the headrigs, it should be very minor. This procedure requires a bubble sight level.

NOTE: All directions are described as they appear to a person standing behind the machine (facing the motors). Move the guides so that they are not touching the blade.

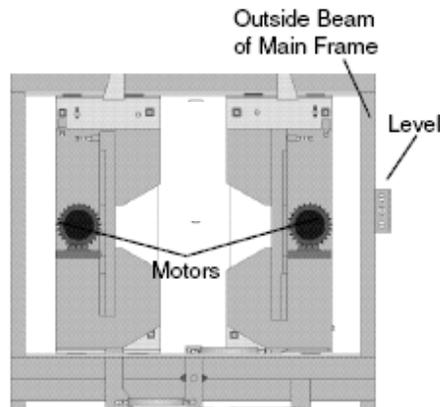


Figure K: Back View of Headrig

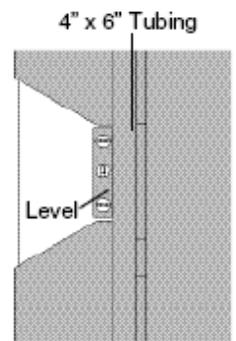


Figure L: Level placed on 4" x 6" tubing

Adjusting Right Headrig

1: Turn off power, lock out, and tag out.

2: Place a *bubble level* on the very outside beam (part of the machines main frame (see Figure K). Take note of the measurement.

3: Now place the *bubble level* on the 4" x 6" tubing as shown in Figure L. If it shows the same reading as the reading in step 2, skip to "Adjusting Left Headrig." If it is not, go to step 4.

4: The *right headrig* is supported by two *mounting brackets*, one on top

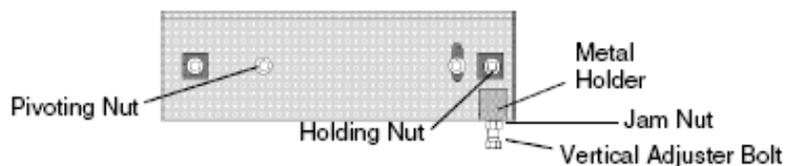


Figure M: Top Mounting Bracket of Right Headrig

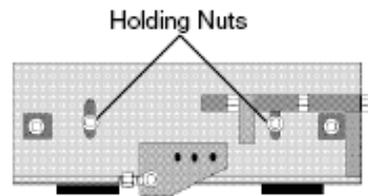


Figure N: Bottom Mounting Bracket of Right Headrig

and the other on the bottom of the *headrig* (see Figures M & N). Loosen the *holding nut(s)* on these *mounting brackets*.

5: Loosen the *jam nut* on the *vertical adjuster bolt*. Turn the *vertical adjuster bolt* as required until the reading is the same as the reading on the *4" x 6" tubing*. Once the reading is the same, tighten the *jam nut* until it is tight against the *metal holder*.

6: Retighten the *holding nut(s)*.

Adjusting Left Headrig

1: After the right headrig is positioned correctly, measure the distance between the two blades in several spots.

2: If the distance between the blades is the same from top to bottom, the head rigs are level to each other. If they are not the same, proceed to step 3.

3: The left headrig is also supported by two *mounting brackets*, one on top and the other on the bottom. Loosen the *holding nut(s)* on these *mounting brackets*.

4: Loosen the *jam nut* on the *vertical adjuster bolt*. Turn the *vertical adjuster bolt* as required until the reading is the same as the reading on the *left blade*. Once the reading is the same, tighten the *jam nut* until it is tight against the *metal holder*.

5: Retighten the *holding nut(s)*.

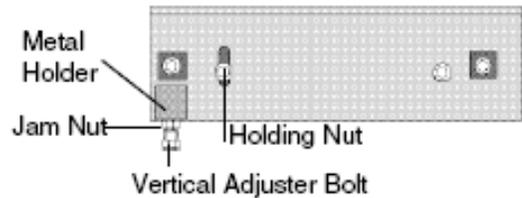


Figure O: Top Mounting Bracket of Left Headrig

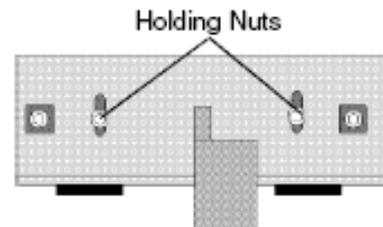


Figure P: Bottom Mounting Bracket of Left Headrig

Centering the Headrigs with the Chain Conveyor

Both headrigs are centered with the overhead end-dogging cylinder at the factory. It should never need adjustment. However, if the mill seems to be cutting the wrong dimension, the headrigs may have been knocked off center. If there is ever a need for adjustment, it should be very minor. (Figure Q & R).

