Wood-Mizer® HR250 Resaw Safety, Setup, Operation, and Maintenance

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Safety is our #1 concern!

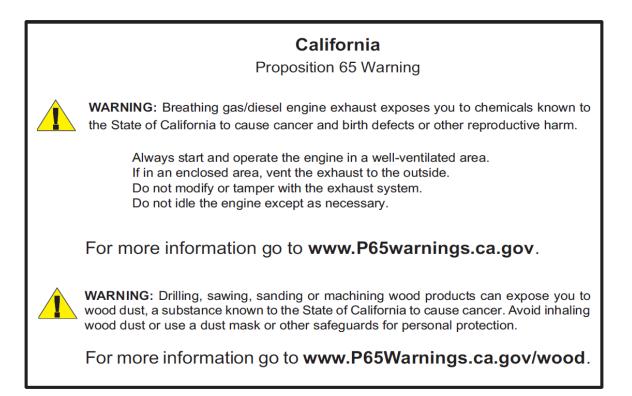
Form #2528

MODELS AFFECTED:

HR250SEB25U HR250SEC25U



WARNING! Read and understand this manual before using this machine.



Active Patents assigned to Wood-Mizer, LLC

Wood-Mizer, LLC has received patents that protect our inventions which are a result of a dedication to research, innovation, development, and design. Learn more at: <u>woodmizer.com/patents</u>

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Wood-Mizer, LLC 8180 West 10th Street Indianapolis, Indiana 46214

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Wood-Mizer[®] LLC Limited Product Warranty



Wood-Mizer LLC ("Warrantor"), an Indiana corporation with its principal place of business at 8180 West Tenth Street, Indianapolis, IN 46214-2400 USA, warrants to the purchaser ("Purchaser") that for the time periods specifically stated herein and subject to the terms, conditions and limitations stated herein, the equipment manufactured by the Warrantor will be free from defects in material and workmanship attributable to Warrantor so long as, during the warranty periods stated herein, the equipment is installed, operated and maintained in accordance with the instructions provided by Warrantor.

PRODUCT	MODEL CLASS	LENGTH OF	WARRANTY	EFFECTIVE DATE	
PRODUCT	MODEL CLASS	USA & CANADA	NON USA & CANADA	EFFECTIVE DATE	
Portable Sawmills, Resaws, Edgers	LT, LX, HR, EG	Two years	One year		
Portable Sawmills with Chassis	LT28, LT35, LT40, LT50, LT70, LX450	Two years, excluding the chassis, which chas- sis shall have a five year warranty	One year	Date of purchase	
Industrial Sawmills, Resaws, Edgers	WM, HR, EG, TVS, SVS	One year	One year	Date of purchase or date of	
TITAN Industrial	WB, TV, HR, EG, EA, MR	One year	One year	installation / training (if applica- ble), whichever occurs first, not to exceed 6 months from date of purchase	
Material Handling	TWC, IC, TD, LD, GC, CR, CB, CC	One year	One year		
Blade Maintenance Equipment	BMS, BMT, BMST	One year	One year		
Options and Accessories	Various	One year*	One year*		
Moulders, Extractors	MP, MD	Two years	One year		
Kilns	KS, KD	One year	One year	Data of purchase	
Slab Flattener	MB	Two years	One year	Date of purchase	
Pallet Equipment	PD, PC	One year	One year		
Log Splitters	FS	One year	One year	1	
Replacement Parts	Various	90 days	90 days	1	

* Warranty on Options will match the warranty on the primary equipment when purchased on same invoice.

Exclusions from 90 Day, Limited One Year and Two Year Warranty

Warrantor shall have **no** responsibility under this warranty for any wear components, including, but not limited to: belts, blade guides, blades, electric motor brushes, drum switches, filters, fuses, hoses, bearings (excluding cylindrical drive bearings), bushings, cable carriers, and spark plugs. All wear components are furnished **"as is"**, without any warranty from Warrantor. This limited warranty does not cover any defects caused by misuse, negligence, alterations, damage due to overload, abnormal conditions, excessive operation, accident, or lack of performance of normal maintenance services.

Several components which are used in the manufacture of the equipment but not manufactured by Warrantor such as cant hooks, power plants, laser sights, batteries, tires, and trailer axles have warranties provided by the original equipment manufacturer (written copies available upon request). Warrantor does not separately warrant such items. Components or equipment manufactured by third parties are not covered by this warranty. Warrantor, however, will provide reasonable assistance to the Purchaser to make claims against any warranties applicable to such component parts as provided by such original equipment manufacturers. Components or equipment manufactured by third parties are not covered by this Warranty.

Five Year Limited Chassis Warranty

The limited five year chassis warranty described above, DOES NOT extend to (a) any damage stemming from accident, improper towing, overload, abuse, misuse, abnormal conditions, negligence, excessive operation, or lack of maintenance, (b) rust caused by exposure to corrosive atmospheric conditions, or (c) the sawmill head, carriage, axle, brakes, or any hydraulic or electrical components attached to the chassis.

Warrantor's Obligations as To Defects

In the event that the equipment fails to perform due to defective materials or workmanship attributable to Warrantor under normal use and service within the established warranty period, Purchaser's sole and exclusive remedy and Warrantor's sole liability shall be to replace or repair, in Warrantor's sole and subjective discretion, any defective part at Warrantor's principal place of business without cost to the Purchaser if such defect exists. The determination of whether a product is defective shall be made by Warrantor in Warrantor's sole and subjective discretion. The Purchaser must notify Warrantor prior to shipping any defective part. Warrantor, at its sole discretion, may cover expenses incurred in shipping the defective part to Warrantor for evaluation; provided, however, that Warrantor will not be responsible for labor, travel time, mileage, removal, installation or incidental or consequential damages. However, any part in excess of 140 pounds must be returned by the Purchaser, to the Warrantor's nearest authorized facility at the Purchaser's expense, if return is requested by Warrantor. Warrantor shall have a reasonable time within which to replace or repair the defective part. If Warrantor determines that the product is not defective under the terms of this warranty in Warrantor's sole and subjective discretion, then Purchaser shall be responsible for any expenses incurred by Warrantor. Warrantor determines that the product is not defective under the terms of this warranty in Warrantor's sole and subjective discretion, then Purchaser shall be responsible for any expenses incurred by Warrantor.

