

Wood-Mizer[®] Sawmill

Safety, Setup, Operation & Maintenance Manual

LT70HD non-remote

rev. B8.02

Safety is our #1 concern!

Form #1041

Models Affected:

| | | |
|--------------|--|-------|
| LT70HDE25-L | Sawmill, LT70HD E25 Electric, Low Volt | B8.02 |
| LT70HDE25-H | Sawmill, LT70HD 25Hp Elec, High Volt | B8.02 |
| LT70HDE30-H | Sawmill, LT70HD 30Hp Elec, High Volt | B8.02 |
| LT70HDE30W-H | Sawmill, LT70HD 30Hp Elec, Wide, High | B8.02 |



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

California

Proposition 65 Warning



WARNING: Breathing gas/diesel engine exhaust exposes you to chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Always start and operate the engine in a well-ventilated area.
If in an enclosed area, vent the exhaust to the outside.
Do not modify or tamper with the exhaust system.
Do not idle the engine except as necessary.

For more information go to www.P65warnings.ca.gov.



WARNING: Drilling, sawing, sanding or machining wood products can expose you to wood dust, a substance known to the State of California to cause cancer. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection.

For more information go to www.P65Warnings.ca.gov/wood.

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: woodmizer.com/patents

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

* 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 in returning the equipment to the Purchaser.

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, NON-INFRINGEMENT 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 INCIDENTAL DAMAGES OR LOSSES, 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 <https://woodmizer.com>, 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 <https://apps.woodmizer.com/Manuals/Manuals.aspx?parent=0>.


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. (It is up to the sawyer to know which woods require respiratory protection.)

HANDLE FUEL/LUBRICANTS SAFELY


 **DANGER!** Due to the flammable nature of fuel and oil, never smoke, weld, grind or allow sparks near your engine or storage tanks, especially during times of fueling.


Do not allow fuel to spill on a hot engine during fueling operations or otherwise.

 **WARNING!** Store gasoline away from sawdust and other flammable materials.

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.

Keep all persons out of the area between the frame rails while loading and unloading the equipment.


CHECK EQUIPMENT BEFORE OPERATION

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

Use the safety retainer pin and cable to fasten blade housing covers.


 **WARNING!** Do not operate the equipment without the bed end retaining brackets properly installed; the saw head may fall from the log bed.

KEEP PERSONS AWAY


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

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

KEEP HANDS AWAY

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

Disengage the blade and shut off the equipment engine before changing the blade.

 **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 cutting 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 spin the blade wheels by hand. Spinning the blade wheels by hand may result in serious injury.

Disengage the clutch/brake mechanism whenever the equipment is not cutting.

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

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

UP/DOWN SYSTEM SAFETY

 **WARNING!** Secure the saw head with a chain with a minimum of 1900 lbs. working load capacity before adjusting the up/down chain.

Release pressure from the up/down assist prior to performing any service to the assembly. Parts are under tension and may fly apart.

Do not disassemble the pressurized cylinder. Parts are under pressure and may fly apart or damage the cylinder.


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 MILL AND AREA AROUND MILL CLEAN


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

Do not allow children in the area of the mill.

GAS OR DIESEL ENGINE OPERATION

 **DANGER!** Operate your engine/machine only in well ventilated areas.


Do not operate an engine with a fuel or oil leak.


 **WARNING!** Do not operate engine without proper and operational spark arrester/muffler.

DISPOSE OF WOOD BY-PRODUCTS PROPERLY

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

WORKING WITH BATTERIES


 **DANGER!** Batteries expel explosive gases; keep sparks, flames, burning cigarettes, or other ignition sources away at all times.

 **WARNING!** Always wear safety goggles and a face shield when working near batteries.

Wash hands after handling batteries to remove possible lead, acid, or other contaminants.

Charge the battery in a well ventilated area.

Do not attempt to charge a frozen battery.

 **CAUTION!** Do not overcharge the battery. Overcharging may reduce the overall service life of the battery.

Ensure the battery is fully charged before transporting the equipment. If the battery is not fully charged, excessive vibration could reduce the overall service life of the battery.

NOTICE When working with batteries, use extreme care to avoid spilling or splashing electrolyte (dilute sulfuric acid) as it can destroy clothing and burn the skin.

EMERGENCY TREATMENT FOR CONTACT WITH BATTERY COMPONENTS (LEAD/SULFURIC ACID) per SDS (Safety Data Sheet):

| | |
|---------------------|--|
| EYE CONTACT | Sulfuric Acid and Lead: Flush eyes immediately with large amounts of water for at least 15 minutes while lifting lids. Seek immediate medical attention. |
| SKIN CONTACT | Sulfuric Acid: Flush affected area(s) with large amounts of water using deluge emergency shower, if available, shower for at least 15 minutes. Remove contaminated clothing, including shoes. If symptoms persist, seek medical attention. Wash contaminated clothing before reuse. Discard contaminated shoes. Lead: Wash immediately with soap and water. |
| INGESTION | Sulfuric Acid: Administer large amounts of water. Do NOT induce vomiting or aspiration into the lungs may occur and can cause permanent injury or death; consult physician. |
| INHALATION | Sulfuric Acid: Remove to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Consult a physician. Lead: Remove from exposure, gargle, wash nose and lips; consult physician. |

2.3 Electrical Lockout Procedures

RULES FOR USING LOCKOUT PROCEDURE

The equipment shall be locked out to protect against accidental or inadvertent operation when such operation could cause injury to personnel. Do not attempt to operate any switch or valve bearing a lock.

LOCKOUT PROCEDURES MUST BE USED DURING, BUT NOT LIMITED TO:

- Changing or adjusting blades
- Unjamming operations
- Cleaning
- Mechanical repair
- Electrical maintenance
- Retrieval of tools/parts from work area
- Activities where guards or electrical panel guard is open or removed

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
- Electrocutation
- 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 energization 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 flywheels, hydraulic systems, and air, gas, steam, or water pressure, etc.) must be dissipated or restrained by methods such as grounding, repositioning, blocking, 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-energization 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.**

SECTION 3 SAWMILL SETUP

3.1 Stationary Sawmill Setup

Prepare the site:

- Area must be firm and level.
- The cement pad should be rated to support 6350 lbs./sq.ft.
- Use 5/8" diameter anchor bolts to secure feet.
- Allow maneuvering room for operators, sawdust removal, log loading, and board removal.
- [See Section 3.2](#) for installation instruction for fine adjustable outriggers (FAO).
- [See Form #847](#) for sawmill foot anchor locations.
- [See Form #359](#) for sawmill with bed extension foot anchor locations.
- [See Form #1084](#) for complete electric sawmill installation instructions.

NOTE: Make sure the unit is level before securing. It **IS POSSIBLE** to twist the mill frame by jacking one foot higher than the others.



WARNING! Securely fasten the feet to the floor before operating the sawmill. Failure to do so may result in serious injury or death.

1. Park and unhitch the mill at its permanent location.
2. Fasten the feet to the concrete pad. [See Form #847](#) f
3. Unhook the carriage safety chain, located at the bottom of the vertical mast, near the battery box. See FIG. 3-1.
4. Release the fender straps and lift up to remove the fenders. See FIG. 3-2.
5. Stow until needed for transport. Start the engine to enable the battery-operated accessories ([See Section 3.6](#)).
6. Use the up/down switch on the control panel to raise the saw head from the carriage rest pin.

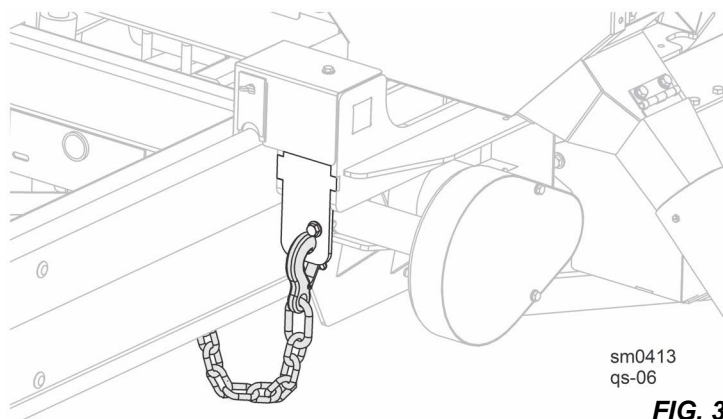


FIG. 3-1

7. Remove the locking pin and swing the rest pin down below bed level. See FIG. 3-3.
8. Use the carriage forward/reverse switch (left side of control box) to move the saw head toward the front (hitch end) of the mill.

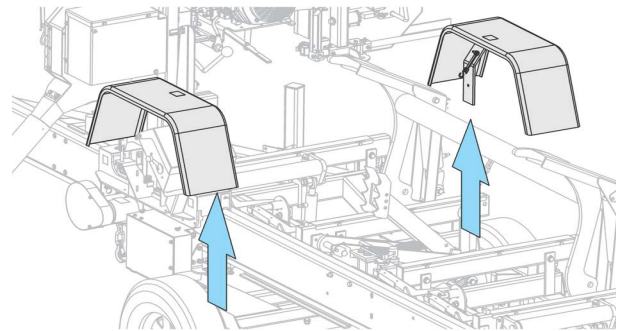


FIG. 3-2

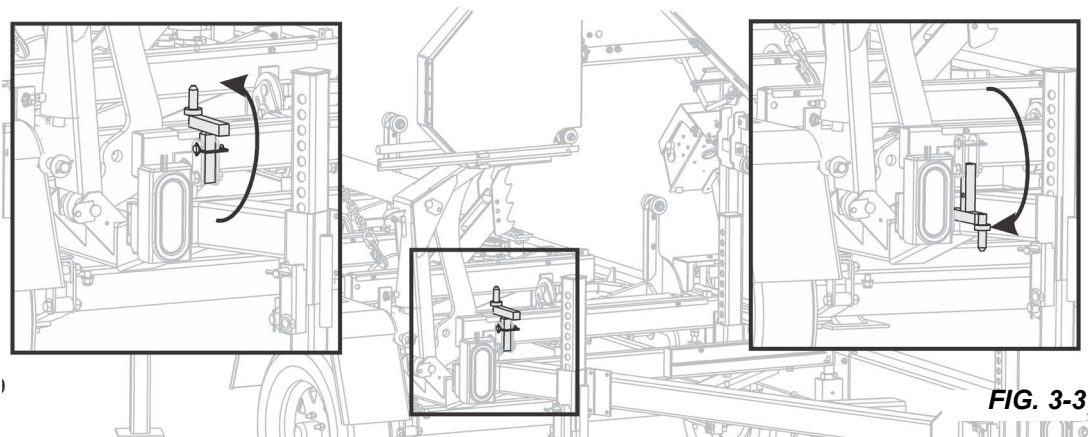


FIG. 3-3

- Raise the side supports to prevent a log from falling off the side of the mill when loaded. See FIG. 3-4.

3.2 Portable Sawmill Setup



WARNING! Do not set up the mill on ground with more than a 10 degree incline.

If setup on an incline is necessary, put blocks under one side of the mill or dig out areas for outrigger legs to keep mill level. Setting up the mill on an incline could cause it to tip over.

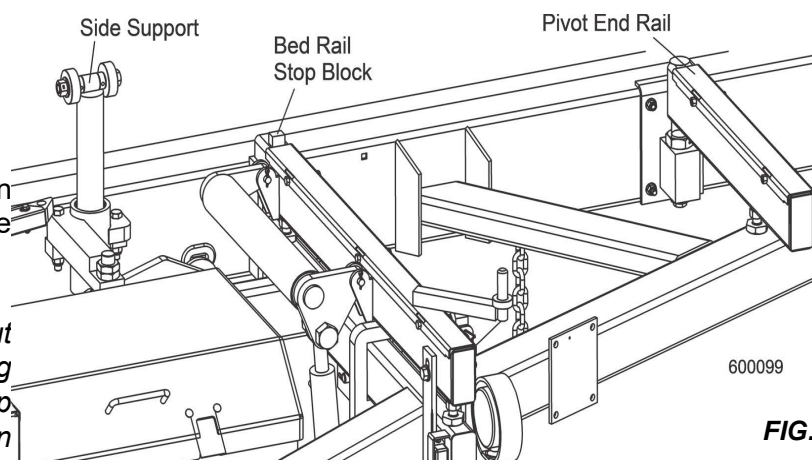


FIG. 3-4

Chock the trailer wheels to prevent movement before unhitching it from the towing vehicle. Failure to do so may result in serious injury or death.

Ensure the trailer wheels are supporting the sawmill frame when operating a sawmill with adjustable outriggers. The adjustable outriggers are intended to support the saw frame with assistance from the trailer.

Do not set up the fine adjustable outriggers on concrete or other hard surfaces. Long-term use of the fine adjustable outriggers on hard surfaces may cause the outriggers to fail, causing the sawmill to drop.

NOTICE If setting the sawmill up on concrete or other hard surface, replace the fine adjustable outrigger legs with stationary legs.

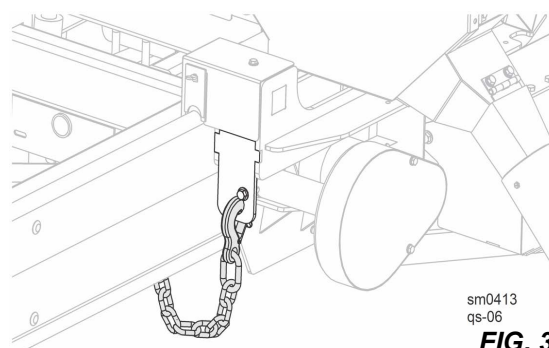


FIG. 3-5

SET OUTRIGGERS FOR SAWING

- Unhitch the mill from the vehicle.
- Unhook the carriage safety chain, located at the bottom of the vertical mast. See FIG. 3-5.
- Remove the fenders by lifting them out of the slots. See FIG. 3-6.



CAUTION! To prevent fender damage, remove fenders before operating sawmill or loading logs.

- Start the engine to enable the battery-operated accessories ([See Section 3.6](#)).



CAUTION! Gas/diesel Models Only: Operating the controls without the engine running will drain the battery.

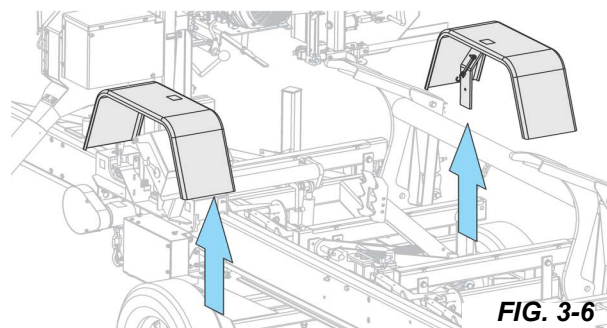


FIG. 3-6

- Use the up/down switch on the control box to raise the saw head off the saw head rest pin.

6. Lower the rest pin. See FIG. 3-7.

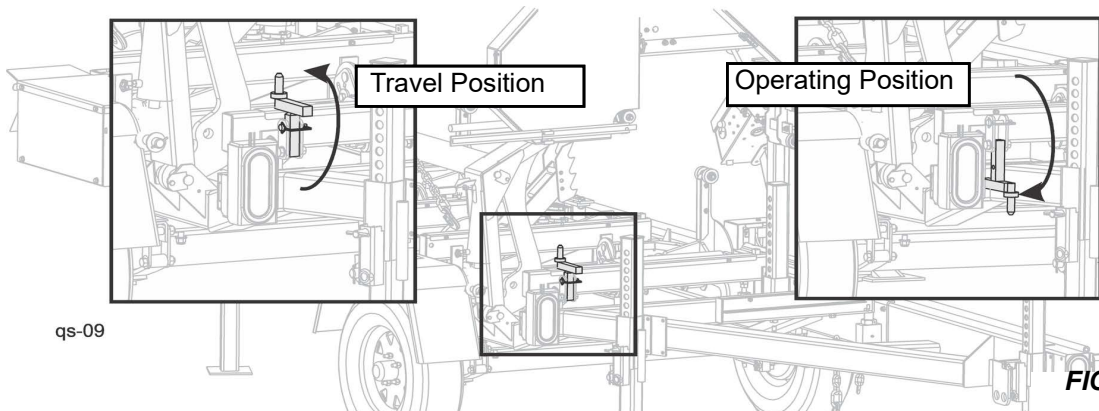


FIG. 3-7

7. Set the three front outrigger as described below. See FIG. 3-8.



WARNING! Put **front** outriggers down before moving saw head from the rest (travel) position. Failure to do so may result in serious injury.

- 1). Remove the retaining pin on the top nut.
- 2). Remove the nut lock bracket.
- 3). Disengage the locking pin retainer on the front adjustable outrigger.
- 4). Hold the adjustable leg with one hand and pull out the locking pin.
- 5). Lower the adjustable leg to align the locking pin holes so the foot pad is as close to the ground as possible.
- 6). Reinstall the locking pin and secure with its bail.
- 7). Use the crank handle to turn the outrigger adjustment nut counterclockwise to push the foot pad down to support the weight of the sawmill frame.
- 8). Fine tune the outrigger base height as necessary.
- 9). Replace the nut locking bracket
- 10). Replace the bracket retaining pin.

8. Move the saw head to the opposite end of the mill from the outrigger.



CAUTION! Do not adjust the FAO outrigger base height while there is weight on the FAO. Damage to the FAO may result.

9. Move the saw head to the front of the sawmill and adjust the rear outriggers.

Rear outrigger adjustment is similar to the front outrigger. (See sub-steps 1 through 10 above.)



CAUTION! Gas/diesel Models Only: Operating the controls without the engine running will drain the battery.

