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Introduction

Congratulations on the purchase of your new **Baker Band Edger/Mini-Scragg Mill**. Your Baker equipment will provide you with many years of profitable operation.

Everyone in the industry has not yet discovered the advantages of thin-kerf band sawing. Until they do, you have the ability to make more money and sell at a much more competitive price.

The **Baker Band Edger/Mini-Scragg Mill** has been designed to be sturdy, simple and easy-to-use. We hope this manual will familiarize you enough with the machine that you will be able to easily make any adjustments that may ever become necessary. Remember, a properly maintained machine will pay back dividends.

If you have any questions or comments, please feel free to contact us.

Baker Products

P O Box 128
Ellington, MO 63638
(573) 663-7711
Fax: (573) 663-2787

Service Policy

In the event that you have any problems, you can call us at (573) 663-7711 any time between 6:30 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.

A member of our service department will visit your plant at your request. He will set your saw to run at peak performance and can train your staff to keep it in top operating condition. We also offer installation, check-out and start-up support as required to get you and your equipment off to a new start.

There is a charge for these services. We charge only to cover our costs and do everything we can to keep these costs down. Call for current pricing.

The only other charge is for replacement parts not covered by warranty.

Spare Parts

Parts that should be kept on hand for your **Baker Double End Trim** include the following:

Guide Plates (two set of four)

Guide Wheels (4)

#50 Roller Chain

#50 Half Links

#50 Full Links

#60 Roller Chain

#60 Half Links

B68 Belts (two)

28" Wheel Hub Rebuild Kit

TQ2012ASAE Hydraulic Cylinder

Mystik JT-6 Lubricant

M172-DP Bimba Air Cylinder (Only with the splitter saw option)

A kit that includes all of the items mentioned above is available. Call for more information or to order.

Blades

Your standard width **Baker Band Edger/Mini-Scragg Mill**, when used as a scragg mill, cuts up to 10" to 12" diameter logs. It uses the following blades:

1" x 0.035" x 13'2" Hardback
1¼" x 0.042" x 13'2" Hardback

Your **Baker Band Scragg Mill** cuts up to 16" diameter logs and uses the following blades:

1" x 0.035" x 14'2" Hardback
1¼" x 0.042" x 14'2" Hardback

Your **Extra-wide Baker Band Scragg Mill** cuts up to 20" diameter logs and uses the following blades:

1" x 0.035" x 15'2" Hardback
1¼" x 0.042" x 15'2" Hardback

Blade usage is approximately two to three blades per day during full production. This is a safe figure to use when ordering your blades.

Using high-quality blades is an important factor in achieving the highest performance out of your **Baker Band Sawmill**. Our machines are tested and set-up using **Lenox Woodmaster** band blades distributed by **Ellington Industrial Supply Co.** If you would like more information on these band blades and other blades, contact:

Ellington Industrial Supply Co.

PO Box 128
Ellington, MO 63638
Tel: (573) 663-7711
Fax: (573) 663-2787

Blade sharpening is recommended. We offer simple sharpener and setter packages for this operation. For more information, call your Baker Sales Consultant at (573) 663-7711.

Important: Read This before Operating your Baker Edger/Mini-Scragg

Some screws may become loosened during transport. Check and tighten all set screws on the machine before operating and again after the first week. Check screws monthly to insure maximum pulley and sprocket life.

Turn power off, lock out and tag out before changing blades or servicing machine.

Never open headrig door until blade has come to a full stop.

Never operate machine without guards and doors in place.