Limitations and Disclaimers of Other Warranties

EXCEPT FOR THE EXPRESS WARRANTY PROVISIONS STATED ABOVE, WARRANTOR DISCLAIMS ALL WARRANTIES, EXPRESS AND/OR IMPLIED, INCLUDING WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY, AND FITNESS FOR A PARTICULAR PURPOSE, NONINFRINGEMENT AND TITLE. No representation or other affirmation of fact by representatives of Warrantor, whether verbal or in writing, including photographs, brochures, samples, models, or other sales aids, shall constitute a warranty or other basis for any legal action against Warrantor. There are no other representations, promises, agreements, covenants, warranties, guarantees, stipulations or conditions, express or implied, by Warrantor except as expressly set forth herein. THE ORIGINAL PURCHASER AND ANY INTENDED USER OR BENEFICIARY OF THIS EQUIPMENT, SHALL NOT BE ENTITLED TO RECOVER ANY INDIRECT, SPECIAL, PUNITIVE, EXEMPLARY, CONSEQUENTIAL, SPECIAL, OR INCIDENTIAL DAMAGES OR LOSES, INCLUDING BUT NOT LIMITED TO, DAMAGES OF LOST PRODUCTION, LOST REVENUE, LOST PRODUCT, LOST PROFITS, LOST BUSINESS, LOSS OF USE, LOSS OF GOODWILL, OR BUSINESS INTERRUPTION, FROM WARRANTOR FOR ANY REASON WHATSOEVER INCLUDING WITHOUT LIMITATION WARRANTY OR DEFECT IN THE PRODUCT REGARDLESS OF THE SOLE, JOINT AND/OR CONCURRENT NEGLIGENCE, BREACH OF CONTRACT, BREACH OF WARRANTY, STRICT LIABILITY IN TORT OR STATUTORY CLAIMS OR OTHER LEGAL FAULT OR RESPONSIBILITY OF EITHER WARRANTOR OR PURCHASER OR ITS EMPLOYEES OR AGENTS. Warrantor does not warrant that its equipment meets or complies with the requirements of any particular safety code or governmental requirements.

Defective items replaced under the terms of this warranty become the property of Warrantor.

Design Changes

Warrantor reserves the right to change the design of its products from time to time without notice and without obligation to make corresponding changes in or to its products previously manufactured.

Rights of Purchasers

The validity and effect of this limited warranty as well as its interpretation, operation and effect, shall be determined exclusively by the principles of law and equity of the State of Indiana, USA. This limited warranty gives Purchaser specific legal rights. Purchaser may also have other rights, which may vary from state to state. Some states may not allow limitations as to the duration of implied warranties or to the exclusion or limitation of incidental or consequential damages, so some of the limitations and exclusions detailed set forth above may not apply. In the event that any one or more of the provisions of this warranty shall be or become invalid, illegal or unenforceable in any respect, the validity, legality and enforceability of the remaining provisions of this warranty shall not be affected thereby.

Interpretations

This Warranty constitutes the entire warranty agreement between Warrantor and Purchaser and supersedes any prior understandings or agreements pertaining to the same subject matter. This warranty cannot be amended except in writing which refers to this warranty which is signed by both Warrantor and Purchaser.



SECTION 1 INTRODUCTION

1.1 About This Manual

This manual replaces any previous information received on your Wood-Mizer[®] equipment.

The information and instructions in this manual do not amend or extend the limited warranties for the equipment given at the time of purchase.

1.2 Getting Service

For contact information, sales, service, parts, and additional manuals, sign into your account on <u>https://wood-</u> <u>mizer.com</u>, or call inside the USA: 1-800-553-0182 or from outside the USA: 317-271-1542

1.3 Specifications

Equipment specification are included in the Online Manuals, which are found at <u>https://apps.woodmizer.com/Manuals/Manuals.aspx?parent=0.</u>

1.4 Options and Accessories

Your Wood-Mizer product may have options that can be added to the machine or accessories available to purchase.

Option: Your specific product can have accessories installed at the factory, or installed in the field.

Accessory: Your specific product may have accessories added to the machine that are not available to be installed at the factory. They may only be installed in the field. For example, the resaw might have Infeed and Outfeed Table accessories.

Power Options: Your specific product power option is detailed based on the specific product number purchased.

This product has the following accessories available:

Part #	Name	Туре
WMBTG	Gauge, Blade Tension	Accessory
U37517810S	Blade QTY-1, 0.045x1.25x178;10°	Accessory

TABLE 1-1



SECTION 2 GENERAL SAFETY

2.1 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 serious injury or death.



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



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

NOTICE Indicates vital information.

2.2 Safety Instructions

OWNER/OPERATOR'S RESPONSIBILITY

The procedures listed in this manual may not include all ANSI, OSHA, or locally required safety procedures. It is the owner/operator's responsibility and not Wood-Mizer LLC to ensure all operators are properly trained and informed of all safety protocols. Owner/Operators are responsible for following all safety procedures when operating and performing maintenance to the equipment.

OBSERVE ALL SAFETY INSTRUCTIONS

NOTICE Read the entire Operator's Manual before operating this equipment.

Note all safety warnings throughout this manual and those posted on the machine.

Be able to access this manual at all times while operating this equipment.

Read additional manufacturer's manuals and observe their applicable safety instructions.

Only persons who have read and understood the entire operator's manual should operate this equipment.

This equipment is not intended for use by or around children.

It is the owner/operator's responsibility to comply with all applicable federal, state, and local laws, rules, and regulations regarding the ownership, operation, and transporting your equipment.

Operators should become thoroughly familiar with and comply with these applicable laws for operating and transporting equipment.



WARNING! Clean sawdust from all guards, vents, control boxes, or any area where sawdust may gather **after every shift**. Failure to

do so may result in fire, causing death or serious injury.

WEAR SAFETY CLOTHING



WARNING! Secure all loose clothing and jewelry before operating the equipment.

Always wear eye, ear, and foot protection when operating or servicing the equipment.



Wear hand protection while servicing the equipment blades.



Wear respiratory protection when sawing woods that require it.



HANDLE FUEL/LUBRICANTS SAFELY



WARNING! Do not use flammable fuels or liquids such as diesel fuel. Use ONLY water and Wood-Mizer Lube Additive with the water lube accessory.

EQUIPMENT SETUP



DANGER! Do not operate the equipment without **all** covers and guards in place.



WARNING! Set up the equipment on solid, level ground.

CHECK EQUIPMENT BEFORE OPERATION



DANGER! Ensure all guards and covers are in place and secured before operating the equipment.

KEEP PERSONS AWAY



DANGER! Keep all persons out of the path of moving equipment and lumber when operating equipment or loading lumber.

Ensure the blade is disengaged and all persons are out of the path of the blade before starting the motor.

KEEP HANDS AWAY



DANGER! Remove power before clearing debris or any other maintenance activity.



WARNING! Avoid contact with any hot parts (motors).

Allow the system to cool sufficiently before beginning any service function, including debris removal.

Avoid contact with sharp edges of the blades.

Stay a safe distance from rotating members (shafts, pulleys, fans, etc.) and ensure loose clothing or long hair does not engage rotating members

Do not adjust the motor drive belt with the motor running.

Keep hands, feet, etc., clear of exiting sawdust chute when operating equipment.

UP/DOWN SYSTEM SAFETY



WARNING! If maintenance is required, support load of saw head on each side.

KEEP SAFETY LABELS IN GOOD CONDITION

NOTICE Ensure 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.

NOTICE If replacing a component that has a safety decal affixed to it, ensure the new component also has the safety decal affixed in the same place.

KEEP RESAW AND AREA AROUND RESAW CLEAN

WARNING! Maintain a clean and clear path for all necessary movement around the resaw and material stacking areas.

Do not allow children in the area of the resaw.

DISPOSE OF WOOD BY-PRODUCTS PROPERLY

NOTICE Properly dispose of all wood byproducts, including sawdust, chips, and other debris, including operation waste such as oil, filters, etc.