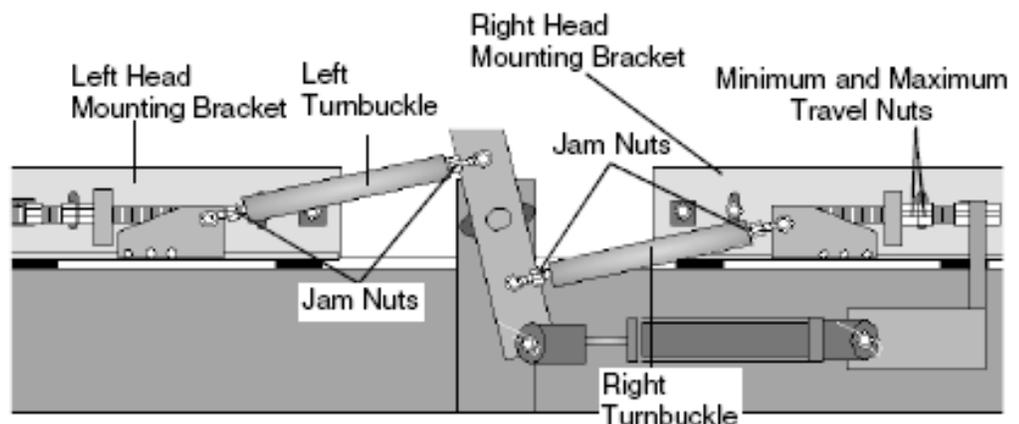


Figure Q: Bottom Mounting Brackets on Left and Right Headrigs

NOTE: Make sure that the headrigs are leveled before beginning this procedure.

- 1: Turn off power, lock out, and tag out.
- 2: Standing behind the *headrigs*, measure the distance from the chain conveyor to the back side of blade away from the teeth of the *right band blade*. Take note of the measured distance.
- 3: Measure the distance from chain conveyor to the back edge of the *left band blade*. **For example, if the right band blade reads 5" (127 mm) and the left band blade reads 5" (127 mm), the headrigs are centered.** If not, proceed on to step 4.
- 4: Stand behind the *headrig* to be adjusted. Loosen the *jam nuts* on both sides of the *turnbuckle*. Turn in whichever direction is required until the reading from the conveyor to the blade is the same as the other *headrig*. Once that reading is the same, tighten both *jam nuts* until they are tight against the *turnbuckles*.
- 5: Check the measurements from the edge of the conveyor to the back edge of each *band blade* again.

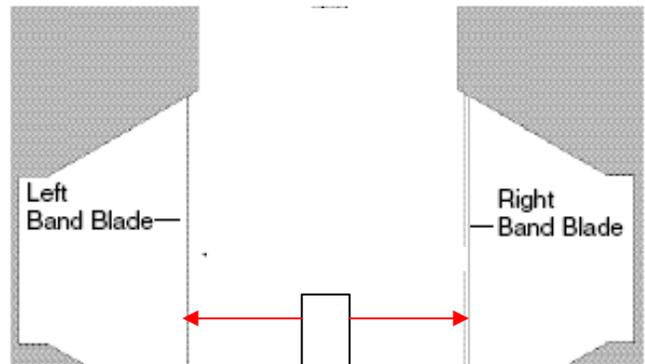


Figure : R Band Blades Centered With Conveyor

Adjusting the Band Blade Lead

NOTE: Make sure that the guides are not touching the blade and the heads are level and centered.

- 1: Turn off power, lock out, and tag out.
- 2: To check the lead, take a 12" long thin straight edge and attach it to the inside of *blade* on a tooth that points outward away from side that the straight edge is attached.
- 3: Now measure the distance between the front of the *straight edge* to the edge of the *chain conveyor*. The distance should be the same as the measurement from the back side of the ruler to the conveyor, meaning zero lead. If not, proceed to step 4.
- 4: Loosen the *holding nuts* that attach the top and bottom *mounting brackets* to each of *headrigs* as shown in Figures T, U, V, and W.