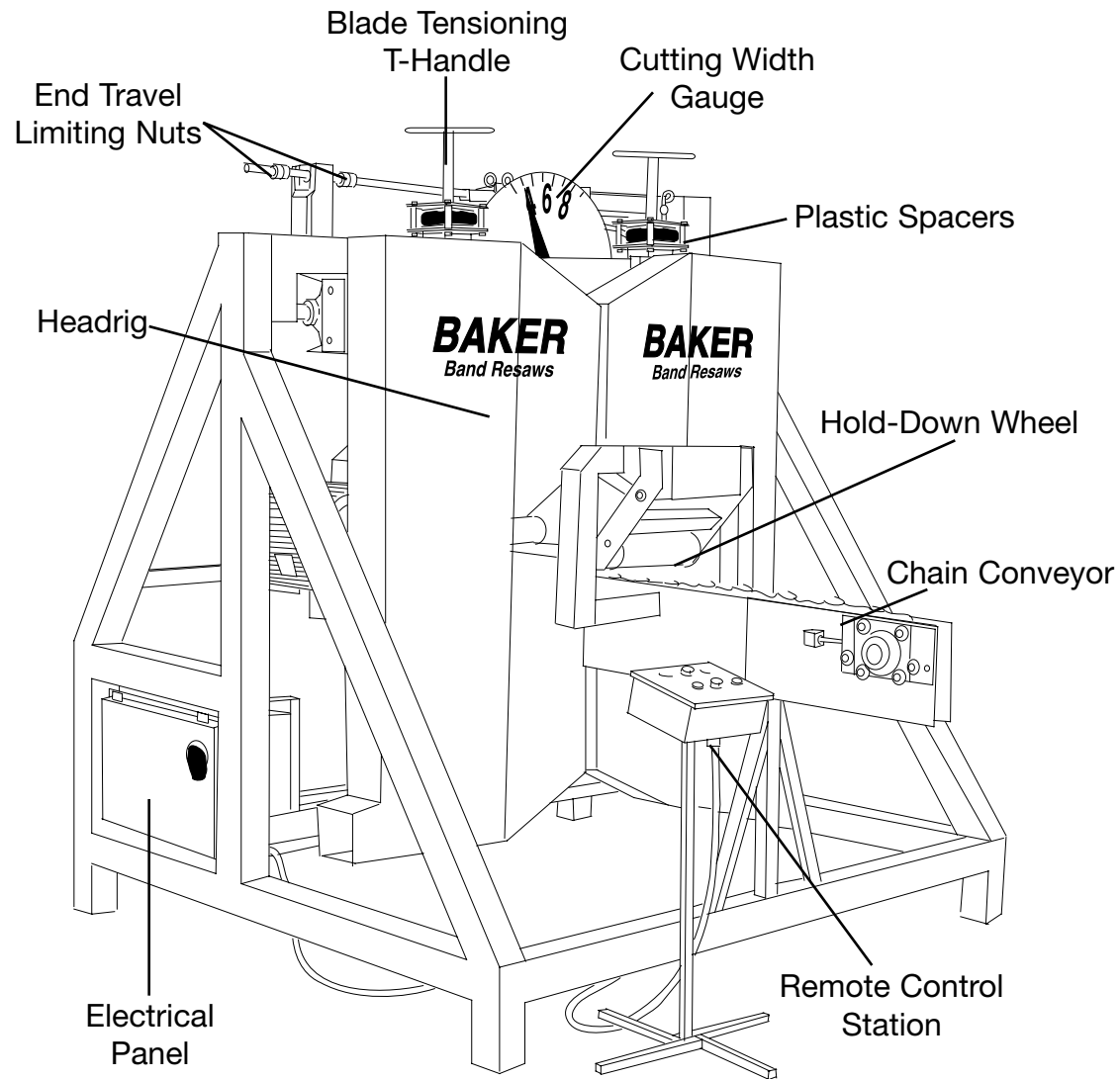
Always wear proper eye and ear protection when operating machine.

Never wear loose clothing when operating machine.

Stay away from moving blades when operating machine.

Always provide proper suction for adequate dust removal.

Overall View



Optional Equipment

Tailing Conveyors

Tailing conveyors remove edged material from Baker Edger/Mini-Scragg area. Edged material can become bothersome if allowed to build up in working area.

Infeed Decks

Infeed decks allow orderly placement of wood on the infeed conveyor.

Splitter Saws

Optional splitter saws allow the Baker Edger/Mini-Scragg to edge and cut the wood to specific heights in one operation.

Electrical Setworks

The electrical setworks can be added so that up to five widths can be set. The electrical setworks is described in "Cutting Width Adjustments".

Maintenance

Every 8 hours or after a blade breakage

Clean the blade guides and make sure they have not been knocked out of adjustment. Refer to the section on “*Setting Guides.*”

Every 40 hours (once per week)

Pump grease into both wheel bearings, while turning the wheel by hand, until grease comes out.

Every 200 hours (once per month)

Oil the chain conveyor.

Every 500 hours (every 3 months)

Pump grease into both wheel bearings, while turning the wheel, until old grease has been pumped out.

Pump one squirt of grease into the vertical tracking bolt assembly.

Pump one squirt of grease into all other bearings on the machine.

Every 2,000 hours (once per year)

Clean wheel bearings and repack. Replace if worn.

Every 4,000 hours (every 2 years)

Replace bearings and have wheels crowned.

Initial Setup

Hooking up electrical systems should be done by a qualified electrician.

If your machine has an enclosed air system, the air should be regulated to 90 to 100 lbs. to insure proper blade tension. If you do not use proper air pressure, blade life will suffer.

For dust removal, the **Baker Edger/Mini-Scragg** is equipped to accept two 4" round pipes (one on each headrig). A minimum of 500 CFM is recommended.