MAINTENANCE HAZARDS INCLUDE, BUT NOT LIMITED TO:

- Blade contact
- Pinch points
- Kickbacks
- Missiles (thrown blades/wood chips)
- Electrical

FAILURE TO LOCKOUT MAY RESULT IN, BUT NOT LIMITED TO:

- Cut
- Crush
- Blindness
- Puncture
 Electrocutic
- Electrocution

- Serious injury and death
- Amputation
- Burn
- Shock

TO CONTROL MAINTENANCE DANGERS:

- Lockout procedures must be followed (see OSHA regulation 1910.147).
- Never rely on machine stop control for maintenance safety (emergency stops, on/ off buttons, interlocks).
- Do not reach into moving blades or feed systems. Allow all coasting parts to come to a complete stop.
- Electrical power supply and air supply must both be locked out.
- Where established lockout procedures cannot be used (electrical troubleshooting or mechanical dynamic troubleshooting), alternative effective protective techniques shall be employed which may require special skills and planning.
- Always follow safe operations practices in the workplace.

EQUIPMENT LOCKOUT PROCEDURE

Lockout procedures per OSHA regulation 1910.147, appendix A:

GENERAL

The following simple lockout procedure is provided to assist owner/operators in developing their procedures so they meet the requirements of **OSHA regulation 1910.147**. When the energy isolating devices are not lockable, tagout may be used, provided the owner/operator complies with the provisions of the standard which require additional training and more rigorous periodic inspections. When tagout is used and the energy isolating devices are lockable, the owner/operator must provide full operator protection (see OSHA regulation 1910.147, paragraph (c)(3)) and additional training and more rigorous periodic inspections are required. For more complex systems, more comprehensive procedures may need to be developed, documented, and utilized.

PURPOSE

This procedure establishes the minimum requirements for the lockout of energy isolating devices whenever maintenance or servicing is done on machines or equipment. It shall be used to ensure that the machine or equipment is stopped, isolated from all potentially hazardous energy sources and locked out before personnel perform any servicing or maintenance where the unexpected enervation or start-up of the machine or equipment or release of stored energy could cause injury.

COMPLIANCE WITH THIS PROGRAM

All personnel are required to comply with the restrictions and limitations imposed upon them during the use of lockout. The authorized personnel are required to perform the lockout in accordance with this procedure. All operators, upon observing a machine or piece of equipment which is locked out to perform servicing or maintenance shall not



attempt to start, energize, or use that machine or equipment.

SEQUENCE OF LOCKOUT

- 1. Notify all affected personnel that servicing or maintenance is required on a machine or equipment and that the machine or equipment must be shut down and locked out to perform the servicing or maintenance.
- 2. The authorized employee shall refer to the company procedure to identify the type and magnitude of the energy that the machine or equipment utilizes, shall understand the hazards of the energy, and shall know the methods to control the energy.
- **3.** If the machine or equipment is operating, shut it down by the normal stopping procedure (depress the stop button, open switch, close valve, etc.).
- 4. De-activate the energy isolating device(s) so that the machine or equipment is isolated from the energy source(s).
- **5.** Lock out the energy isolating device(s) with assigned individual lock(s).
- 6. Stored or residual energy (such as that in capacitors, springs, elevated machine members, rotating fly-wheels, hydraulic systems, and air, gas, steam, or water pressure, etc.) must be dissipated or restrained by methods such as grounding, repositioning, block-ing, bleeding down, etc.
- 7. Ensure that the equipment is disconnected from the energy source(s) by first checking that no personnel are exposed, then verify the isolation of the equipment by operating the push button or other normal operating control(s) or by testing to make certain the equipment will not operate.



CAUTION! Return operating control(s) to neutral or "off" position after verifying the isolation of the equipment.

8. The machine or equipment is now locked out.

RESTORING EQUIPMENT TO SERVICE

When the servicing or maintenance is completed and the machine or equipment is ready to return to normal operating condition, the following steps shall be taken.

- 1. Check the machine or equipment and the immediate area around the machine to ensure that nonessential items have been removed and that the machine or equipment components are operationally intact.
- 2. Check the work area to ensure that all personnel have been safely positioned or removed from the area.
- **3.** Verify that the controls are in neutral.
- **4.** Remove the lockout devices and re-energize the machine or equipment.

NOTE: The removal of some forms of blocking may require re-enervation of the machine before safe removal. 5. Notify affected personnel that the servicing or maintenance is completed and the machine or equipment is ready for use.

PROCEDURE INVOLVING MORE THAN ONE PERSON

In the preceding steps, if more than one individual is required to lock out the equipment, **each shall place his own personal lock on the energy isolating devices.**



2.3 Safety Labels Description

See table below for safety labels description.

Label View	Description
	096317 CAUTION! Read and understand operator's manual before handling the machine.
	099220 Close guards prior to operating the machine
	096316 Electric box opening is possible with the switch in "0" position only.
	S20097-US Motor rotate direction

SECTION 3 RESAW SETUP

3.1 Site Preparation



DANGER! Have a certified electrician install the power to your machine.



WARNING! Ensure the power supply cables are not a trip hazard.



CAUTION! Improper voltage will cause damage to the motors and electronic components.

NOTICE The power supply must meet the motor specifications concerning wire size, fused disconnect, and voltage, which are provided in the motor's manual.

The electrical installation must meet local codes.

Locate the resaw in a dry work area on a firm, level surface.

Ensure proper lighting is available, with attention to extra lighting directly over the HR.

Allow room for the longest piece of material to run through and exit the machine with ease of movement.

Allow space for storing and handling the material that will be sawed on your HR.

Do not use in temperatures below freezing [$32^{\circ}F$ ($0^{\circ}C$)].

Do not allow dust collection hoses to become trip hazards. Plan the routes carefully.

Use a visual demarcation such as safety floor tape within the risk area.

ONSITE SETUP



WARNING! Maintain a clean and clear path for all necessary movement around the machine and material stacking areas.

Do not allow children in the work area.

Set up the machine on firm, level ground.

3.2 Lifting the Machine

This machine should be lifted or moved only by using a forklift with an adequate loading capacity.

Net weight (unpackaged): 3594 lbs. (1630 kgs)

Gross weight (packaged): 3814 lbs. (1730 kgs)

3.3 Uncrate and Prepare Parts

- 1. Check your HR as soon as it is received. Report any transport damage to Wood-Mizer and shipping agent immediately.
- 2. Set aside dust chutes, accessories, and other loose items.
- 3. Remove shipping straps/crating on flat, level surface.
- **4.** Ensure machine includes all safety decals before installing.

