Wood-Mizer

from forest to final form

user manual

Instrukcja obsługi | Руководство пользователя
Manuel de l'Utilisateur | Betriebsanweisung
Bruksanvisning | Manual del Usuario
Betjeningsvejledning | Gebruikershandleiding
Käyttöohjeet | Manual de utilizare | Bruksanvisning
Manuale d'uso | Příručka uživatele | Navodila za uporabo

Retain for future use
Zachować do przyszłego użytku
Сохраните для последующего использования
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Säilytä nämä käyttöohjeet tulevaa tarvetta marten
Opbevar manualen til fremtidig brug
Bewaren voor gebruik in de toekomst
Conservare il presente manuale a l'uso futuro
Păstrați acest manual pentru utilizare viitoare
Conservar para futuras consultas
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www.wood-mizer.eu

Horizontal Resaw HR110

Safety, Setup, Operation & Maintenance Manual

HR110 **rev.A1.00**

Safety is our #1 concern! Read and understand all safety information and instructions before operating, setting up or maintaining this machine.

September 2010

Form #926

This is the original language for the manual

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If You Need To Order Parts...

From Europe call our European Headquarters and Manufacturing Facility in Kolo-Poland, Nagorna 114 St., at ***+48-63-2626000.*** Please have the vehicle identification number and your customer number ready when you call. Wood-Mizer will accept these methods of payment:

- Visa, Mastercard, or Select Purchase
- COD
- Prepayment
- Net 15 (with approved credit)

Be aware that shipping and handling charges may apply. Handling charges are based on size and quantity of order. In most cases, items will ship on the day they are ordered. Second Day and Next Day shipping are available at additional cost.

If You Need Service...

From Europe call our European Headquarters and Manufacturing Facility in Kolo-Poland, Nagorna 114 St. at ***+48-63-2626000.*** Ask to speak with a Customer Service Representative. Please have your vehicle identification number and your customer number ready when you call. The Service Representative can help you with questions about alignment of your mill, blade sharpening, or cutting a particular species of wood. He also can schedule you for a service call.

Office Hours: All times are Eastern Standard Time. Please remember that Indiana does not go on Daylight Savings Time in the summer.

Country	Monday - Friday	Saturday	Sunday
U.S., Indiana	8 a.m. to 5 p.m.	8 a.m. to 4 p.m.	Closed
Poland	8 a.m. to 4:30 p.m.	8 a.m. to 1 p.m.	Closed

IMPORTANT! Read the entire Operator's Manual before operating the sawmill. Take notice of all safety warnings throughout this manual and those posted on the machine. Keep this manual with this machine at all times, regardless of ownership.

Manufactured by:

Wood-Mizer®

114 Nagorna Street, 62-600 Kolo, Poland

SECTION 1 SAFETY

1.1 Safety Symbols

The following symbols and signal words call your attention to instructions concerning your personal safety. Be sure to observe and follow these instructions.

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

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

CAUTION! refers to potentially hazardous situations which, if not avoided, may result in minor or moderate injury or damage to equipment.

IMPORTANT! indicates vital information.

NOTE: gives helpful information.

Warning stripes are placed on areas where a single decal would be insufficient. To avoid serious injury, keep out of the path of any equipment marked with warning stripes.

1.2 Safety Instructions

IMPORTANT! The sawmill is intended for sawing wood only. *See Section 5.2* for log size capacities of the machine.

IMPORTANT! The operator of the sawmill should get adequate training in the operation and adjustment of the machine.

NOTE: ONLY safety instructions regarding personal injury are listed in this section. Caution statements regarding only equipment damage appear where applicable throughout the manual.

Observe Safety Instructions

IMPORTANT! Read the entire Operator's Manual before operating the resaw. Take notice of all safety warnings throughout this manual and those posted on the machine. Keep this manual with this machine at all times, regardless of ownership.

Also read any additional manufacturer's manuals and observe any applicable safety instructions including dangers, warnings, and cautions.

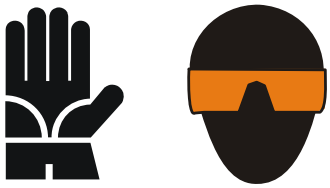
Only persons who have read and understood the entire operator's manual should operate the resaw. The resaw is not intended for use by or around children.

IMPORTANT! It is always the owner's responsibility to comply with all applicable federal, state and local laws, rules and regulations regarding the ownership and operation of your Wood-Mizer resaw. All Wood-Mizer resaw owners are encouraged to become thoroughly familiar with these applicable laws and comply with them fully while using the machine.

Wear Safety Clothing

WARNING! Secure all loose clothing and jewelry before operating the resaw. Failure to do so may result in serious injury or death.

WARNING! Always wear gloves and eye protection when handling bandsaw blades. Changing blades is safest when done by one person! Keep all other persons away from area when coiling, carrying or changing a blade. Failure to do so may result in serious injury.



WARNING! Always wear eye, ear, respiration, and foot protection when operating or servicing the resaw.

Keep Resaw And Area Around Resaw Clean

DANGER! Maintain a clean and clear path for all necessary movement around the resaw and lumber stacking areas. Failure to do so will result in serious injury.

Dispose Of Sawing By-Products Properly

IMPORTANT! Always properly dispose of all sawing by-products, including sawdust and other debris.

Check Resaw Before Operation

DANGER! Make sure all guards and covers are in place and secured before operating the resaw. Failure to do so may result in serious injury.

Keep Persons Away

DANGER! Keep all persons out of the path of moving equipment and lumber when operating the resaw. Failure to do so will result in serious injury.

DANGER! Always be sure all persons are out of the path of the blade before starting the motor. Failure to do so will result in serious injury.

WARNING! Allow blade to come to a complete stop before opening the blade housing cover. Failure to do so will result in serious injury.

Keep Hands Away

DANGER! Always shut off the blade motor before changing the blade. Failure to do so will result in serious injury.

DANGER! Motor components can become very hot during operation. Avoid contact with any part of a hot motor. Contact with hot motor components can cause serious burns. Therefore, never touch or perform service functions on a hot motor. Allow the motor to cool sufficiently before beginning any service function.

DANGER! Always keep hands away from moving bandsaw blade. Failure to do so will result in serious injury.

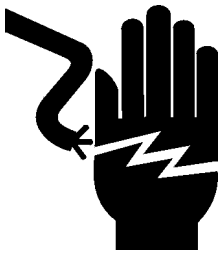
DANGER! Always be aware of and take proper protective measures against rotating shafts, pulleys, fans, etc. Always stay a safe distance from rotating members and make sure that loose clothing or long hair does not engage rotating members resulting in possible injury.

WARNING! Use extreme caution when spinning the blade wheels by hand. Make sure hands are clear of blade and wheel spokes before spinning. Failure to do so may result in serious injury.

Use Proper Maintenance Procedures

DANGER! Make sure all electrical installation, service and/or maintenance work is performed by a qualified electrician and is in accordance with applicable electrical codes.

DANGER! Hazardous voltage inside the electric boxes and at the motor can cause shock, burns, or death. Disconnect and lock out power supply before servicing! Keep all electrical component covers closed and securely fastened during resaw operation.



WARNING! Consider all electrical circuits energized and dangerous.

WARNING! Disconnect and lock out power supply before servicing the resaw! Failure to do so may result in serious injury.

WARNING! Never assume or take the word of another person that the power is off; check it out and lock it out.

WARNING! Do not wear rings, watches, or other jewelry while working around an open electrical circuit.

WARNING! Remove the blade before performing any service to the motor or resaw. Failure to do so may result in serious injury.

DANGER! Never clean the blade or blade wheels using the hend-held brush or scraper whilst the saw blade is in motion.

CAUTION! Before installation of the blade, inspect it for damage and cracks. Use only properly sharpened blades. Always handle the blade with extreme caution. Use suitable carrier equipment for transporting the blades.

CAUTION! Always wear gloves when handling the blade. Never grab the blade with bare hands!

CAUTION! If the blade breaks during sawmill operation, push the EMERGENCY STOP button to stop the blade motor and wait 10 seconds before you open the blade housing cover.

CAUTION! The sawmill's work-stand should be equipped with a 4 kg or bigger dry powder extinguisher.

Keep Safety Labels In Good Condition

IMPORTANT! Always be sure that all safety decals are clean and readable. Replace all damaged safety decals to prevent personal injury or damage to the equipment. Contact your local distributor, or call your Customer Service Representative to order more decals.

IMPORTANT! If replacing a component which has a safety decal affixed to it, make sure the new component also has the safety decal affixed.

See Table 1-1. Pictogram decals used to warn and inform the user about danger in the resaw.

TABLE 1-1

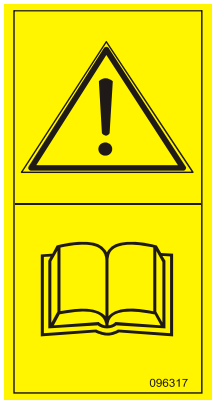
Decal View	W-M No.	Description
	096317	CAUTION! Read thoroughly the manual before operating the machine. Observe all safety instructions and rules when operating the sawmill.

TABLE 1-1

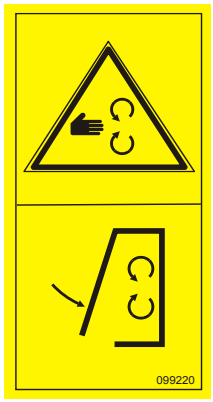
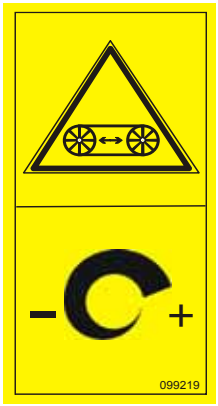
	099220	CAUTION! Close all guards and covers before starting the machine.
	099219	Blade tension. Turning the bolt clockwise will increase the blade tension and turning the bolt counterclockwise will decrease the tension.
	099221	CAUTION! Keep all persons a safe distance away from work area when operating the machine.

TABLE 1-1

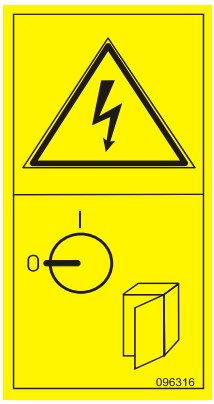
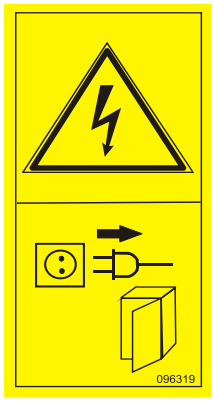
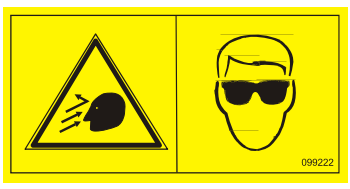
	099540	CAUTION! Gear danger – keep a safe distance away!
	096316	Do not open or close the electric box when the switch is not in the ”0” position.
	096319	Disconnect power supply before opening the box.
	099222	CAUTION! Sawdust outlet. Protect eyes!

TABLE 1-1

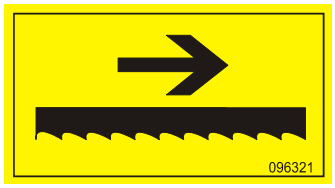
	096321	Blade movement direction
	S12004G	CAUTION! Always wear safety goggles when operating the sawmill!
	S12005G	CAUTION! Always wear protective ear muffs when operating the sawmill!
	501465	CAUTION! Always wear safety boots when operating the sawmill
	501467	Lubrication Point

TABLE 1-1

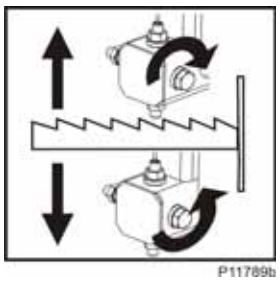
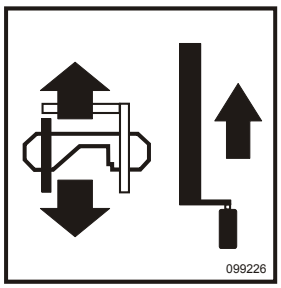
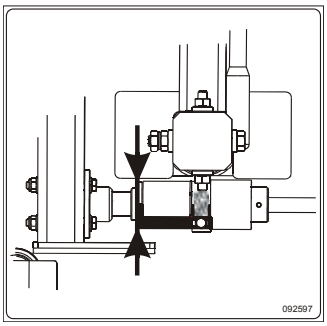
	P11789	Aligning the blade on the wheels
	099226	Power feed system engagement
	092597	Setting the blade tension indicator
	P85070	CE safety certification
	099401	Russian safety certification

TABLE 1-1

	S20097	Motor rotation direction

SECTION 2 SETUP & OPERATION

2.1 Control Overview

1. Control Panel

See Figure 2-1. The control panel includes switches to start and stop the feed track and the saw head.

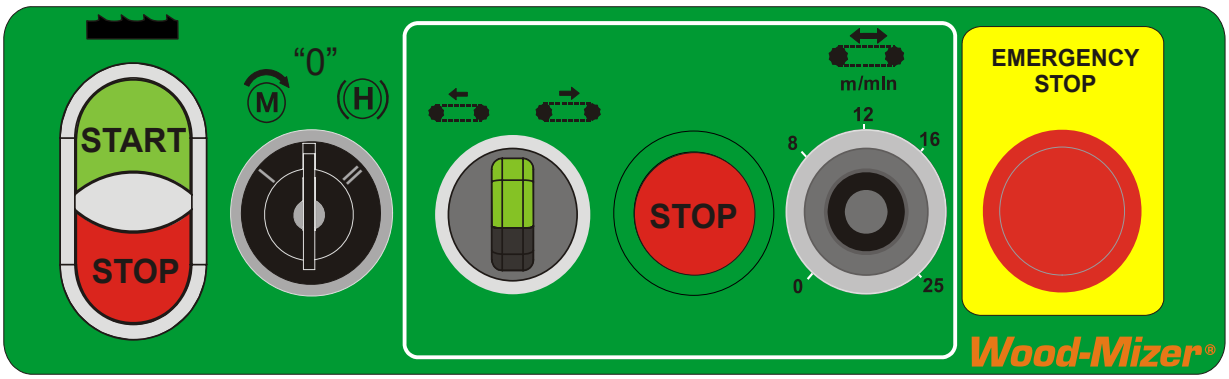
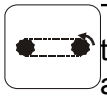


FIG. 2-1 CONTROL PANEL COMPONENTS

2. Blade Drive

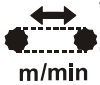
To start the blade motor, turn the key switch to the  position. Then place the START/STOP switch in the START position (press on START) and release the switch. To stop the blade motor, place the START/STOP switch in the STOP position and then release the switch.

3. Feed Track



To start the feed track, place the START/STOP switch in the START position (press on START) and then release the switch. To stop the feed track, place the START/STOP switch in the STOP position and release.

4. Feed Track Speed Adjustment



The feed track speed switch controls the speed at which the feed track moves. Turn the switch clockwise to increase the speed, counterclockwise to reduce the speed.

5. Key Switch

The key switch has three positions:

- "0" position - all electrical circuits are off,
- position - all electrical circuits are on,
- position - releases the motor disk brake, the blade and the track feed motors are off.

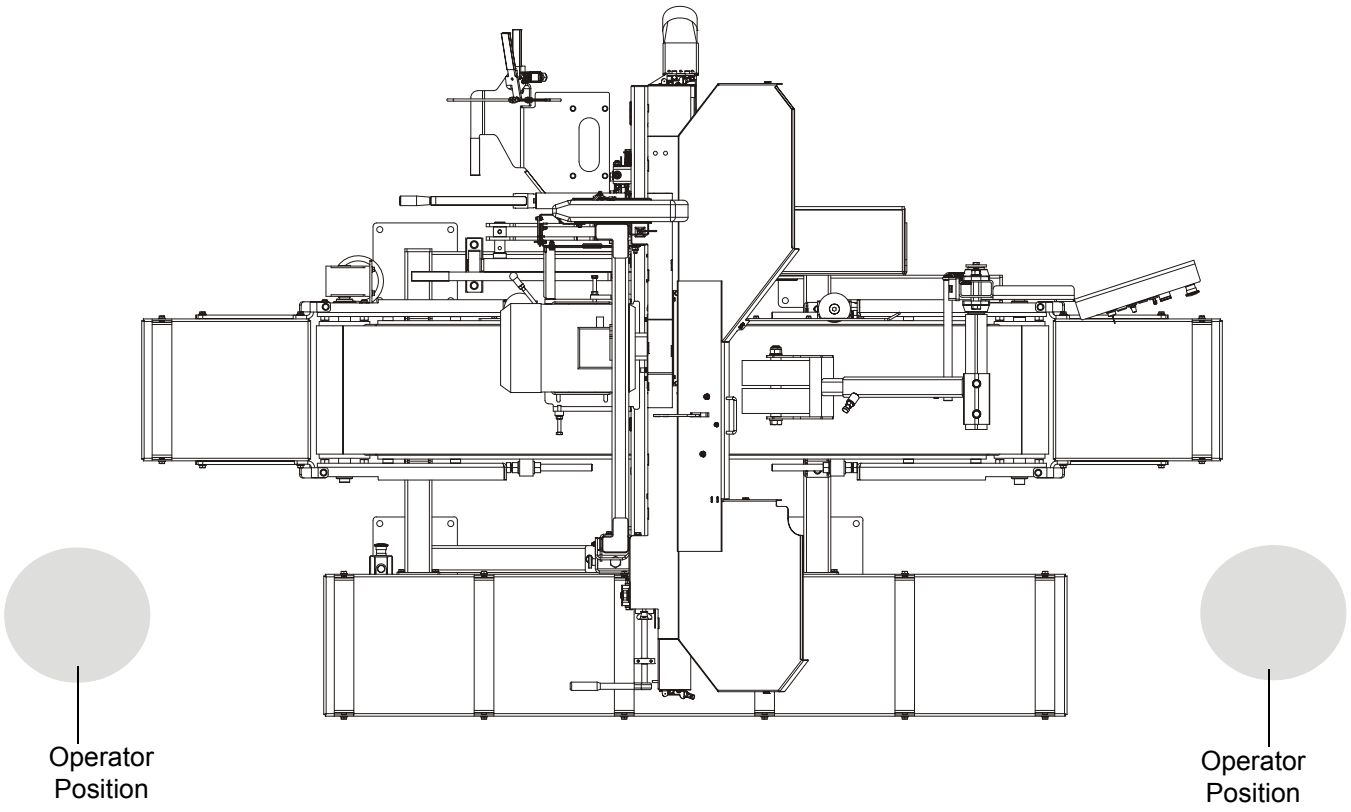
6. Emergency Stop

Push the emergency stop button to stop the blade and the track feed motors. Turn the emergency stop clockwise to release the stop. The resaw will not restart until the emergency stop is released.