Changing Blades

If your machine uses an enclosed air system, be sure your air tank contains 90 to 100 lbs. of air before you begin. This air is used for blade tensioning, and if you do not use the proper air pressure, blade life will suffer.

Removing blade

- 1: Turn power off, lock out, tag out, and allow machine to come to a complete stop before proceeding.
- 2: Open the headrig door after unlocking the *slide lock*. **Never open headrig with blade in motion.**
- 3: Loosen T-handle on spring at the top of the headrig.
- 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 blade over the bottom wheel, through the guides and over the top 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.)
- 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 airbag or spring clockwise until one of the plastic spacers is held tight enough between the plates that you can no longer spin it. (See Figure A.)

Adjusting Feed Speed

The feed speed can be adjusted from about 0 to 100 feet per minute by loosening the bolt and then turning the handle on the *hydraulic flow control valve* located on the right side of the Edger. (See Figure O.) Adjust the speed while the machine is running. Feed speeds are dictated by size and the hardness of the material being cut. It is best to experiment with your saw to see what feed speeds are best for your wood types because wood species hardness varies by geographical location.

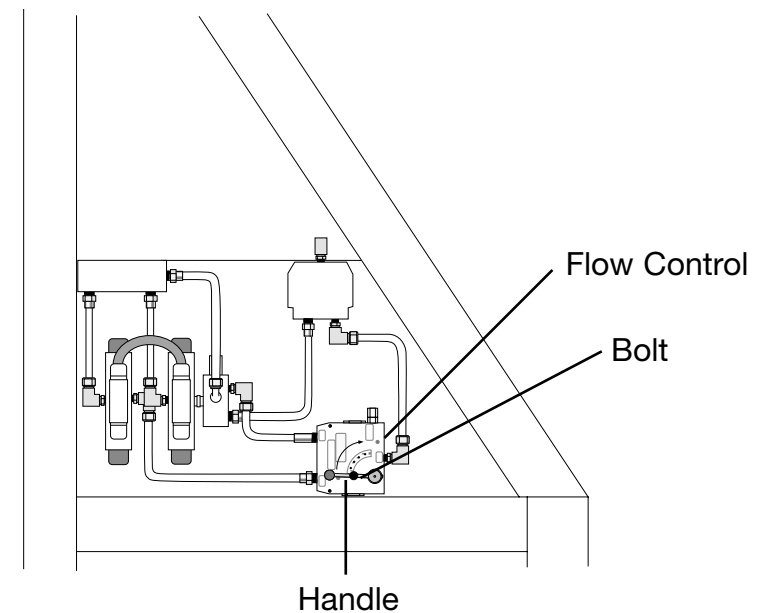


Figure O: Side View Feed Control Valve

Five Point Electronic Networks (Optional)

This option has widths set by push buttons and a digital readout. See addendum if you have this option.

- 4: Manually turn the wheels about 4 or more revolutions to be sure blade is tracking properly.
- 5: If the blade gullet is not flush with the face of the wheel, you need to adjust blade tracking. See "*Blade Tracking*".
- 6: Close door.

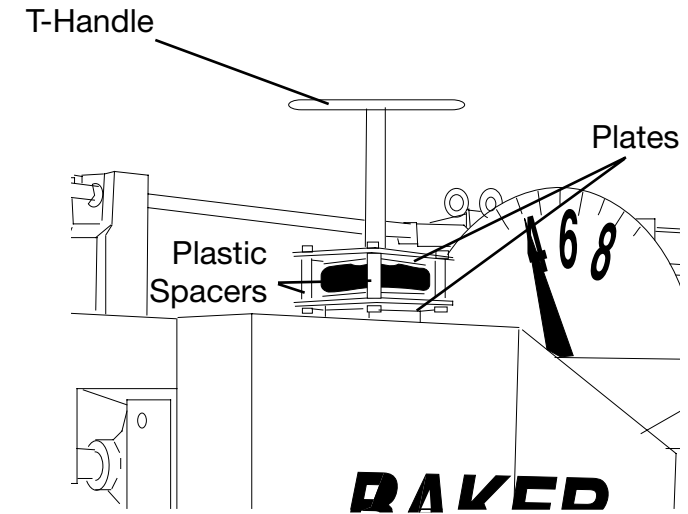


Figure A: Top of Edger/Mini Scragg

Blade Tracking

Note: Always turn off machine, lock out and tag out before making adjustments.

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

The blade must be installed and properly tensioned (see “*Changing Blades*”) before beginning this procedure. Guides should be in a position where they are not touching the blade.

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 probably 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.