10. Level the sawmill by adjusting the outriggers to raise or lower each end of the sawmill.

11. Adjust all outriggers evenly to avoid twisting the mill frame by setting one outrigger higher than the others.

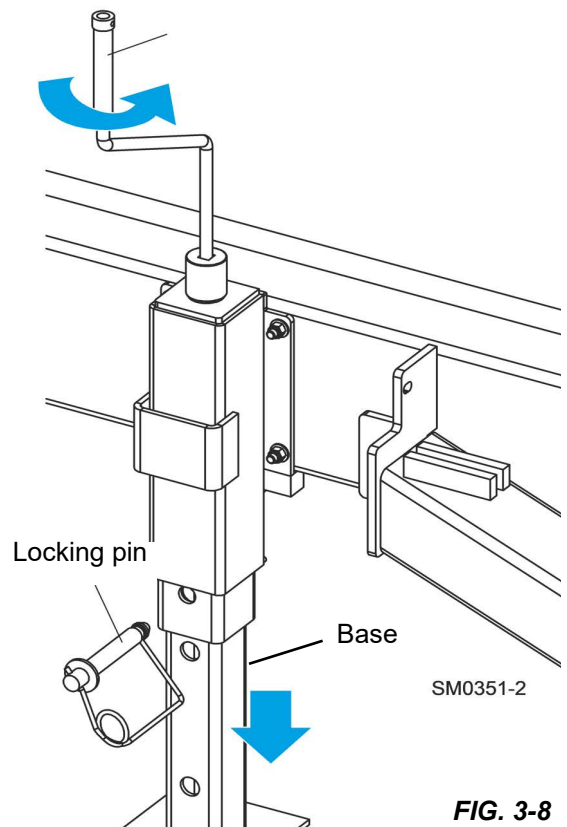


FIG. 3-8

12. Raise the two side supports to prevent the log from falling off the side of the mill when loaded.

3.3 Installing The Blade

! DANGER! Always disengage the blade and shut off the sawmill engine before changing the blade.

! 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.

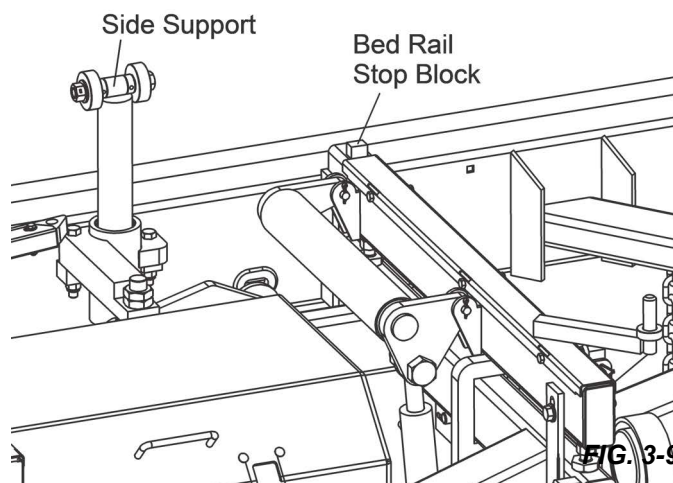


FIG. 3-9

1. Open all the blade housing covers.
2. 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.
3. Lift the blade out of the blade housing.
4. Make sure the teeth are pointing the correct direction.

The cutting teeth should be pointing toward sawdust chute.

5. Install the blade so it is lying around the wheels.

! CAUTION! Be careful when placing the blade between the guide rollers and inserts. If the blade hits one of the inserts hard enough, it could damage the insert.

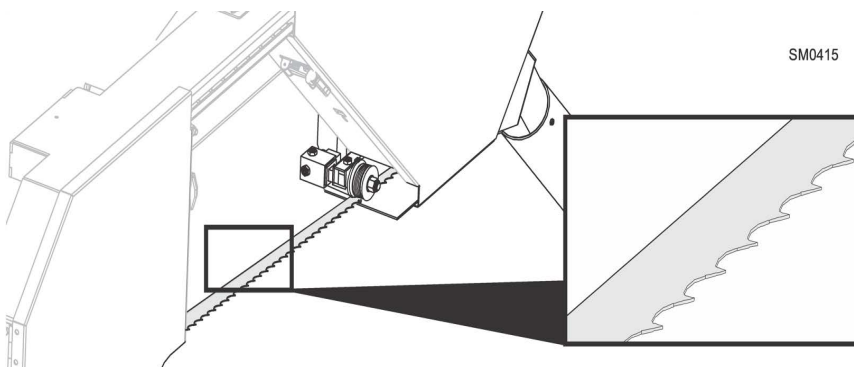


FIG. 3-10

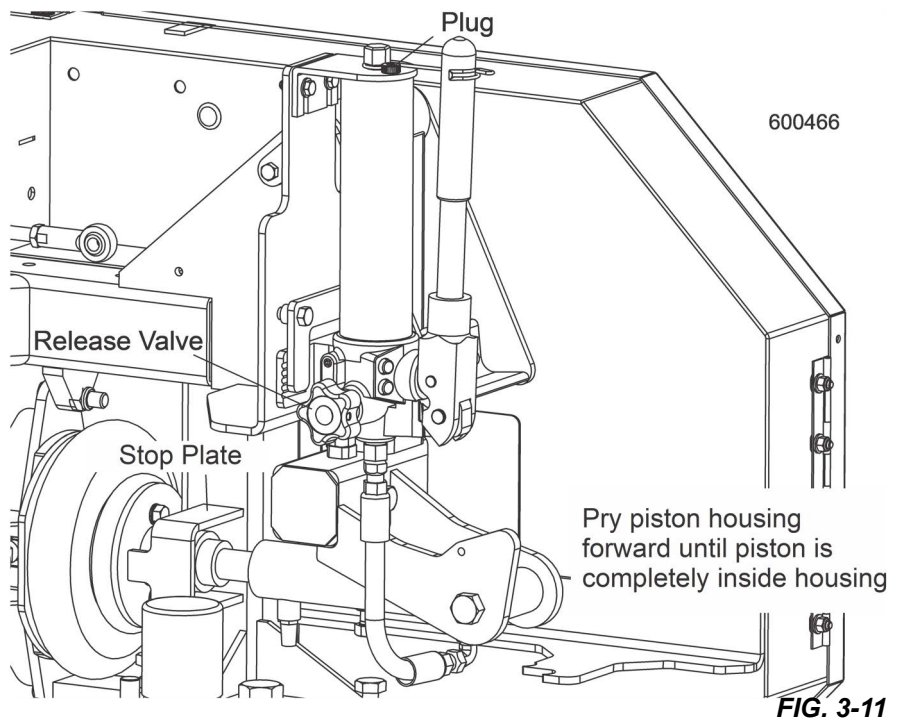
6. Position 1 1/4" wide blades on the wheels so the gullet is 1/8" (3.0 mm) out from the edge of the wheel. Position 1 1/2" wide blades on the wheels so the gullet is 3/16" (4.5 mm) out from the edge of the wheel.
7. Close the middle blade housing cover.
8. Use the tension handle to tension the blade correctly.

3.4 Tensioning The Blade

1. Check the air pressure gauge to see that the air tension system is properly charged before tensioning the blade.

With the blade tension completely released and the air bag plate against the stop bolt, the gauge should read 85 psi for all blade types.

2. Add air pressure by removing the air valve stem cover and attach an air pump to the air valve.
3. Add air until the gauge indicates the proper air pressure.
4. Release air by pushing in the valve stem core.
5. Replace the air valve stem cover when finished adjusting the air pressure.
6. Pump the lever until the air bag plate is approximately 1/8" (3.0mm) from the stop plate.
7. Release blade tension by turning the release valve counterclockwise to open.
8. Pry the assembly forward until the blade can be removed.



The tension gauge should be checked occasionally when adjusting the cant control or while cutting. Ambient temperature changes will cause tension to change. Adjust the tension handle as necessary to maintain the recommended tension level.

3.5 Tracking The Blade

1. Make sure the blade housing covers are closed and all persons are clear of the open side of the saw head.
2. Start the engine (or motor).
3. Engage the blade, rotating the blade 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.

4. Disengage the blade.
5. Turn off the engine, remove the key, and check the position of the blade on the blade wheels.
6. Position **1 1/4" wide blades** so the gullet is 1/8" (3.0 mm) out from the edge of the blade wheel ($\pm 1/16$ [1.5 mm]).
7. Position **1 1/2" blades** so the gullet is 3/16" (4.5 mm) out from the edge of the blade wheel ($\pm 1/16$ [1.5 mm]).

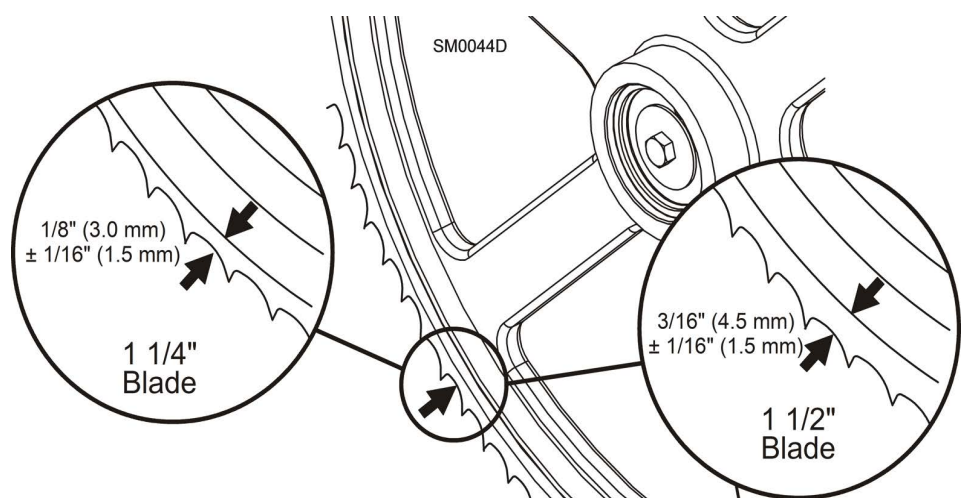


FIG. 3-12

8. Use the cant adjustment bolt to adjust where the blade travels on the blade wheels.
9. Turn the cant adjustment bolt clockwise to move the blade out on the blade wheel, or counterclockwise to move the blade in.

NOTE: Slight adjustments of the side bolts on the outer blade wheel are usually all that is necessary to track the blade properly. [See Section 7.2](#) for complete blade wheel alignment instructions.

10. Close the blade housing covers, tension the blade, and spin the blade again.
11. Repeat this procedure until the blade tracks on the blade wheels properly.
12. Adjust the blade tension if necessary to compensate for any changes that may have occurred while adjusting the cant control.

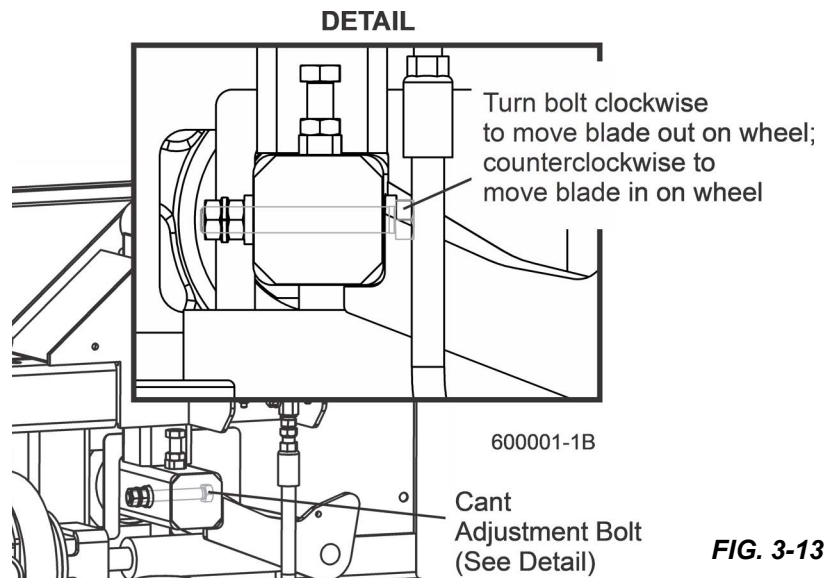


FIG. 3-13

DANGER! Make sure all guards and covers (including the blade housing and pulley covers) are in place and secured before operating or towing the sawmill.

NOTICE After aligning the blade on the wheels, always double-check the blade guide spacing and location. ([See Section SECTION 7](#) for more information.)

3.6 Starting The Engine or Motor

See the appropriate manual supplied with your specific engine/motor configuration for starting and operating instructions.

DANGER! Make sure all guards and covers (including the blade housing and pulley covers) are in place and secured before operating or towing the sawmill.

Always be sure the blade is disengaged and all persons are out of the path of the blade before starting the engine or motor.

WARNING! Always wear eye, ear, respiration, and foot protection when operating the sawmill.

Be sure the power feed switch (if equipped) is in the neutral position before turning the key switch to the on (#1) or accessory(#3) position to prevent accidental carriage movement .

3.7 Board Return

WARNING! The automatic board return is intended to assist a second operator in removing boards quickly. Do not use the board return when operating the sawmill alone.

WARNING! Do not stand on the board return table.

The sawmill is equipped with a board return system. This system consists of arms on the saw head and a board return table to catch the board as it is removed from the log.

NOTE: Use of the board return not recommended with material shorter than 8 foot.

When the blade reaches the end of the log, the arms will drop down to catch the board and drag it back toward the operator as the saw head is returned.

WARNING! Keep all persons out of the path of returning boards.

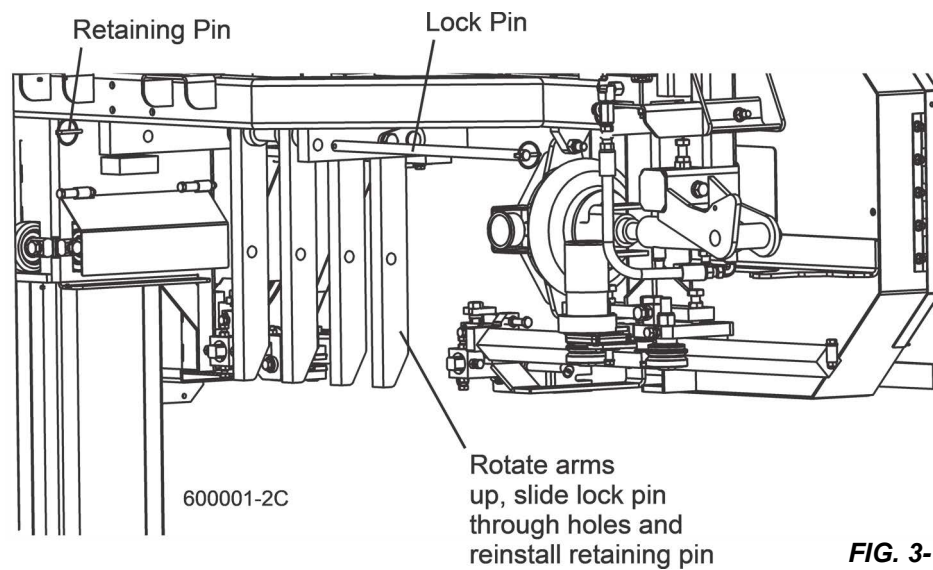


FIG. 3-14

Boards may not always return in the same path or location. If a board returns in a manner that does not allow the off-bearer to maintain control, it may be necessary to stop the reverse motion of the saw head.

When the board return is to be used, a second person is required to remove the board as it is returned.

CAUTION: DO NOT attempt to use the board return feature when sawing alone.

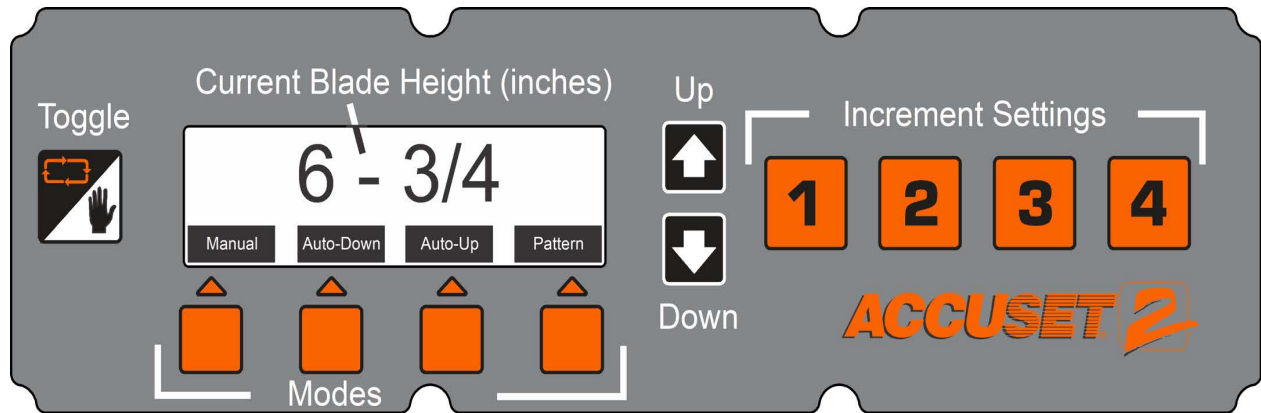
To bypass the board return feature, pin the board return arms in the storage position.

SECTION 4 ACCUSET 2

4.1 Accuset Control Setup

1. For AC models, press and hold the toggle button when first turning the key switch on. The display will read “Overwrite Parameters with Defaults?” Push “Yes” to change the set-tings for operation with AC mills.
2. Turn the key switch to the accessory (3) position.

The Accuset control starts in Manual Mode by default. See the figure below for identification of the control buttons and display.



3H0989

FIG. 4-1

UP/DOWN ADJUSTMENT BUTTONS

The Up or Down arrow buttons scroll to various settings. Press and hold the Up or Down button to automatically increase setting scroll speed will.

In Manual Mode, the up and down arrow buttons have special functions. Enter configuration menus by pressing the Up button; pressing the Down button moves the saw head to the nearest nominal inch (or centimeter).