3.4 Install Conveyor

ATTACH OUTFEED SECTION

- 1. Align 6 holes on outfeed conveyor section with 6 holes on resaw frame.
- 2. Attach outfeed section using (6) M10 1.5x30 carriage bolts and (6) M10 1.5 nylock nuts. See FIG. 3-1

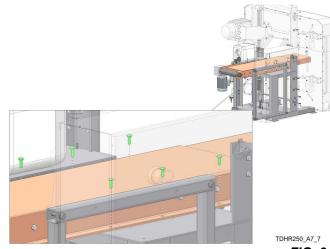
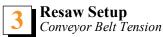


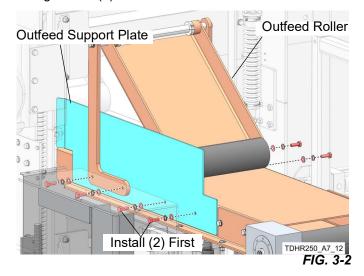
FIG. 3-1

ATTACH OUTFEED ROLLER

- 1. Slide outfeed support plate into place on motor side of conveyor. See FIG. 3-2
- **2.** Loosely install plate with (2) M10 1.5x30 HH bolts,(2) 10mm split lock washers, and (2) M10 flat washers.
- **3.** Place outfeed hold down roller into place and fasten with with (4) M10 1.5x30 HH bolts,(4) 10mm split lock washers, and (4) M10 flat washers.

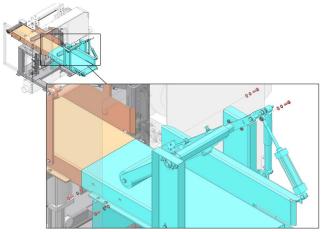


4. Tighten all (6) bolts.



ATTACH INFEED SECTION

- 1. Align 4 holes on infeed section with 4 holes on outfeed section in front of sawhead.
- Attach infeed section using (4) M10 1.5x30 HH bolts,(4) 10mm split lock washers, and (4) M10 flat washers. See FIG. 3-3

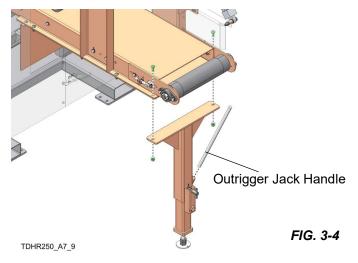


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FIG. 3-3

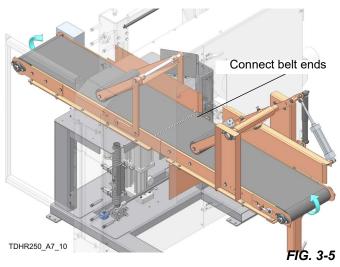
ATTACH LOAD LEG

- Attach load leg to infeed conveyor section using (2) M10 1.5x30 carriage bolts and (2) M10 1.5 nylock nuts.See FIG. 3-4
- 2. Slide outrigger jack handle into holder slot on load leg.



INSTALL CONVEYOR BELT

- 1. Route belt along underside of conveyor and around rollers on either end. See FIG. 3-5
- 2. Attach two ends of belt together.
- 3. Tension and track belt.

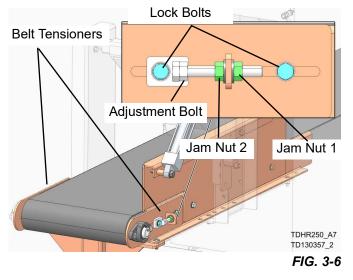


3.5 Conveyor Belt Tension

If the conveyor belt slips during operation, follow the tensioning procedure below. See FIG. 3-6 $\,$

- 4. Adjust each tensioner equally.
- 5. Loosen (2) lock bolts.
- 6. Loosen jam nut 1.
- 7. Hold adjustment bolt with wrench.

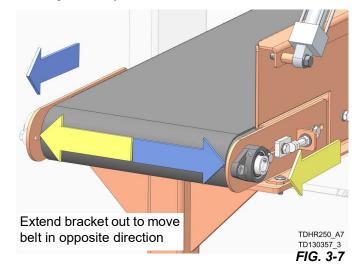
- 8. Tighten jam nut 2 to increase tension.
- 9. Tighten(2) lock bolts and jam nut 1.



3.6 Conveyor Belt Tracking

After tightening belt, run conveyor for a few minutes and check that the belt remains centered on the drive rollers. If the conveyor belt travels to one side or the other, adjust tracking. See FIG. 3-7

- 1. Loosen belt tensioner lock bolts on one side of conveyor.
- 2. Move adjustment bolt in or out as explained in tensioning steps above.
- **3.** If belt is tracking left, extend left tensioner bracket out to move belt right.
- **4.** If belt is tracking right, move right tensioner bracket out to move belt left.
- 5. Adjust in small increments until belt travels straight.
- 6. Retighten the jam nuts and lock bolts.



3.7 Electrical Installation



WARNING! Installation must be performed by a certified electrician in accordance with all applicable local laws, rules and regulations.

Make sure that the machine you have purchased can be powered with the provided power source before making any connections. Do not connect the machine to the improper power source. Serious injury, death or damage to the equipment will result.

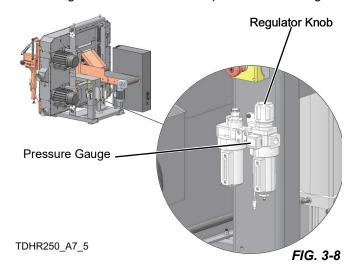
Model	Cutter hp Rating	Voltage	Current	Class J Main Fusing	SCCR w/Type J Fusing	Power Wiring	Recommended Min. Ground Wire
HR250SEB25U	25	240V 3ph	110A	150	50kA	2/0 AWG (67.4mm)	6AWG (13.3mm)
HR250SEC25U	25	480V 3ph	64A	90	100kA	3AWG (26.7mm)	8AWG (8.4mm)

3.8 Connect Air System

- 1. Locate air filter/regulator assembly on saw frame near outfeed conveyor.
- 2. Connect 3/8" quick air connector to air source.
- 3. Lift pressure regulation knob to set pressure.
- 4. Turn regulator knob clockwise to increase pressure.
- **5.** Turn regulator knob counter-clockwise to decrease pressure.

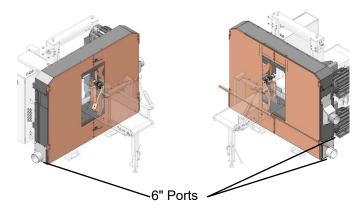
NOTE: Working air pressure should be set at 80-90psi (5.6-6.3kg/cm²)

6. Press regulator knob down to fix pressure at setting.



3.9 Dust Collection

The HR has (3) dust collection hoods with 6" ports on both the top and bottom sawhead cabinets--sized to fit 6" flexible hose. See FIG. 3-9



TDHR250_A7_4

FIG. 3-9

When using a collection system, keep in mind:

- Check local waste disposal codes before designing dust collection system.
- Design access to dust collection bins so that they can be easily emptied.
- Short hose runs and smooth-walled hoses reduce suction loss within the system.
- Locate the dust collector controls near the HR controls.
- Collection systems are loud; use ear protection.
- If operating this machine in a climate-controlled building and blowing the dust outside, the vacuum created by the dust collector can quickly empty the building of its heated or cooled air.
- If blowing the dust to an indoor bin, an air fil- ter will be necessary to prevent wood dust from reducing the air quality inside of building.
- If selling sawdust for use with livestock, do not use harsh chemicals for cleaning or lubricating machinery.