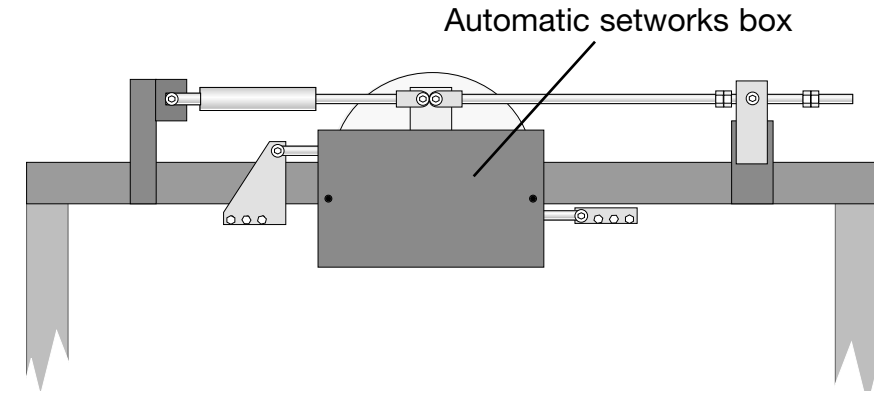


Figure M: Top of Edger
5 Point Electro-mechanical Networks

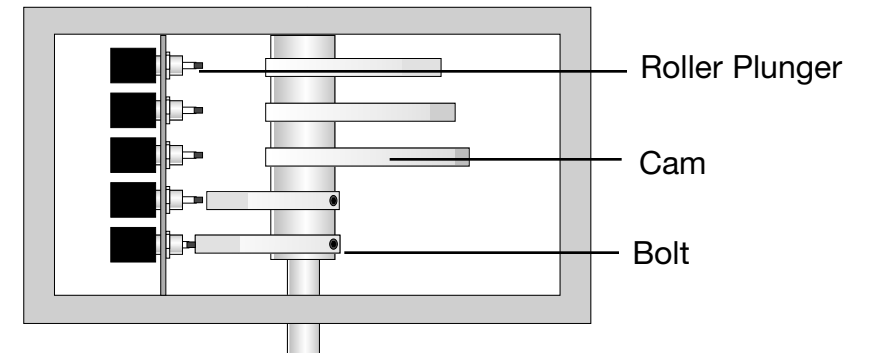


Figure N: Top of Automatic Networks Box

Five Point Electro-mechanical Networks (Optional)

An option is available that is electrically equipped to program up to five widths. A light indicator signals each preset width. When you press the *saws in* button, the blades move in and a light will come on when they get to the preset width. The *saws out* button functions in the same way except it moves the blades out. Holding the button down will allow you to pass through the preset widths between your start and destination. You must release the *saws in* or the *saws out* button before your desired width light comes on. If you are pressing on the button when the light comes on, you have gone too far and the blades will continue to move to the next setting.

The widths are set in the *automatic network box* located at the top of your **Baker Band Edger/Mini-Scragg Mill**. (See Figure M.) Follow these instructions:

- 1: Use the *saws in* or the *saws out* button to move your blades until the desired distance is between them, and then press the *all stop* button.
- 2: Make sure the machine is off, locked out, and tagged out before proceeding.
- 3: While standing behind the machine, remove the *metal box covering*.
- 4: Located the cams and loosen the bolt on the cam that you want to correspond with the distance that is presently between your blades. (See Figure N.)
- 5: Position the cam so that is lined up with roller plunger as shown in diagram. A clicking sound will be heard if the cam and roller plunger are lined up correctly.
- 6: Return the metal cover to the box and retighten the screws.
- 7: Restart the machine and check the signaling light to verify that the cam is positioned properly. If the light flickers or does not come on at all, go back to step one and restart the procedure.

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 below.

All adjustments for blade tracking involve bolts located on the back of the headrig. (See Figure C.)