2.2 Sawmill Setup

IMPORTANT! Before starting to use the sawmill you have to meet the following conditions:

- Set up the sawmill on firm, level ground and level the sawmill. Secure the sawmill to the ground to prevent moving during operation. A concrete foundation or pads (rated to support 31 T/m^2 at each sawmill foot position) and 16mm anchored bolts are recommended.
- Under roof, the sawmill should always be operated with the sawdust collection system.
- The sawmill can be operated under roof only.
- The sawmill can be operated in temperature range from -15^o C to 40^o C only.
- The illumination at the operator's position should be at least 300lx.
- The sawmill operator’s position is shown below.



- Have a qualified electrician install the power supply (according to EN 60204 Standard).

The power supply must meet the specifications given in the table below.

3-Phase Volts	Fuse disconnect	Suggested Wire Size
400 VAC	16 A	2,5 mm^2 to 15m length

TABLE 2-0

IMPORTANT! When starting the machine for the first time, check that main motor rotation direction is as indicated by the arrow located on the motor body (fan guard). If the rotation direction is incorrect, invert the phases in the phase inverter in the power socket (electric box). Setting the phases in the phase inverter correctly will ensure correct rotation directions of all sawmill motors.

- The resaw can be lifted using a forklift only. The forklift must be rated for at least 2000kg. The resaw is equipped with forklift pockets. Insert the forks into the pockets shown on the picture below.

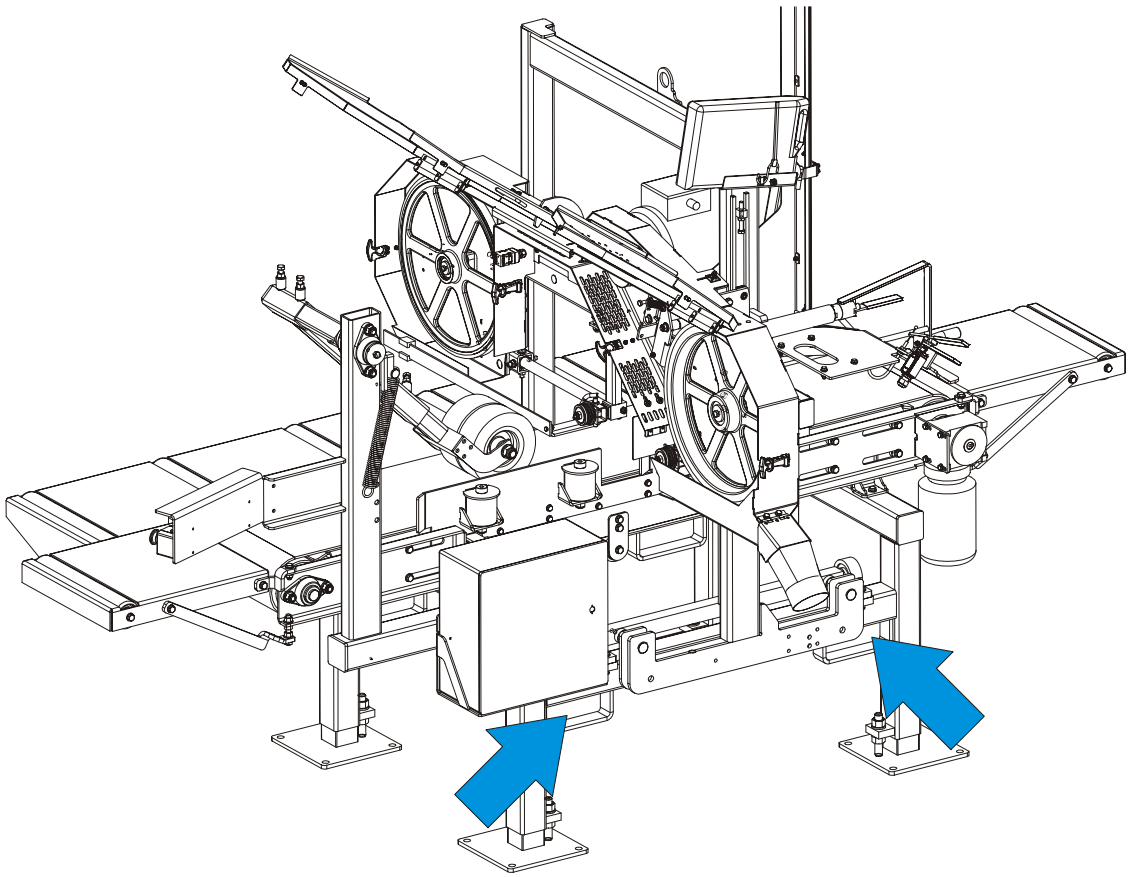


FIG. 2-2

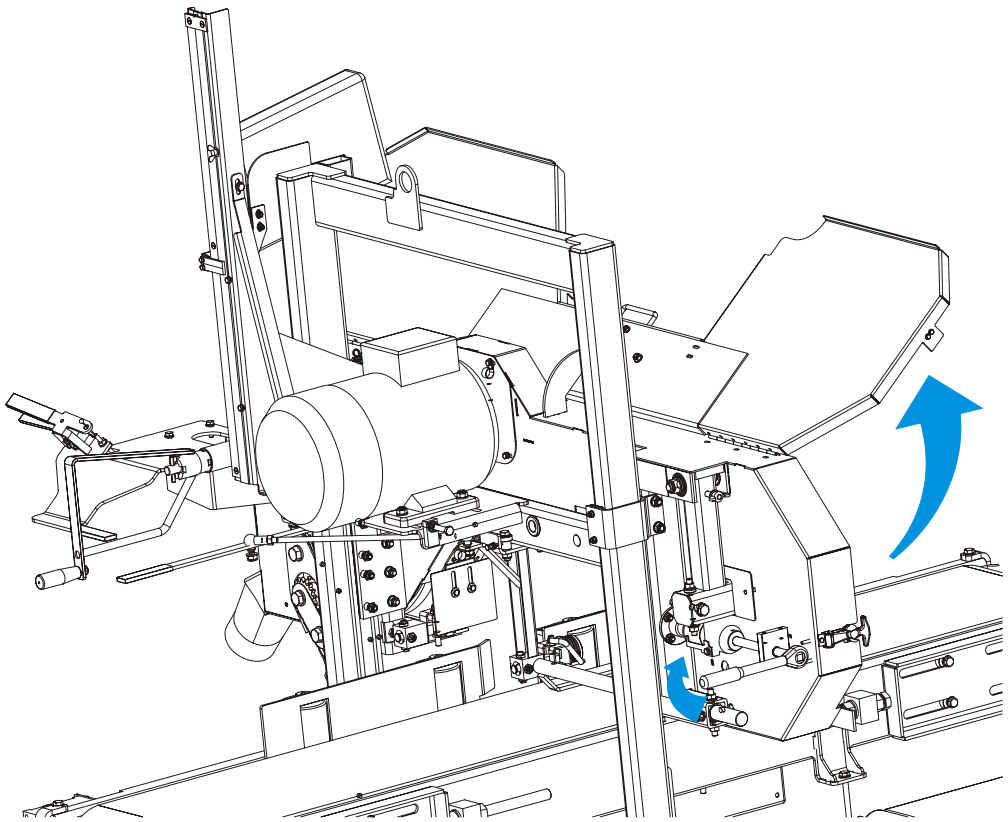
2.3 Replacing The Blade

DANGER! Always disengage the blade and shut off the sawmill motor before changing the blade. Disconnect the power supply using the main switch. Failure to do so will result in serious injury.

WARNING! Always wear gloves and eye protection when handling bandsaw blades. Changing blades is safest when done by one person! Keep all other persons away from area when coiling, uncoiling, carrying or changing a blade. Failure to do so may result in serious injury.

Adjust the blade guide arm all the way open.

Open the blade housing cover. Turn the blade tension handle to release the blade tension until the wheel is pulled in and the blade is lying loose in the blade housing. Lift the blade out of the blade housing.



Install a new blade on the blade wheels. When installing the blade, make sure the teeth are pointing the correct direction. The teeth located between the blade guide assemblies should be pointing toward the sawdust chute.

Position 1 1/4” wide blades on the wheels so the gullet is 1/8" (3.0 mm) out from the front edge of the wheel. Position 1 1/2” wide blades on the wheels so the gullet is 3/16” (4.5 mm) out from the front edge of the wheel.

Close the blade housing cover.

Next, turn the tension handle until the blade is tensioned correctly.

2.4 Tensioning The Blade

See Figure 2-3. Turn the blade tension handle clockwise to compress the rubber spring and tension the blade. Check the blade tension occasionally when adjusting the cant control or while cutting. As the blade and belts heat up and stretch, the blade tension will change. Also, ambient temperature changes can cause tension to change. Adjust the tension handle as necessary to keep the rubber spring washer aligned with the indicator.

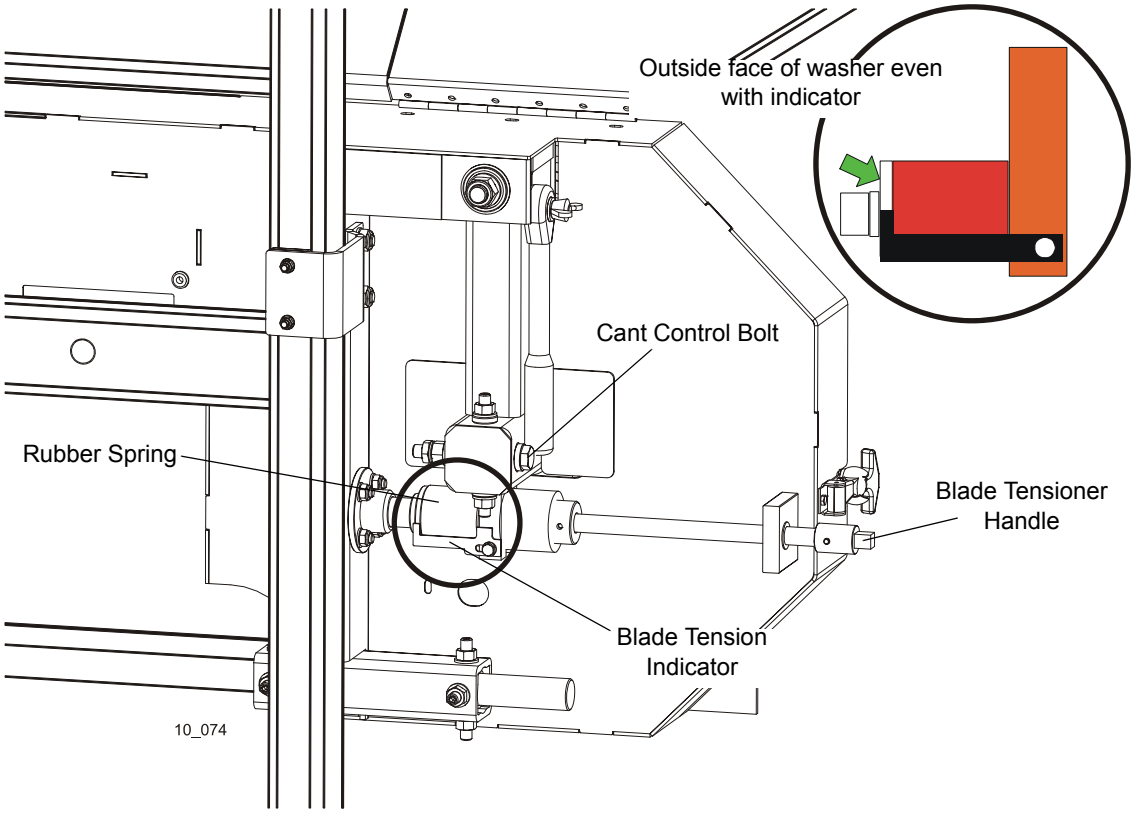


FIG. 2-3

CAUTION! Release the blade tension when the mill is not in use.

2.5 Tracking The Blade

1. Make sure the blade housing cover is closed and all persons are clear of the blade.

2. Start the motor for a moment until the blade positions itself on the wheels.

   WARNING! Do not spin the blade wheels by hand. Spinning the blade wheels by hand may result in serious injury.

3. Turn off the engine and check the position of the blade on the blade wheels.

   See Figure 2-4. Position 1 1/4” wide blades so the gullet is 1/8" (3.0 mm) out from the edge of the blade wheel (±1/32 [.75 mm]).

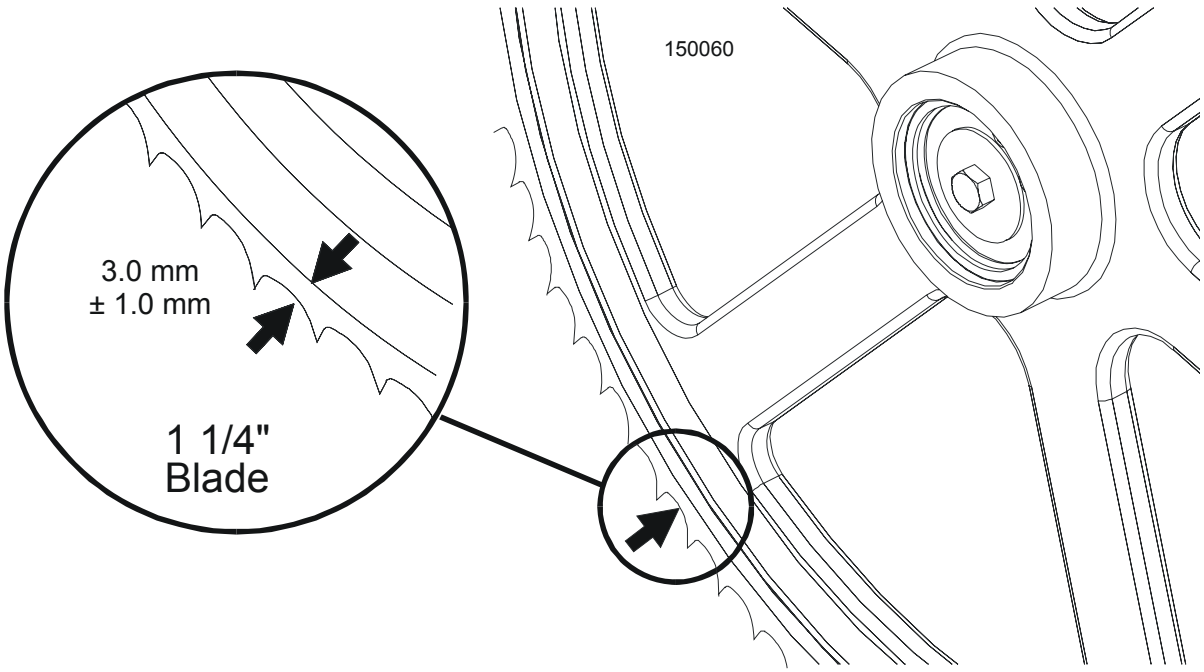


FIG. 2-4

See Figure 2-5. To adjust where the blade travels on the blade wheels, use the cant control bolt.

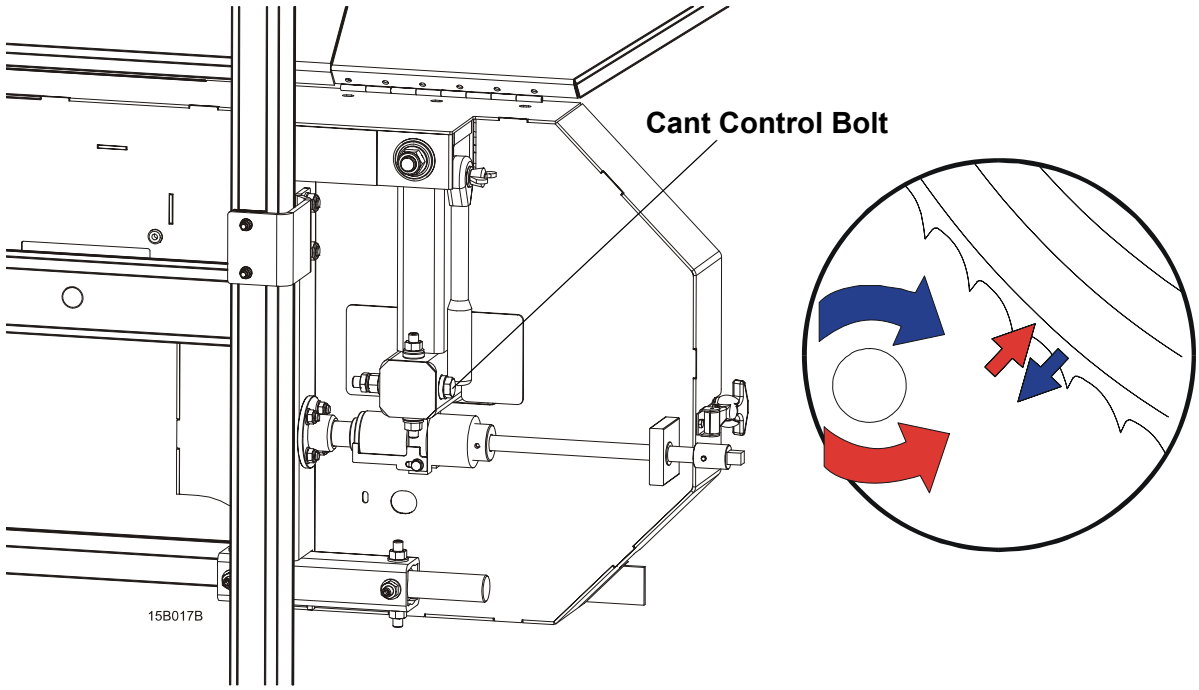


FIG. 2-5

If the blade is too far out, back the blade onto the wheel by turning the cant control counterclockwise. If the blade is too far in, turn the cant control clockwise until the gullet of the blade is the correct distance from the front edge of the wheel.