TOGGLE BUTTON

- Use the Toggle button to exit configuration menus and return to the main menu.
- Press and hold the Toggle button during startup to reset the Accuset programming to factory default settings.
- Press the Toggle button in Manual Mode to place Accuset in Reference Mode.

Contrast Adjustment

At startup, press and hold the Up or Down button to adjust the splash screen display contrast as desired.

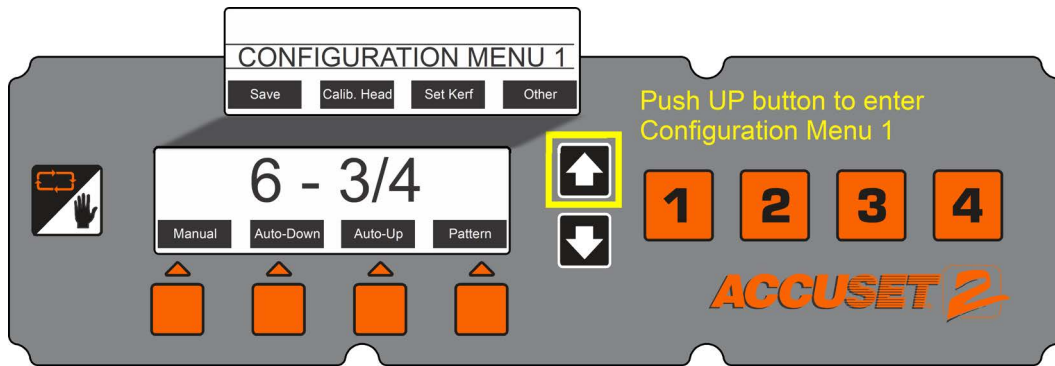
Startup Configuration

Accuset controls on new sawmills are configured at the factory.

NOTICE Newly installed or replaced controls, must be configured before operating the Accuset. Follow the procedures below *in the order they are listed*.

Configuration Menu 1

1. Press the Up button while in Manual Mode to enter Configuration Menu 1.



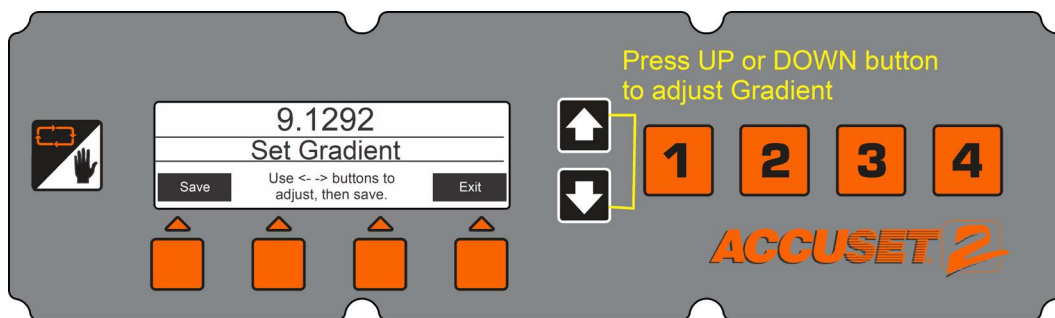
LX0046

FIG. 4-2

ADJUST THE GRADIENT

If the Accuset is factory-installed, the Gradient Setting is already set to match the gradient of the transducer sensor (labeled "GRD" on the sensor). If the Accuset has been installed in the field, the transducer replaced, or the Accuset control has been reset to Factory Settings, the Gradient Setting should be adjusted.

2. Press the button labeled "Calib. Head."
3. Press the button labeled "Adjust Gradient."



3H0989-3
FIG. 4-3

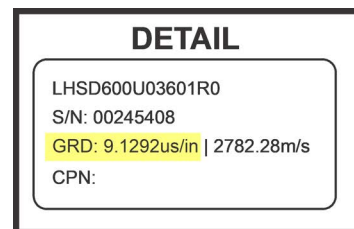
4. Press the Up or Down button until the Gradient Setting is the same as the sensor gradient shown on the sensor label (use the number labeled "us/in").
5. Press the Save button.

To return to the previously stored Gradient Setting **without saving** the new setting, press Exit and turn the key switch to the off (0) position.

CALIBRATE BLADE HEIGHT

The Accuset control should indicate the actual position of the blade above the bed rails.

1. Move the saw carriage so the blade is positioned above a bed rail.
2. Raise the saw head until the blade is positioned 12" (305mm) by actual measurement from the bed rail.



Label (See Detail)

3H0817-7B

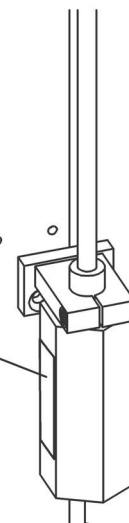


FIG. 4-4

NOTE: Measure from the top of the bed rail to the **bottom of a down-set tooth** of the blade.

3. While in Manual Mode, press the Up button to enter the Configuration Menu.

- Choose Calibrate Head and press the button labeled "Press at 12 inches" (or "Press at 305mm").

The display will change to "Head Calibrated."

- Press the Save Settings button.

- Exit the Configuration Menu.

ADJUST THE INCH SCALE

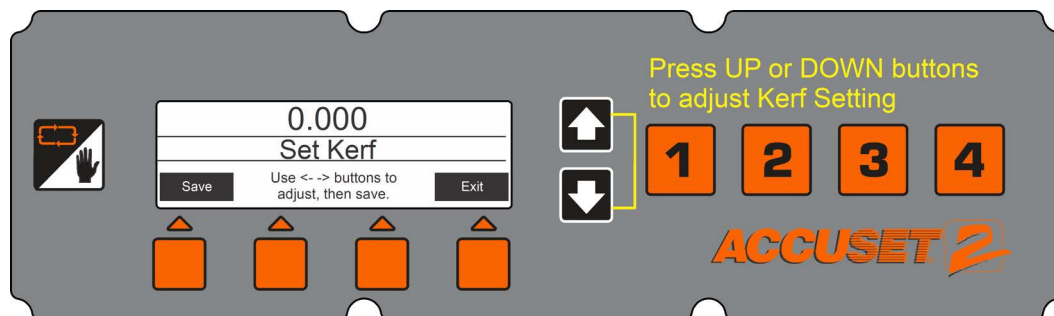
- Check and adjust the inch scale on the saw head to match the value displayed on the control.
- Adjust the bottom saw head stop bolt all the way down.
- Move the saw head down until Accuset displays 3/4" and adjust the bottom saw head stop bolt up until it just touches the saw head.

SET KERF

The Kerf setting is **optional**. The default kerf setting is '0'. Use Set Kerf to automatically factor the blade thickness into the increment setting. Set Kerf automatically adjusts the height to saw boards that are the actual thickness of the programmed increment.

EXAMPLE: If kerf is set to '0' and increments of 1 1/8" are programmed, the resulting boards may be about 1 1/16" thick because Accuset did not factor the thickness of the blade. If an accurate kerf value is entered, the resulting boards will be 1 1/8".

- In Manual Mode, press the Up button to enter the Configuration Menu.
- Press the "Set Kerf" button to display the menu below.



3H0989-4
FIG. 4-5

Recommended kerf settings for various factory-set blades are provided in Table 1-1. If preferred, a nominal kerf value of 0.125" (3 mm) can be entered and should be accurate enough for most applications.

- Press the Set Kerf button and use the Up and Down buttons to adjust the kerf value.

TIP: Pressing the Up and Down buttons simultaneously will scroll the kerf faster.

- Press the Save button.

NOTE: If the Kerf Setting is not used, include the thickness of the blade in the increment settings as described in Section 4.5 Accuset Mode Selection.

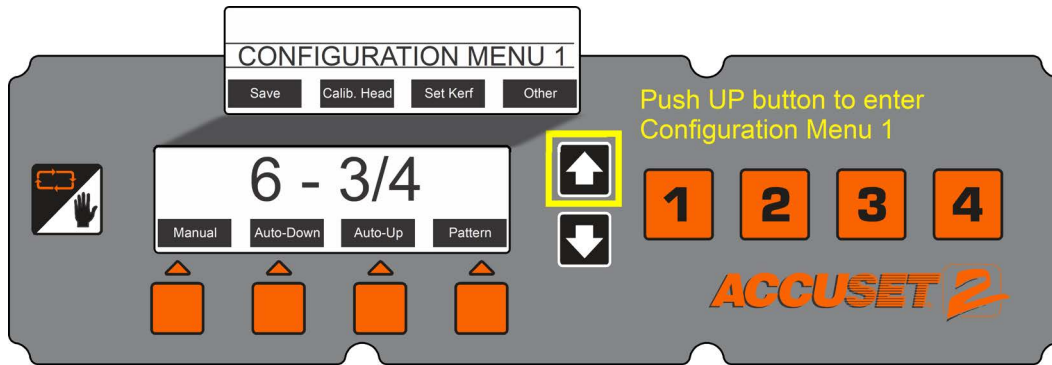
Configuration Menu 2

Settings for language, units of measure, and PID (Proportional - Integral - Differential) values are located in Configuration Menu 2.

| Blade Thickness | Blade Style | Kerf Setting |
|-----------------|-------------|----------------|
| .042 | 10S | 0.084 (2.2 mm) |
| .045 | 9S | 0.090 (2.3 mm) |
| | 10S | 0.095 (2.5 mm) |
| .055 | 10S | 0.111 (2.9 mm) |

TABLE 4-1

1. Press the Up button while in Manual Mode to display Configuration Menu 1.
2. Press Other to display Configuration Menu 2.



LX0046

FIG. 4-6

LANGUAGE

1. Press the Language button.
2. Choose the desired language.

If the desired language does not appear in Change Language menu, press Other to scroll to the next Change Language menu.

3. Press the Save (or language equivalent) button.
4. To return to the previously stored Language setting, press Exit and turn the key switch to the off (0) position.

| | |
|---------|------------|
| English | Spanish |
| French | Polish |
| German | Portuguese |

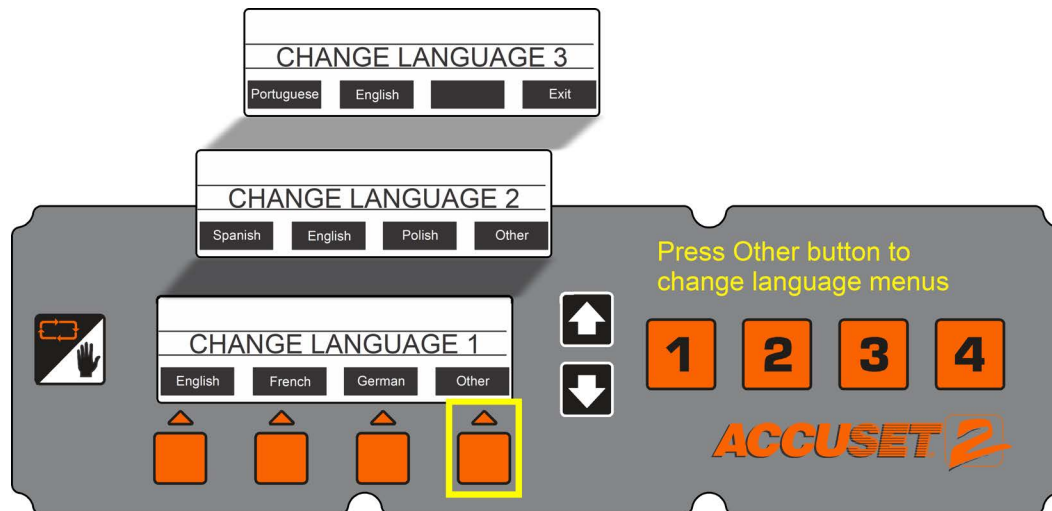
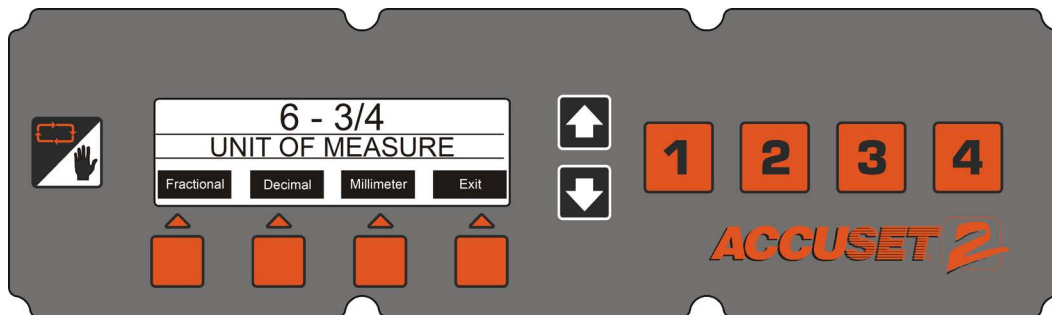


FIG. 4-7

UNITS

1. Press the Units button from Configuration Menu 2.
2. Press the corresponding Unit Of Measure button desired:
 - Fractional Inches (**default**)
 - Decimal Inches
 - Millimeters
3. Press the Save button.

To return to the previously stored Unit Of Measure, press Exit and turn the key switch to the off (0) position.



3H0989-6
FIG. 4-8

PID (PROPORTIONAL - INTEGRAL - DIFFERENTIAL) VALUES

These settings allow a technician to diagnose and fine-tune the Accuset control for various environmental factors. These settings are made at the factory and should not normally need adjusting by the operator.

1. Press the Units button from Configuration Menu 2.

The factory default PID value settings are shown below. Alternate settings are provided for LT70HD electric model sawmills. See Table 4-2.

2. Press the Save button after making the desired PID Value adjustments.
3. Go to the desired Accuset mode.
4. Test the performance of th new settings.

If the new settings cause undesirable results, reset Accuset to the factory defaults.

| Value | Factory Default | Alternate for LT70 Electric |
|----------------------|-----------------|-----------------------------|
| Up Ticks | 1 | 1 |
| Up Distance | 7500 | 17000 |
| Up Minimum | 50 | 2 |
| Down Ticks | 1 | 5 |
| Down Distance | 5000 | 17000 |
| Down Minimum | 50 | 2 |

TABLE 4-2

NOTE: This menu provides diagnostic information regarding voltage, current and software revisions. This information can be useful for troubleshooting by a qualified Wood-Mizer service representative.

Restore Factory Defaults

1. If on, turn the key switch to Off (0).
2. Turn the key switch On (1) while pressing and holding the Toggle button.

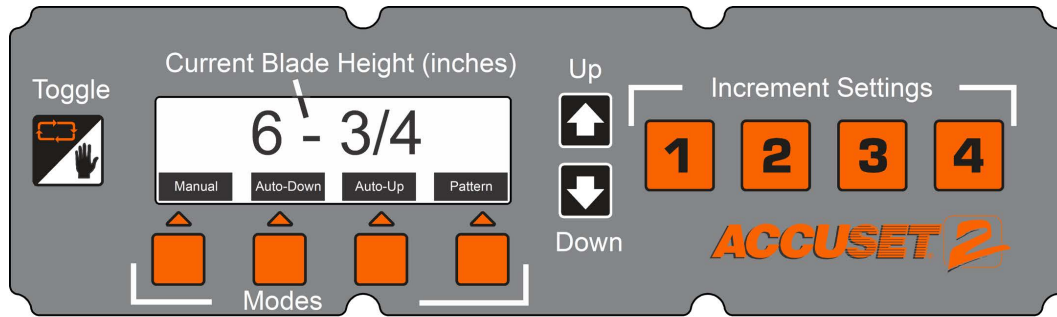
All Accuset settings are returned to their factory default values, including:

- Calibration settings. [See Startup Configuration](#) to recalibrate the Accuset control.
- PID values. [See PID \(Proportional - Integral - Differential\) Values](#) for setting values.

4.2 Accuset Mode Selection

Press the desired Mode Select button (Auto-Down, Auto-Up or Pattern) located in the display.

Press the Manual Mode Select button to return the control to Manual Mode.



3H0989
FIG. 4-9

Manual Mode - Uses the up/down function of the sawmill as you would without the Accuset option.

The Current Blade Height will continue to be displayed by the Accuset control.

Auto-Down Mode - Sets an increment to move the blade *down*.

The Accuset will automatically move the saw head down and stop at the next increment when you press the drum switch down. You can store sixteen different increment levels -- each button stores four adjustable increment settings. Press button #1 once for setting #1. Press button #1 a second time for setting #5, etc...

Auto-Up Mode - Sets an increment to move the blade *up*.

The Accuset will automatically move the saw head up and stop at the next increment when you press the drum switch up. Auto-Up mode is used to raise the saw head in large increments when preparing to cut a new log or log that has been turned. This raises the saw head without having to hold the drum switch up, freeing the operator to perform other functions while the saw head is being raised. The Increment Settings buttons work in the same manner as described in Auto-Down Mode.

NOTE: The sixteen increment settings apply to Auto-Down **AND** Auto-Up modes. If you change a setting in Auto-Down mode, it will also change when you are in Auto-Up mode.