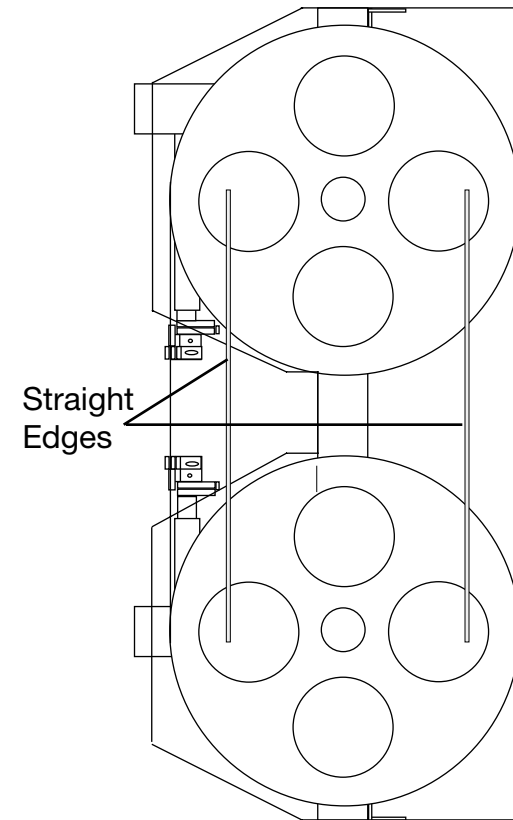


Figure B: Checking Wheel Alignment

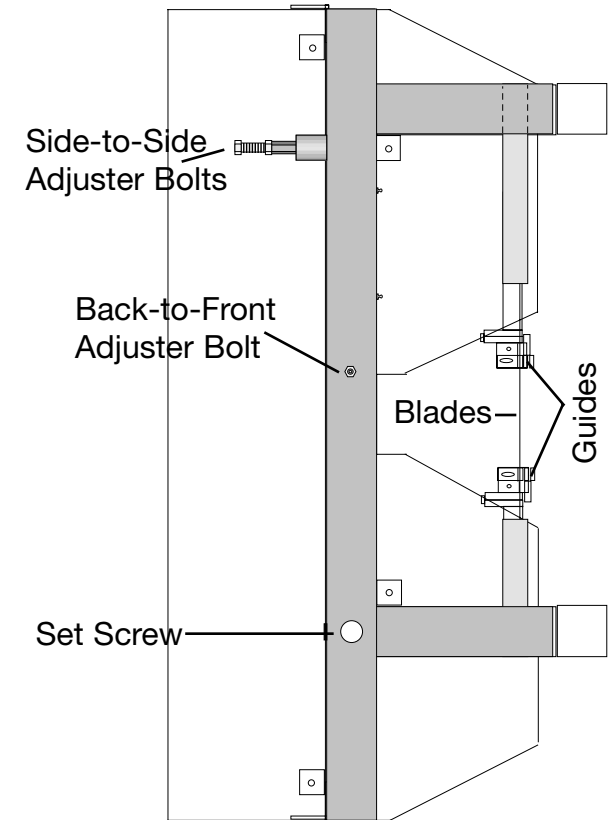


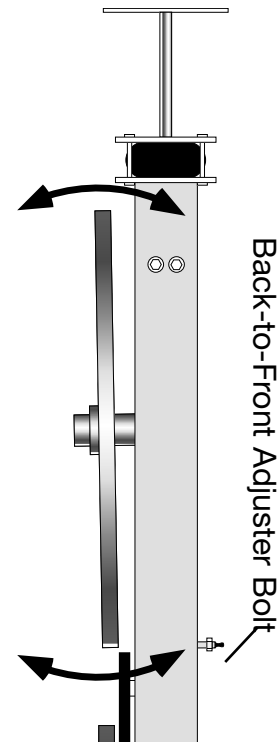
Figure C: Back Side of Headrig

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.



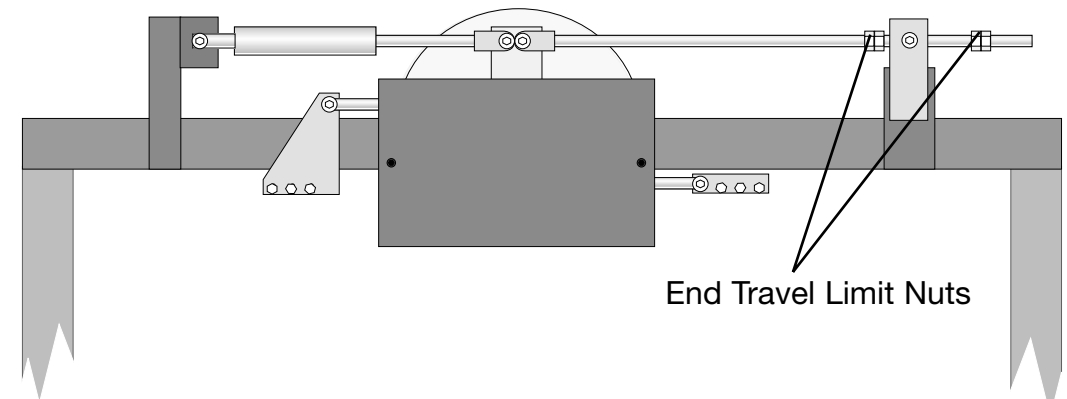
**Figure D: Side View
Covering Removed
Effect of Back-to-Front
Adjustment**

Cutting Width Adjustments

Two Point Hydraulic Networks (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 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 nuts, you can change the set 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 Networks**

- 7: Loosen the *guide wheel bolts* and turn the shaft of the *guide wheels* using the slot on the end of this shaft until the wheel is about 1/32" from the back of the blade. Retighten the *guide wheel bolts*. This prohibits the blades from going so far back that the *guide plates* knock the set out of the blade teeth.
- 8: Loosen the outer *guide positioning bolts* on the guides and move the *outer guide plates* in until they are beside the blade and retighten *outer guide positioning bolts*.
- 9: Be sure the blades pass freely through the guides but do not move from side to side.