3.10 Blade Installation



DANGER! Coiled blades are under spring tension. Know proper blade handling before unpacking your blade.

Always turn resaw power to maintenance mode before changing the blade.



WARNING! Keep all other persons away from area when coiling, carrying, or changing a blade; changing blades is safest when done by one person.

Wear gloves and eye protection when handling bandsaw blades.



Watch the video on sawmill blades before removing the blade from the box.

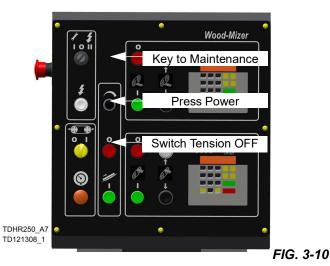
Go to: <u>https://www.youtube.com/</u> watch?v=43TWwSgSOaQ



HOW TO COIL, UNCOIL, AND INVERT A BLADE

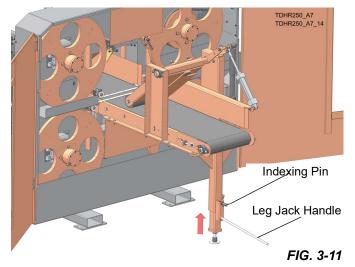
PREPARE MACHINE

- 1. Turn the Power Key to Maintenance mode .
- 2. Press Control Power button.
- 3. Turn Blade Tension switch to "O" (off).See FIG. 3-10



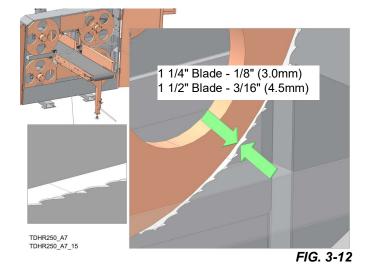
4. Open sawhead cabinet doors.

- **5.** Pull and turn the spring loaded indexing pin on load leg.
- 6. Insert jack handle.
- 7. Push jack handle down to lift leg.
- 8. Place indexing pin in hole that keeps outrigger elevated off of the floor. See FIG. 3-11



INSTALL BLADE

- 1. If needed, lift old blade out of blade housing.
- 2. Install blade so it lies around wheels. See FIG. 3-12
 - Position 1 1/4" wide blades on the wheels so the gullet is 1/8" (3.0 mm) out from the 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 edge of the wheel.
- 3. Close the blade housing covers.
- 4. Turn Blade Tension switch to "I" (on).



3.11 Tensioning The Blade

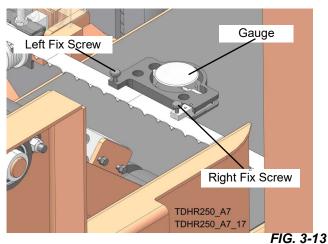
When installing a new sawblade, use a sawblade tension gauge to inspect and adjust the sawblade tension. After the machine has been operated, the sawblade tension needs to be periodically inspected and adjusted.

INSPECT THE TENSION

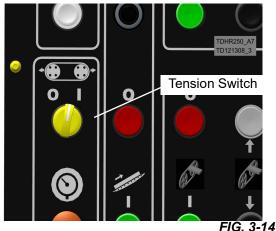
1. Fit blade tension gauge (WMBTG) onto sawblade. See FIG. 3-13

NOTE: Make sure two slot bottoms on WMBTG have touched back side of sawblade.

- 2. Tighten the left fix screw on the gauge.
- **3.** Make a micrometric adjustment on right slot of WMBTG by slightly shifting slot to right side, until gauge indicates graduation 15 (red graduation).
- 4. Tighten right fix screw.
- 5. Turn gauge to set it at graduation "0."



6. Turn sawblade tension switch on control panel, to Right "I" position for tightening sawblade. See FIG. 3-14



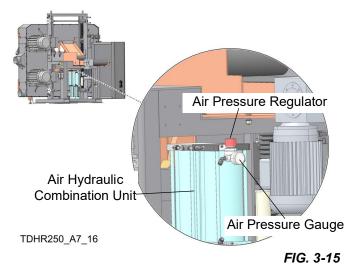
7. Check sawblade tension indicated on gauge.

NOTE: The normal sawblade tension should be indicated on the graduation 35-40 (red graduation).

ADJUSTING THE TENSION

- 1. Turn air pressure regulator on air hydraulic combination unit. See FIG. 3-15
- **2.** For convenience, have a second person monitor WMBTG while adjusting pressure.
- **3.** Increase air pressure and sawblade tension by turning regulator knob clockwise.

NOTE: Hydraulic pressure gauge on air hydraulic combination unit does **not** require adjusting. It will automatically vary with air pressure value. The hydraulic pressure gauge indicates around 48 PSI.



3.12 Tracking the Blade

- 1. Turn power off before conducting sawblade tracking adjustment.
- 2. Open saw wheel guard (front doors).
- **3.** Make sure sawblade tension is proper before adjusting sawblade tracking.
- **4.** Slowly turn saw wheel by hand, and check sawblade running track condition.

NOTE: When rotating blade in either direction, there should not be more than a 1/16" variation.

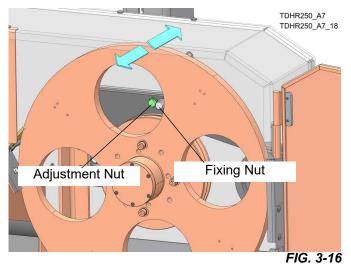
Blade Tracking is adjusted on drive wheels only.

5. Turn Blade Tension Switch to "O" (off).

ADJUST WHEEL VERTICAL PITCH

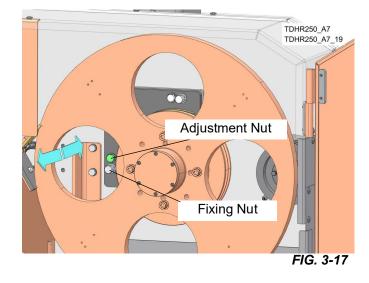
- 6. Loosen top fixing nut. See FIG. 3-16
- 7. Turn blade track adjustment screw 1/4 turn counterclockwise to tilt blade wheel backward.

8. Turn blade track adjustment screw 1/4 turn clockwise to tilt blade wheel forward.

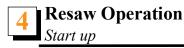


ADJUST WHEEL HORIZONTAL PITCH

- 9. Loosen lower fixing nut. See FIG. 3-17
- **10.** Turn blade track adjustment screw 1/4 turn counterclockwise to tilt blade wheel left.
- **11.** Turn blade track adjustment screw 1/4 turn clockwise to tilt blade wheel right.



- 12. Turn Blade Tension Switch to "I" (on).
- **13.** Slowly turn blade wheel by hand to check if sawblade runs on correct track.
- **14.** If needed, turn Blade Tension Switch to "O" (off), and repeat adjustment steps.
- **15.** Tighten fixing nuts once proper track is attained.



SECTION 4 RESAW OPERATION

4.1 Start up

Read and understand all information and warnings contained in the **General Safety** section of this Operator's Manual before starting the HR.



DANGER! Do not operate the saw without all covers and guards in place.