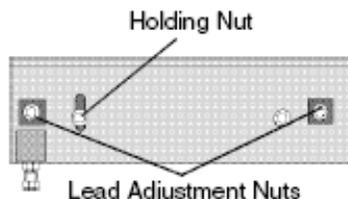


Figure T: Top Mounting Bracket on Left Headrig

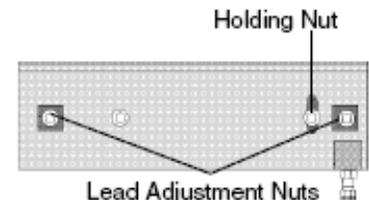


Figure U: Top Mounting Bracket on Right Headrig

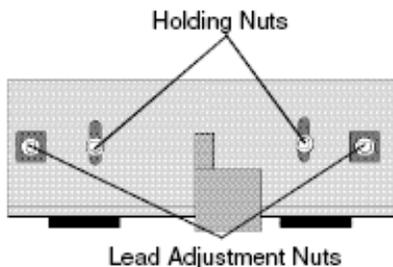


Figure V: Bottom Mounting Bracket on Left Headrig

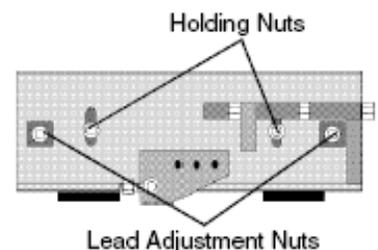


Figure W: Bottom Mounting Bracket on Right Headrig

5: Adjust the lead by turning the *lead adjustment bolts* until the desired point is reached.

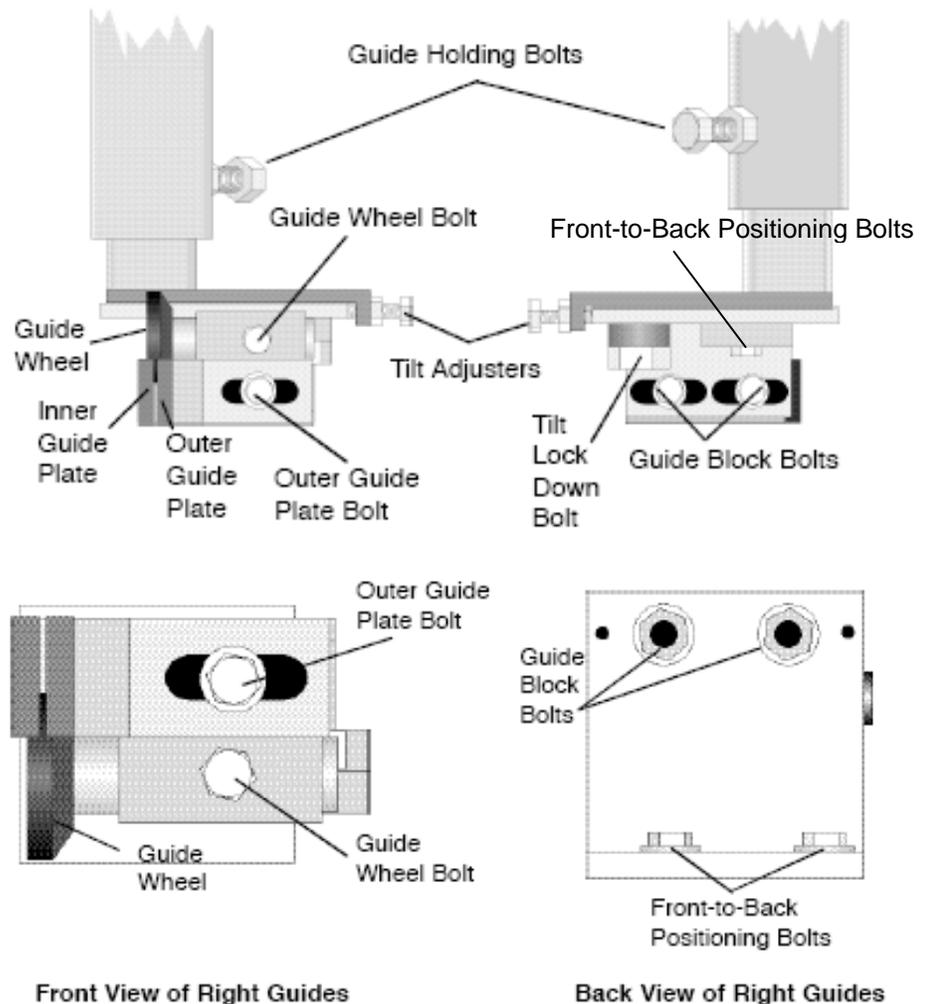
6: Once the lead is set, retighten all *holding nuts* that were loosened in step 4.