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 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.
- 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.

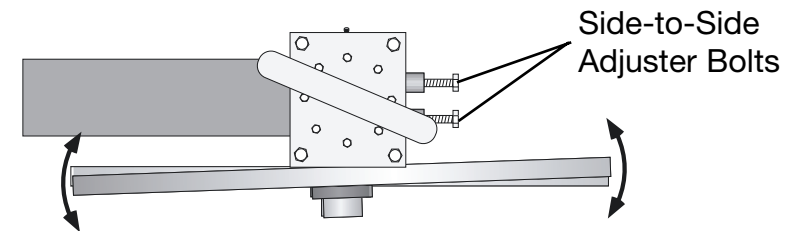


Figure E: Top View Covering Removed
Effect of Side-to-Side Adjusters

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 $2\frac{3}{8}$ ". (See Figure F.) 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.

Figure F: Side View with Covering Removed

Distance between Drive Wheel and Sheet Metal

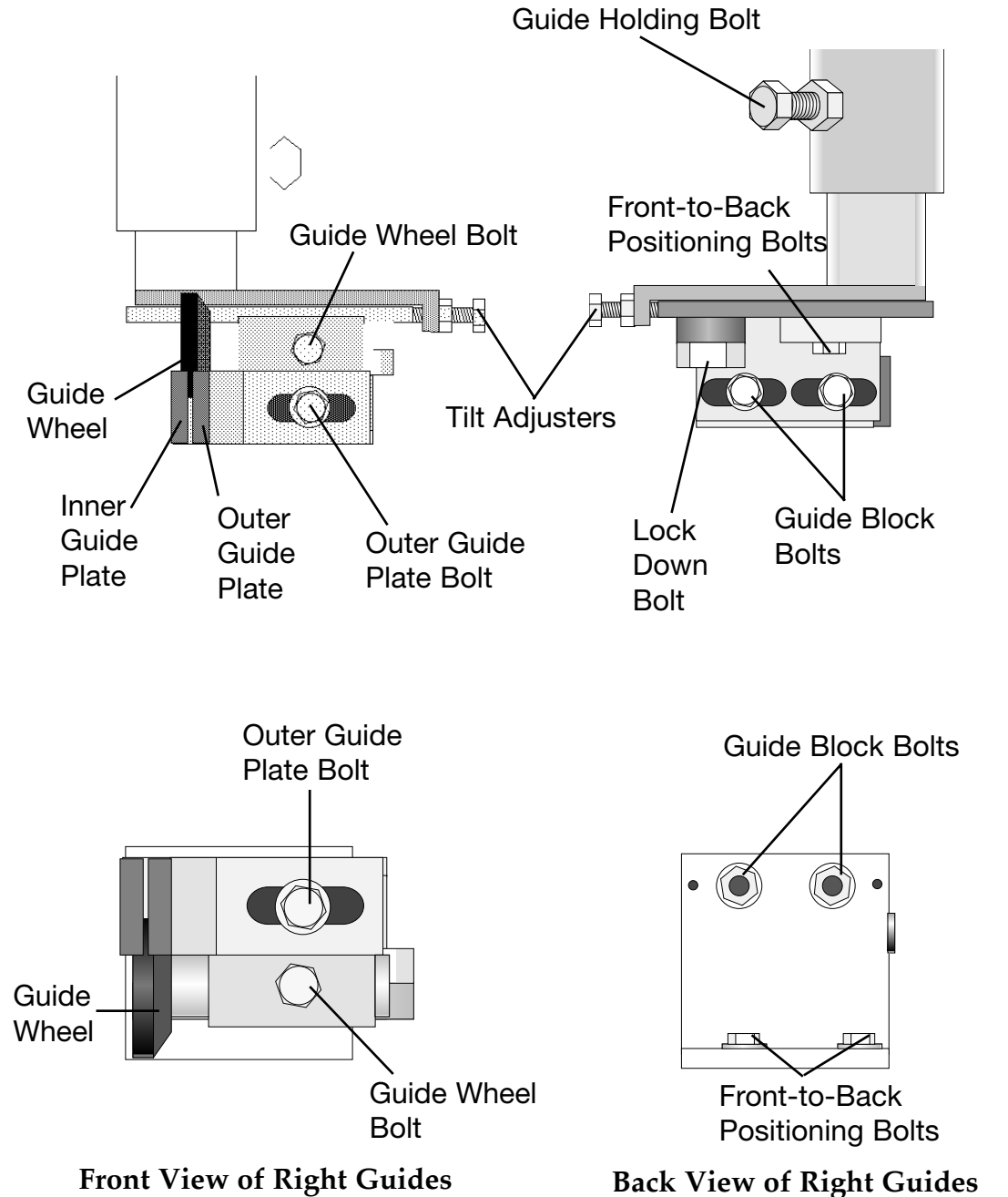
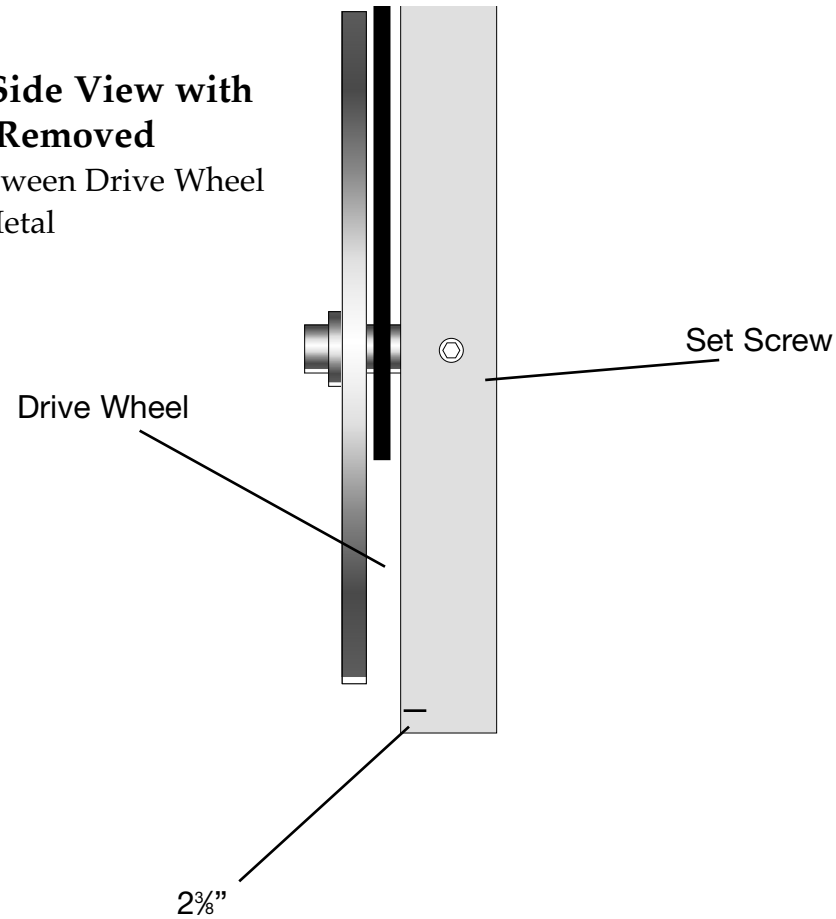