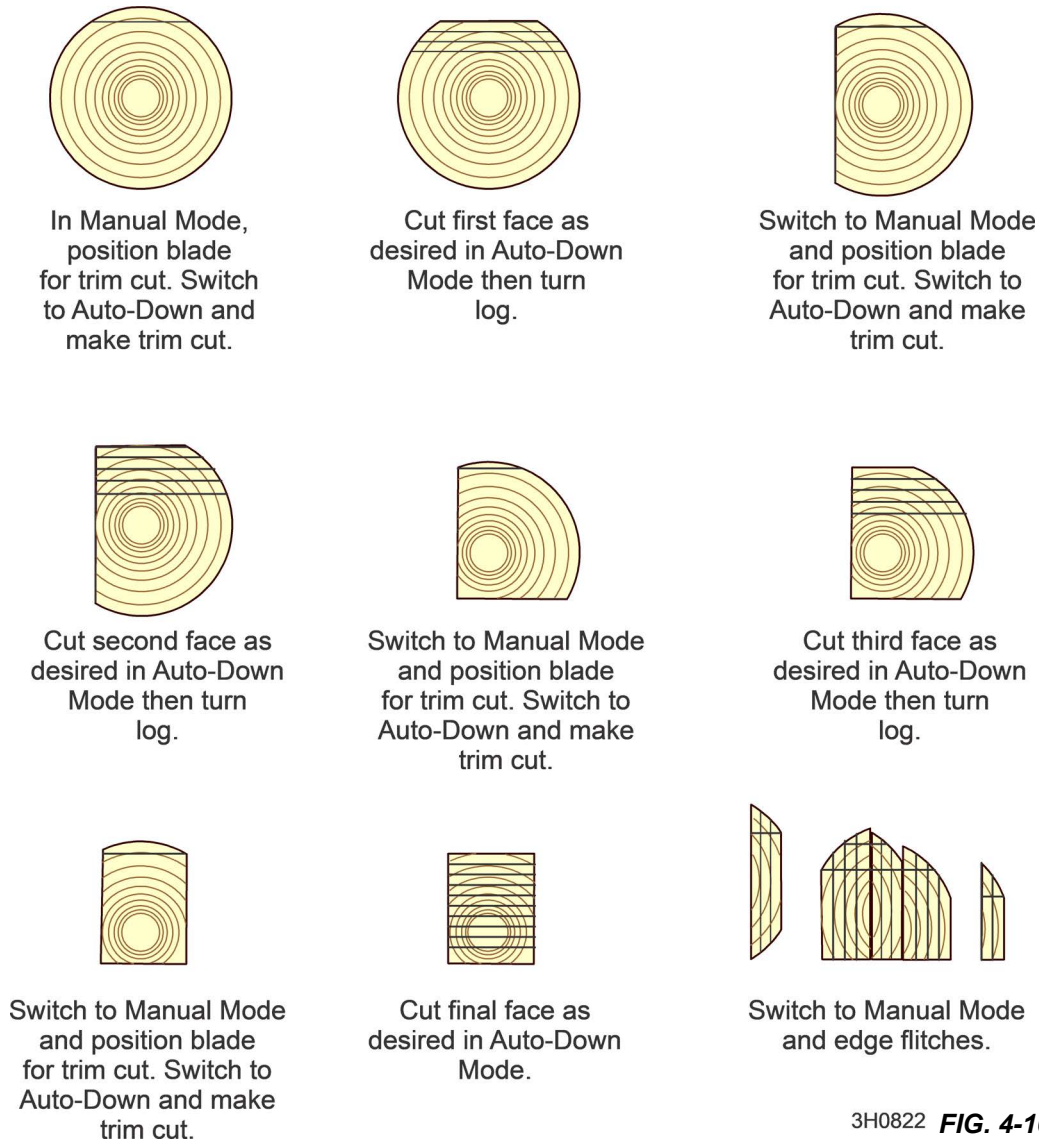
Pattern Mode - This mode *references the bed surface* and programs up to six different increments calculated up from the bed.

The sixth (top) increment repeats itself up to the upper limit of the saw head travel. The bottom increment indicates the size of the remaining cant when the pattern is complete.

Reference Mode - This mode programs up to four pre-set locations along the saw head travel.

The factory default settings are at the bottom (1"), the location where the saw head is calibrated (12"), a location midway between the calibration and the top (24"), and the top (31").

4.3 Using Accuset Auto-Down Mode

3H0822 **FIG. 4-10**

Starting with a new log, position the saw head to make the first trim cut.

1. Press the Auto-Down button under the display. The first Increment Setting is displayed by default.
2. Choose the desired increment setting by pressing the appropriate Increment Setting button.

To change an Increment Setting, select the desired setting number and press the Up or Down buttons until the desired Increment Setting is obtained. Pressing the Up and Down buttons simultaneously will scroll the settings faster.

NOTE: Remember to include blade kerf in the setting (i.e. If finished boards are to be 1" thick, set the increment to 1 1/8" to allow for typical blade kerf). The amount of kerf will depend on the thickness and tooth set of the blade being used. The Accuset can be programmed with an automatic kerf setting if desired ([See Section 4.6](#)).

When changing an increment value, it is only temporarily stored. If the control is turned off, the settings will return to the factory defaults unless the new values are saved.

3. Save the new increment setting by pressing the Manual Mode then pressing the Up button.

The Configuration Menu will be displayed.

4. Choose Save to enter the Save Settings menu, then press Save.

Example: To store 1 1/2" increment to the #7 increment setting, press Increment Selection button #3 twice to display setting #7 (default value for setting #7 is 7"). Press the Down button to adjust the setting to 1 1/2". While pressing the Down button, press the Up button to scroll faster. As the setting approaches 1 1/2", release both buttons. Press the Down button to fine tune the setting to exactly 1 1/2". Press the Manual Mode button. Press the Up button to display the Configuration Menu. Choose Save to enter the Save Settings menu, then press Save. Increment setting #7 is now 1 1/2".

5. Press the Auto-Down button to return to Auto-Down Mode if necessary.
6. Make the trim cut.
7. Raise the saw head and return the carriage to the front of the log.
8. Press the up/down drum switch down and release.

The saw head will automatically bypass the setting where the first cut was made and stop at the next setting determined by the increment chosen.

9. Make a cut, raise the saw head and return the carriage for the next cut.
10. Press the up/down drum switch down and release.

The saw head will stop at the setting for the next cut.

11. Repeat this procedure down this face of the log as desired.
12. Turn the log and press the Manual Mode button to place the Accuset in Manual Mode.
13. Position the saw head for the trim cut and press the Auto-Down button to return to Auto-Down Mode.
14. Make the trim cut.
15. Raise the saw head and return for the next cut.
16. Use the same procedure as described above to cut each side of the log until done.

NOTE: Anytime a trim cut is necessary, press the Manual button to enter Manual Mode. Position the saw head for the trim cut and press the Auto-Down button to return to Auto-Down Mode. Accuset will reference the new blade position and stop at the next setting determined by the increment chosen.

4.4 Using Accuset Auto-Up Mode

Auto-Up Mode works exactly the same as Auto-Down explained above except it controls the saw head movement in the up direction.

4.5 Using Accuset Pattern Mode

1. Position the saw head at the front end of the log.
2. Press the Pattern button under the display.

Pattern Setting #1 is the factory default.

3. Choose the desired pattern setting (1 - 16) by pressing the appropriate Increment Setting button.

In Pattern mode, six increments **referenced from the bed rail** are shown on the display, although the log may take more than 6 cuts -- the value for the top cut will be repeated until the increment for the top is reached.

The sixth (top) increment repeats itself up to the upper limit of the saw head travel.

The last (bottom) increment represents the distance from the bed rail for the last cut.

Each increment in the list can be adjusted as desired.

BLADE LOCATION SYMBOLS

As the saw head is raised or lowered, symbols in the pattern increment list indicate where the blade is located in reference to the pattern.

| Blade Positions | Symbols |
|----------------------------|---------|
| Top 4 + increment settings | > |
| 5th increment setting | + |
| Last increment setting | - |

- When the blade is above the top setting a ^ symbol appears next to the top increment to indicate saw head is in the repeating top increment.
- After lowering the blade and reaching the second-to-last increment, a + symbol will appear to indicate the next setting is near.
- When the blade reaches the increment setting, a - symbol will appear next to that setting.

To change any of the six pattern increments, press the +/- Drop button (below the pattern increment list) to scroll to the desired increment.

The increment that is active is highlighted.

Scrolling to each increment, the previous increment setting will automatically be copied to the remaining increments below.

Press the Up or Down buttons until the desired increment is obtained.

Remember to include blade kerf in the setting (i.e. If 1" is the desired thickness of the finished boards, set the increment to 1 1/8" to allow for typical blade kerf).

The amount of kerf will depend on the thickness and tooth set of the blade installed.

The Accuset can be programmed with an automatic kerf setting if desired ([See Section 4.6](#)).

Press the +/- Drop button to move to the next pattern increment and adjust as desired.

After the bottom increment setting is adjusted as desired, press the Manual Mode button then press the Up button.

The Configuration Menu will be displayed.

Choose Save to enter the Save Settings menu, then select Save.

Example: To edit the pattern increment settings for the #4 pattern setting,

- 1). Press Increment Selection button #4 once to display pattern setting #4 (the factory default value for pattern setting #4 is 1 3/4").
- 2). Press the +/- Drop button to enter pattern edit mode. The top pattern increment is now highlighted.
- 3). Press the Down button to adjust the setting to 1 1/8".
- 4). While pressing the Down button, press the Up button to scroll faster.
- 5). As 1 1/8" approaches, release both buttons.
- 6). Press the Down button to fine tune the setting to exactly 1 1/8".
- 7). Press the +/- Drop button again to move the next pattern increment.
- 8). The setting will automatically be copied from the previous setting to 1 1/8" for all the remaining increments below.
- 9). Exit pattern edit mode by pressing the Manual button.
- 10). Save the new pattern setting by pressing the Up arrow button to enter Configuration Menu #1.
- 11). Press the Save button to enter the Save Settings menu, then press the Save button.
- 12). Press the Pattern button to return to Pattern Mode and press Increment Selection button #4.
- 13). All of the pattern settings should now be 1 1/8".

4. Press the Manual Mode button and raise the saw head so the blade is positioned near the top of the log.
5. Press the Pattern button to return to Pattern Mode.
6. Press the up/down drum switch down and release.

The saw head will automatically stop at the first setting determined by the top pattern increment.

7. Make a cut, raise the saw head and return the carriage for the next cut.
8. Press the up/down drum switch down and release.

The saw head will stop at the setting for the next cut.

9. Repeat this procedure down this face of the log as desired.
10. Turn the log and press the Manual Mode button to place the Accuset in Manual Mode.
11. Raise the saw head so the blade is positioned near the top of the log.
12. Press the Pattern button to return to Pattern Mode.
13. Make the cut, raise the saw head and return for the next cut.
14. Use the same procedure as described above to cut each side of the log until done.

4.6 Using Accuset Reference Mode

While in Manual Mode, press the Toggle button to enter Reference Mode.

1. Press one of the four Increment Setting buttons to select a reference.

Factory defaults for buttons 1 through 4 are 1", 12", 24" and 31".

2. Press the up/down drum switch in the appropriate direction to start the saw head toward the reference position.

If the saw head is already above the position and the drum switch is pressed up, Accuset will return to Manual Mode. Likewise, if the saw head is below the reference position and the drum switch is pressed down, Accuset returns to Manual Mode.

When the saw head reaches the target reference position, Accuset will return to Manual Mode.

CHANGE THE STORED SETTING

1. Move the saw head to the desired position.
2. Press the Toggle button to enter Reference Mode.
3. Press the button desired to store the setting and then press "Store Here".
4. Press the Toggle button to return to Manual Mode.

The setting can also be changed by selecting one of the four Increment Setting buttons and changing the setting by using the Up and Down arrow buttons. Press the "Store Here" button to store the new setting.

NOTE: The new reference setting is only stored in temporary memory and will return to the default value when the Accuset is powered off and back on. To permanently store the new setting, enter Configuration Menu #1 and press the "Save", then the "Save" button from the Save Settings menu. Accuset will now keep the new setting until it is readjusted or the Accuset is reset to factory defaults.

SECTION 5 SAWMILL OPERATION

5.1 Manual Hydraulic Control Operation

208-480V AC sawmill : The hydraulic controls are operational when the switch on the hydraulic electric control box is pushed in. Push and hold the button in while using hydraulic functions.

Hydraulic units have seven control levers to load, clamp, turn, and level logs.

Use the hydraulic control levers to get the mill ready to load a log.



DANGER! Keep all persons out of the path of moving equipment and logs when operating sawmill or loading and turning logs. Failure to do so will result in serious injury.



CAUTION! Operating the controls without the engine running will drain the battery. Holding the hydraulic switches halfway up or down also will drain the battery.

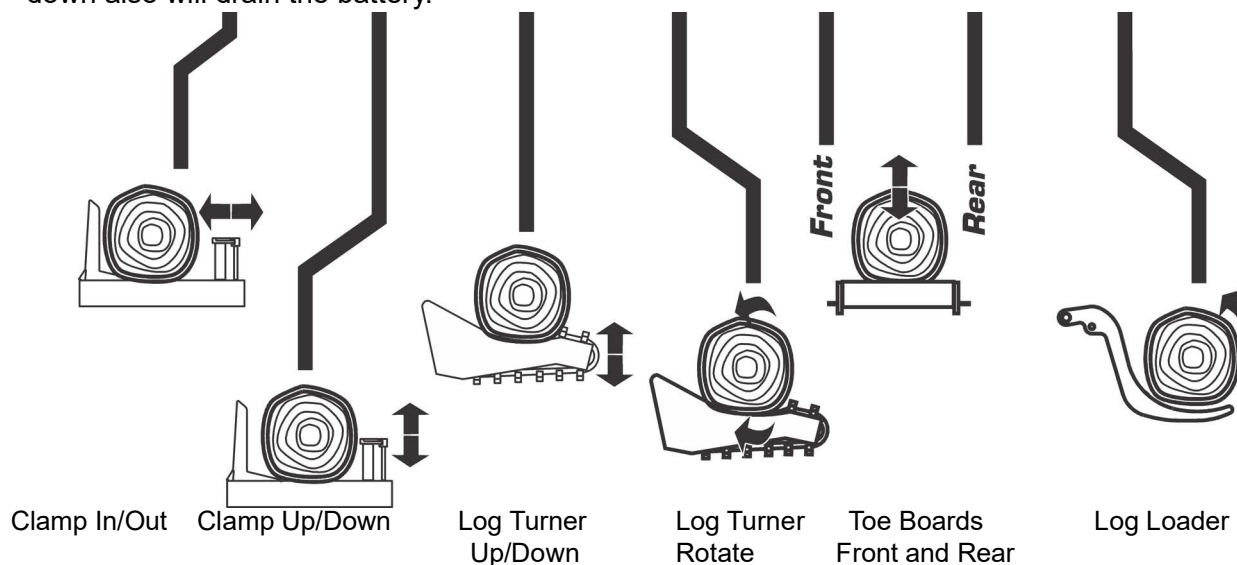
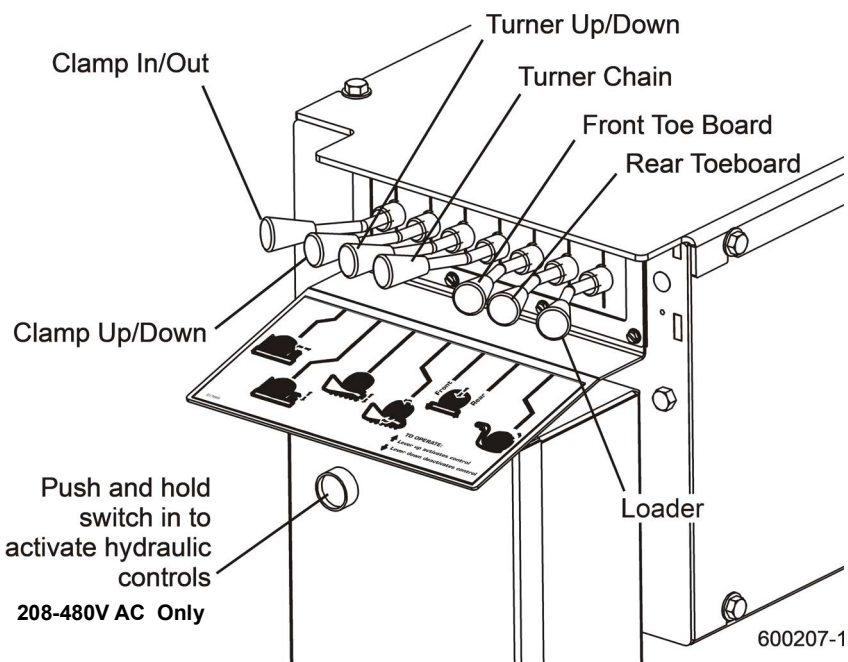


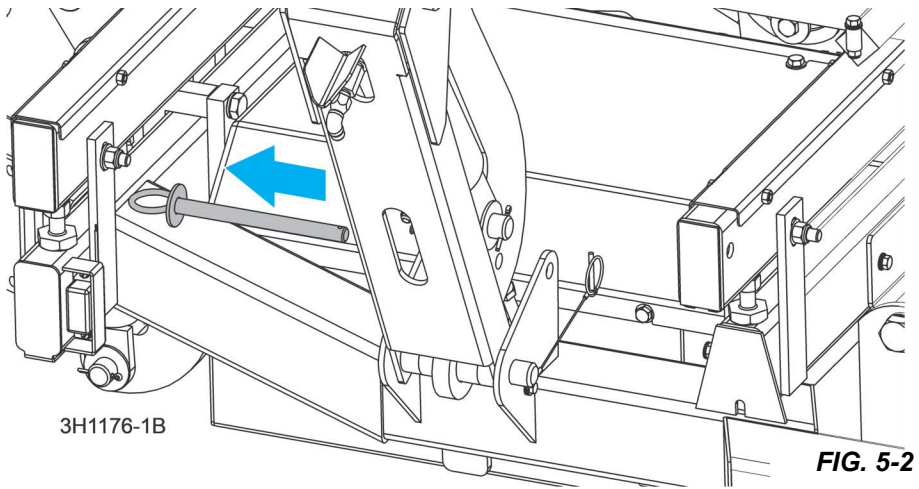
FIG. 5-1

1. Move the clamp out and down so it will not get in the way of logs being loaded onto the bed. See FIG. 5-1 for controls.
2. Lower the clamp in/out lever to move the clamp out toward the loading side of the sawmill.
3. Lower the clamp up/down lever to lower the clamp below bed level.
4. Raise the log loader lever to extend the legs of the log loader out as far as they will go.