NOTE: After all *holding nuts* have retightened, recheck the distance between the front and back sides of the *band blades*. As outlined earlier in step 3, if zero lead has been reached, lead has been corrected. If not, repeat adjustment procedure again.

Setting Guides

Important: Always make sure blade tracking and cutting angle are set properly before adjusting guides.

- ❑ Turn off power and perform lockout / tagout.
- ❑ Adjust guides so that the distance between them is as little as your wood will allow. For example, if you are cutting 6" material, set your guides at 6 1/2" above the chain conveyor to allow for clearance. Move upper guide arm up or down after loosening the bolt on the backside of the head rig to make this adjustment.
- ❑ Loosen Outer Guide Plate Bolt and remove Outer Guide Plate from the guide assembly.
- ❑ Loosen the in & out positioning bolts on the back of guide brackets to position the inner plate so that it is lightly touching the blade but not deflecting it. Also, tilt the Guide Block so that it runs parallel to the blade. Retighten in & out positioning bolts.
- ❑ Level the guides (on the front to back plane) to the blade by using the two Tilt Adjusters on the side of each guide arm after loosening the large tilt lockdown bolt. Make sure the blade is running parallel to the conveyor. When set properly, lock down the Tilt Adjusters and retighten tilt lockdown bolt.
- ❑ Loosen the front-to-back positioning bolts on the guide brackets to bring the front of the guide plates slightly behind the back of the blade gullet (**about 1/32"**). Retighten front-to-back positioning bolts while holding down on the guide so that it is as low as the slot will allow.



SETTING GUIDES *(continued)*

- ❑ Loosen the guide wheel bolt and turn the shaft of the guide wheel using the square head at the top of the guide wheel shaft until the wheel is about 1/32" from the back of the blade. Retighten the guide wheel bolt. This prohibits the blade from being pushed back far enough that the guide plates knock the set out of the blade teeth.
- ❑ Replace the outer guide plate and move the Outer Guide Plates in to just slightly touch the blade and retighten outer guide positioning bolt.
- ❑ Be sure the blade passes freely through the guides but does not move up and down.
- ❑ Make sure the position and angle of the guides are identical while looking into the dust shoot.

The guide wheels are designed for up and down adjustment, so when a groove is worn, you can move it so that it will wear in a different location. As the guide plates wear, they should be moved closer together so that they do not allow the blade to move up and down. The plates should be as tight on the blade as possible without inhibiting the blades movement. Eventually, you will have to replace worn guide wheels and plates. You should always keep spare guide wheels and plates on hand. Under normal use, guide plates should last about 6 months if they are set properly. If your guide plates are lasting significantly less than this, you probably do not have your guides adjusted properly.

Cutting Width Adjustments

Two Point Hydraulic Setworks (Standard)

The cutting width can easily be adjusted by pressing either the button labeled "saws in", which causes the blades to move in to a preset width, or the one labeled "saws out", which causes the blades to move out to the second preset width. These buttons are located on the operators control station.

The widths are set by end travel limit nuts located at the top of your **Baker Band Edger/Mini-Scragg Mill**. (See Figure L.) The inside nuts determine the width obtained by pressing the "saws in" button, and the outer nuts determine the width obtained by the "saws out" button. By moving these doubled nuts, you can change the preset widths. Make sure the second nut is tight against the first to prevent movement and insure repeated accuracy.