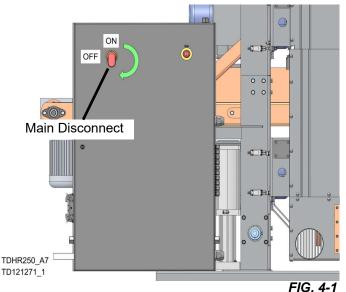


WARNING! Always operate the saw as designed to prevent injury.

Clear the machine of any loose tools or other items before powering on.

Motor will not run if any of the Emergency Stops are depressed. If depressed, turn to the left and pull it to the correct position.

- 1. Visually inspect machine
- 2. Turn panel Main Disconnect to "ON."



3. Turn Power key to operation mode II.

NOTE: Red light may flash indicating air pressure sensor registers proper air pressure.

4. Press Control Power button.

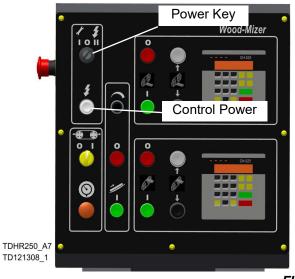


FIG. 4-2

4.2 Manual Up/Down Operation

Upper and lower sawhead up/down operation is the same.

- 1. Raise sawhead by pressing and holding "UP" switch.
- 2. Lower sawhead by pressing and holding "DOWN" switch.

Distance traveled is displayed on digital controller.

Lower blade range: 1/2" to 7 1/2" (13mm - 190) from conveyor.

Upper blade range: 1" to 12 1/2" (25mm - 317mm) from conveyor.

NOTE: Limit switch sets allowable distance between sawblades at 1/2" (13mm).

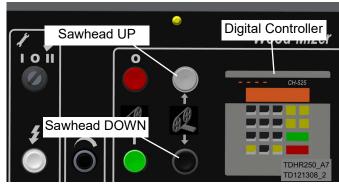


FIG. 4-3

4.3 Up/Down Digital Controller

SELECT DIMENSION UNITS

- 1. Press "UNIT" button to toggle between INCH and MM.
- 2. Verify correct selection with indicator light at top of control unit. See FIG. 4-4

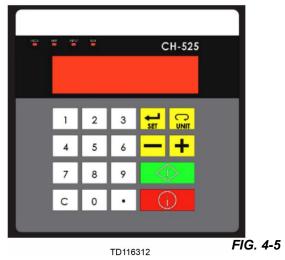
Unit Indicators CH-525 Unit Selector 1 2 3 + 4 5 6 7 8 9 С 0 FIG. 4-4 TD116312

SET DEFAULT THICKNESS OF CUT

- 1. Press and release "SET" button to display "0". See FIG. 4-5
- 2. Use keypad to input desired thickness.

NOTE: Fractional thicknesses are input as decimals using the "." button.

- 3. Clear an input by pressing "C" button.
- **4.** Press and hold "SET" button for 3 seconds to confirm thickness of cut input.



5. Manually adjust thickness by pressing and holding "+" or "-" increment buttons.

NOTE: Holding the "+" or "-" increment buttons will rapidly adjust the thickness value.

6. Adjust thickness by .2 by pressing and releasing "+" or "-" increment buttons.

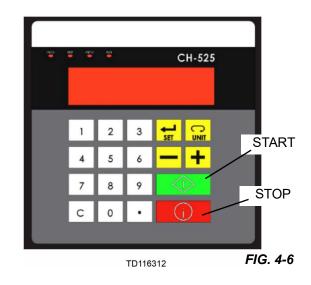
AUTOMATIC START THICKNESS ADJUSTMENT

If desired, a temporary adjustment to the thickness setting can be made.

- 1. Press and release "SET" button to display "0". See FIG. 4-6
- 2. Input new thickness measurement.
- 3. Press "START".

Control unit starts to run and display changes back to default thickness and begins to increase until it reaches set size.

NOTE: If "STOP" button is pressed, control unit will stop running and return to default thickness input.



4.4 Cutting Operation

4. Press Belt Feed "ON" button. See FIG. 4-7

NOTE: This does not turn on conveyor. Conveyor operation is interlocked with lower blade power.

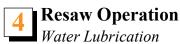
5. Press Lower Blade "ON" button.

The lower blade activation will activate the belt feed and water lube system.

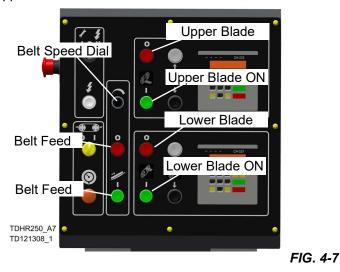
NOTE: Pressing Belt Feed "OFF" button will stop conveyor but will not shut off lower blade.

Pressing Lower Blade "OFF" button will also turn off conveyor.

- 6. Adjust feed rate by turning Belt Speed Dial from 0-100%.
- 7. If cutting two boards from stock, press Upper blade "ON" button.



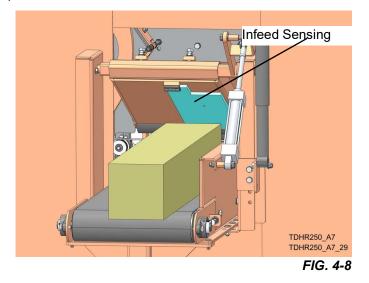
Upper Blade buttons are not interlocked with belt feed.



Feed lumber on infeed conveyor.

8.

NOTE: Infeed roller assembly is equipped with a sensing plate. Roller assembly raises as lumber touches sensing plate. See FIG. 4-8



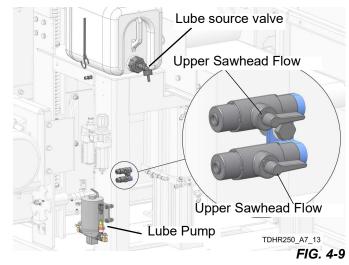
4.5 Water Lubrication

The Water Lube System keeps the blade clean. Water flows from a 5-gallon (18.9 liter) bottle to the lube pump. The pump outlet connects to upper and lower sawhead flow valves. The valves control the flow to where the blade enters the cant.

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.

9. Turn lube source valve counterclockwise to open.

Water lube system is interlocked with lower sawhead engagement. Water will flow when the lower sawhead blade is engaged. **10.** Adjust flow using upper and/or lower sawhead flow valves.



For further lubrication benefits, add one 12oz. (0.35L) bottle of Wood-Mizer Lube Additive to 5 gallons (18.9 liters) of water. Wood-Mizer Lube Additive enables some previously impossible timbers to be cut by significantly reducing resin buildup on the blade. It helps to reduce heat buildup, wavy cuts, and blade noise. This biodegradable and environmentally friendly pre-mix includes a water softener additive, so it works with hard water.



WARNING! Use ONLY water and Wood-Mizer Lube Additive with the water lube accessory. Never use flammable fuels or liquids such as diesel fuel. If these types of liquids are necessary to clean the blade, remove it and clean with a rag. Failure to do so can damage the equipment and may result in serious injury or death.