4. Adjust the blade tension if necessary to compensate for any changes that may have occurred while adjusting the cant control.

5. Close the blade housing cover.

DANGER! Make sure all guards and covers are in place and secured/closed before operating the sawmill. Failure to do so may result in serious injury.

IMPORTANT! After aligning the blade on the wheels, always double-check the blade guide spacing and location. (See *SECTION 6* for more information.)

2.6 Tilt Adjustment

See Figure 2-6. The saw head may be tilted to produce siding. Loosen the locking bolt. Turn the tilt adjustment screw clockwise to tilt the saw head upward or counterclockwise to tilt the saw head downward.

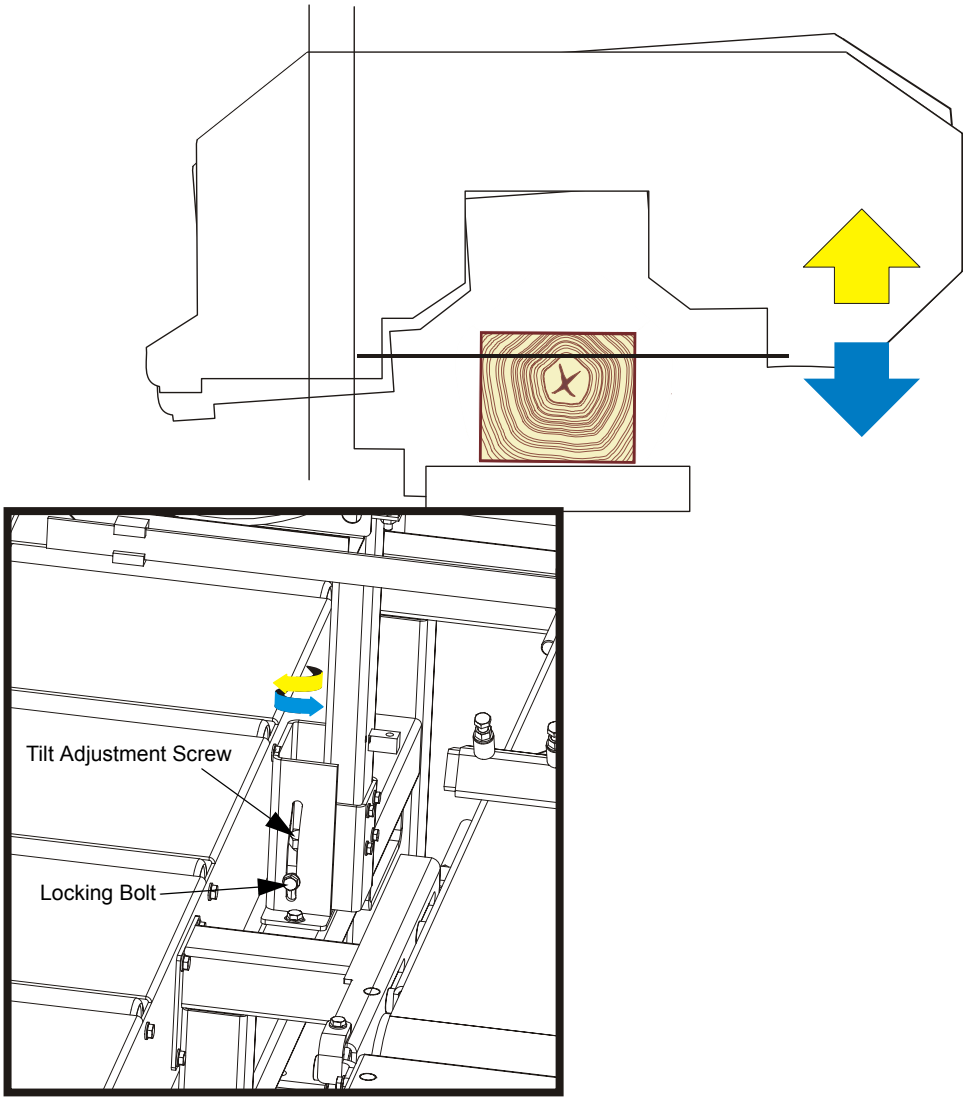


FIG. 2-6

NOTE: The saw head can be set at an angle ranging from 0^{o} to 6^{o}.

2.7 Up/Down Operation

1. Install a blade, if needed, and check for correct blade tension. (*See Section 2.4*).

   Set the cutting head to the desired height. (The blade height scale shows the height of the blade above the bed rails.)

   See Figure 2-7. Use the up/down crank to raise or lower the cutting head.

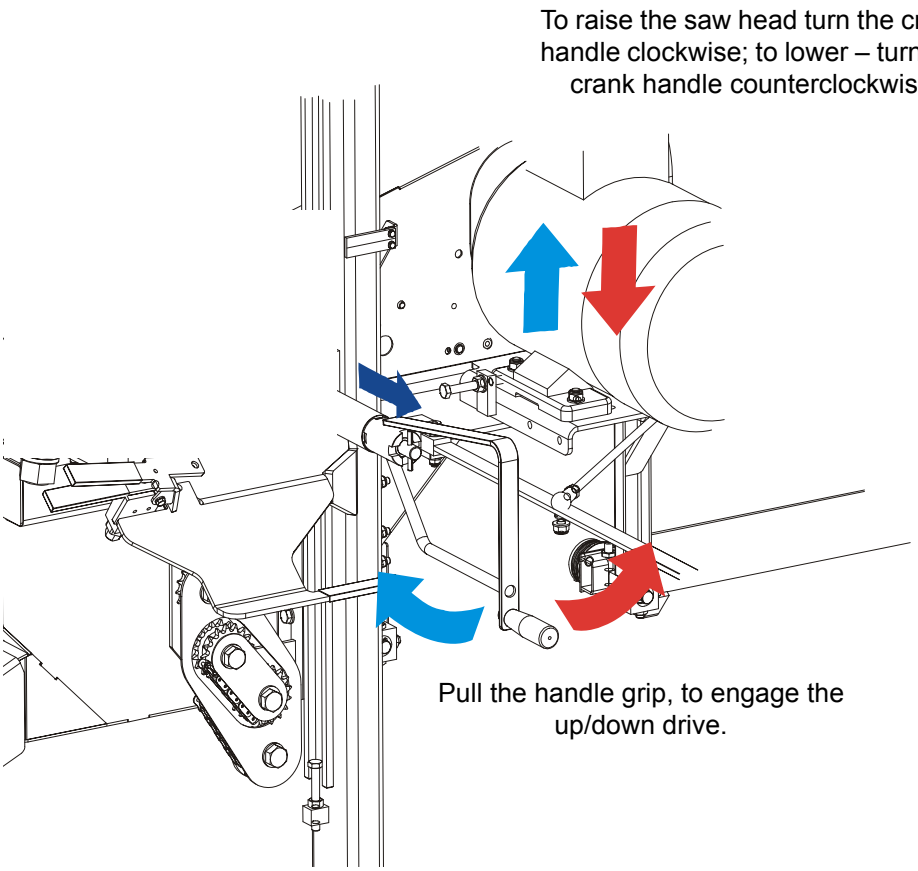


FIG. 2-7

2. Pull the crank grip to lock it in the locking pins.

3. To raise the saw head, turn the up/down crank handle clockwise; to lower – turn the crank handle counterclockwise.

   WARNING! DO NOT try to force the carriage above the 27" (68 cm) mark or below the 1" (2.54 cm) mark. Damage to the up/down system may result.

2.8 Blade Guide Arm Operation

1. Look down the length of the log to see its maximum width. The outer blade guide roller should be adjusted to clear the widest section of the log by less than 1" (25.4 mm).

2. Use the blade guide arm handle to adjust the outer blade guide as necessary. Move the blade guide arm handle right to move the arm out. Move the handle left to move the arm in.

   See Figure 2-8.

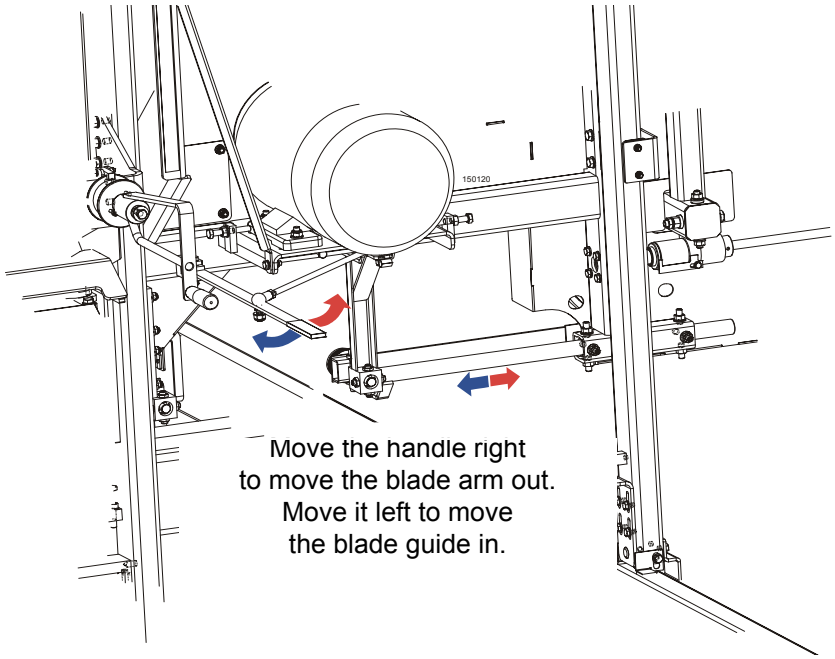


FIG. 2-8

2.9 Blade Drive Operation

IMPORTANT! When starting the machine for the first time, check that main motor rotation direction is as indicated by the arrow located on the motor body (fan guard). If the rotation direction is incorrect, invert the phases in the phase inverter located in the power socket (electric box). Correct motor rotation direction is indicated by the arrow located on the motor body.

DANGER! Make sure all guards and covers are in place and secured/closed before operating the sawmill. Failure to do so may result in serious injury.

WARNING! Always wear eye, ear, respiration and foot protection when operating the sawmill. Failure to do so may result in serious injury.

Be sure the blade housing cover is in place and secured before starting the engine or motor. Use the rubber latches to fasten the blade housing cover shut. If the blade housing cover is not closed and secured, the safety switch located on it interrupts the ignition circuit and the motor/engine cannot be started. If the cover is opened during the mill operation, the engine/motor will be stopped.

To engage the blade, perform the following steps:

1. Clear any loose objects from the area of the blade, motor, and drive belt.
2. Make sure the clamps and side supports are positioned low enough for the blade to pass over them. Make sure the log is clamped securely.
3. Turn the main switch on the electrical box to the ON position, and check if the red safety button is released.
4. Press AND HOLD the safety handle on the control box**.** **NOTE**: If the safety handle is released, the blade disengages and stops.
5. Press the START button on the control box to start the motor.

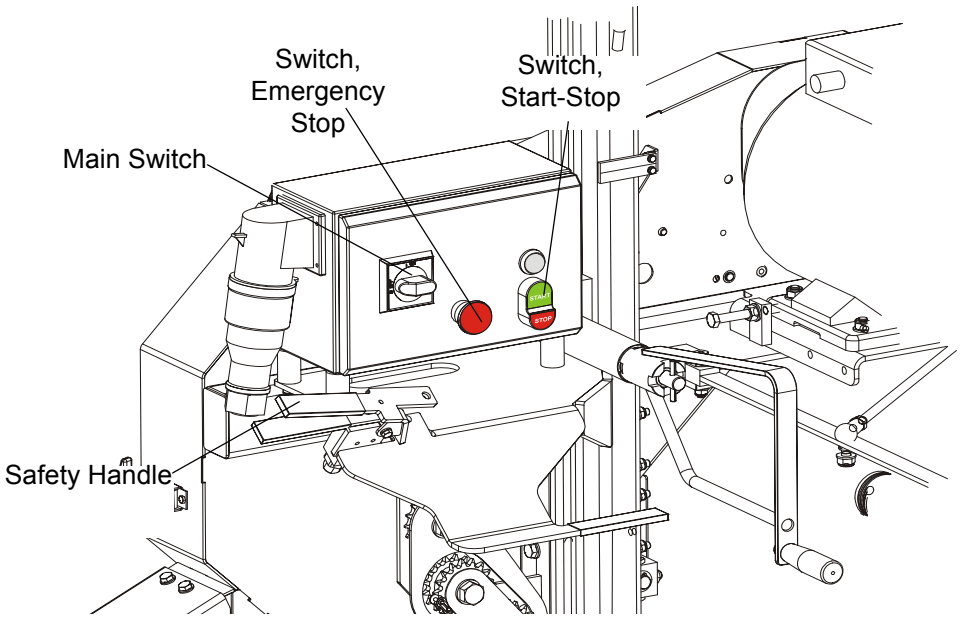


FIG. 2-8

CAUTION! If at any time you need to immediately stop the blade motor, press the emergency stop button located on the electric box.

2.10 Feed Operation

To move the saw head, use the two handles located on the electric box bracket.

HINT: To get a straight cut in the first part of the board, feed the blade into the log at a slow speed. This stops the blade from flexing and dipping up or down. Use a slow speed until the whole width of the blade has entered the cut. Then increase the feed rate as desired. Maximum feed rate varies with width and hardness of the wood. Over-feeding results in blade and drive belt wear.

CAUTION! Be sure to stop the blade when returning the cutting head. This will not only prevent the blade from being pulled off and ruined by a wood sliver, but also will increase the life of the blade.

HINT: Try to stop the blade while the heel of the blade is still on the log. Then bring the carriage back without adjusting the blade up. This lets you keep the blade at the current height setting so you can make the next blade height adjustment more quickly.

2.11 Cutting The Log

The following steps guide you through normal operation of the Wood-Mizer sawmill.

1. Once the log is placed where you want it and clamped firmly, position the blade close to the end of the log.

2. Use the blade height scale to determine where to make your first cut (*See Section 2.13*). Set the blade to the desired height with the up/down crank handle. Make sure that the blade will clear all side supports and clamps. Adjust the outer blade guide (See Section 3.8).

3. Make sure all covers and guards are in place and secured. Start the engine.

4. Start the water lube if necessary to prevent sap buildup on the blade (*See Section 2.14*).

5. Feed the blade into the log slowly. Once the blade completely enters the log, increase the feed rate as desired. Always try to cut at the fastest speed you can while keeping an accurate cut. Cutting too slowly will waste blade life and lower production!

6. As you get to the end of the log, slow down the feed rate. When the teeth exit the end of the log, release the safety handle on the control box. Remove the slab that you have just cut from the log.

7. Use the feed crank to return the cutting head to the front of the mill. Always disengage the blade before returning the cutting head for the next cut.

8. Repeat until the first side of the log is cut as desired. Set aside the usable flitches (boards with bark on one or both sides).You can edge them on the mill later.

9. Remove the leveling wedge if it was used. Release the clamps and turn the log 90 or 180 degrees. Make sure the flat on the log is placed flat against side supports if turned 90 degrees. Make sure it is placed on bed rails if turned 180 degrees. If the log was turned 90 degrees and you are using the wedge to compensate for taper in the log, use the wedge again to adjust the heart of the log parallel with the bed.

10. Repeat the steps used to cut the first side of the log until the log is square. Cut boards from the remaining cant.

Example: Remember that the blade cuts a 1/16 - 1/8" (1.6 - 3.2 mm) wide kerf. If you want 1" (25 mm) thick boards, lower the carriage 1 1/16 - 1 1/8" (27 - 29 mm) for each board.

2.12 Edging

The following steps guide you through edging boards on the Wood-Mizer sawmill.

1. Raise the side supports to 1/2 the height of the flitches, or the boards that need to be edged.

2. Stack the flitches on edge against the side supports.

3. Clamp the flitches against the side supports halfway up the flitch height. (Wider flitches should be placed to the clamp side. When they are edged, flip them over to edge the second side without disturbing the other flitches.)

4. Adjust the blade height to edge a few of the widest boards.

5. Loosen the clamps and turn the edged boards over to edge the other side.

6. Repeat steps 2-4.

7. Loosen the clamps and remove the boards that have good clean edges on both sides. Clamp the remaining flitches and repeat steps 2-5.