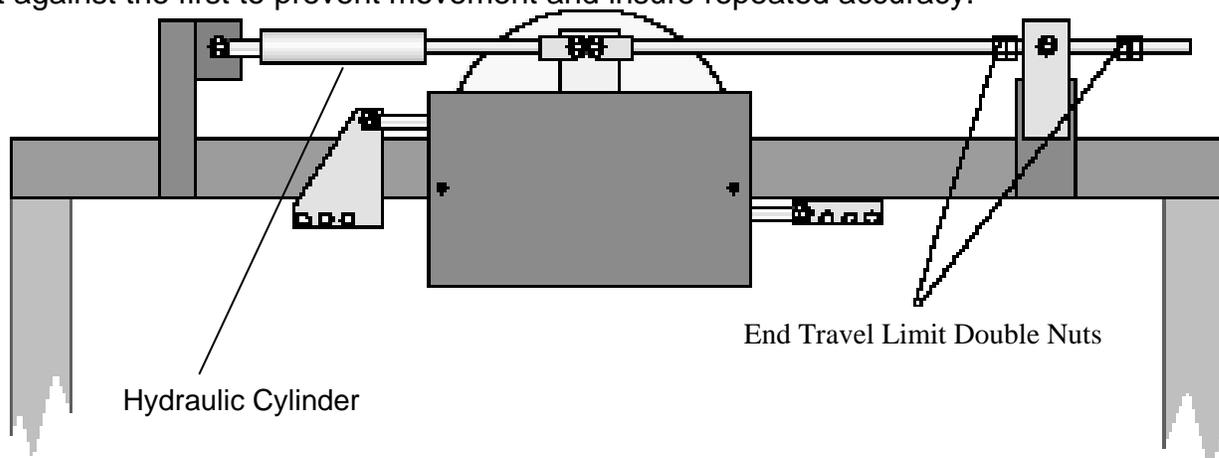


Figure L: Top of Edger
Two Point Hydraulic Setworks

FEEDWORKS

Feed Speed

The feed speed can be adjusted from 0 to 65 feet per minute with the **Hydraulic Feed Speed Control Valve** located on the side of the machine. When the arm is pointed to Zero, the feed works should be motionless. As you swing the arm up from Zero to Ten, the feed speed will increase. The arm can be locked into place with the **thumb screw** located on the arm. Make sure this knob is loosened when you wish to move the arm. You will want to experiment to find the best speed to run your wood types.

Hydraulics

The feed works uses a stand alone hydraulic unit. Dextron II Transmission fluid is recommended. A sight gage is provided for quick inspection of fluid level

Optional Equipment

Tailing Conveyors (optional)

Tailing conveyors remove edged material from the **Baker Band Edger/Mini-Scragg** area. Edged material can become bothersome, and prevent material flow if allowed to build up in a working area.

Conveyor Belts (optional)

If the conveyor belts ever need to be adjusted or replaced, use the belt extenders on the in-feed end of the machine. Each conveyor has two belt extenders on the in-feed & out-feed end (*one on each side*). These should be used to tighten or loosen the belt conveyor.

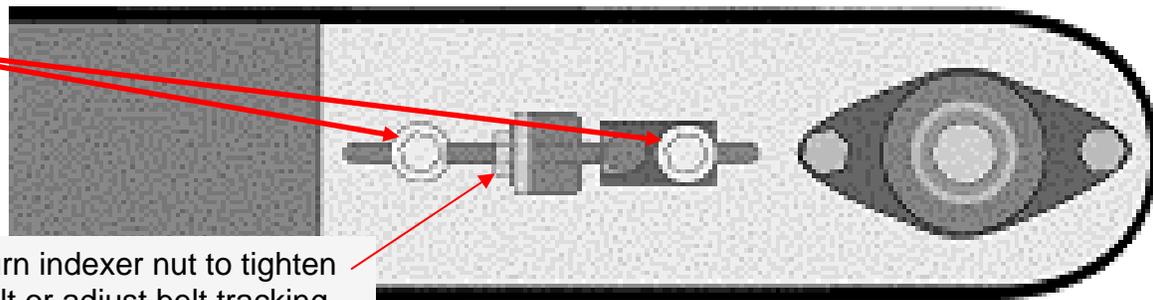
These adjustments should also be used to align the belt. With the feed works empty and in motion, adjust one side until the belt is tracking perfectly centered on the conveyor wheel.