CAUTION! Add windshield washer fluid to the water tank and prime as recommended when sawing or storing the sawmill in below-freezing temperatures. Use windshield washer fluid with a freezing point of at least -20°F (-29°C). Failure to do so may cause damage to the water lube system.

SECTION 5 RESAW ALIGNMENT



DANGER! Always turn resaw power to maintenance mode before performing any maintenance procedures.

5.1 Blade Installation



DANGER! Coiled blades are under spring tension. Know proper blade handling before unpacking your blade.

- 1. Remove the blade and check the blade wheel belts.
- 2. Remove any sawdust buildup from the surface of the belts.
- **3.** Replace worn belts if they do not keep the blade from contacting the blade wheel.
- Install a clean blade, ensure proper tracking on wheels, and apply the appropriate tension (<u>See Section 3.10</u>).
- 5. Close the blade housing door.

5.2 Saw Head Tilt

- 1. Press and hold Sawhead UP button on control panel.
- 2. Raise sawhead enough to allow clearance for measurement from sawblade to conveyor belt.
- 3. Measure from drive side of conveyor to bottom of sawblade (measurement A).
- 4. Measure from idle side of conveyor to bottom of sawblade (measurement B).

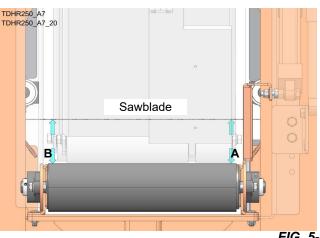
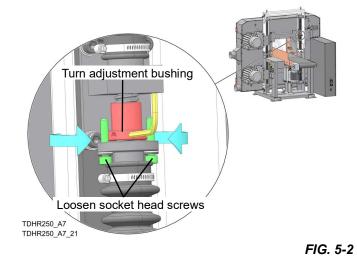


FIG. 5-1

- 5. If measurement A **does not** equal measurement B, adjust tilt on up/down on backside of machine.
- 6. Loosen (2) M8 1.25x40mm socket head screws.
- 7. Insert hex key or screwdriver in adjustment bushing hole.
- 8. Turn bushing to raise or lower idle side of sawhead.
- 9. Recheck measurements A and B.

10. Once measurement A equals measurement B, retighten (2) M8 1.25x40mm socket head screws.



5.3 Blade Guide Vertical Tilt Alignment

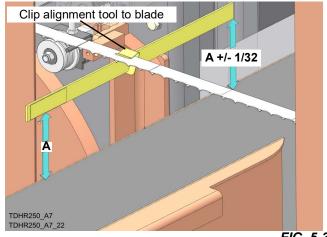
The blade guides should be adjusted properly in the vertical plane. If the blade guides are tilted vertically, the blade will try to travel in the tilted direction.

A Blade Guide Alignment Tool (Part #: LTBGAT) is provided to help you measure the vertical tilt of the blade.

1. Clip alignment tool on blade near idle side blade guide assembly. See FIG. 5-3

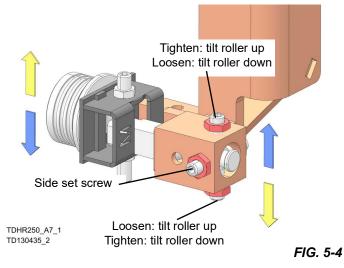
Ensure the tool does not rest on a tooth or burr and is lying flat against the bottom of the blade.

- 2. Measure distance from conveyor belt to bottom edge of front end of tool.
- **3.** Measure distance from conveyor belt to bottom edge of rear end of tool.
- 4. If measurement from tool to conveyor is not equal within 1/32" (.75 mm), adjust vertical tilt of idle side blade guide roller.





- 5. Loosen one set screw at side of the blade guide assembly. See FIG. 5-4
- 6. Loosen jam nuts on top and bottom vertical tilt adjustment screws.
- 7. Loosen bottom screw and tighten top screw to tilt roller up.
- 8. Loosen top screw and tighten bottom screw to tilt roller down.
- 9. Tighten jam nuts and recheck tilt of blade.



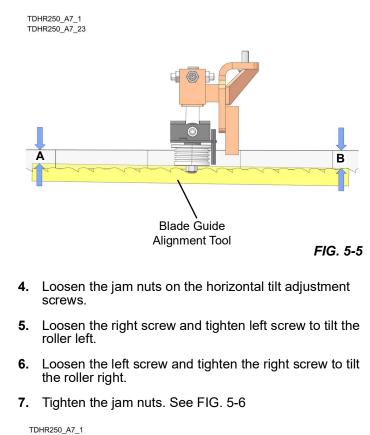
- **10.** Move blade guide alignment tool close to drive side blade guide roller assembly and repeat above steps.
- **11.** Adjust vertical tilt of the drive side blade guide if necessary.

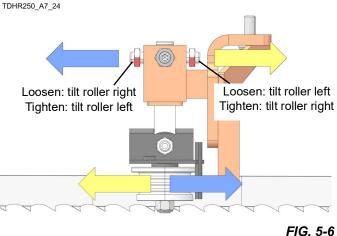
5.4 Blade Guide Horizontal Tilt Adjustment

If the blade guides are tilted in the wrong direction horizontally, the back of the blade may contact the flange as the roller is spinning down, causing it to push the blade away from the guide roller.

- Remove clip from blade guide alignment tool and place tool against face of idle side blade guide roller. See FIG. 5-5
- 2. Measure between back edge of blade and tool at end closest to inner blade guide ("B").
- **3.** Measure between the back edge of the blade and the other end of the tool ("A").

The roller should be tilted slightly to the left ("A" 1/8" [3 mm] less than "B" \pm 1/8" [3 mm]).





- 8. Recheck the tilt of blade.
- **9.** Repeat above steps for drive side blade guide roller assembly.

NOTE: Once the blade guides have been adjusted, any cutting variances are most likely caused by the blade itself.

5.5 Blade Guide Flange Spacing

Each blade guide must be adjusted so the roller flange is the correct distance from the back edge of the blade. If the flange is too close to or too far from the blade, the resaw will not cut accurately. **NOTE:** When adjusting blade guide spacing, loosen the top set screw and one side set screw only. This will ensure horizontal and vertical tilt adjustments are maintained when the adjustment screws are retightened. See FIG. 5-7

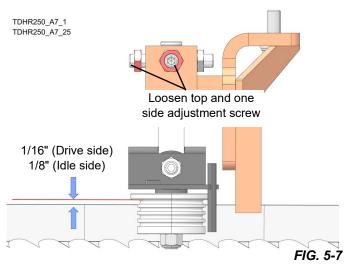
1. Measure distance between flange on the idle side blade guide roller to back edge of blade.

This distance should measure 1/8" (3.0 mm).

- 2. Adjust roller back or forward if necessary.
- 3. Loosen top and one side screw shown.
- **4.** Tap blade guide forward or backward until properly positioned.
- 5. Retighten screws and jam nuts.
- 6. Measure distance between the flange on drive side blade guide roller to back edge of blade.

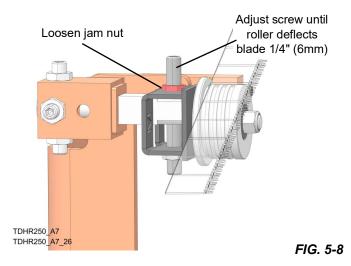
This distance should measure 1/16" (1.5 mm).