2.13 Blade Height Scale

See Figure 2-9. The blade height scale is mounted on the vertical mast. It includes:

- a blade height indicator
- centimeter scale (or quarter inch scale)

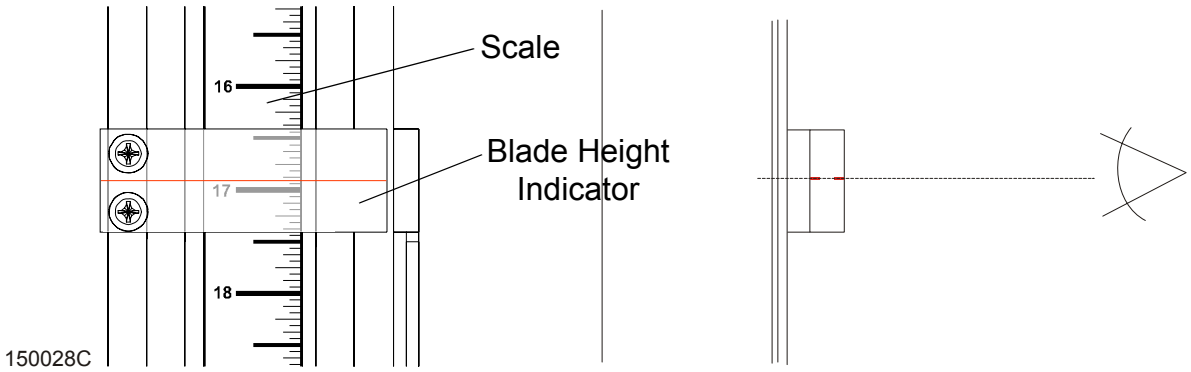


FIG. 2-9

Blade Height Indicator

The blade height indicator has two horizontal, red lines on both sides. Readings should be taken with eyes level with the indicator, when the two red lines are in line. This will allow to avoid the parallax error (different scale readings depending on the angle of vision).

The Scale

The horizontal red line on the blade height indicator shows how many centimeters the bottom of the blade is above the bed of the mill. If you know the height of your blade at each cut, you can determine the thickness of lumber you are sawing.

Example: You want to cut 25 mm random width boards from a log. Position the blade for the first cut. Move the carriage to an even measurement on the scale. Make a trim cut. Return the carriage for the second cut and lower it 29 mm below the original measurement. (The extra 3 mm allows for saw kerf and shrinkage of the lumber.)

The yellow area on the scale identifies where the blade could encounter a side support or log clamp. Check that these items are below the blade level before sawing.

The Quarter Scale

See Table 2-1. The quarter scale contains of four sets of marks. Each set represents a specific lumber thickness. Saw kerf and shrinkage allowance are included, but actual board thickness will vary slightly depending on blade thickness and tooth set.

To choose which scale to use, determine what finished thickness you want to end up with. The Grade Hardwood Quarter Scale provides thicker finished boards usually required by commercial buyers.

The Standard Quarter Scale allows for kerf and shrinkage of finished boards suitable for most custom applications. Always check with your customer before you saw to determine what actual finished thickness is required.

Standard Quarter Scale	
Scale	**Actual Board Thickness**
4/4	25 mm (1")
5/4	32 mm (1 1/4")
6/4	38 mm (1 1/2")
8/4	51 mm (2")

Grade Hardwood Quarter Scale	
Scale	**Actual Board Thickness**
4/4	29 mm (1 1/8")
5/4	35 mm (1 3/8")
6/4	41 mm (1 5/8")
8/4	54 mm (2 1/8")

TABLE 0-0

To use the quarter scale, look at the blade height indicator. **Example:** You want to cut 1" (25 mm) (4/4) random width boards from a log. Position the blade for the first cut. Make a trim cut. Return the carriage for the second cut. Now, instead of having to measure down 1 1/8" (29 mm) on the inch scale, you can simply lower the blade so the indicator is aligned with the next 4/4 mark on the quarter scale. Turn the log 90 degrees and repeat.

2.14 Machine Start

DANGER! Before starting the resaw, perform these steps to avoid injury and/or damage to the equipment:

- Close the blade housing cover and replace any guards removed for service.
- Check the feed track and remove all loose objects such as tools, wood, etc.
- Check that the blade is properly tensioned.
- Make sure all persons are a safe distance from the machine.
- Check that the emergency stops are released.

NOTE: The resaw will not start if either of the emergency stops is on.

Before starting the saw head, check that the main power switch servicing the resaw is on.

See Figure 2-10. Start the blade motor. To do this, turn the key switch to the position and then push the Blade Start button on the control panel (see the figure below). The motor should start and the blade should start spinning.

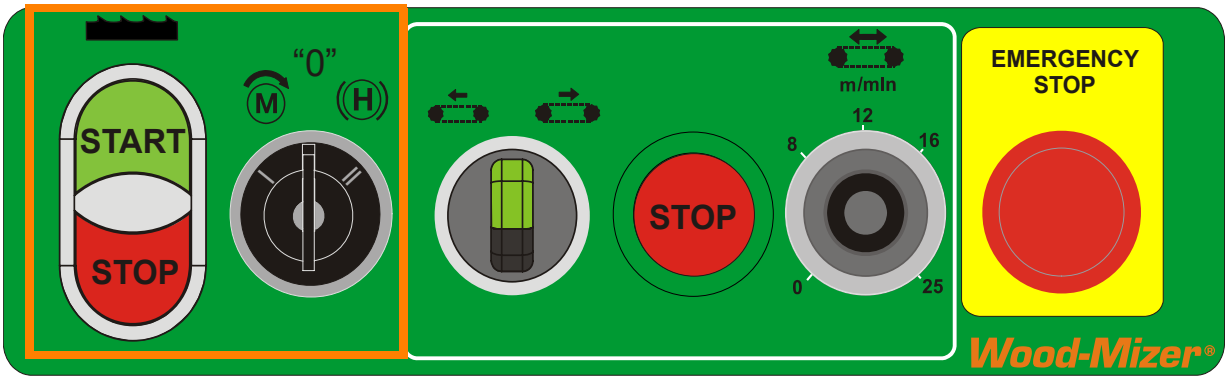


FIG. 2-10

See Figure 2-11. To stop the blade motor, push the Blade/Track Stop button shown in the figure above. The blade motor also may be stopped by pushing either of the emergency stop buttons.

If either of the emergency stops has been used to stop the blade motor, rotate the switch clockwise before restarting the saw head. The saw head cannot be restarted until the emergency stop button is released.

See Figure 2-12. After the saw head has been successfully started, the feed track can be started. To

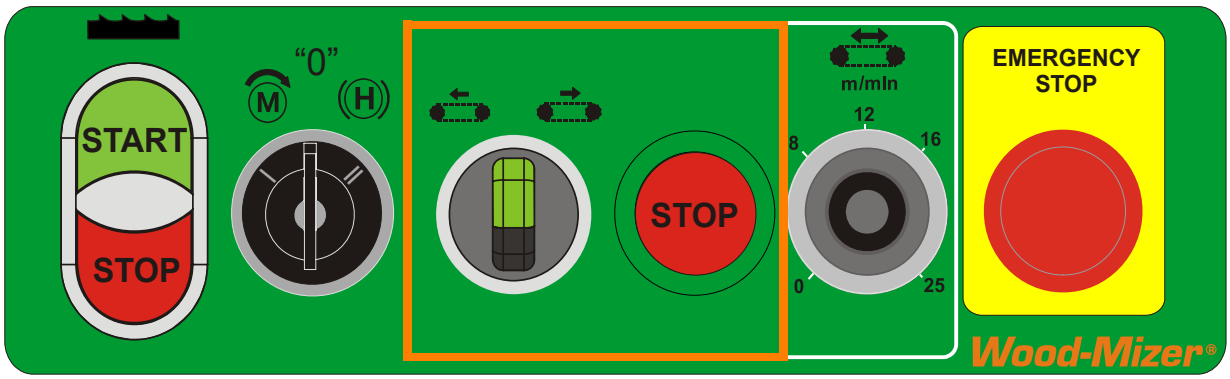


FIG. 2-12

start the track chain motor, turn the Track Start switch (shown in Figure 2-6) left to start the track forward, turn the switch right to start the track backward.

The feed track can be stopped by pressing either the Stop button, shown in Figure 2-5, or one of the emergency stop buttons. The emergency stop will also stop the blade motor.

> **NOTE:** The feed track cannot be started if the blade motor is not started.

See Figure 2-13. The speed at which the feed track moves is adjustable. The feed track speed

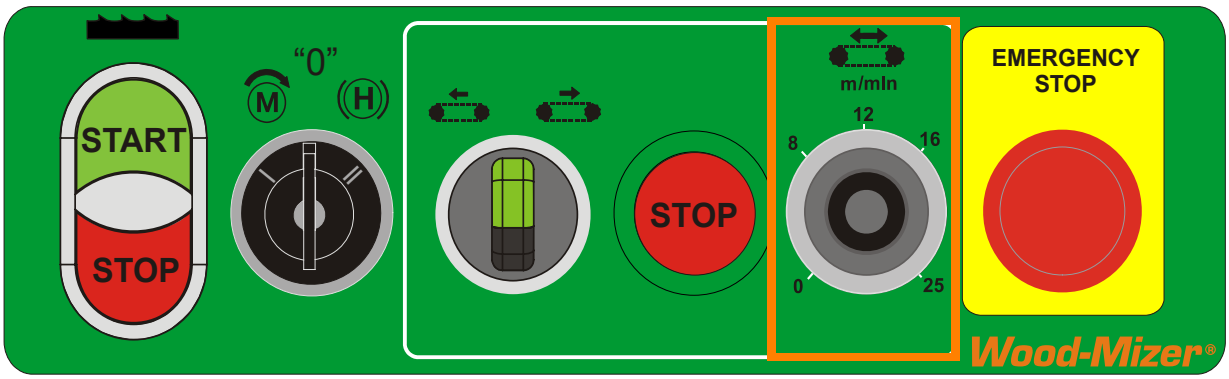


FIG. 2-13

switch, located on the control panel, allows the operator to adjust the feed rate from 0 to ca. 30 m per minute.

Turn the switch clockwise to increase the feed rate, counterclockwise to slow the feed rate down.

Factors that will determine what feed rate you can use include:

- Width of material to be cut. Eight-inch material will require a slower feed rate than 1" material.
- Hardness of material to be cut. Some woods that are seasoned or naturally very hard will require slower feed rates.
- Sharpness of blades. Dull or improperly sharpened blades will require slower feed rates than sharp and properly maintained blades.
- Off-bearing capability. Your ability to feed end-to-end will also determine what feed rate you can use.

2.15 Water Lube Operation

The Water Lube System keeps the blade clean. Water flows from a 5 liter bottle through a hose to the blade guide where the blade enters the log. A valve in the bottle cap controls the amount of water flow.

See Figure 2-14. Install the water bottle at the top of the vertical mast.

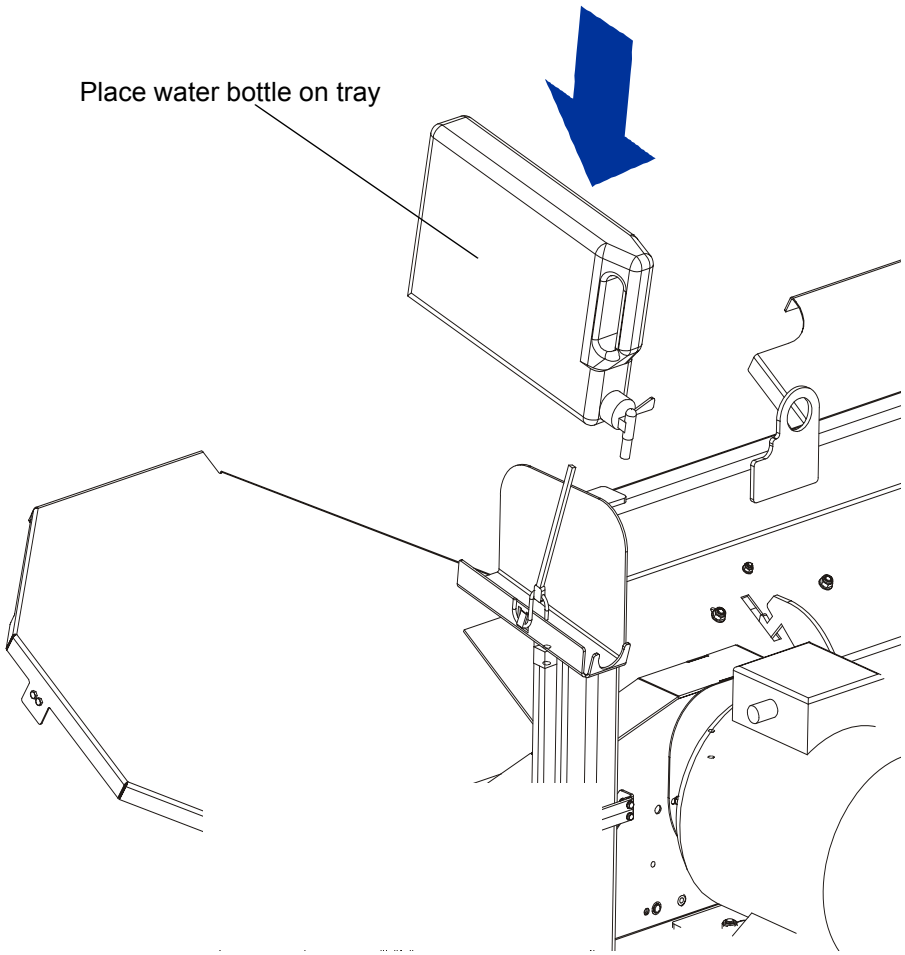


FIG. 2-14

See Figure 2-15. Open the valve on the water bottle to start water flow on the blade.

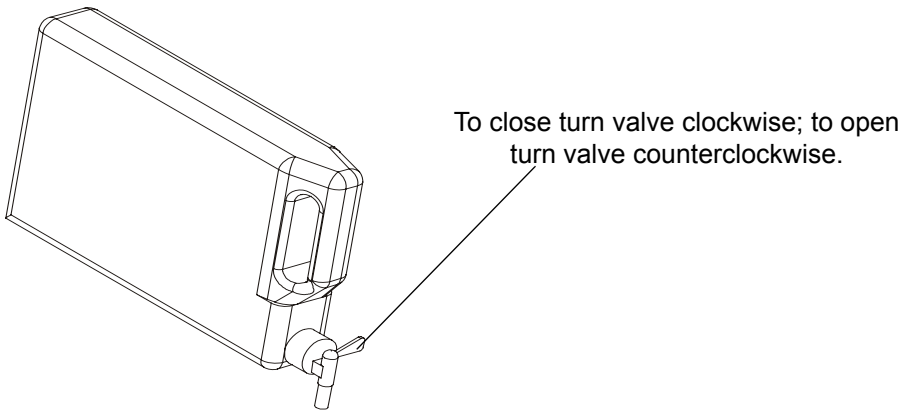


FIG. 2-15

Not all types of wood require the use of the Water Lube System. When it is needed, use just enough water to keep the blade clean. This saves water, and lowers the risk of staining the boards with water. Usual flow will be 1-2 gallons (3.8-7.6 liters) per hour. A squirt of liquid dishwashing detergent in the water bottle will help clean the blade when cutting wood with a high sap content.

WARNING! Use ONLY water with the water lube accessory. Never use flammable fuels or liquids. If these types of liquids are necessary to clean the blade, remove it and clean with a rag. Failure to do so may result in serious injury or death.

Before removing the blade, engage blade drive. Let the blade spin with water running on it for about 15 seconds. This will clean the blade of sap buildup. Wipe the blade dry with a rag before storing or sharpening.

If you are sawing in freezing temperatures, remove the water lube bottle from the sawmill when done sawing and store it in a warm place. Blow any remaining water from the water lube hose.

2.16 Transporting the Sawmill

The assembled sawmill cannot be transported. To transport the sawmill, the vertical mast and the saw head have to be removed from the frame, and secured.

WARNING! Keep all persons out of the path while loading and unloading the sawmill. Failure to do so may result in serious injury or death.

Secure the sawmill to the truck bed to prevent the sawmill from shifting while it is being transported.

SECTION 3 MAINTENANCE

This section lists the maintenance procedures that need to be performed on the LT10 sawmills.

The Short Interval Maintenance Schedule lists procedures that need to be performed every 4, 8 or 25 hours.The Maintenance Log lists procedures that need to be performed every 50, 100, 200, or 1000 hours. Keep track of machine maintenance by filling in the machine hours and the date you perform each procedure.

0 **This symbol** identifies the interval (hours of operation) which each maintenance procedure should be performed.

3.1 Wear Life

See Table 3-1. This chart lists estimated life expectancy of common replacement parts if proper maintenance and operation procedures are followed. Due to the many variables which exist during sawmill operation, actual part life may vary significantly. This information is provided so that you may plan ahead in ordering replacement parts.

Part Description	Estimated Life
B57 Blade Wheel Belts	500 hours
Blade Guide Rollers	1000 hours
Drive Belt	1250 hours

TABLE 0-0

3.2 Sawdust Removal

Remove the excess sawdust from the blade wheel housing and sawdust chute every blade change.

3.3 Vertical Mast Rails

50 Clean and lubricate the vertical mast rails every 50 hours of operation. Clean with solvent and remove any rust with a light-grade sand paper. Lubricate the mast with motor oil or automatic transmission fluid (e.g. Dextron II or Dextron III).

CAUTION! Never use grease on the mast rails as it will collect sawdust.

3.4 Miscellaneous Lubrication

1. Lubricate the tensioner screw and up/down crank handle shaft with a rolling bearing grease (e.g. ŁT4S or Shell Extreme Pressure Grease) as needed.

   See Figure 3-1.