Figure K: Conveyor Belt Adjuster Arm (*one on each side*)

Loosen locking bolts to allow for adjustments

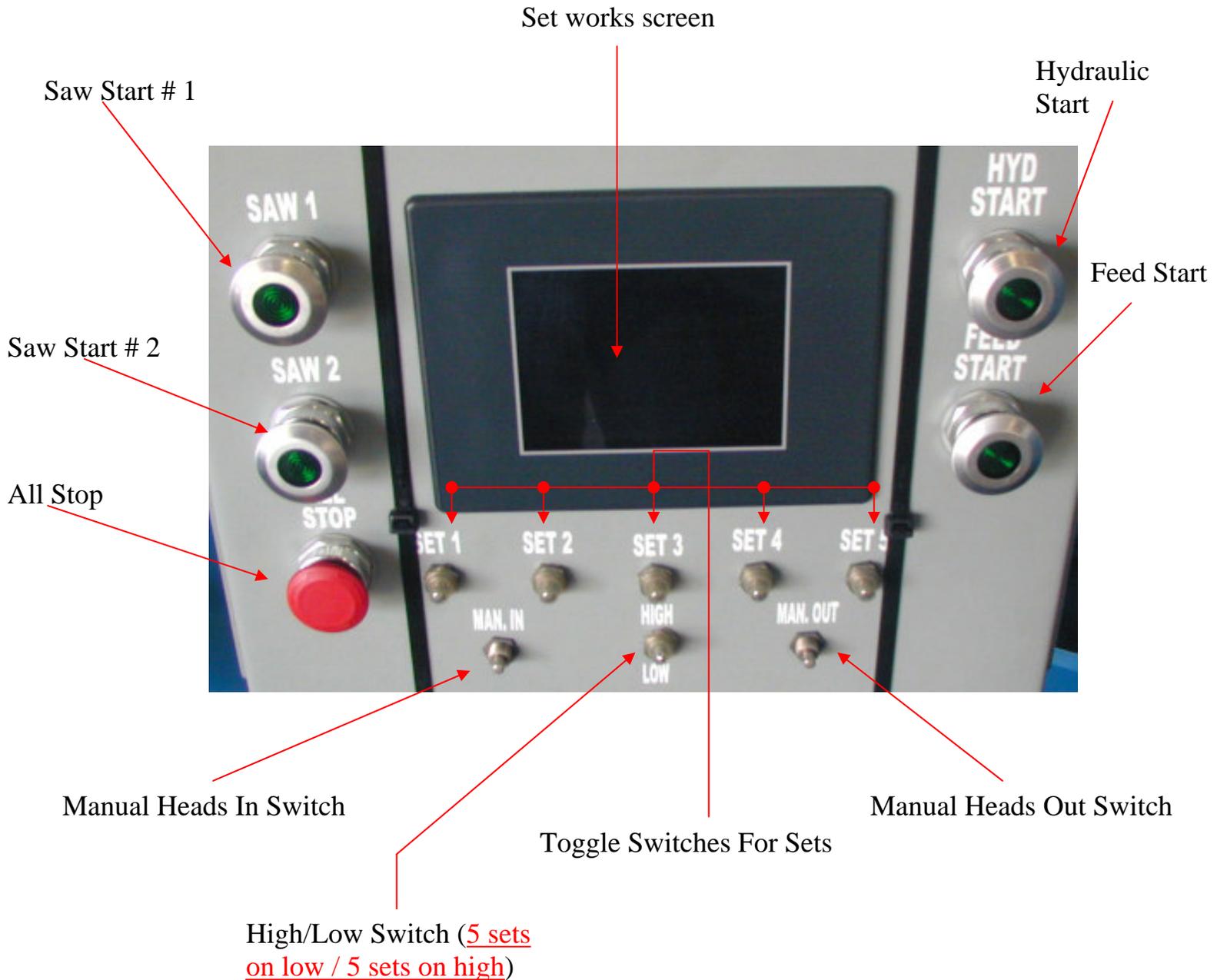
****Re-tighten when finished****

Turn indexer nut to tighten belt or adjust belt tracking



Electronic Set works (optional)

With the optional **10 point Electronic Set Works**, You can have 10 preset cutting widths programmed in the computer. This makes it simple to go from one width to another. All you have to do is select the width you need simply by pressing the *toggle switch* with the correct width already preset. The heads will then automatically open or close to that width.