Figure K: Guides

Setting Guides

Important: Always make sure blade tracking is set properly and the headrigs are level before adjusting guides.

- 1: Turn off power, lock out, and tag out.
- 2: The distance between the *top guides* and the *chain conveyors* should be as little as the wood will allow. For example, if you are cutting wood that is 6" high, set your top guides 6 1/2" above the *chain conveyors* to allow for clearance. Move the two *top guides* after loosening the *guide holding bolts* on the back side of the headrig. When the top guides are the proper distance above the conveyor, retighten the bolts.
- 3: Loosen the *outer guide plate bolt* on all four guides and move the *outer guide plates* as far away from the blades as possible. Retighten the *outer guide plate bolts*.
- 4: Loosen the *guide block bolts* on the back of the guides to position the *inner plates* so that they lightly touch the blades but do not deflect them. Also, tilt the *guide blocks* so that they run parallel to the blades. Retighten *guide block bolts*.
- 5: Loosen the large *tilt lock-down bolts* and use the *tilt adjusters* on the top guides, and loosen the *front-to-back positioning bolts* on the bottom guides to position the blade so that its side runs parallel to the conveyor. Check this by placing a straight edge horizontally on the inside of the blade between the guides. The straight edge should run parallel to the conveyor.
- 6: 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. Retighten the *front-to-back positioning bolts* while pushing the guide toward the guide on the opposite side so that it is as far in as the slot will allow.

Leveling Headrigs

The headrigs are leveled in the factory so that the blades run perfectly perpendicular to the chain conveyors. If there is ever a need to adjust the headrigs, it should be very minor. This procedure requires a level.