- Wide Head Models Only:** Remove the loading arm lock pin securing the log loading arms in the travel position. See FIG. 5-2.

NOTE: The chain securing the log loading arm to the log turner arm will be tight.

- Raise the log turner lever to raise the turner arm until there is slack in the chain.
- Unchain the loading arm from the turner arm.
- Lower the turner lever to completely lower the turner arm.



NOTE: After the turner arm is all the way down, the side support braces will begin to lower.

- Release the turner lever after the turner arm is lowered, but **before the side supports begin to lower.**

This stops the log being loaded from damaging the turner and/or falling off the side of the sawmill.

When **raising** the turner lever, the side supports rise first. After reaching a fully vertical position, the turner arm will engage and start to rise.

- Manually lower the log loader so it rests on the ground.



CAUTION! Be careful when manually lowering the log loader. Do not drop the loader onto the ground or perform any action which might break the velocity fuse valves on the loader cylinders. These valves control hydraulic flow and are necessary to prevent the loading arm from collapsing during use.

- Lower the loader lever to lower the loading arm as far as it will go.
- Roll logs onto the loading arm **one at a time.**

The front and rear toe boards should be below bed level. Once a tapered log has been loaded, the front or rear end of the log may be lifted to parallel the heart of the log to the path of the blade.

Once a flat has been made and the log is ready to be turned, push the appropriate toe board lever down to lower either toe board until it falls below the level of the bed.

5.2 Loading, Turning And Clamping Logs

TO LOAD LOGS

- Start the engine and move the saw carriage to the front end of the frame.



CAUTION! Before loading a log, be sure the cutting head is moved far enough forward so the log does not hit it. Failure to do so may result in machine damage.



CAUTION! Be sure the log clamp, pivot rails, turning arm and toe boards are adjusted out of the path of the log before loading a log onto the bed.

- Raise the side supports on the sawmill bed to prevent the log from falling off the side of the bed.
- Use cant hooks or loading equipment to move the log to the foot of the loading arms.
- Roll the log onto the loader so that it is approximately centered with the sawmill bed. The log turner will operate much easier if the log is centered on the sawmill bed.



DANGER! Keep all persons out of the path of moving equipment and logs when operating sawmill or loading and turning logs. Failure to do so will result in serious injury.

5. Raise the loader to lift the log onto the sawmill bed. Simply let the loader rise until the log rolls onto the mill bed.
6. Raise the clamp up to prevent the log from rolling off the bed.
7. Clamp the log and lower the loading arm. Leave the loading arm about halfway up while squaring the log. This will stop the log from rolling off the side of the mill.



WARNING! Always leave loading arm halfway up while log is on sawmill bed.

NOTE: Logs also may be loaded onto the mill with a tractor or other equipment specifically designed for that purpose.

TO TURN LOGS

1. Engage the log turner arm. Let the arm rise until it touches the log.
2. Spin the log against the side supports until it is turned the way you want it for the first cut.

TO TURN LOGS (OPTIONAL PROCEDURE)

If you are turning a small cant on a mill with two-plane clamp, you may opt to use the clamp to turn the cant.

1. Lower the clamp below bed level.
2. Move the clamp in, beneath the edge of the cant.
3. Raise the clamp and flip the cant.

TO CLAMP LOGS

1. Clamp the log against the side supports.
2. Lower the turner until the arm falls below the bed.
3. When the turner arm is lowered all the way, the side supports will begin to lower. Back the clamp off slightly, and let the side supports come down until they are positioned below the level of your first few cuts.

TO LEVEL A TAPERED LOG

Raise the front or rear toe board until the heart of the log measures the same distance from the bed rails at each end of the log.

5.3 Manual Up/Down Operation

This section describes operation of the up/down system with the standard controls. See the operation section of the Accuset 2 or Simple Set manual for alternate instructions for operating the up/down system.

1. Install a blade, if needed, and check for correct blade tension. ([See Section 3.3](#)).
2. Use the up/down switch (located on the right side of the control panel) to set the cutting head to the desired height. (The blade height scale shows the height of the blade above the bed rails.)
 - 1). Use the switch to raise or lower the cutting head.
 - 2). Hold the switch in position until the cutting head reaches the desired height, then release.

NOTE: The up/down switch is designed to return to the neutral or "off" position when released. If the switch remains engaged, man-

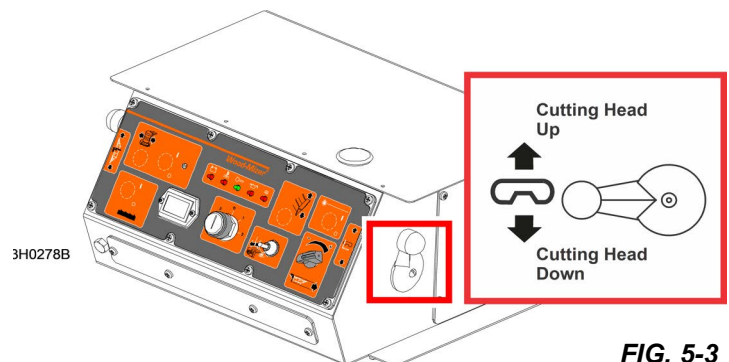


FIG. 5-3

NOTE: Not all control panels are the same as depicted, depending on engine option.

ually move the switch to the neutral or "off" position. Repair the up/down switch ([See Section 6.2](#)).



CAUTION! Always make sure the up/down switch moves to the neutral or "off" position when released to ensure that the saw head stops moving. Failure to do so may result in machine damage.

DO NOT try to force the carriage above the 35" (88 cm) mark or below the 1" (2.54 cm) mark. Damage to the up/down system may result.

5.4 Blade Guide Arm Operation

1. Adjust the outer blade guide to clear the widest section of the log by less than 1" (25.4 mm).
2. Use the blade guide toggle switch on the control panel to adjust the outer blade guide as necessary.
3. Push the switch to the left to move the arm in, right to move the arm out.
4. Use the blade guide toggle switch to readjust the outer blade guide as you are cutting in order to keep the guide within 1" (2.5 cm) of the log.
5. Adjust the arm back out before returning the carriage.

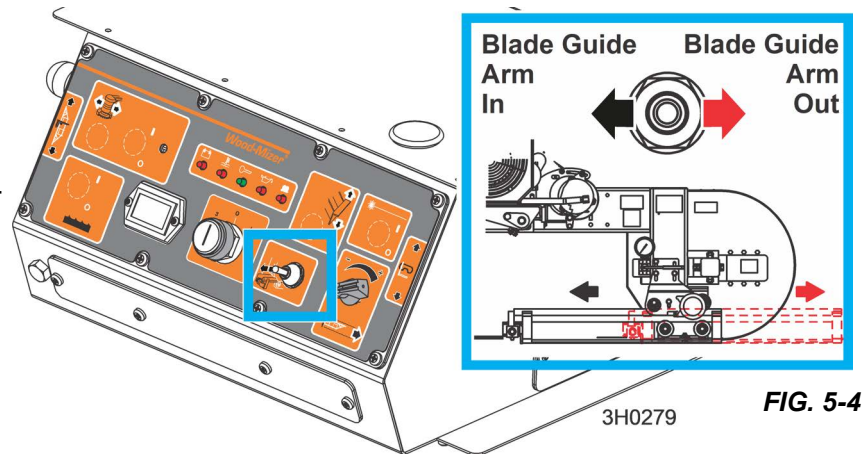


FIG. 5-4

NOTE: Not all control panels are the same as depicted, depending on engine option.

5.5 Power Feed Operation

The power feed system moves the carriage forward and backward by using two switches on the control panel.

CARRIAGE FEED RATE

The carriage feed rate switch controls the speed at which the carriage travels forward. Turn the switch clockwise to increase speed. Turn it counterclockwise to reduce speed.

CARRIAGE FORWARD AND REVERSE

The carriage forward/reverse switch controls the direction in which the carriage travels. Use the forward/reverse switch to move the carriage forward or backward.

The middle position (as shown) is the neutral position. The power feed switch is designed to return to the neutral or "off" position when released from operating in the reverse position. If the switch remains engaged, manually move the switch to the neutral or "off" position. Repair the switch ([See Section 5.6](#)).



WARNING! Be sure the power feed switch is in the neutral position before turning the key switch to the on (#1) or accessory (#3) position.

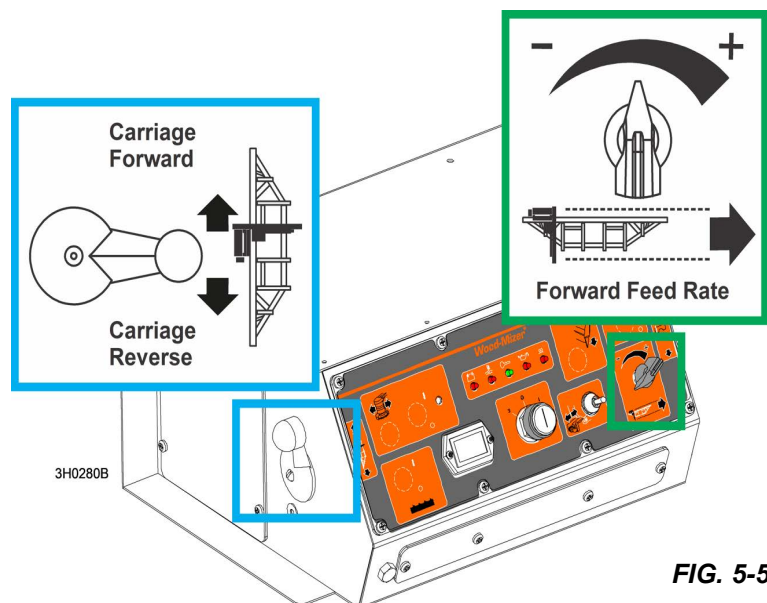


FIG. 5-5

NOTE: Not all control panels are the same as depicted, depending on engine option.

USING THE POWER FEED

1. To move the carriage forward, push the **FORWARD/REVERSE** switch forward and turn the feed rate switch clockwise.

NOTE: 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. Turn the carriage **FEED RATE** switch to a slow speed until the whole width of the blade has entered the cut. Then use the carriage **FEED RATE** switch to increase the feed rate as desired. Maximum feed rate varies with width and hardness of the wood. Over-feeding results in engine and blade wear, and also produces a wavy cut.

2. Stop the carriage at the end of the cut by turning the carriage **FEED RATE** switch counterclockwise until the carriage stops moving. Throw the clutch/brake lever up or the optional autoclutch toggle switch down to stop the blade and drop the engine to idle.
3. Remove the board from the top of the log. **Always disengage the blade before returning the carriage for the next cut.**



CAUTION! Always disengage the blade before returning the carriage for the next cut. 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. [See Section 4.9](#) for optional sawing procedure.

4. Raise the carriage slightly to ensure the blade clears the log when returned.
5. Return the carriage to the front of the mill by pushing the **FORWARD/REVERSE** switch down. The power feed motor will bypass the carriage feed rate switch and the carriage will automatically return at the fastest speed available. [See Section 4.9](#) for optional sawing procedure.

NOTE: 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.



DANGER! Stay clear of the area between the trailer axle and saw carriage. Failure to do so will result in serious injury.

5.6 Cutting The Log

1. Ensure the log is properly placed and firmly clamped.
2. Move the saw head to position the blade close to the end of the log.
3. Use the blade height scale to determine where to make your first cut ([See Section 4.10](#)).
4. Set the blade to the desired height with the up/down switch.
5. Make sure that the blade will clear all side supports and the clamp.
6. Adjust the outer blade guide to clear the widest section of the log by moving the blade guide toggle switch.

NOTE: An optional laser sight is available to help determine where the blade will travel through the log. See the laser sight manual for detailed operating instructions.

7. (**Gas/diesel mills only**) Engage the autoclutch blade switch to start the blade spinning.
8. Start the water lube if necessary to prevent sap buildup on the blade. [See Section 4.11](#).
9. If you want to use the board return function, push the toggle switch on the control panel down. [See Section 3.7](#).
10. Feed the blade into the log **slowly** ([See Section 4.6](#)).
11. Increase the feed rate as desired after the blade completely enters the log.

NOTE: 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!

12. Slow down the feed rate as the blade nears the end of the log.
13. Stop the carriage when the teeth exit the end of the log.
14. Disengage the autoclutch blade switch.
15. Remove the slab that has just been cut from the log.
16. Use the to return the carriage to the front of the mill.
17. Repeat until the first side of the log is cut as desired.
18. Set aside the usable flitches (boards with bark on one or both sides) to be edged later.
19. Lower the toe boards, if they were used.
20. Use the hydraulic levers to release the clamp and engage the log turner.
21. Turn the log 90 or 180 degrees.

NOTE: 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 toe boards are being used to compensate for taper in the log, raise the front or rear toe board again on the second side of the log until the heart is parallel with the bed.

22. Repeat the steps used to cut the first side of the log until the log is square.
23. Cut boards from the remaining cant by adjusting the blade height for the thickness of boards desired.

Example: The blade cuts a 1/16 - 1/8" (1.6-3.2 mm) wide kerf. If 1" (25.4 mm) thick boards are desired, lower the carriage 1 1/16 - 1 1/8" (27-28.6 mm) for each board.

5.7 Edging

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.

TIP: 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 or without having to pull them from the middle of the stack.

4. Adjust the blade height to edge a few of the widest boards.
5. Loosen the clamp and turn the edged boards over to edge the other side.
6. Repeat steps 2-4.
7. Loosen the clamp and remove the boards that have good clean edges on both sides.
8. Clamp the remaining flitches and repeat steps 2-5.

5.8 Optional Cutting Procedure

In order to achieve maximum production rates, it may be desirable to leave the blade engaged when returning the carriage. (Normal operation procedures recommend disengaging the blade before returning the carriage for maximum blade life and fuel economy.)

DANGER! If leaving the blade engaged for maximum production rates, make sure the off-bearer stays out of the path of the blade. Failure to do so will result in serious injury or death.

CAUTION! If you choose to leave the blade engaged; raise the blade to clear the log before returning the carriage. Failure to do so may cause damage to the blade and/or sawmill.

5.9 Blade Height Scale

The blade height scale is attached to the carriage head frame. It includes:

- a blade height indicator
- an inch scale
- a quarter scale

The scales are attached to the frame and move up and down with the saw head. The blade indicator, used to read the inch and quarter scales, remains stationary.

THE INCH SCALE

The horizontal line on the blade height indicator shows how many inches the bottom of the blade is above the bed of the mill. Knowing the height of the blade at each cut, the thickness of lumber being sawed can be determined.

Example: 1" (25 mm) thick boards are wanted from random width boards from a log.

1. Position the blade for the first cut.
2. Move the carriage to an even measurement on the inch scale.
3. Make a trim cut.
4. Return the carriage for the second cut and lower it 1 1/8" (29 mm) below the original measurement.

The extra 1/8" (3 mm) allows for saw kerf and shrinkage of the lumber.

NOTE: The yellow area at the bottom of the scale identifies where the blade could encounter a side support or log clamp.

5. Check that all parts of the mill are below the blade level before sawing.

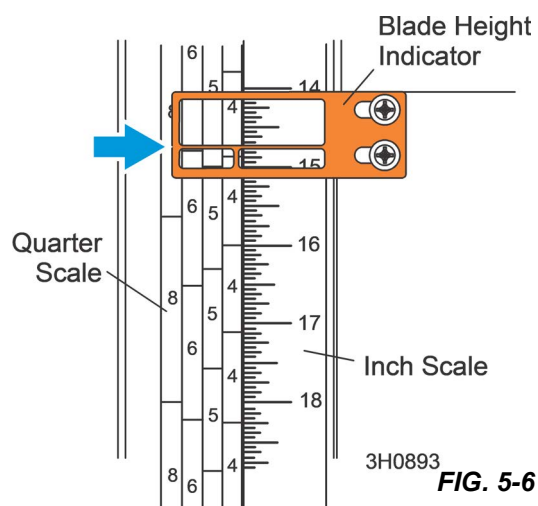


FIG. 5-6

THE QUARTER SCALE

Two quarter scales are provided with 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.

To use the quarter scale, look at the blade height indicator.

1. Loosen the wing studs (located near the center of the scale) holding the quarter scale to the mast.
2. Align the nearest mark on the scale you want to use with the blade height indicator.
3. Tighten the wing studs.



CAUTION! Be sure to leave the wing studs in the vertical orientation to avoid interference with the blade height indicator. Failure to do so may result in damage to the indicator.

4. Make a trim cut and return.
5. Lower the carriage to the next mark on the scale.

This mark shows where the blade should be positioned to cut a certain thickness of lumber, without having to measure on the inch scale.

Example: 1" (25 mm) (4/4) thick boards are wanted from random width boards from a log.

1. Position the blade for the first cut.
2. Adjust the quarter scale so a 4/4 mark (highlighted gray in Fig.5-7) is aligned with the line on the indicator.
3. Make a trim cut.
4. Return the carriage for the second cut.
5. Now, instead of having to measure down 1 1/8" (29 mm) on the inch scale, lower the blade so the indicator is aligned with the next 4/4 mark on the quarter scale.
6. Turn the log 90 degrees and repeat.

5.10 Water Lube Operation

The Water Lube System keeps the blade clean. Water flows from a 5-gallon (18.9 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.

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

TABLE 5-1

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

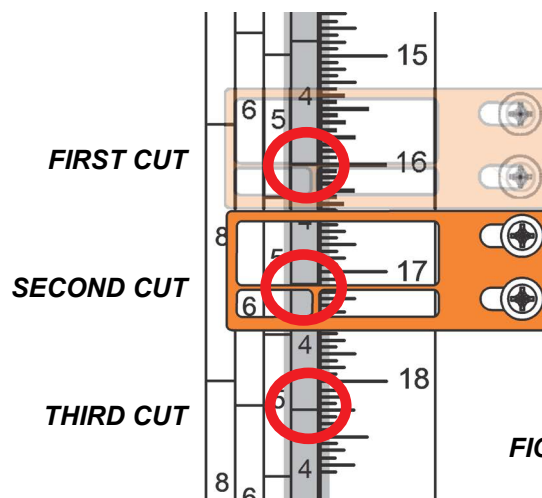


FIG. 5-7

5 Sawmill Operation

Water Lube Operation

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.