Optional Blades

The standard **Baker Band Edger/Mini-Scragg** uses the following blades:

Band Edger-

13'2" x 1-1/4" x .042

13'2" x 1" x .035

Mini-Scragg-

14'2" x 1-1/4" x .042

14'2" x 1" x .035

NOTE: 1-1/2" guide plates as well as other blade widths, thickness and tooth spacing are available upon request.

Ask your sales consultant or the customer service department for details.

Blade usage is approximately two blades per day per head during full production. Use this figure when ordering your blades until you have developed some record of personal blade usage for your operation.

Using high quality blades is an important factor in achieving the highest performance out of your ***Baker Band Edger/Mini-Scragg***. Our machines are tested and set-up using Lenox blades sold by Ellington Industrial Supply. These are very good blades for use on Baker Equipment and come highly recommended by the majority of Baker owners. If you would like more information on these blades, contact:

Customer Service Department
Ellington Industrial Supply Co., Inc.
PO Box 128
Ellington, MO 63638 USA
Tel: (573) 663-7711
Fax: (573) 663-2787

MAINTENANCE TASKS AND CHECKLIST



Note: Follow Lockout / Tagout prior to performing any checks or maintenance.

Daily

- Use an air-hose to blow-off the dust and wood chips that accumulate in and around the machine, especially the wheels.
- Check band blade tracking
- Check head rig v-belts
- Check guides for proper adjustment (see “Setting Guides”)
- Check proper conveyor belt tracking (if equipped)

Note: The machine operator is closer to the operating mechanism of the machine during clean up than during production – extra care should be taken.

- Do NOT clean with flammable or combustible materials.
- Follow applicable codes and standards with regards to:
 - Ventilation and monitoring of work area for excessive accumulation of hazardous vapors
 - Wearing personal protective equipment for handling materials
 - Using proper procedure for disposing of all waste materials

Weekly

- Check chain works and tighten as needed and lubricate with WD-40 or other spray type oil/lubricant.
- Check for worn master links
- Check all setscrews

Monthly

- Grease any slow moving bearings on the machine. (We recommend JT6 or any other high temperature grease)
- Check hydraulic motors, fittings and hoses for leaks

Every 3 Months

- Motors should be greased with one pump of grease from a grease gun. (We recommend JT6 or any other high temperature grease)

Once a Year

- Clean 28” wheel crowns and re-crown or replace if worn.



TROUBLE SHOOTING

Note: Always check blade tension, blade quality, and guides before attempting any other adjustments. Always keep a blade on hand that you know cuts well. Put this blade on the machine to make sure the problem isn't the blade.

Problem	Reason	Solution
Blade overheats	-Sap on blade -Improper blade tension -Guides not properly adjusted	Scrape off Retension blade See sections pertaining to guides
Blade wanders	-Horizontal Band blade guides have up or down pressure -Blade dull -Feed speed too fast, or not enough tension on blade -Blade guides out of adjustment	See sections pertaining to guides Sharpen Slow down or have blade re-tensioned Reset (see setting guides)

Parts and Service Recommended Spare Parts List

Part No.	Description	Part No.	Description
141003 	1" Top Guide Pad – QTY (2 per head)	141013 	1 ¼" Top Guide Pad – QTY (2 per head)
141004 	1" Bottom Left Guide Pad – QTY (1 per head)	141014 	1 ¼" Bottom Left Guide Pad – QTY (1 per head)
141005 	1" Bottom Right Guide Pad – QTY (1 per head)	141015 	1 ¼" Bottom Right Guide Pad – QTY (1 per head)
141001 	Roller Guide Wheels - QTY (2 per Head)	111013 	5VX710 Drive Belt -- QTY (2 per head)
101275 	Bearing for 28 in Wheel (4 Bolt Hole) - QTY (1) per Head	171077 	Spindle Nut N-11 – QTY (1)

Service Contact Information

In the event that you have any problems, call us at (573) 663-7711 any time between 8:00 AM and 5:00 PM (CST), Monday through Friday.

Serial Number Location

The model and serial number are located on the front side of the machine near the operator station.

Please refer to your serial number and model number when speaking to a service technician or ordering replacement parts.



Wiring Diagrams

High Voltage



Wiring Diagrams *(continued)*

Low Voltage