Note: Before beginning procedure, move the guides so that they are not touching the blade.

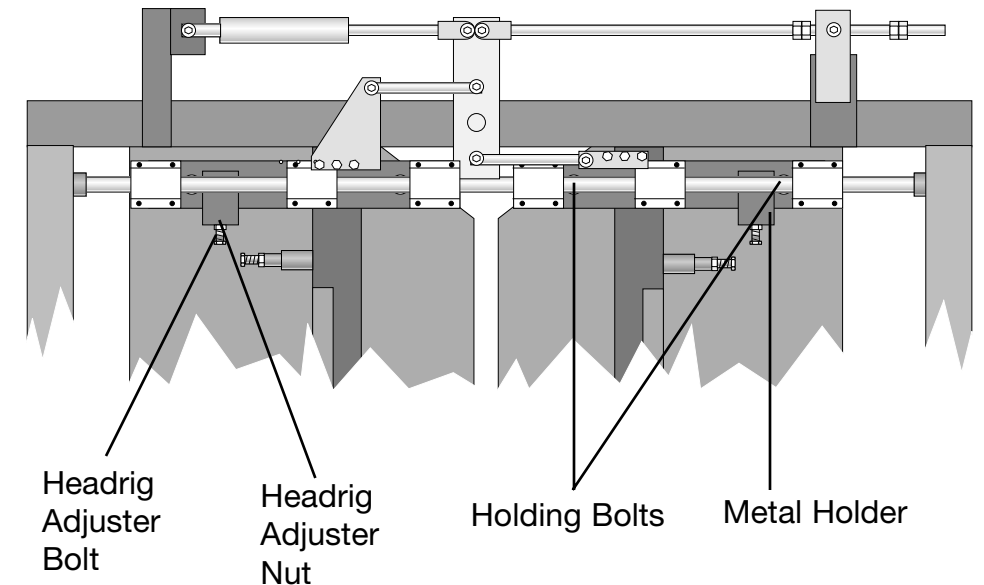


Figure G: Back View of Edger Head Leveling Adjusters

Adjusting Right Headrig

- 1: Turn off power, lock out, and tag out.
- 2: Place the level on the inside of the right outfeed conveyor beam and take note of the position of the bubble.
- 3: Now place the level along the inside of the right blade between the two guides. If the position of the bubble is identical to that in step two, skip to "Adjusting Left Headrig". If it is not, go to step 4.
- 4: On the top, back side of the left headrig are two *holding bolts* which attach the headrig to the frame. Loosen the *holding nuts* on the end of these bolts.
- 5: Locate the *headrig adjuster bolt* on the back of the headrig, and tighten or loosen it until the level readings are the same.
- 6: Move both sets of *headrig adjuster nuts* until they are tight against the metal holder.
- 7: Retighten the *holding nuts*.

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 headrigs are level to each other. If they are not the same, proceed.

- 3: On the top, back side of the left headrig are two *holding bolts* which attach the headrig to the frame. Loosen the *holding nuts* on the end of these bolts
- 4: Locate the *headrig adjuster bolt* on the back of the headrig, and tighten or loosen it until the distances are the same.
- 5: Move both sets of *headrig adjuster nuts* until they are tight against the metal holder.
- 6: Retighten the *holding nuts*.

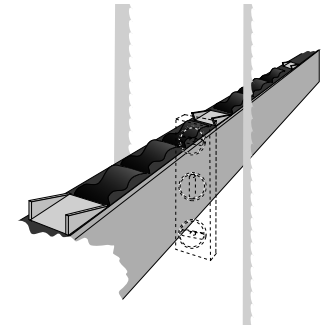


Figure H:
Level on Conveyor

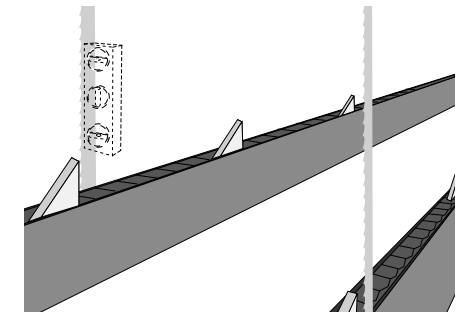


Figure I:
Level on Blade

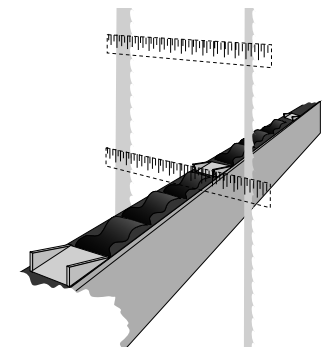


Figure J:
Equal Distance
Between Blades