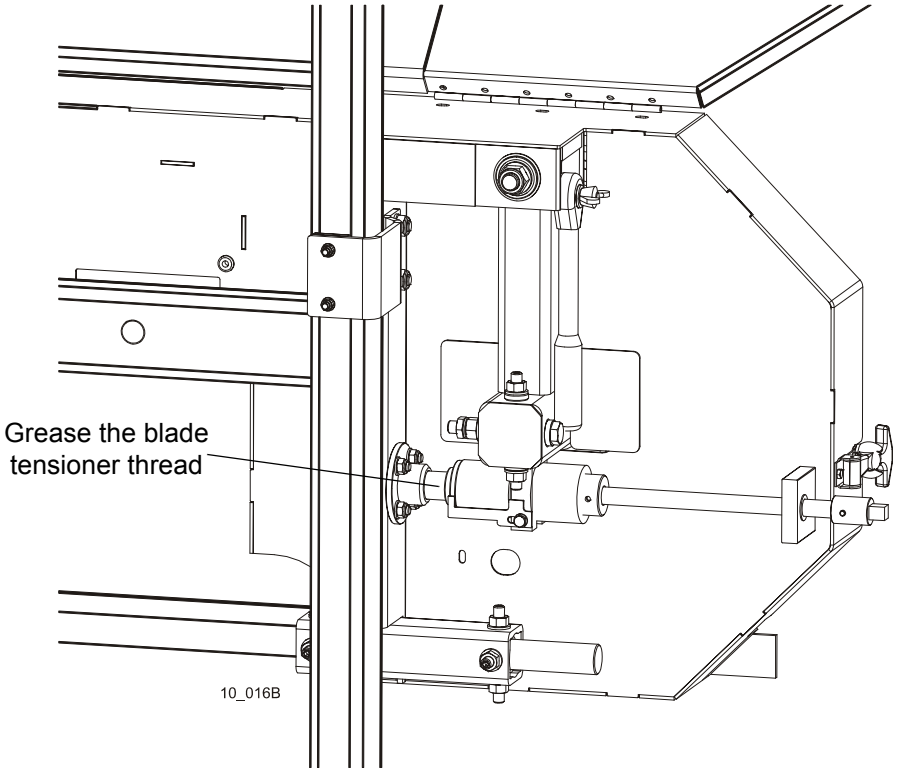


FIG. 3-1

3.5 Blade Wheel Belts

1. Check the blade wheel belts for wear. Replace belts as necessary. Rotating the belts every 50 hours will give you longer belt life. Use only B57 belts manufactured by Goodyear or Browning.

50

2. Periodically check all belts for wear. Replace any damaged or worn belts as needed.

3.6 Up/Down System

1. Adjust the up/down chain tension as needed. Measure chain tension, with the saw head all the way to the top of the vertical mast. Secure the saw head with a chain at the top or shim it underneath. Find the chain adjusting bolt at bottom part of the mast. Loosen the nut on the bolt and move the sprocket down until there is about 1" (2.5cm) total deflection in the center of the chain with a 5 lb. (2.3kg) deflection force.

WARNING! Always secure the cutting head with a chain or brace before adjusting the up/down chain. The cutting head may fall, causing severe injury or death.

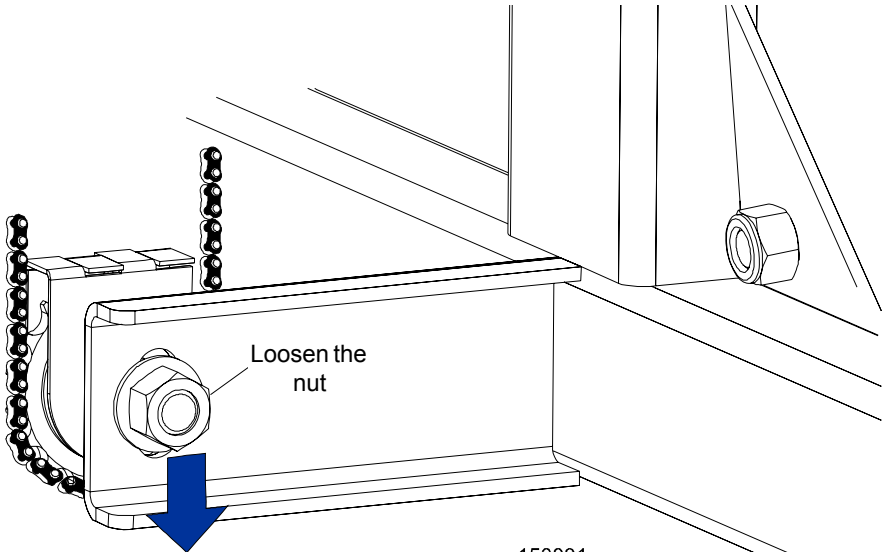


FIG. 3-1

3.7 Miscellaneous Maintenance

50

1. Check the drive belt tension after the first 20 hours, and every 50 hours thereafter. See Section 6.13 for more informations.

2. Check the mill alignment every setup. See Section 6, Alignment)

3. Make sure all safety warning decals are readable. Remove sawdust and dirt. Replace any damaged or unreadable decals immediately. Order decals from your Customer Service Representative.

3.8 Safety Devices Inspection

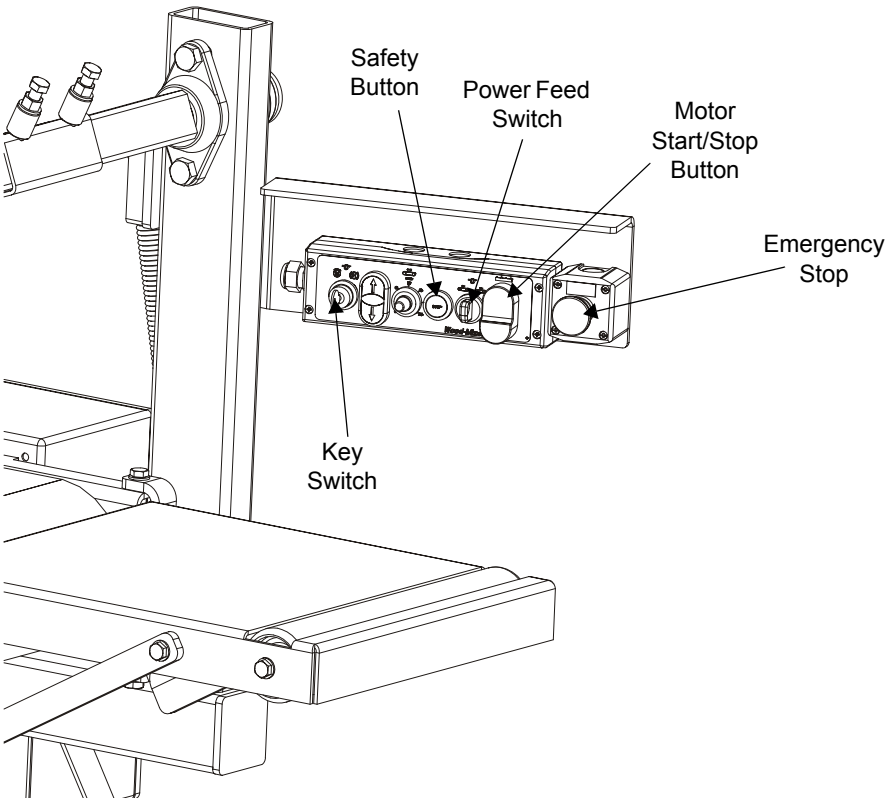
HR110 – Safety Devices Inspection

Safety devices on the LT10 machine which must be checked before every shift:

- E-STOP button and its circuit inspection
- Safety handle and its circuit inspection
- Blade cover safety switches and its circuit inspection.

1. E-STOP button and its circuit inspection

- Press and hold the safety handle;
- Turn on the blade motor;
- Press the E-STOP button located on the control box. The blade motor should be stopped. Pressing the START button shouldn't start the motor until the E-STOP button is released.



- 2. Safety handle and its circuit inspection
- Be sure the E-STOP button is released;
- Press and hold the safety handle;
- Turn on the blade motor;

- Release the safety handle. The blade motor should be stopped.
- Press and hold the safety handle. The blade motor should remain stopped.

3. Blade cover safety switch and its circuits inspection

- Press and hold the safety handle;
- Turn on the blade motor;
- Open blade housing cover;
- The blade motor should be stopped;
- Try to start the motor. The blade motor should remain stopped;
- Close the blade housing cover;
- The blade motor should remain stopped until it is restarted with the START button.

SECTION 4 SAWMILL ALIGNMENT

4.1 Pre-Alignment Procedures

Periodically check the sawmill alignment and adjust if necessary. This chapter explains how to align the entire sawmill. Care should be taken in performing these steps. Sawmill alignment determines the accuracy and squareness of your cuts.

The sawmill alignment steps are:

1. Prepare the sawmill for alignment
2. Adjust the blade parallel to the bed rails
3. Adjust the blade guide arm parallel to the saw head brace
4. Align blade guides to the blade
5. Final Adjustments.

To insure accurate alignment, the sawmill frame must be level and a blade properly installed.

See SECTION 3 Setup & Operation for setup information.

4.2 Preparing The Sawmill For Alignment

Before performing the following alignment procedures, setup the mill on firm, level ground. String the bed and adjust the legs so the frame is level (*Section 3.1*).

4.3 Blade Installation and Alignment

Install a blade and apply the appropriate tension as shown in *Section 3.3*.

1. Close the blade housing cover and make sure all persons are clear of the open side of the saw head.

2. Start the motor for a moment.

   WARNING! Do not spin the blade wheels by hand. Spinning the blade wheels by hand may result in serious injury.

3. Turn off the motor, open the blade housing cover, remove the key from the key switch and check the position of the blade on the blade wheels.

   Check the vertical alignment of the idle-side blade wheel. The gullet of the blade should ride the same distance from the front edge of the wheel at the top and bottom of the wheel. If it does not, loosen and tighten the appropriate adjustment screws on the wheel shaft.

   See Figure 4-1. The blade wheels should be adjusted so that the gullet of 1 1/4" blades ride 1/8" (3 mm) out from the front edge of the wheels (±1/26 [1 mm]). The gullet of 1 1/2" blades should ride 3/16" (4.5 mm) from the front edge of the wheels (±1/26 [1 mm]). Do not let the teeth ride on the wheels.

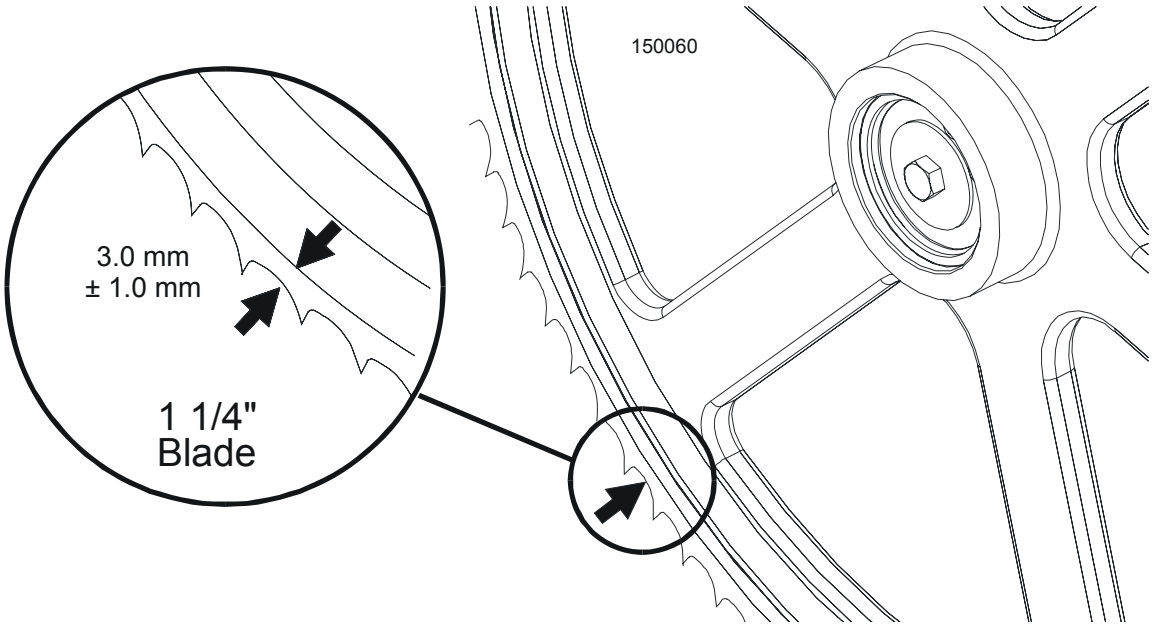


FIG. 4-1

To adjust where the blade travels on the idle-side and drive-side blade wheel, see next section in this manual.

4.4 Blade Wheel Alignment

The blade wheels should be adjusted so they are level in the vertical and horizontal planes. If the blade wheels are tilted up or down, the blade will want to travel in the tilted direction. If the blade wheels are tilted horizontally, the blade will not track properly on the wheels.

Use the blade guide alignment tool to check the vertical alignment of each blade wheel.

1. Attach the tool to the blade near the inner blade guide mount. Be sure the tool does not rest on a tooth or burr, and is lying flat against the bottom of the blade.

   See Figure 4-2.

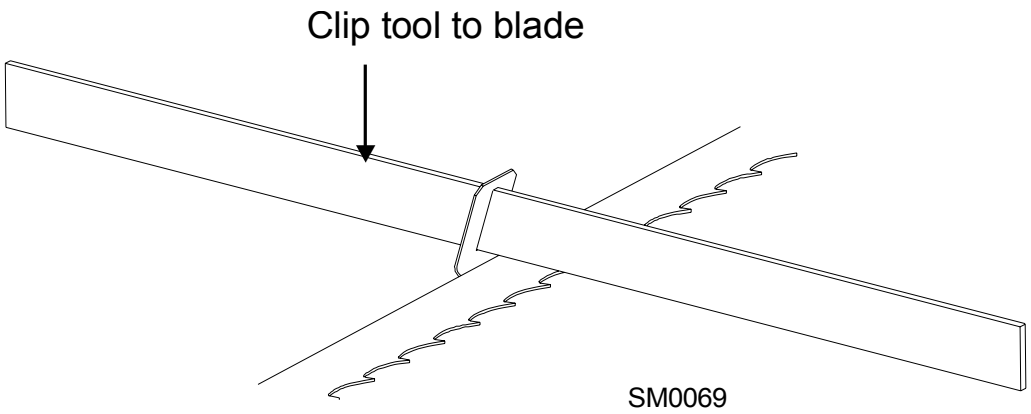


FIG. 4-2

2. Move the saw carriage so the front end of the tool is positioned over the first bed rail. Measure from the bottom of the tool to the top surface of the bed rail.

3. Move the saw carriage so the rear of the tool is positioned over the bed rail. Again, measure from the bottom of the tool to the bed rail.

4. If the two measurements differ by more than 1/16" (1.5 mm), adjust the vertical tilt of the drive-side blade wheel.

See Figure 4-3. Use the vertical adjustment screws to adjust the drive-side blade wheel. To tilt the wheel down, loosen the top adjustment screw half turn. Loosen the jam nut on the bottom adjustment screw and tighten the screw. Tighten the top and bottom jam nuts.

To tilt the wheel up, loosen the bottom adjustment screw half turn. Loosen the jam nut on the top adjustment screw and tighten the screw. Tighten the top and bottom jam nuts.

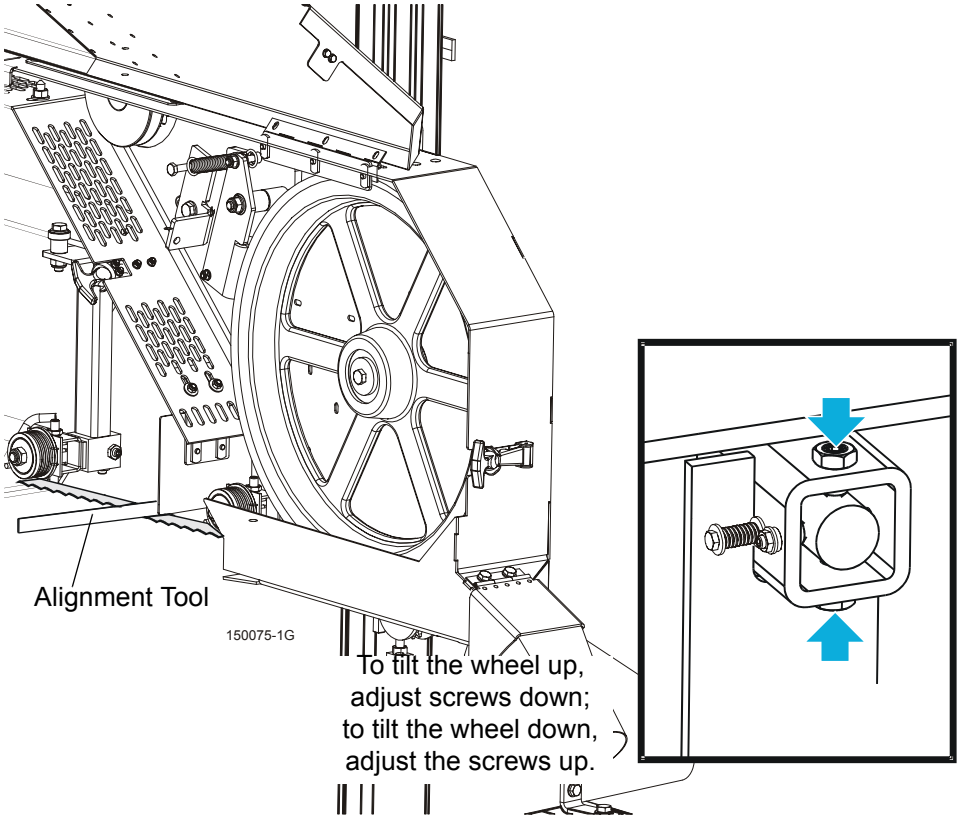


FIG. 4-3

5. Re-check the vertical tilt of the drive-side blade wheel with the blade guide alignment tool. Readjust the blade wheel as necessary until the front and rear of the tool are the same distance from the bed rail (within 1/16" [1.5 mm]).