Before removing the blade, engage the blade. 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.

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.

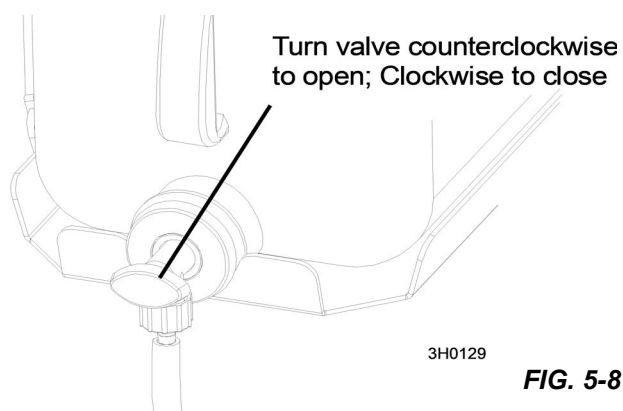


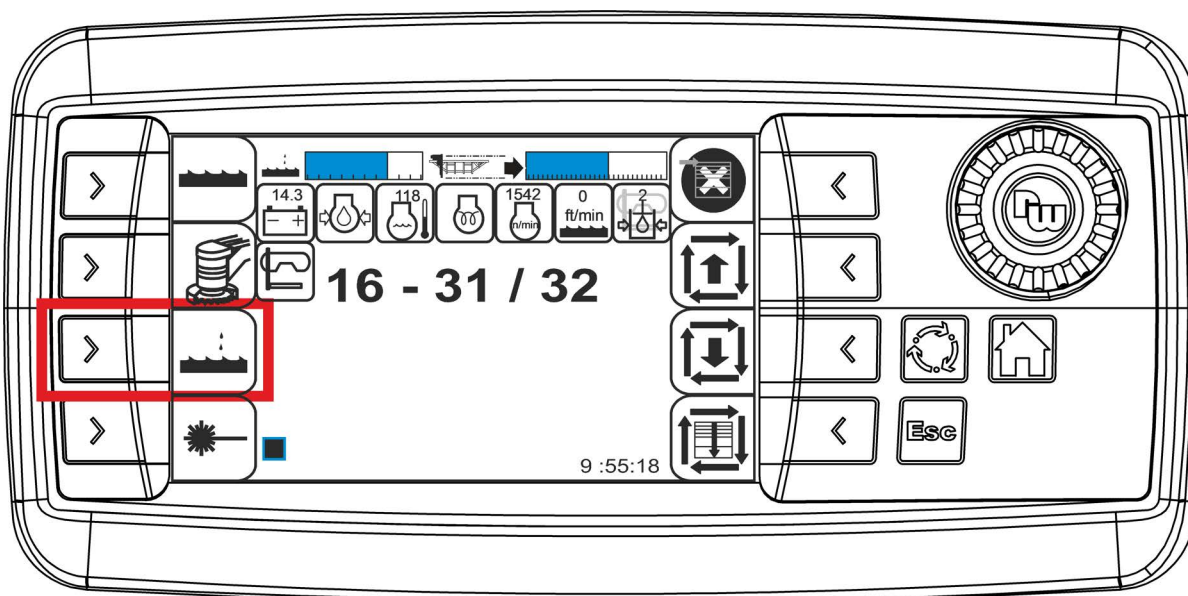
FIG. 5-8

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.

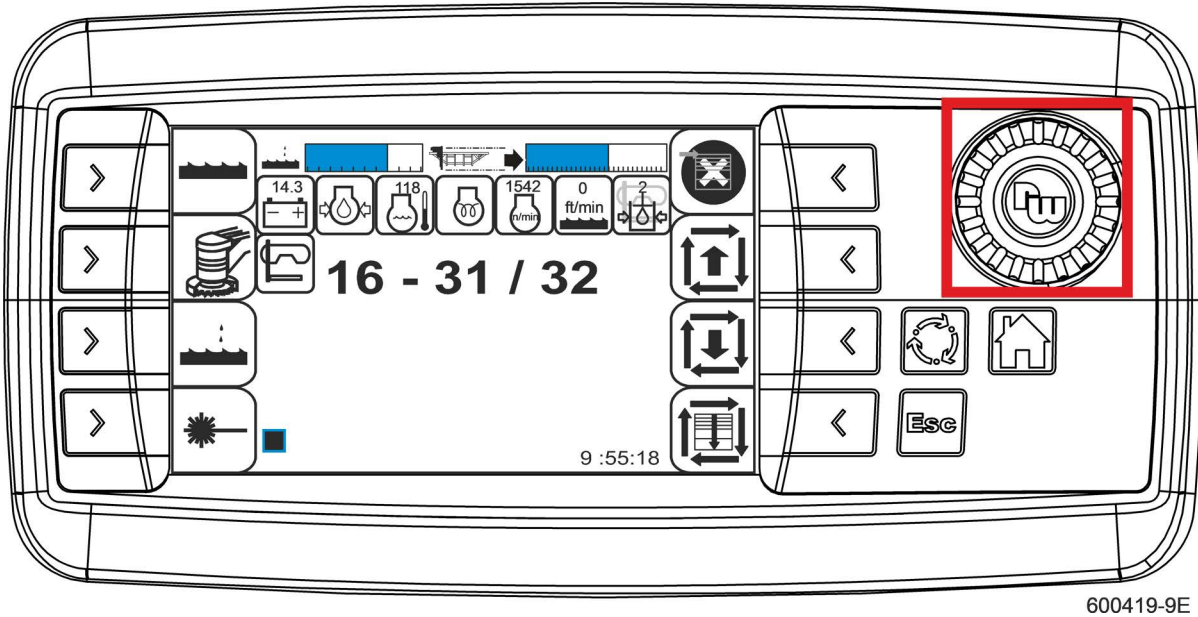
CAUTION! Use windshield washer fluid to the water tank and prime as recommended when sawing or storing the sawmill in below-freezing temperatures. Use windshield washer fluid with a freezing point of at least -20°F (-29°C). Failure to do so may cause damage to the LubeMizer system.

To start the lube system, follow the instructions bellow

1. Press 3rd left soft button to turn on the lube mizer.



- Turn the knob till the lube adjustment display is highlighted in yellow.



- Push the knob to highlight in green.
- Adjust to either slow pulse or fast pulse.
- Once adjusted press knob again green highlight turns yellow.

NOTE: Softwood applications will usually require more lubricant than hardwood applications. While the saw head is in motion, adjusting the pulse flow is possible, but the changes will not be visible on the spray pattern at the nozzles. The pump only activates in the forward direction.

5.11 Debarker Travel Lock Pin

The debarker is equipped with a travel lock pin.

- Insert the lock pin to lock the debarker in place when towing the sawmill.
- Remove the lock pin to unlock the debarker while the debarking is required during sawing.

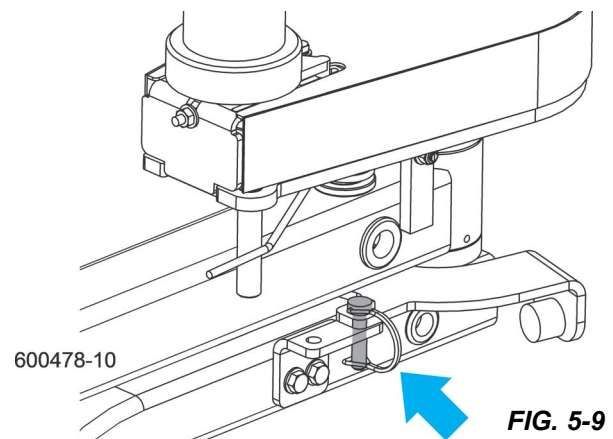
Before operating the debarker, make sure the lock pin is secured in its travel position.

- Turn the key switch to OFF (0) and remove the key.
- Pull the debarker out to relieve pressure on the lock pin.
- Remove the lock pin.

Before towing the sawmill, lock the debarker in the travel position.

- Turn the key switch to ACC (3) and use the debarker in/out switch to move the debarker all the way in.
- Turn the key to OFF (0) and remove the key.
- Push the debarker in until the travel position holes align.
- Insert the lock pin.

To move the debarker out of the way during sawing, turn the key switch to ACC (3) and use the debarker in/out switch to move the debarker all the way out.



5.12 Debarker Control Overview

The Debarker Option allows you to remove bark from logs ahead of the bandsaw blade. This prevents the bandsaw blade from contacting dirt, sand, or other debris in the bark that can dull the blade.

The debarker control includes two toggle switches and an indicator light. See FIG. 5-10.

The Debarker IN/OUT toggle switch controls the debarker in/out motor to move the debarker saw head toward or away from the log.

The sawmill key switch must be on before the in/out function can be performed.

NOTE: The distance between the debarker blade and the side support with the saw head all the way in is 6" (150mm) for the sawmill equipped with the standard head and 12" (300mm) for the sawmill equipped with the wide head.

The Blade Motor ON/OFF toggle switch turns the blade motor on.

The sawmill key switch must be on and the **sawmill power feed drum switch** must be activated in the forward direction before the blade motor can be turned on.

The Blade ON indicator light comes on whenever the debarker blade motor is on.

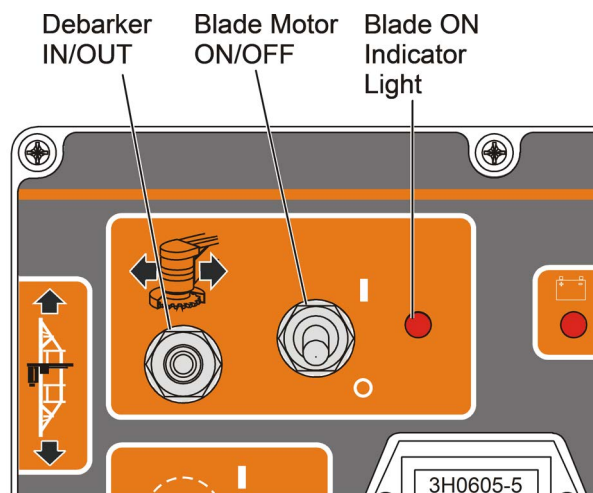


FIG. 5-10

5.13 Debarker Operation

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

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

1. Remove the blade motor cover before operating the debarker.
2. Make sure the warning light is on when the debarker is turned on.

WARNING! Debarker is ON when warning light is on. DO NOT disconnect the warning light. Doing so may result in serious injury.

3. Use the in/out switch on the control box to pivot the debarker all the way out.
4. Move the sawmill carriage forward and pivot the debarker in until the front fence engages with the end/side of the log.
5. Turn the debarker on/off switch to ON (1).
6. Proceed with cutting.

The actuator will keep the debarker against the side of the log. Depending on log shape, you may have to pivot the debarker in and out for smooth cutting.

NOTE: The debarker can continuously remove up to approximately 1" of material from the log; no motor cool down time is required. Slower feed rates may be required for optimal debarker operation.

7. Once the carriage is past the end of the log, pivot the debarker away from the log.
8. Return the carriage.



CAUTION! Should the carriage be returned before the debarker has been pivoted out of the way of the log, the debarker is designed to pivot upwards. If this happens, continue to **SLOWLY** return the carriage; or stop, pivot the debarker out and then return the carriage. **DO NOT** move the carriage forward while the debarker is contacting the log without the blade spinning.

9. When done sawing, replace the debarker blade motor cover.
10. Place the debarker in its travel position before towing the sawmill.

5.14 Preparing The Sawmill For Towing

1. Move the saw carriage to the front end of the sawmill.
2. Raise the rear outriggers until the outrigger does not bear weight.
3. Disengage the locking pin retainer and remove the locking pin.
4. Raise the leg all the way up so the bottom-most hole is aligned with the locking pin hole.
5. Replace the locking pin and secure with the retainer.
6. Repeat for the other rear outriggers



CAUTION! Be sure the outrigger base is adjusted properly before securing the FAO in position with the lock pin. Failure to do so will cause damage to the outrigger grease fitting.

Do not adjust the FAO outrigger base height while there is weight on the FAO. Damage to the FAO may result.

7. Move the log clamp all the way in toward the main bed frame tube.



CAUTION! Move the hydraulic clamp and turner to provide maximum ground clearance before towing. Failure to do so may result in damage to the sawmill.

8. Raise the log turner and loader as high as they will go.
 - 1). Manually lift the loader and hook the loader chain to the turner.
 - 2). Use the hydraulic turner lever to lower the turner until the chain is tight.
 - 3). Push the loader lever down to bring the loader arm channels up to the loader.
9. Move the carriage to the travel position over the rear bed rail.
10. Position the hole in the saw head over the travel rest pin.
11. Lower the saw head until it is seated firmly on the rest pin.

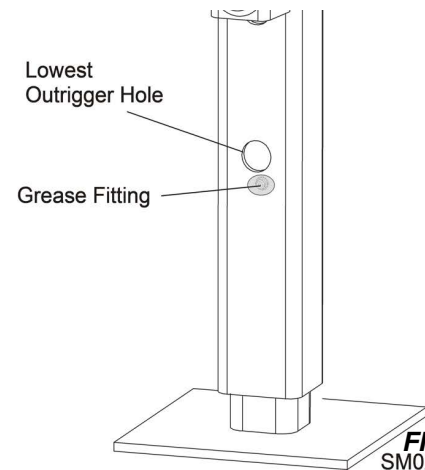
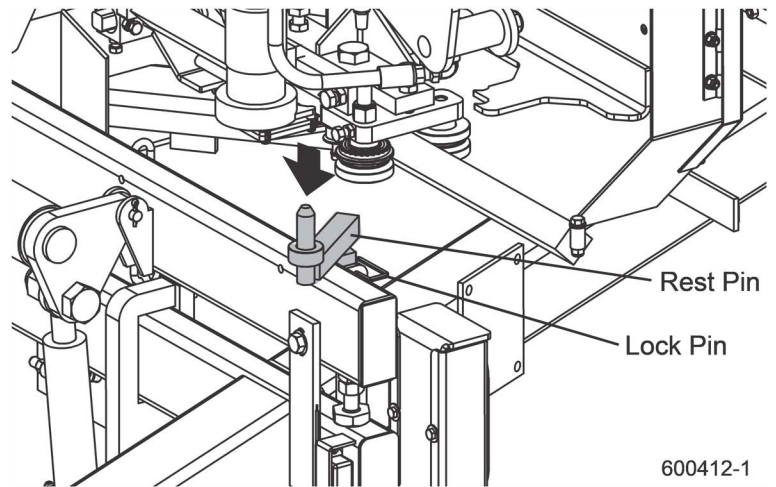


FIG. 5-11
 SM0215

12. Secure the rest pin in the vertical position with the locking pin.
13. Continue lowering the head 3/4" (19mm) until it contacts the stop block at the bottom of the mast.



CAUTION! It is important that the lower stop bolt is properly adjusted to secure the carriage on the track rail. Failure to properly adjust the stop bolt can cause saw head damage during mill transportation.



600412-1

FIG. 5-12

14. Adjust the stop located at the bottom of the mast so the saw head contacts the stop after it is lowered 3/4" (19mm) past where it contacts the rest pin.
15. Engage the blade.

This keeps the drive belt tight and the motor from bouncing while traveling.

NOTICE: Be sure to disengage blade switch after reaching the destination to avoid deformation of the drive belt.

16. Hook the carriage safety chain located at the bottom of the carriage to the bracket at the bottom of the mast.



CAUTION! Ensure the saw head safety chain is secured before towing the sawmill. Failure to properly secure the saw head can result in severe machine damage.

Ensure the blade housing and pulley covers are in place and securely fastened.

17. Remove all loose objects from the bed of the mill.

18. Store the outrigger handle in the bracket provided on the loading-side outrigger.

19. Place both fenders in the slots located behind the trailer tires and secure with rubber straps.

20. Raise all but the very front outrigger.

For Fine Adjust Outriggers (FAOs), be sure to adjust the outrigger base height before securing the FAO in position with the lock pin.



CAUTION! Be sure the outrigger base is adjusted so that the grease fitting is just below the lowest outrigger hole before securing the FAO in position with the lock pin. Failure to do so will cause damage to the outrigger grease fitting.

Do not adjust the FAO outrigger base height while there is weight on the FAO. Damage to the FAO may result.

See the trailer operator's manual for specific information regarding hitch operation and towing the sawmill.