7. Adjust the roller back or forward if necessary.



5.6 Blade Guide Deflection

- 1. Loosen jam nut on top adjustment screw on idle side blade guide roller. See FIG. 5-8
- 2. Turn adjustment screw until blade just touches roller.
- **3.** Measure the distance from the conveyor to the bottom of the blade near idle side guide roller.
- **4.** Turn adjustment screw until blade is deflected 1/4" (6mm) relative to conveyor.
- 5. Tighten jam nut.



6. Repeat steps for blade deflection for each blade guide roller.



SECTION 6 MAINTENANCE

This section lists the maintenance procedures needed to ensure optimal machine performance and durability.



DANGER! Always turn resaw power to maintenance mode before performing any maintenance procedures.

6.1 Sawdust Removal



WARNING! Clean sawdust from all guards, vents, control boxes, or any area where sawdust may gather **after every 8-hour shift**.



- **1.** Open front access panels to clean.
- 2. Use compressed air to clean dust and debris from cabinet and dust chute daily.

6.2 Blade Guides

Blade guide alignment is essential for optimal cutting performance, blade life, and safety. Failure to check and maintain proper blade guide alignment will result in stress cracks forming in the blade. These cracks will lead to premature blade breakage and create a safety hazard for the operator and any bystanders surrounding the mill

- 1. Check rollers for performance and wear every blade change.
- 2. Make sure rollers are clean and spinning freely if not, replace them.
- **3.** Replace any rollers which have worn smooth or have become cone shaped.

6.3 Blade Wheel Belt Replacement

- 1. Inspect belts around each blade wheel every forty hours of operation.
- 2. Check that belts are not worn to a point that a tensioned blade touches the metal wheel.

NOTE: Operating resaw with worn blade wheel belts will lead to premature blade breakage.

Replace belts as necessary to prevent blade from contacting wheels.

6.4 Drive Belt Tension



CAUTION! Always keep proper tension on the drive belt. Keeping the drive belt too loose will ruin the belt.

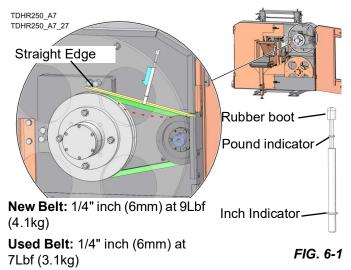
NOTE: Wood-Mizer offers a belt tension gauge (Part No. 016309) that will let you accurately measure the belt tension.

CHECK BELT TENSION

- 1. Open drive side sawhead cabinet door.
- 2. Measure belt tension with a belt tension gauge.
- Check drive belt tension after first half hour of operation, again after four hours of operation, and every eight hours of operation thereafter.
 - New belt tension should be 1/4" inch (6mm) deflection at 9Lbf (4.1kg)
 - Used belt tension should be 1/4" inch (6mm) deflection at 7Lbf (3.1kg).
- **4.** Zero out pounds indicator by sliding belt tension gauge's small O-ring against yellow flange.
- 5. Set gauge's lower O-ring to 1/4" (6mm).
- 6. Center gauge on belt segment between pulleys.
- 7. Press down on rubber boot while bottom of gauge is against drive belt.
- 8. Stop pressing when large O-ring meets straight edge.
- **9.** Read the pounds indicated by the small O-ring. See FIG. 6-1

Reading should be 9 lbs (4.1kg) or 7 lbs (4.1kg), depending on age of belt.

If reading is too high or low, follow adjustment instructions below.

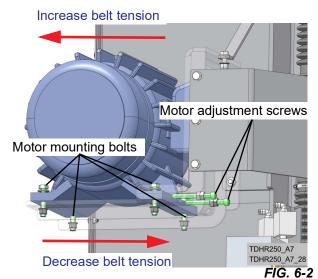


Maintenance

ADJUST BELT

- **1.** Loosen (4) motor mounting bolts.
- 2. Turn motor position adjustment screws equally to increase or decrease belt tension.
- **3.** Tighten screws move to motor left and increase belt tension.
- **4.** Loosen screws and manually slide motor right to decrease belt tension.
- 5. Recheck belt tension.

6. Tighten (4) motor mounting bolts when proper belt tension has been measured. See FIG. 6-2



SECTION 7 TROUBLESHOOTING GUIDE

7.1 General



WARNING! Turn the key switch to the OFF (0) position and remove the key before performing service near moving parts such as cutters, pulleys, motors, belts, and chains. If the key is turned on and moving parts activated, serious injury or death may result.

CAUSE	SOLUTION	
Safety interlocks engaged	Check all E-Stops Verify proper air pressure	
Blown fuse	Locate and replace fuse	
Dull blade	Sharpen or replace blade	
Motor overload	Reduce belt feed rate	
Blade tension is too loose	Tighten blade	
Poor sharpening techniques	See Sharpener Manual	
Tension too tight	Tension blade to recommended specifications	
Improper lubrication	Increase flow rate of lubrication sys- tem.	
When grinding teeth, heating too much and causing teeth to soften	Grind just enough metal to restore sharpness to the teeth. Use water/coolant while sharpening blade	
Poor sharpening techniques	Make sure the tip is being sharpened completely (See Sharpener Manual)	
Resawn lumber contains debris	Inspect lumber for nails or other metal debris prior to sawing	
Motor and drive pulleys out of alignment	Align pulleys	
	Align pulleys Slow feed rate	
alignment		
alignment Excessive feed Improperly sharpened blade (This will be the problem 99%	Slow feed rate Resharpen blade (See Sharpener	
alignment Excessive feed Improperly sharpened blade (This will be the problem 99% of the time!) Blade guides improperly	Slow feed rate Resharpen blade (See Sharpener Manual - read entire manual!)	
	Safety interlocks engagedBlown fuseDull bladeMotor overloadBlade tension is too loosePoor sharpening techniquesTension too tightImproper lubricationWhen grinding teeth, heating too much and causing teeth to softenPoor sharpening techniques	

7.2 Control Panel

PROBLEM	CAUSE	SOLUTION	
Display Fails to Show Figures	Verify meter is receiving the correct supply voltage of 120V.	Adjust input to 120V.	
	Blown fuse	Locate and replace fuse	
	If above two points are checked to be normal, control unit is out of order.	Repair or replace unit.	
Display Shows but Figures are Abnormal	Incorrect figures are displayed.	Correct the dimension input.	
Abhormai	Unit needs reboot.	Power off, then power back on.	
	If about two points do not cor- rect issue, control unit is out of order.	Repair or replace unit.	
Display Shows Figures, but Does not Adjust in Accor- dance with Machine Up/Down Location	Proximity switches do not illu- minate has head moves up/down, indicating an issue with the switches.	Change faulty switches.	
	Verify that signals A/B are scaling from 0-12VDC.	If no scaling, the induction sensors may need replaced.	
Up/down Buttons Will Not Move Sawhead	Thermal overload tripped	Press RESET on Thermal overloads in electrical box	