6. Remove the tool from the blade and re-attach it near the outer blade guide assembly.

7. Measure from the tool to the bed rail at both ends of the tool. If the measurements at the front and rear ends of the tool differ by more than 1/16" (1.5 mm), adjust the vertical tilt of the idle-side blade wheel.

   See Figure 4-4. Use the vertical adjustment screws to adjust the idle-side blade wheel. To tilt the wheel up, loosen the bottom nut and adjustment screw half turn. Loosen the jam nut on the top adjustment screw and tighten the screw. Tighten the top and bottom jam nuts.

   To tilt the wheel down, loosen the top adjustment screw half turn. Loosen the jam nut on the bottom

adjustment screw and tighten the screw. Tighten the top and bottom jam nuts.

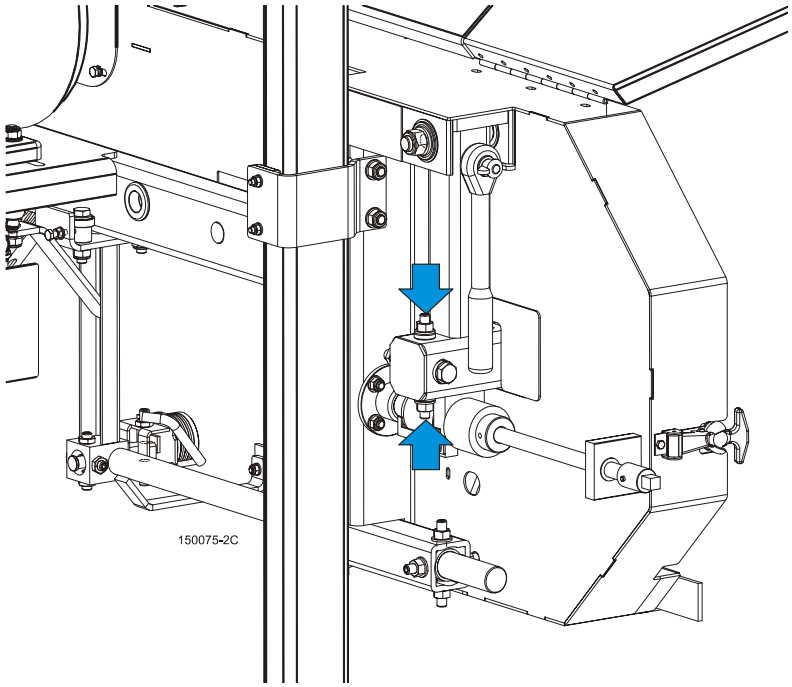


FIG. 4-4

8. Re-check the vertical tilt of the idle-side blade wheel. Readjust if necessary.

9. Check the position of the blade on the idle-side blade wheel.

See Figure 4-5. The horizontal tilt of the blade wheel should be adjusted so that the gullet of an 1-1/4" blade is 1/8" (3 mm) out from the front edge of the wheel (±1/32 [0.75 mm]).

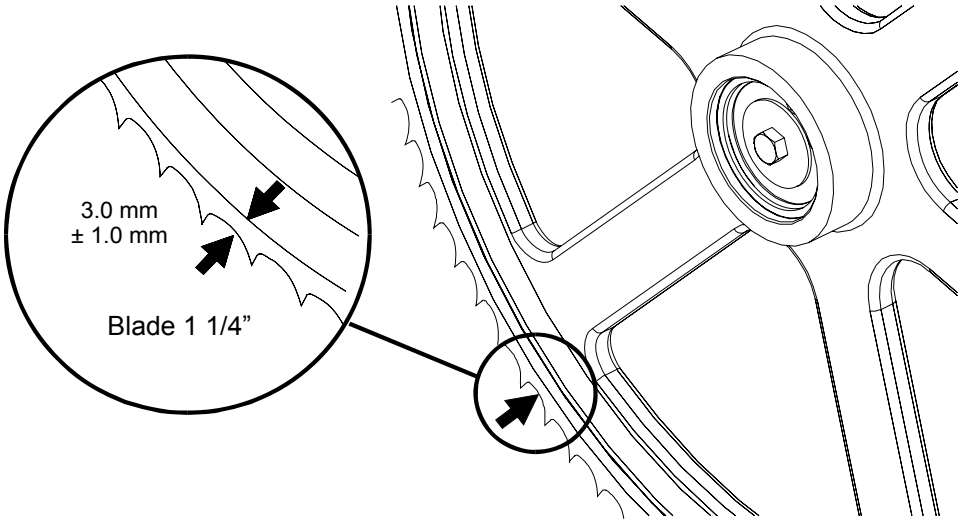


FIG. 4-5

See Figure 4-6. Use the cant control adjustment, shown on the figure below, to adjust the idle-side blade wheel. If the blade is too far forward on the wheel, turn the cant control counter clockwise. If it is too far back on the wheel, turn the cant control clockwise.

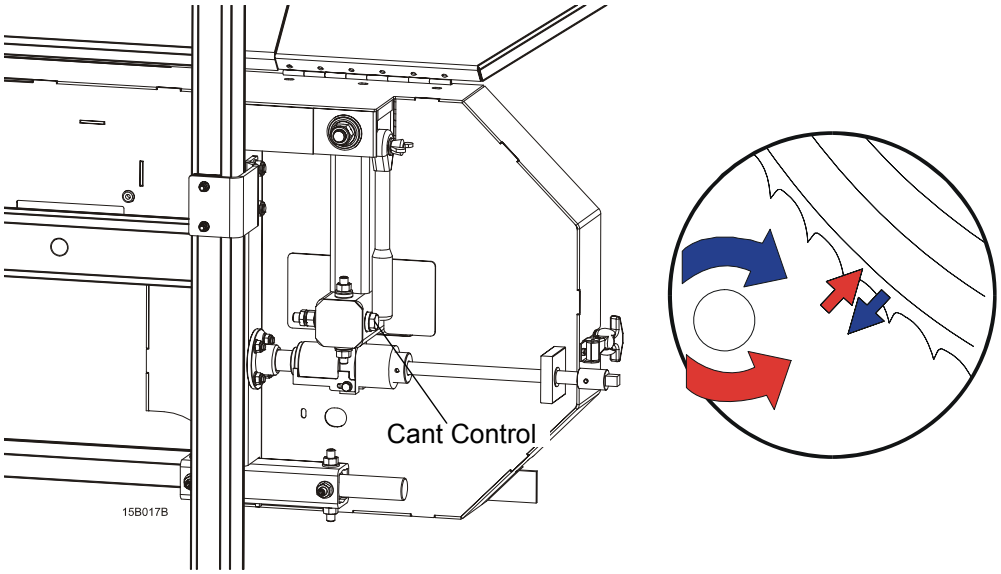


FIG. 4-6

10. Check the position of the blade on the drive-side blade wheel. The blade should be positioned on the wheel as described for the idle-side blade wheel. Adjust the drive-side blade wheel if necessary.

See Figure 4-7. Use the horizontal adjustment screw to adjust the drive-side blade wheel. Loosen the jam nut on the adjustment screw. Loosen adjustment screw to move blade out on wheel. Tighten

adjustment screw to move blade in on wheel. Tighten the jam nut.

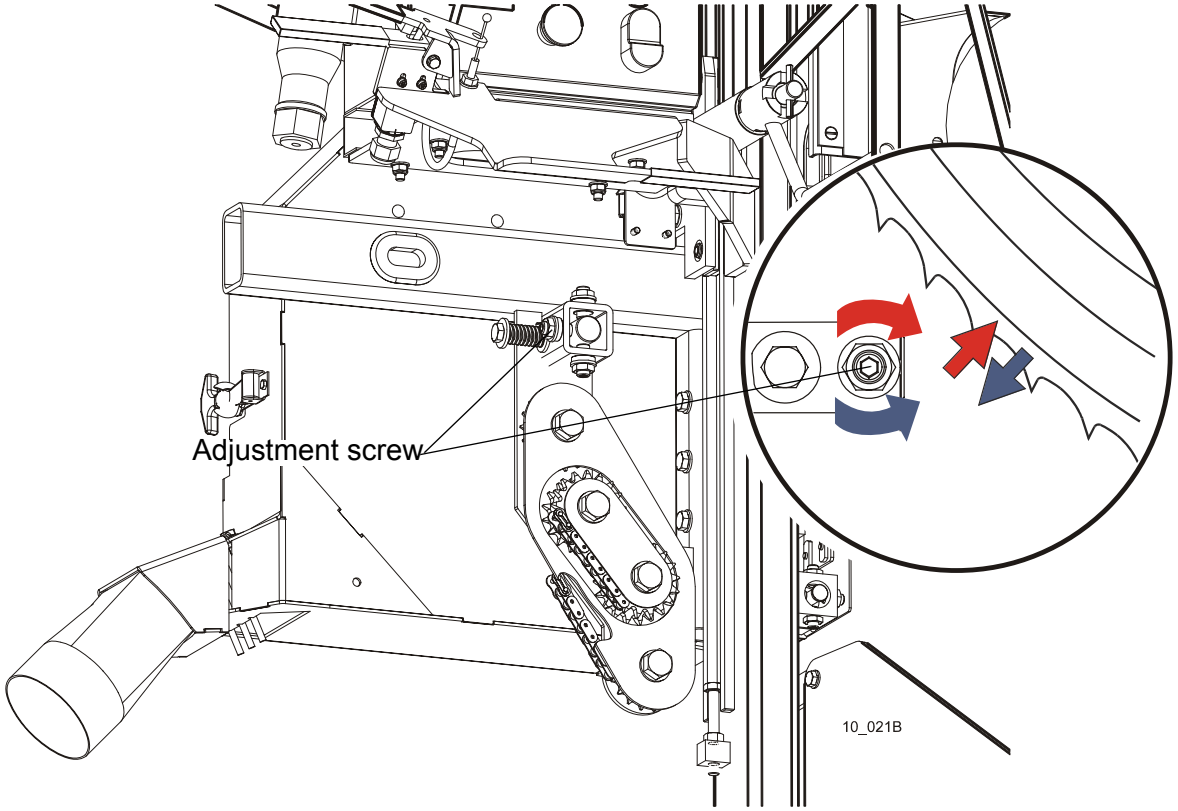


FIG. 4-7

11. Adjust the blade vibration damper screw. Distance from the screw to the blade should be about 1mm.

See Figure 4-8.

FIG. 4-8

4.5 Blade Guide Arm Alignment

Before aligning the blade guide arm, track the blade on the blade wheels as described in *Section 3.4*. Move the cutting head so the blade is positioned over the first bed rail. Level the blade to the bed rail as shown in *Section 3.1*. Adjust the blade guide rollers so they do not touch the blade.

Vertical Alignment

1. Adjust the blade guide arm all the way out away from the other blade guide (maximum distance between the guide rollers).

   See Figure 4-9.

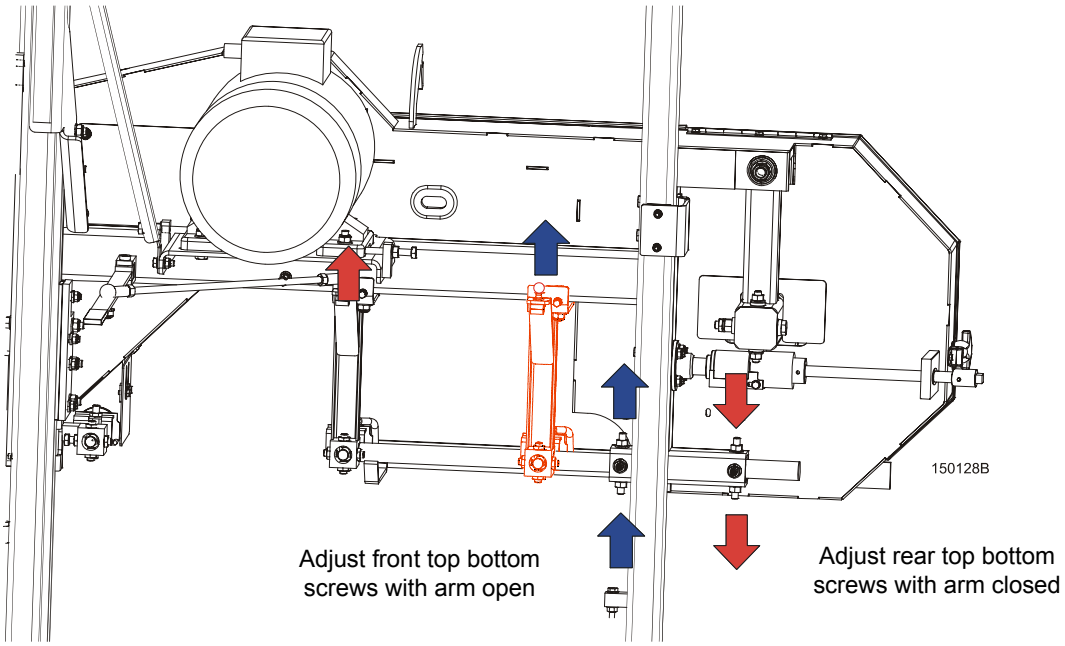


FIG. 4-9

2. Use the arm adjustment screws, marked with blue arrows in the figure above, to adjust the arm up until the slide pad touches the saw head brace tube. Tighten the jam nuts.

3. Adjust the blade guide arm in all the way toward the other blade guide (minimum distance between the guide rollers).

4. Use the arm adjustment screws, marked with red arrows in the figure above, to adjust the arm up until the slide pad touches the saw head brace tube. Tighten the jam nuts.

   NOTE: When adjusting the blade guide arm screws, be careful not to damage their threads or deform the arm guide bushing. Operate the blade guide arm handle to ensure the arm moves easily left and right when the handle is moved.

Horizontal Alignment

See Figure 4-10.

1. With the blade guide arm still all the way in toward the other blade guide, tighten all the side screws until they touch the arm. Back the screws off 1/4 turn and tighten the jam nuts.

2. Sight across the horizontal saw head brace to view the blade guide arm. Adjust all side screws on the blade guide arm housing so the arm is parallel to the saw head brace.

3. To move the blade guide end of the arm toward the front of the sawmill, loosen jam nuts on the front inside screw and the rear outside screw. Turn the screws counterclockwise one full turn and tighten the jam nuts. Loosen the jam nuts on the front outside screw and the rear inside screw. Turn the screws clockwise until they touch the arm, back off 1/4” turn, and tighten the jam nuts.

4. To move the blade guide end of the arm toward the rear of the sawmill, loosen jam nuts on the front outside screw and the rear inside screw. Turn the screws counterclockwise one full turn and tighten the jam nuts. Loosen the jam nuts on the front inside screw and the rear outside screw. Turn the screws clockwise until they touch the arm, back off 1/4” turn, and tighten the jam nuts.

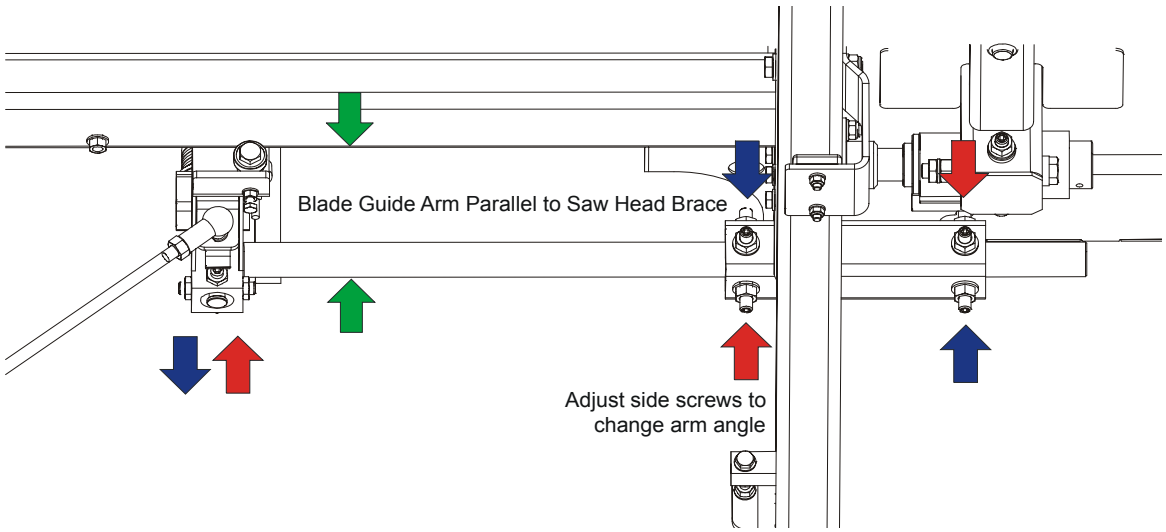


FIG. 4-10

4.6 Aligning The Blade Guides

Each Wood-Mizer sawmill has two blade guide assemblies that help the blade maintain a straight cut. The two blade guide assemblies are positioned on the saw head to guide the blade on each side of the material being cut.

One blade guide assembly is mounted in a stationary position on the drive side of the saw head. This assembly is referred to as the "inner" blade guide assembly.

The other blade guide assembly is mounted on the idle side of the saw head. It is referred to as the "outer" assembly and is adjustable for various widths of materials to be processed.

Blade guide alignment includes four steps:

- Blade Deflection,
- Blade Guide Vertical Tilt,
- Blade Guide Flange Spacing,
- Blade Guide Horizontal Tilt.

Perform the blade guide alignment after you have aligned the blade on the wheels and adjusted the blade and blade guide arm parallel to the bed rails. After blade guide alignment, check the scale indicator to make sure it is adjusted properly.