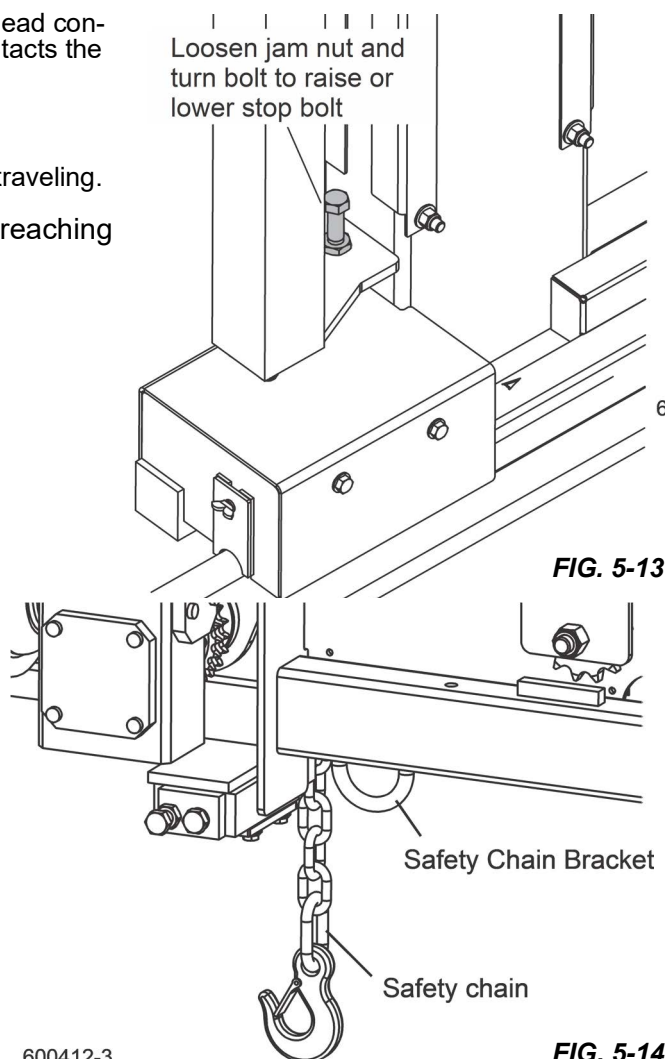


FIG. 5-13

FIG. 5-14

SECTION 6 MAINTENANCE

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

See the [Maintenance Chart](#) located after this section for a complete list of maintenance procedures and intervals. Keep a log of machine maintenance by recording in the machine hours and the date you perform each procedure.

Be sure to refer to option and engine manuals for other maintenance procedures.

6.1 Wear Life

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

6.2 Blade Guides



WARNING! Before performing service near moving parts such as blades, pulleys, motors, belts and chains, first turn the key switch to the OFF (#0) position and remove the key. If the key is turned on and moving parts activated, serious injury may result.

| Part Description | Estimated Life |
|--|----------------|
| Up/Down Motor Brushes (DC Only) | 1000 hours |
| B72.5 Blade Wheel Belts | 400 hours |
| Up/Down Motor | 2000 hours |
| Hydraulic Pump Solenoid | 750 hours |
| Power Feed Motor Brushes (DC Only) | 750 hours |
| Up/Down Drum Switch | 1000 hours |
| Hydraulic Pump Motor Brushes (DC Only) | 750 hours |
| Power Feed Drum Switch | 1200 hours |
| Power Feed Motor | 1500 hours |
| Up/Down Belt | 2000 hours |
| Drive Belt | 1250 hours |

TABLE 6-1

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. If the blade breaks during operation and the blade has multiple stress cracks, the blade could shatter into several pieces and escape from the protective guards of the sawmill. Small blade pieces projected into the area around the sawmill creates a safety hazard for the operator and any bystanders surrounding the mill

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

BLADE GUIDES EQUIPPED WITH OPTIONAL HIGH-PERFORMANCE ROLLER/BLOCKS ONLY:

4. Inspect the blocks at every blade change for damage or wear.
5. If the block housing is bent or damaged, replace the block assembly.
6. Replace the block assemblies before the blocks are worn to a point the blade may contact the lower step or housing.
7. Check the guide blocks with the provided shim or a feeler gauge **every 25 hours** of operation to ensure they are properly spaced (.008" - .010") from the blade.

NOTE: As the blocks wear, the front inside corner will wear more than the body of the block. When the corner wears far enough, sawing performance will be affected even if the body of the block is adjusted properly to the blade. At this point, the block should be replaced. If you have access to the appropriate equipment, you can grind or mill the blocks to a new flat surface and reuse them. It is recommended you develop a routine schedule for replacing the blade guide blocks based on your sawing conditions and experience.

8. Loosen the clamp bolt and mounting bolt to adjust the top block down.
9. Turn the adjustment bolt clockwise.
10. Retighten the mounting bolt and clamp bolt.
11. To adjust the bottom block up, loosen the clamp bolt and mounting bolt.
12. Use the provided adjustment tool to turn the adjustment screw clockwise.
13. Retighten the mounting bolt and clamp bolt.

NOTICE The blocks should be parallel to the blade. [See Blade Guide Level](#) for instructions about checking and adjusting the assembly level with the blade.

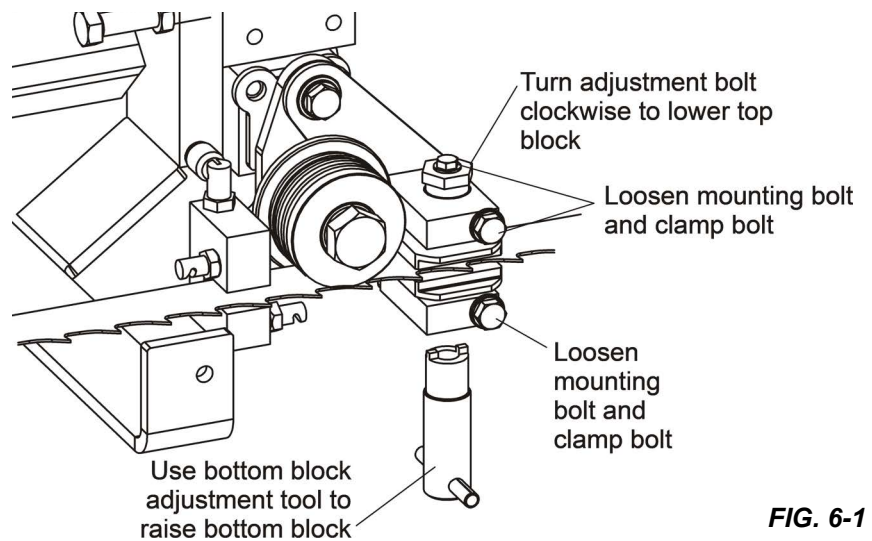


FIG. 6-1

Preventing sap buildup on the blade is critical when using the high-performance blade guide system. If the wood you are sawing leaves sap buildup using plain water in the blade lube system, use Wood-Mizer lube additive (4-Pak 60 oz. bottles part no. ADD-1).

14. Make sure the blade screw in the top center of the C-frame is 1/16" (1.5 mm) away from the blade; if not, loosen the nut and adjust the screw as necessary.
15. Check the screw **every 500 hours** of operation.

Failing to maintain this adjustment will lead to early blade breakage.

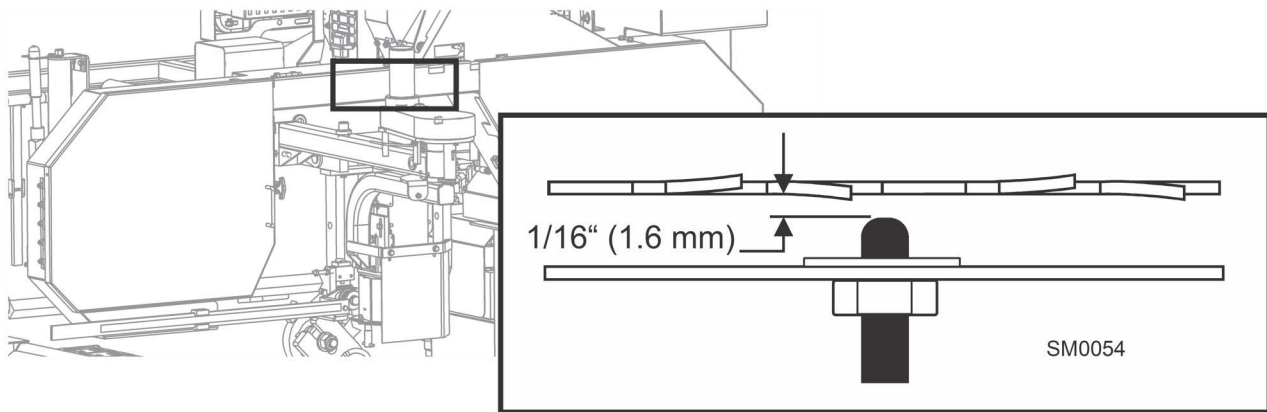


FIG. 6-2

6.3 Sawdust Removal

WARNING! Before performing service near moving parts such as blades, pulleys, motors, belts and chains, first turn the key switch to the OFF (#0) position and remove the key. If the key is turned on and moving parts activated, serious injury may result.

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

WARNING! Always keep clear of exiting sawdust. Keep hands, feet and any other objects away from the sawdust chute when operating sawmill.

WARNING! Always check to ensure the steel fingers inside the sawdust chute are in place before operating the sawmill. The steel fingers have been designed to help prevent a broken blade or some other object from becoming a projectile and exiting the sawdust chute. Failure to have these fingers in place may result in serious injury.

Remove all sawdust and debris from around the velocity fuse valves **every 8 hours** of operation. The valves are located at the bottom of the log loader cylinders.

Remove sawdust buildup as necessary from the battery box lid and top rail cover.

CAUTION! Failure to remove sawdust buildup from the battery box lid and/or track rail cover could result in damage to these parts when the saw head is lowered to its lowest position.

Remove sawdust and debris from grounding block along the bed rail and mast.

6.4 Carriage Track, Wiper & Scraper

WARNING! Before performing service near moving parts such as blades, pulleys, motors, belts and chains, first turn the key switch to the OFF (#0) position and remove the key. If the key is turned on and moving parts activated, serious injury may result.

Properly maintaining the sawmill carriage track is critical in preventing corrosion that can cause pitting and scaling on the rail surfaces. Pitted and scaled surfaces can, in turn, cause rough cuts or jerky power feed movement.

1. Clean track rails to remove any sawdust and sap buildup **every 8 hours** of operation.
2. Use a light-grade sandpaper or emery cloth to sand off any rust or other adhering particles from the rails.

CAUTION! Keep track rails free of rust. Formation of rust on the track rail in the areas where the cam bearings roll can cause rapid deterioration of the track rail's surface.

3. Lubricate the rails by wiping them with Dexron III ATF transmission fluid.

Lubrication will help protect the rails from corrosive elements such as acid rain and/or moisture from nearby bodies of salt-water (if applicable). This lubrication is essential to maintain the integrity of the track rails and track rollers and to achieve long service life.

4. Remove sawdust from the track roller housings and lubricate the felt track wiper every twenty-five hours of operation.
5. Remove the track roller housing covers and brush any sawdust buildup from the housings.
6. Clean and lubricate the felt track wipers.
7. Unbolt the middle track cover, remove from the sawmill and remove any sawdust buildup.
8. Soak the felt wiper with Dexron III transmission fluid.

CAUTION! Reinstall the track wiper so that it lightly touches the track rail. If the wiper presses too firmly against the rail, it can cause the power feed to bind.

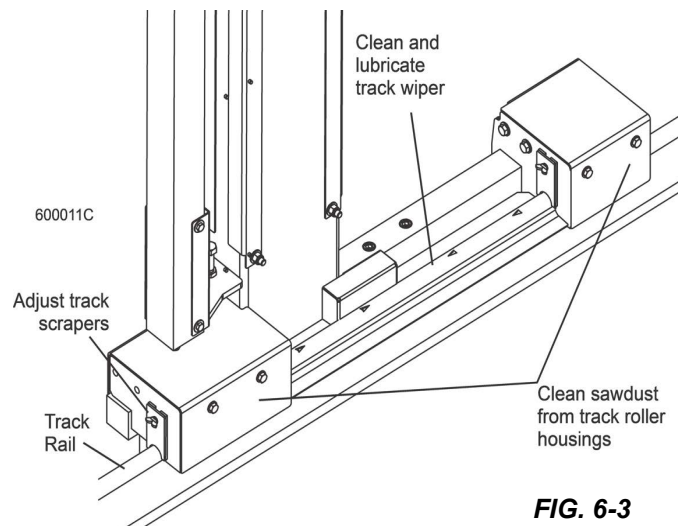


FIG. 6-3

9. Check the track scrapers as needed.
10. Make sure the scrapers fit firmly against the rail.
11. If a track scraper needs to be adjusted, loosen the screw, push the scraper downward until it fits firmly against the rail, and retighten the screw.

6.5 Vertical Mast Rails

WARNING! Before performing service near moving parts such as blades, pulleys, motors, belts and chains, first turn the key switch to the OFF (#0) position and remove the key. If the key is turned on and moving parts activated, serious injury may result.

Clean the vertical mast rails **every 50 hours** of operation.



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

6.6 Drum Switches



WARNING! For battery-powered equipment, disconnect the negative battery terminal cable before performing any service to the electrical system.. For AC-powered equipment, follow the lockout procedure provided in the safety section. Failure to do so may result in injury and/or electrical system damage.

Lubricate the drum switch contacts inside the control panel **every 50 hours** of operation.

Use only contact grease supplied by Wood-Mizer.

Remove the control panel cover.

Use a cotton swab to apply grease to the switch contact ends.



WARNING! Drum switch grease contains Petroleum Hydrocarbon Lubricant. Eye and skin irritant. If introduced into eyes, flush with water for at least 15 minutes. Seek medical attention. Wash skin with soap and water. If ingested, do not induce vomiting - contact a physician. **KEEP OUT OF THE REACH OF CHILDREN.**

6.7 Miscellaneous



WARNING! Before performing service near moving parts such as blades, pulleys, motors, belts and chains, first turn the key switch to the OFF (#0) position and remove the key. If the key is turned on and moving parts activated, serious injury may result.

1. Oil all chains with Dexron III ATF **every 50 hours** of operation.



CAUTION! Do not use chain lube. It causes sawdust buildup in chain links.

2. Apply a thin film of a NLGI No. 2 grade lithium grease to the blade guide arm **every 50 hours** of operation to help prevent it from rusting.

3. Adjust the blade guide arm drive chain as necessary to prevent the arm from slipping by loosening the blade guide arm motor mounting plate bolts and sliding the motor to take slack out of the chain.

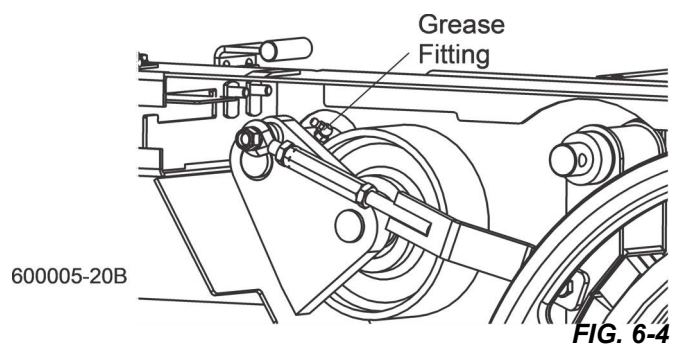
4. Apply NLGI No. 2 grade lithium grease to the drive belt tensioner pivot **every 50 hours** of operation.

5. Grease the clamp mechanism, loading arm and side support pivots with a NLGI No. 2 grade lithium grease **every 50 hours** of operation.

6. Check the mill alignment every setup ([See Section SECTION 7](#)).

7. Make sure all safety warning decals are readable.

- Remove sawdust and dirt.
- Replace any damaged or unreadable decals immediately.
- Order new decals.



6.8 Blade Tensioner



WARNING! Before performing service near moving parts such as blades, pulleys, motors, belts and chains, first turn the key switch to the OFF (#0) position and remove the key. If the key is turned on and moving parts activated, serious injury may result.

1. Add fluid such as Dexron III or Conoco MV32 to the tensioner assembly as needed.
2. To add fluid, remove the plug from the pump reservoir and turn the release valve counter-clockwise to open.
3. Pry the assembly forward until the tensioner piston is completely collapsed inside the housing.
4. Fill the reservoir to 1/2" (12mm) from the top.
5. Replace the plug to the pump reservoir.

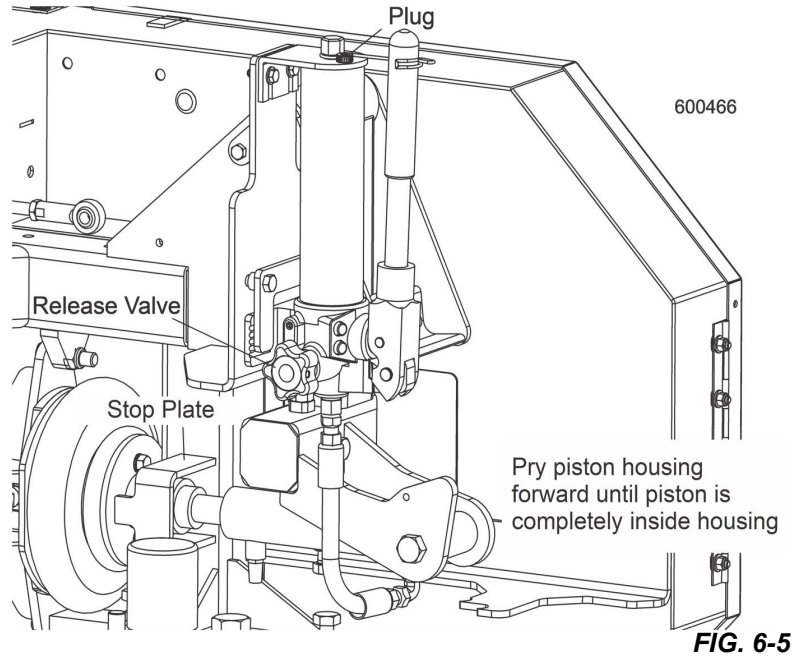


FIG. 6-5

6.9 Blade Wheel Belts



WARNING! Before performing service turn the key switch to the OFF (#0) position and remove the key. If the key is turned on and moving parts activated, serious injury may result.

1. Rotate the blade wheel belts **every 50 hours** and check them for wear.

NOTE: Rotating the belts will provide longer belt life.

2. Replace belts as necessary.
3. Use only belts supplied by Wood-Mizer.

6.10 Drive Belt Adjustment



WARNING! Disconnect and lockout power before performing any service to the electrical system. For battery-powered equipment, disconnect the negative battery terminal cable. For AC-powered equipment, follow the lockout procedure provided in the safety section ([See Section 2.2](#)). Failure to do so may result in injury and/or electrical system damage.