4.7 Blade Deflection

Perform the following steps to achieve proper blade deflection with the blade guides:

1. Raise the carriage until the blade is 15" (375 mm) above a bed rail. Measure the actual distance with a tape from the top of the rail to the bottom of the blade.

See Figure 4-11.

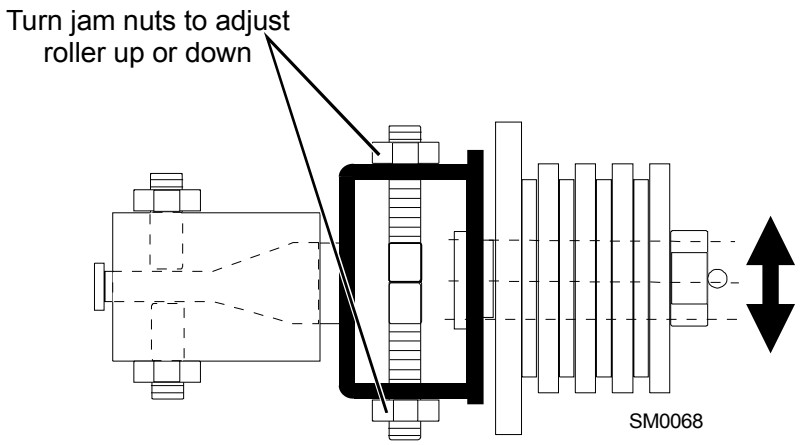


FIG. 4-11

2. Loosen the bottom jam nut and tighten the top jam nut until the blade guide deflects the blade down 1/4" (6 mm).

3. Repeat for the other blade guide.

NOTE: Be sure that the blade guard clears the blade on both guide assemblies. The guard on the outer guide assembly should be checked with the arm all the way in and all the way out.

4.8 Blade Guide Vertical Tilt Adjustment

Check that the blade guide does not tilt the blade up or down. A Blade Guide Alignment Tool (BGAT) is provided to help you measure the vertical tilt of the blade.

1. Open the adjustable blade guide arm 1/2" (15 mm) from full open.

2. Clamp the alignment tool on the blade. Position the tool close to a blade guide roller. Be sure the tool does not rest on a tooth or burr, and is lying flat on the blade.

See Figure 4-12.

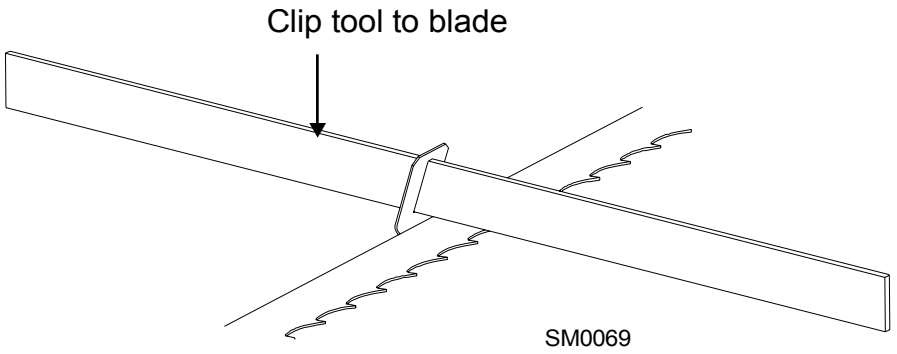


FIG. 4-12

3. Measure the distance from the bed rail to the bottom of the tool.

4. Move the carriage so that the front end of the tool is positioned above the bed rail.

5. Measure the distance from the bed rail to the bottom edge of the tool.

6. Use the set screws shown to tilt the blade guide until the measurement from the bed rail to the tool equals the first measurement taken at the center of the tool.

See Figure 4-13.

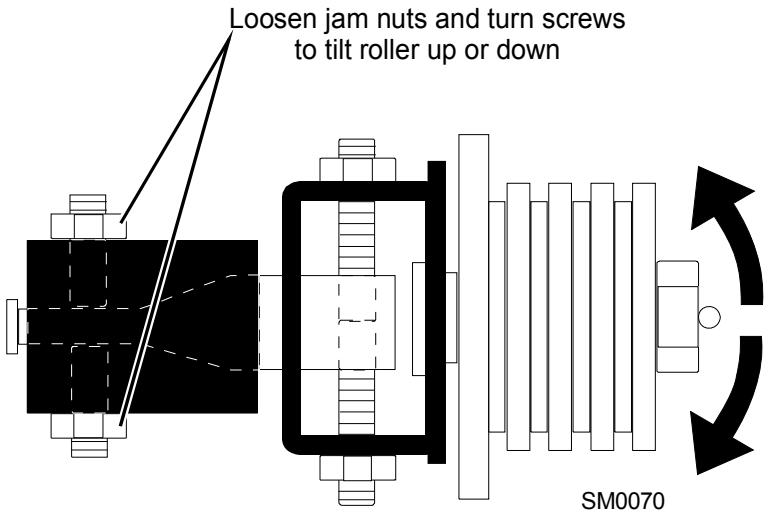


FIG. 4-13

7. Move the carriage forward so the back end of the tool is over the bed rail.

8. Use the set screws shown to adjust the blade guide tilt until the measurement from the bed rail to the tool equals the other two measurements taken.

9. Move the tool close to the other blade guide and repeat the previous steps.

NOTE: If major adjustments to blade guide tilt were made, remeasure the distance between the blade and the bed rails to ensure the correct 1/4" (6.5 mm) blade guide deflection. Adjust if necessary.

NOTE: After adjustment the blade guides, engage the blade for a moment and recheck blade guides adjustment.

4.9 Blade Guide Flange Spacing

HINT: When adjusting blade guide flange spacing, loosen the top set screw and one side set screw only. This will insure horizontal and vertical tilt adjustments are maintained when the set screws are retightened.

1. Adjust the inner blade guide so the blade guide flange is approximately 1/16" - 1/8" (1.5 - 3.0 mm) from the back of the blade.

2. Loosen one side and one top set screw shown on the figure below. Tap the blade guide forward or backward until properly positioned.

   See Figure 4-14.

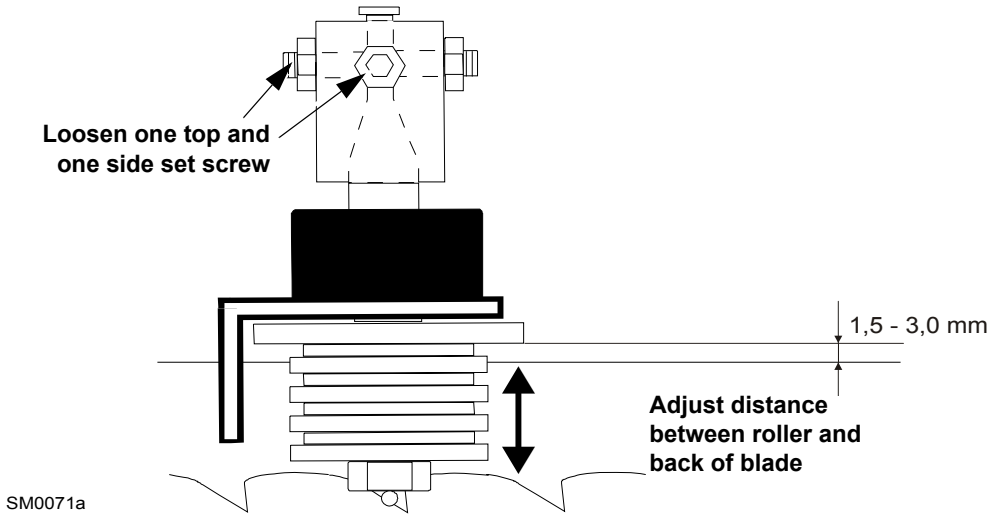


FIG. 4-14

3. Retighten the set screws.

4. Adjust the outer blade guide in the same way so the inner blade guide.

   NOTE: After adjusting the spacing of the rollers, start the blade motor for a moment. Then stop the blade and check the spacing again.

4.10 Horizontal Tilt Adjustment

1. Move the blade guide arm half way in.

   See Figure 4-15.

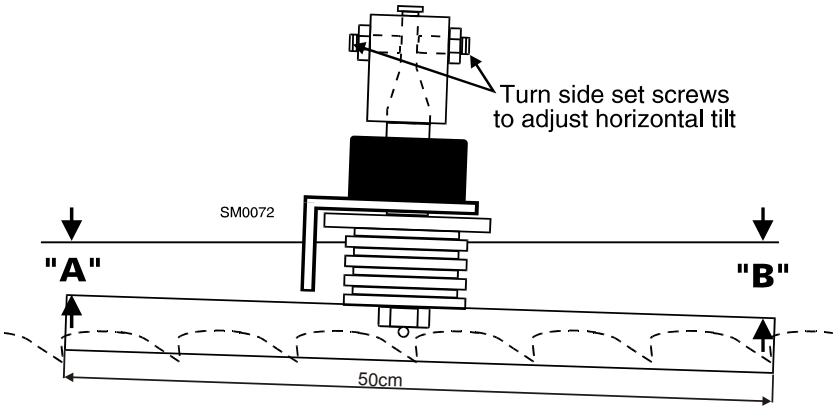


FIG. 4-15

2. Place Blade Guide Alignment Tool against the face of the outer blade guide roller, as shown above.

3. Measure between the back edge of the blade and the tool at the end closest to the inner blade guide ("B").

4. Measure between the back edge of the blade and the other end of the tool ("A").

5. The roller should be parallel to the blade (A=B) or tilted slightly to the left (A=B-1/4" [6 mm]). Use the side set screws to adjust the horizontal tilt of the roller.

6. Repeat Steps 3 - 7 for the inner blade guide roller.

   NOTE: Once the blade guides have been adjusted, any cutting variances are most likely caused by the blade. **See Blade Handbook, Form #600.**

4.11 Blade Height Scale Adjustment

Standard Scale

After the entire sawmill has been aligned and all adjustments made, check that the blade height scale indicates the true distance from the blade to the bed rails.

See Figure 4-16.

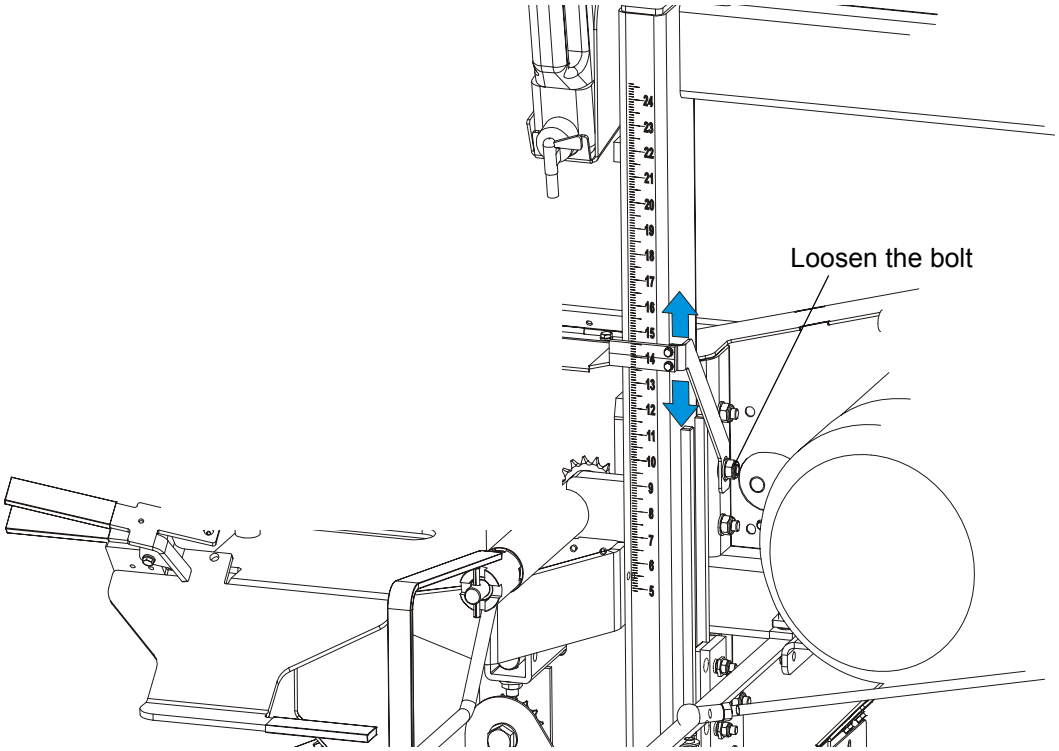


FIG. 4-16

1. Move the saw head so the blade is positioned directly above one of the bed rails. Measure from the bottom edge on a down-set tooth of the blade to the top of the bed rail.

2. Loosen the scale bracket mounting bolt and adjust the bracket until the indicator is aligned with the correct mark on the scale. Retighten the nut on the bracket mounting bolt.

Quarter Inch Scale (Option)

1. The maximum distance between the scale and the scale indicator should be 5 mm. If it is different, loosen the indicator bracket mounting bolts and move the bracket in the horizontal plane until the correct distance is obtained. Retighten the bracket mounting bolts.

See Figure 4-17.

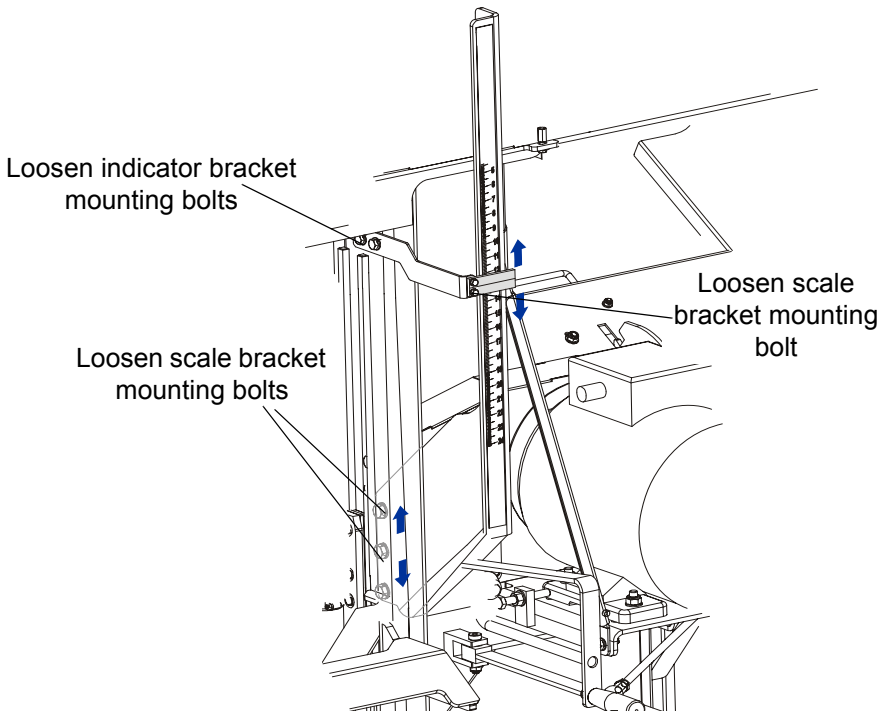


FIG. 4-17

2. Move the saw head so the blade is positioned directly above one of the bed rails. Measure from the bottom edge on a down-set tooth of the blade to the top of the bed rail.

Loosen the scale bracket mounting bolts and adjust the bracket until the indicator is aligned with the correct mark on the scale. Retighten the nuts on the bracket mounting bolts.

For example, if the measurement from blade to bed rail was 14 3/4" (375 mm), make sure the indicator reads 14 3/4" (375 mm) on the scale.

4.12 Motor Drive Belt Adjustment

See Figure 4-18. Loosen the motor mounting bolts. Using the adjustment bolts shown below, adjust the drive belt until it has 7/16" (11 mm) deflection with a 8 lbs (3.6 kG) deflection force - in the case of E11 motor or 7/16" (11 mm) deflection with a 16 lbs (7.2 kG) deflection force - in the case of E15 motor. Tighten the four motor mounting bolts.

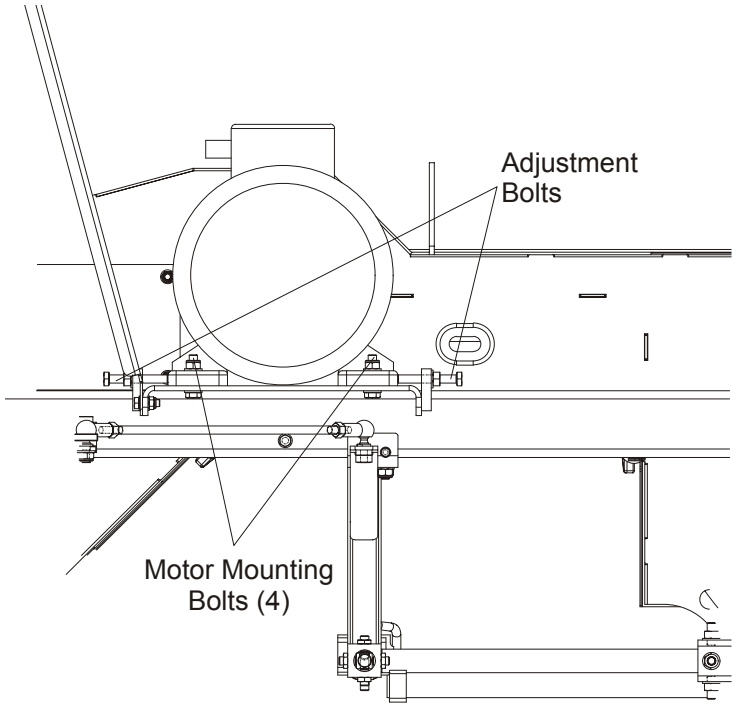


FIG. 4-18

4.13 Safety Handle Linkage Adjustment

See Figure 4-19. Use the adjustment nuts to adjust linkage tension so the blade stops during 8 seconds after the safety handle is released.

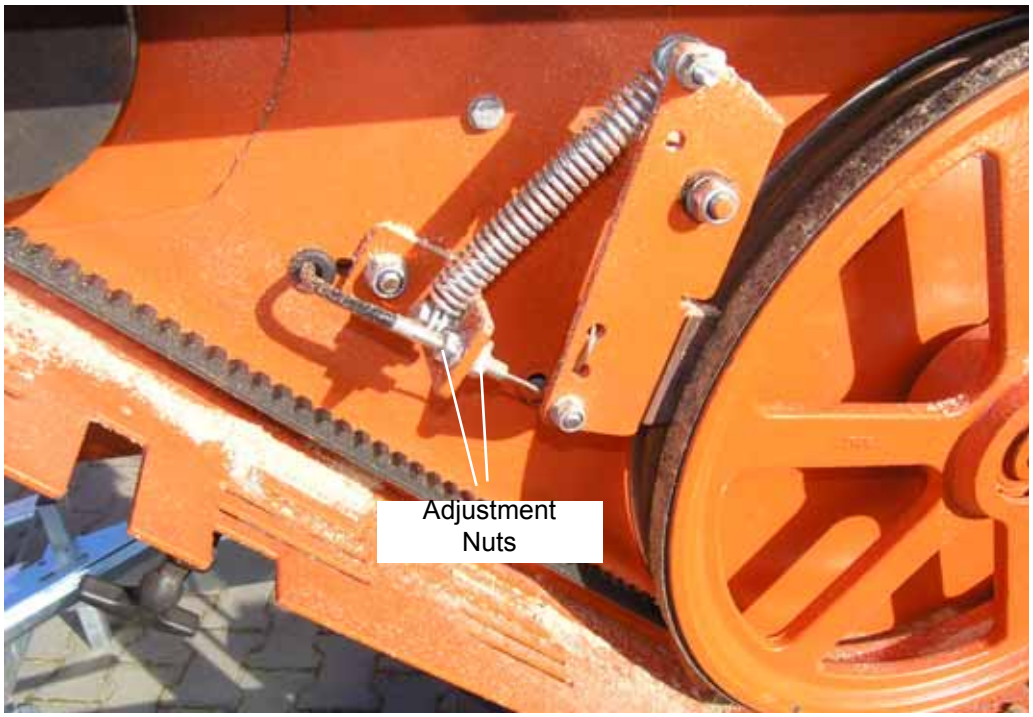


FIG. 4-19

SECTION 5 SPECIFICATIONS

5.1 Overall Dimensions

See Figure 5-1. The major dimensions of the resaw are shown below (all dimensions are in millimeters).

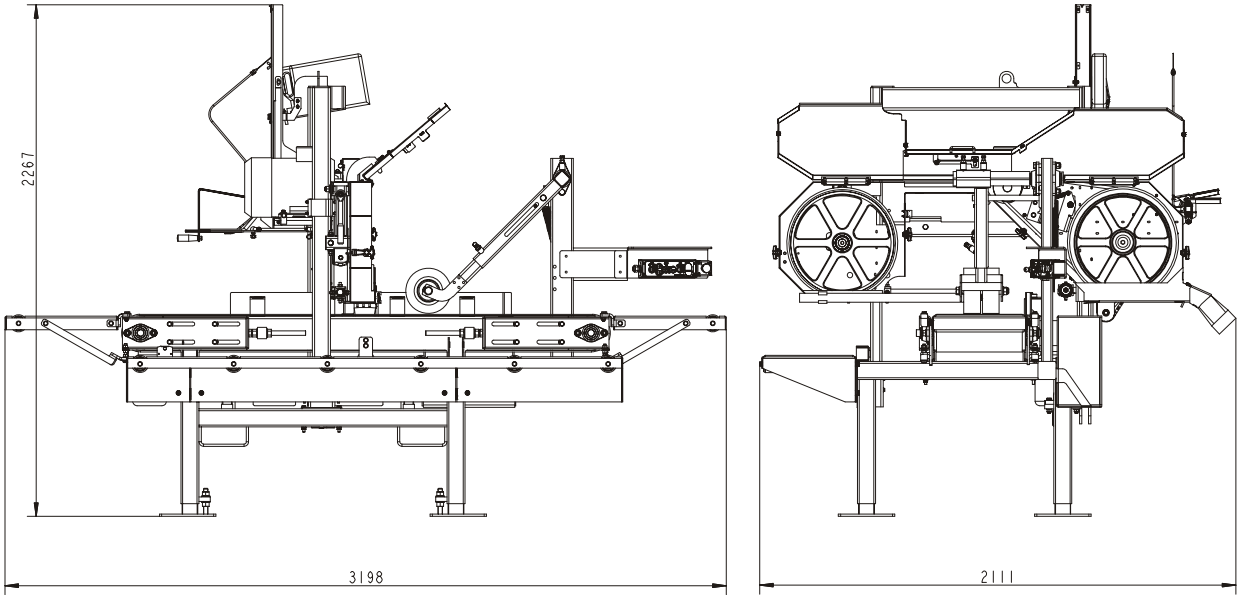


FIG. 5-1

See Table 5-1. The overall dimensions of the resaw are listed in the table below.

Weight	784 kg
Weight of infeed and outfeed tables kit	134 kg
Height	2267 mm
Width	2111 mm
Length	3198 mm

TABLE 5-1

See Figure 5-2. The figure shows the locations of resaw legs.

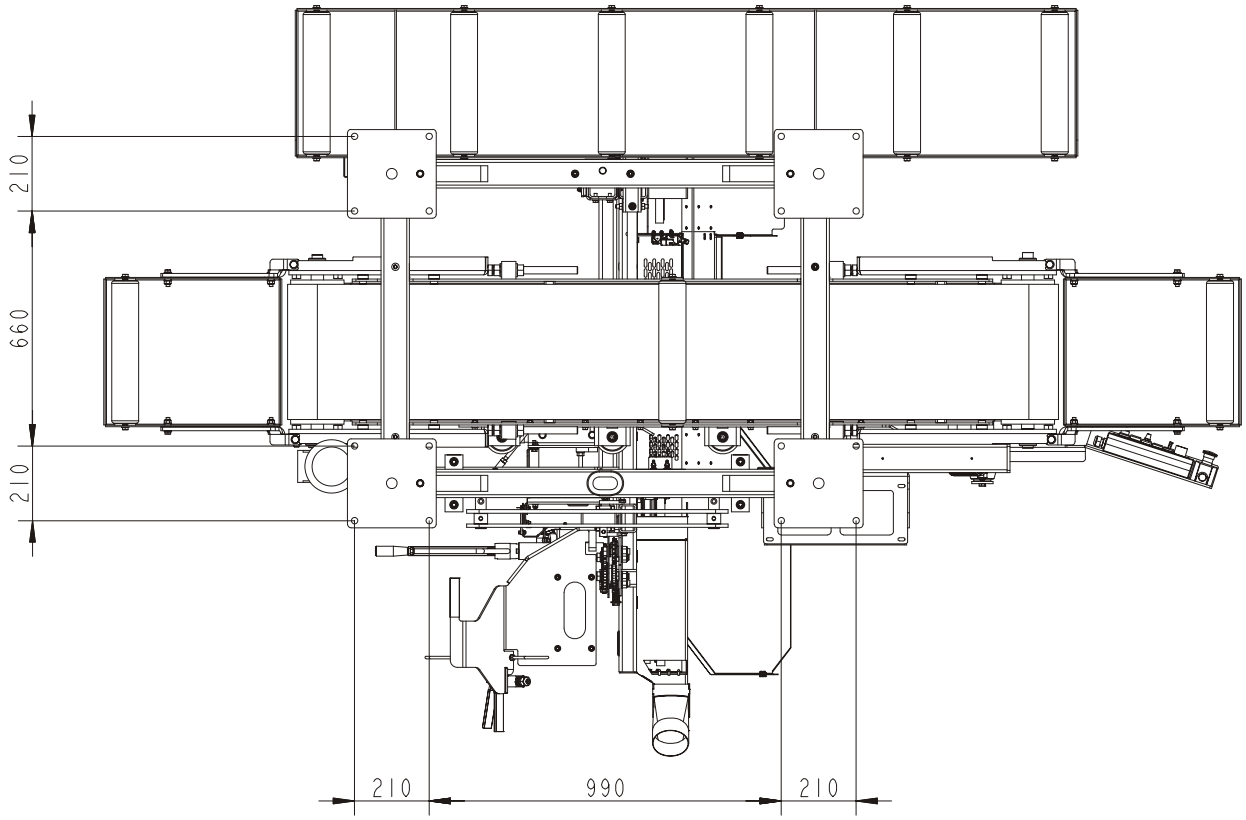


FIG. 5-2

5.2 Cutting Capacity

See Table 5-2. The material size and performance capacities of the resaw are given below.

Cutting Length	0.9 - 2.5 m
Material Height	10-400 mm
Material Width	75-400 mm
Feed Speed	0-25 m/min
Minimum Cutting Height	8 mm
Maximum Cutting Height	200 mm

TABLE 5-2

See Table 5-3. Wood-Mizer TRU•SHARP™ offers three types of blades to provide efficient sawing for all models of sawmills. The engine/motor size of your sawmill and the type of wood you saw should determine which blade you choose for optimum performance.

Engine/Motor Size	**Recommended Blade For Sawing:**		
	Softwood	**Hardwood**	**Frozen or Hard-to-Cut Wood**
5 hp - 15hp	B275IH1030 B275IH741030	B375IH929	B375IH929 [1]
16hp or more	B376IH1030 B376IH741030	B275IH1030 B275IH741030 B376IH1030 B376IH741030 [2]	B375IH929 [1]
Electric Motor	B376IH1030 B376IH741030	B275IH1030 B275IH741030 B376IH1030 B376IH741030 [2]	B375IH929 [1]

TABLE 5-3

[1] TRU•SHARP™ “F” blades use a 9/29 profile (9° hook angle and 29° back angle) and are designed to cut frozen and/or extremely dense, hard-to-cut wood. Standard TRU•SHARP™ blades use a 10/30 profile.

[2] Customer may choose preferred blade.

5.3 Belt Sizes

See Table 5-4. Belt sizes for the resaw are shown.

Description	Belt Size	Wood-Mizer Part #
Motor Drive Belt (E11)	B81	014819
Blade Pulley Belts	B57 [1]	P04185

TABLE 5-4

[1] To insure proper blade tracking, use Goodyear, Dayco Super II, or Browning belts only.

5.4 Blade Motor Specifications

See Table 5-5. See the table below for blade motor specifications for your resaw model.

Motor Type	Manufacturer	Model	Power	Other Specifications
7.5 HP Electric Motor	Siemens, Germany	1LA7130-2AA60-2	5.5 kW	3 x 400V, 50 Hz

TABLE 5-5

See Table 5-6. The noise levels of the Wood-Mizer resaw are listed below[12].

	Noise level
HR110	L_{EX8} = 91 dB (A) (cant loading) L_{EX8} = 89 dB (A) (cant receiving)

TABLE 5-6

1. The noise level measurement was taken in accordance with PN-EN ISO 3746 Standard . The noise exposure level given above concerns an 8-hour work day.
2. The figures quoted are emission levels and are not necessarily safe working levels. Whilst there is a correlation between the emission and exposure levels, this cannot be used reliably to determine whether or not further precautions are required. Factors that influence the actual levet of exposure of the workforce include the characteristics of the work room and the other sources of noise etc. i.e. the number of machines and other adjacent processes. Also the permissible exposure level can vary from country to country. This information, however, will enable the user of the machine to make a better evaluation of the hazard and risk.

5.5 Electrical Diagram, CE version

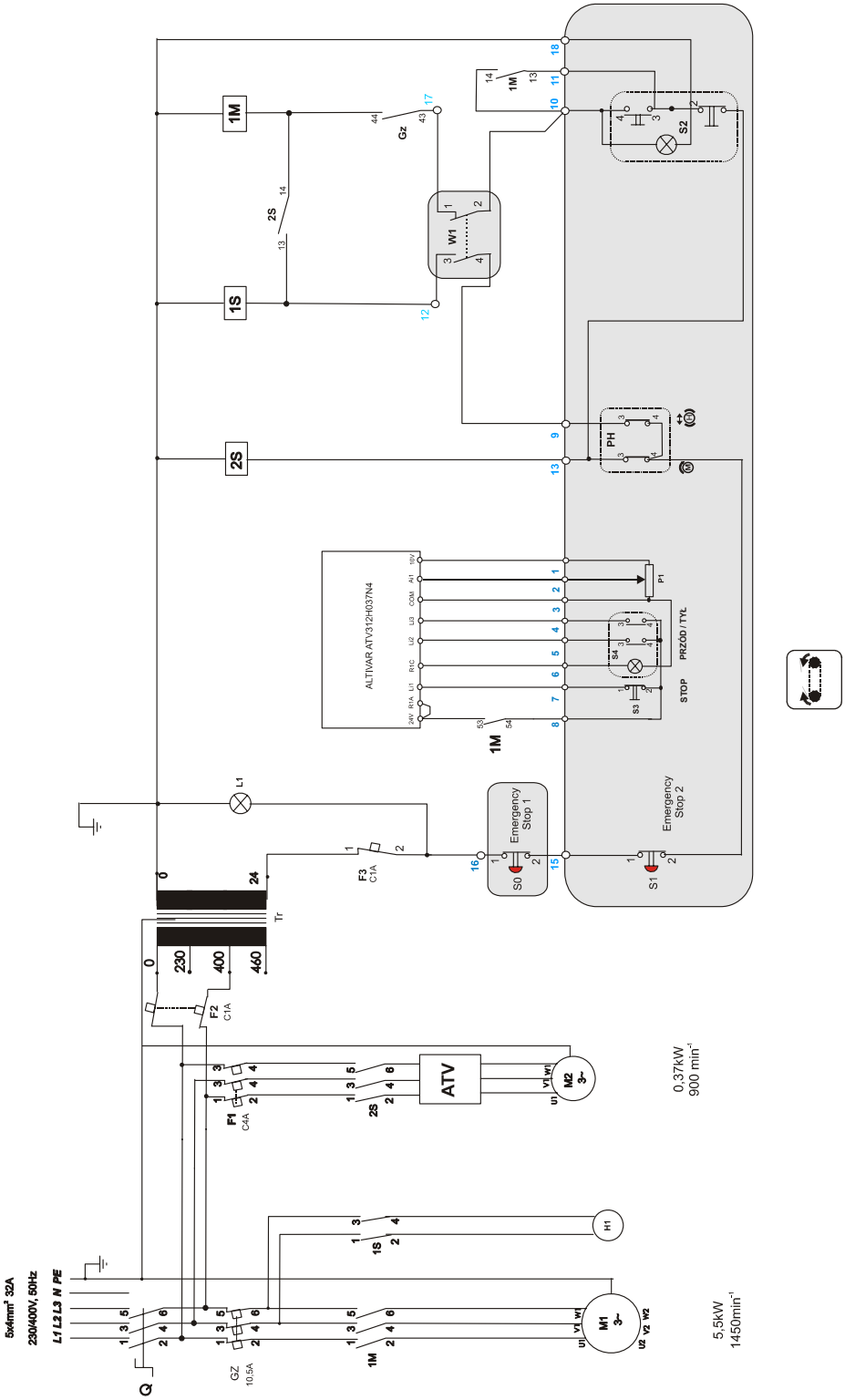


FIG. 5-2

5.6 Electrical Component List, HR110

Symbol	Wood-Mizer Part No.	Description	Manufacturer
Q	089801	Switch, ABB OT16E3	ABB
GZ	090430	Motor Switch, GZ1 M16	SCHNEIDER ELECTRIC
1M	084306	Contactor, LC1 D18 B7	SCHNEIDER ELECTRIC
M1+H	502186	Motor, Sg132S-2A-HM	INDUKTA
F1	094799	Circuit Breaker, C60N 3P 4A	SCHNEIDER ELECTRIC
F2	093905	Circuit Breaker, C60N 2P 1A	SCHNEIDER ELECTRIC
F3	084454	Circuit Breaker, C60N 1P 1A	SCHNEIDER ELECTRIC
1S, 2S	084308	Contactor, LC1 K610 B7	SCHNEIDER ELECTRIC
M2	094897	Motor, SKH71X-6C1	BESEL
ATV	503468	Controller, ATV312H037N4	SCHNEIDER ELECTRIC
TR	094487	Transformer, SU78A-230400/24	NORATEL
L1	090448	Control Light, M22 White	MOELLER
S0, S1	094726	Emergency Stop Button, M22-PV/KC02/IY	MOELLER
W1	094232	Safety Switch, AZ17-11ZRK	SCHMERSAL
S2	090452	START-STOP Switch, M22	MOELLER
S3	090926	STOP Switch, M22	MOELLER
S4	091359	Switch, M22 WRLK3-G	MOELLER
PH	095001	Key Switch, M22-WRS3	MOELLER
P1	093749	Potentiometer, 1k	MOELLER

5.7 Dust Extractor Specifications

CAUTION! Always turn on the dust extractor before starting the machine.

See Table 5-7. Specifications of the dust extractors used on the resaw are listed below.

Airflow	1200 m^3/h
Inlet diameter	150 mm
Motor power	1,5 kW
Number of sacks	1 pcs
Sack capacity	0.25 m^3
Weight	110 kg
Recommended conveying air velocity in the duct	20 m/s

TABLE 5-7

IMPORTANT! The dust extractor hoses must be grounded or made with materials not accumulating electrostatic charge.