WARNING! Before performing service near moving parts such as blades, pulleys, motors, belts and chains, first turn the key switch to the OFF (#0) position and remove the key. If the key is turned on and moving parts activated, serious injury may result.

WARNING! Do not adjust the engine drive belts or belt support bracket with the engine running. Doing so may result in serious injury.



CAUTION! Do not over-tighten the drive belt. Damage to the engine may result

.See the table below for drive belt tension specifications for your model sawmill. Measure the belt tension with a gauge. **NOTE:** Wood-Mizer offers a belt tension gauge (Part No. 016309) that will let you

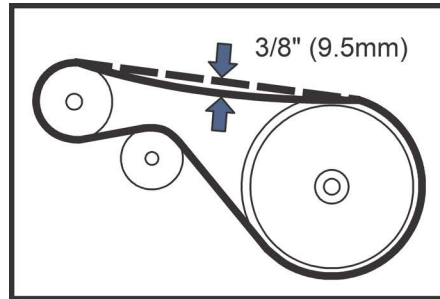
accurately measure the belt tension.

| Engine/ Motor | New Belt Installation/New Sawmill Operation | | | | Subsequent Adjustment | | |
|------------------|---|------------------------------------|-------------------------|----------------------------------|------------------------|---------------------------|--------------------|
| | Deflection Inches (mm) | Installation Force lbs. (kg) | Check After First | Acceptable Force lbs. (kg) | Then Check Every | Deflection Inches (mm) | Force lbs. (kg) |
| ALL | 3/8" (9.5mm) | 14 lbs. (6.35kg) | 20 hrs | 14 lbs. (6.35kg) | 50 hrs | 3/8" (9.5mm) | 14 lbs. (6.35kg) |

TABLE 6-2

Adjust belt tension

1. Turn the key switch to the accessory (#3) position.
2. Engage the drive belt with the blade switch on the control panel.
3. Turn the key switch to the off (#0) position and remove the key. Check the belt tension as described above.
4. Loosen the jam nut and turn the adjustment tube until the belt is properly tensioned.
5. Tighten the jam nut.
6. Replace the key and turn the key switch to the accessory (#3) position.
7. Turn the blade switch off and back on and recheck the belt tension.
8. Repeat adjustments as necessary until proper belt tension is achieved when the belt is engaged.
9. After making adjustments to the drive belt, always check the brake adjustment ([See Section 5.11](#)).
10. Periodically check the drive belt for wear.



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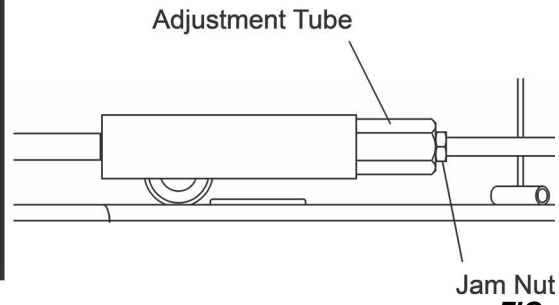
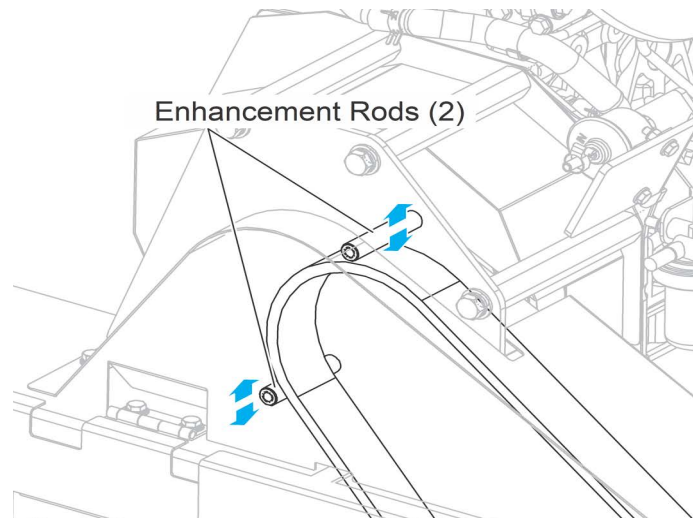


FIG. 6-6



600473-1

FIG. 6-7

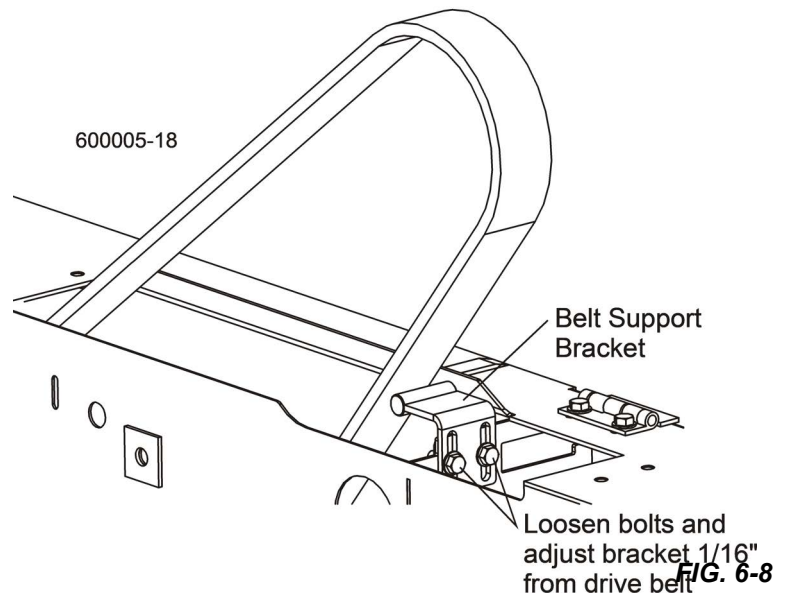
11. Replace any damaged or worn belts as needed.

Adjust the drive belt support

The drive belt support is designed to extend belt life. The bracket should be adjusted to NOT touch the drive belt when the clutch handle is engaged (down position), AND to hold the drive belt away from the engine pulley when the clutch handle is disengaged (up position).

Adjust the drive belt support as needed. Depending on your engine model, the drive belt support may be located near the drive wheel or drive pulley.

1. Ensure the power is off.
2. Loosen the adjustment bolts.
3. Position the bracket so that the rod is close to, but does not touch, the drive belt with the clutch handle engaged. This is approximately 1/8-1/16" (3-1.5mm).
4. Retighten the adjustment bolts 25-27 pound feet (34-37 newton meters).



6.11 Brake Adjustment



WARNING! Before performing service near moving parts such as blades, pulleys, motors, belts and chains, first turn the key switch to the OFF (#0) position and remove the key. If the key is turned on and moving parts activated, serious injury may result.

1. Check the brake pads for wear **every 200 hours** of operation, after each drive belt adjustment, or if the blade does not stop quickly.
2. Replace brake pads if damaged or worn.
3. Adjust the brake pads if the drive belt jumps from the drive pulley when the autoclutch is disengaged.
 - a. Adjust the brake so the blade stops no more than 7 seconds after turning the blade switch off.
 - b. Loosen the jam nuts around the adjustment turnbuckle and turn the turnbuckle to adjust the brake.
 - c. Retighten the jam nuts.
4. Multiple adjustments of the brake will affect engine RPM at idle.

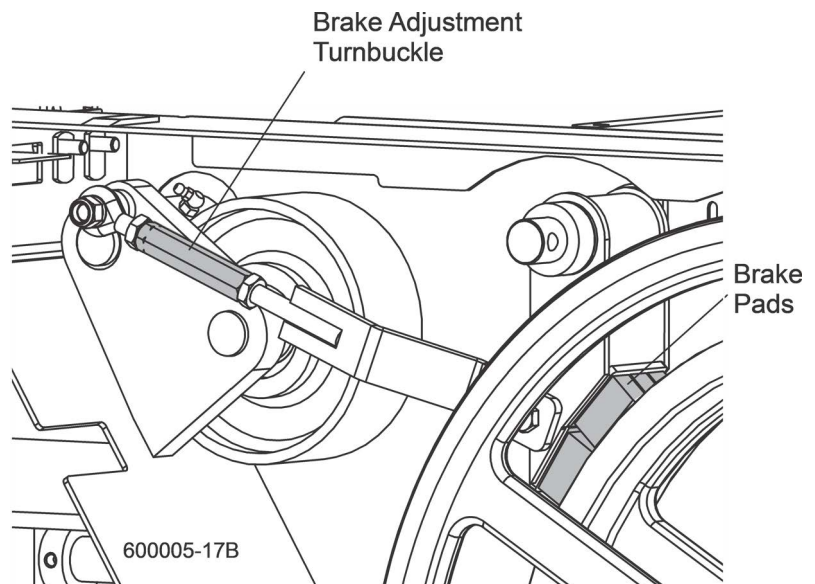


FIG. 6-9

If you notice any change in the idle of the engine after adjusting the brake, check the RPM and adjust the throttle cable if necessary to allow the throttle plate to rest on the idle stop screw (See Engine manual).

6.12 Hydraulic System



WARNING! For battery-powered equipment, disconnect the negative battery terminal cable. For AC-powered equipment, follow the lockout procedure provided in the safety section.

1. Check the hydraulic fluid level **every 50 hours** of operation.
2. Add fluid as necessary.

The level in the hydraulic pump should be 3/4" (19mm) from the top with all cylinders collapsed.

If humidity is a problem or the mill is used outside in humid weather, drain and replace two quarts (.95 liters) of fluid **every six months**. This will drain any accumulated water and help prevent pump failure due to water ingestion. It also will prevent excessive fluid wear and allow the fluid to maintain its hot end performance.

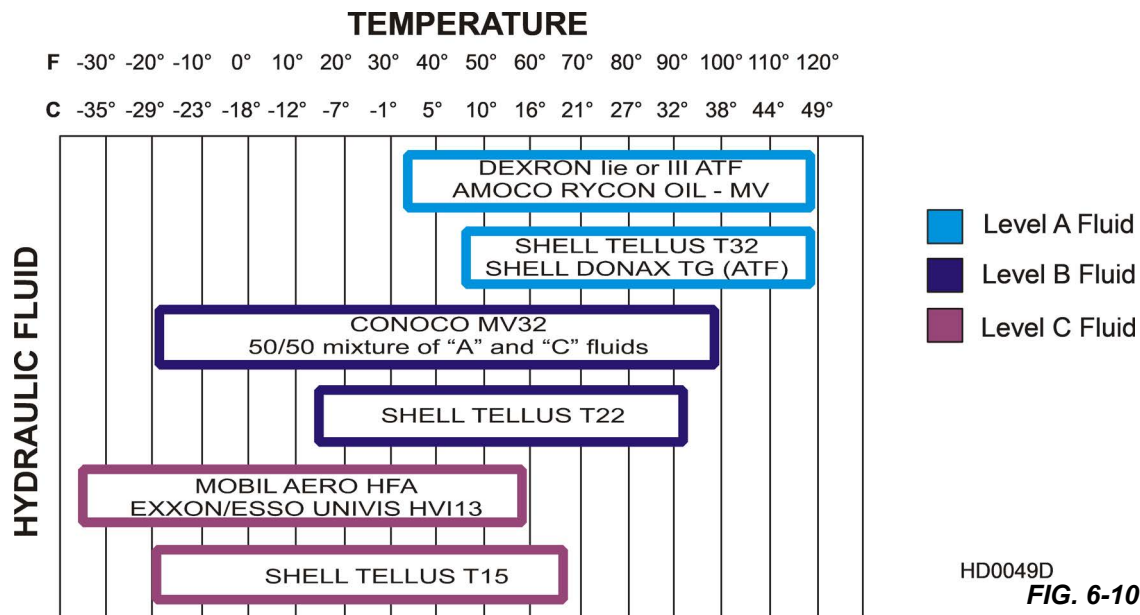
If humidity is not a problem, drain and replace one gallon (3.8 liters) of fluid **every year** to prevent fluid wear.

If you are operating in temperatures -20° to 100° F (-29° to 38° C), use an all-weather hydraulic fluid such as Conoco MV32. For alternate fluids and/or other temperature ranges, refer to the chart below.



CAUTION! Operating above the recommended temperature range of a fluid could result in excessive pump wear. Operating below the recommended temperature range could result in reduced hydraulic cylinder speed.

To change fluid types, replace one gallon of the current fluid with one gallon of the alternate fluid.



3. Replace the hydraulic system cartridge filter **every 500 hours** of operation.
4. Inspect the hydraulic pump motor brushes **every 750 hours** of operation. Remove brush dust and replace the brushes if they worn to a length of 1/4" (6mm) or shorter.



CAUTION! Do not operate the hydraulic system if the pump motor brushes are worn shorter than 1/4" (6mm). Damage to the pump motor may result.

5. Periodically check all hydraulic lines and fitting **as needed**.
6. Replace as necessary.

6.13 Up/Down System

WARNING! Before performing service near moving parts such as blades, pulleys, motors, belts and chains, first turn the key switch to the OFF (#0) position and remove the key. If the key is turned on and moving parts activated, serious injury may result.

WARNING! Disconnect and lockout power before performing any service to the electrical system. Follow the lockout procedure provided in the safety section ([See Section 2.2](#)). Failure to do so may result in injury and/or electrical system damage.

1. Adjust the up/down chain tension as needed.
2. Measure chain tension with the head all the way to the top of the vertical mast.
3. Secure the head with a chain at the top.
4. Find the chain adjusting bolt at the bottom of the mast.
5. Use the adjustment nut to adjust the bolt until the center of the chain can be deflected 3/4" (1.9cm) forward with a 5 lb. (2.3 Kg) deflection force.

WARNING! Always secure the saw head with a 5/16" chain with at least 1900 lbs. working load capacity before adjusting the up/down chain. The saw head may fall, causing severe injury or death.

CAUTION! Do not over-tension the chain. Over-tensioning the chain may lead to early failure of the gear reducer.

CAUTION! Do not operate the up/down system if the motor brushes are worn shorter than 5/8" (16mm). Damage to the up/down motor may result.

The up/down motor features a spring-loaded belt design.

Belt tension is automatically maintained and requires no adjustment.

6. Replace the belt when adequate belt tension can no longer be obtained.
7. Periodically check the belt for wear.
8. Replace any damaged or worn belts as needed.
9. Check the up/down gearbox oil level.
10. Add a synthetic gear oil such as Mobil Glygoyle 460 as needed.
11. Drain and refill the gearbox with 40 (1.2L) ounces of oil after every 5000 hours of sawmill operation or every year, whichever comes first.

Wood-Mizer offers replacement gear oil in 8 ounce (0.24L) bottles.

12. Inspect the up/down motor brushes every 750 hours of operation.
13. Remove brush dust and replace the brushes if they worn to a length of 5/8" (16mm) or shorter.

WARNING! Release pressure from the up/down assist prior to performing any service to the assembly. Failure to do so may result in the assembly flying apart, causing injury or damage to the equipment.

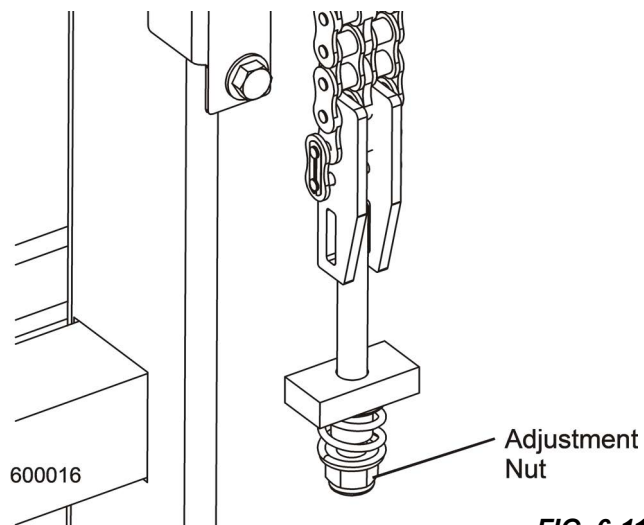


FIG. 6-11

The up/down system is equipped with a gas spring assist mechanism to provide improved speed and performance. The saw head must be secured and tension released from the assist assembly before performing any maintenance to assist components.

1. Locate the four upper up/down assist mounting bolts. .
2. Remove the two lower set of mounting bolts
3. Raise the saw head all the way to the top of the mast and secure with a chain.

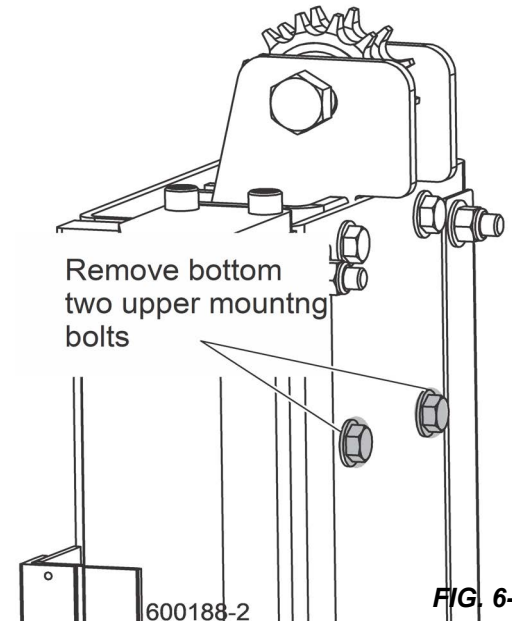


FIG. 6-12

4. Locate the up/down assist tension assembly.
5. Loosen (do NOT remove) the four lower mounting bolts to allow the bracket to move along the slotted mounting holes.
6. Turn the tension bolt counterclockwise to remove tension from the up/down system.
7. Turn the bolt until it disengages from the mounting plate assembly.
8. Remove the four lower mounting bolts and lift the mounting plate to access the up/down chain.
9. Disassemble the master link securing the chain to the saw head.

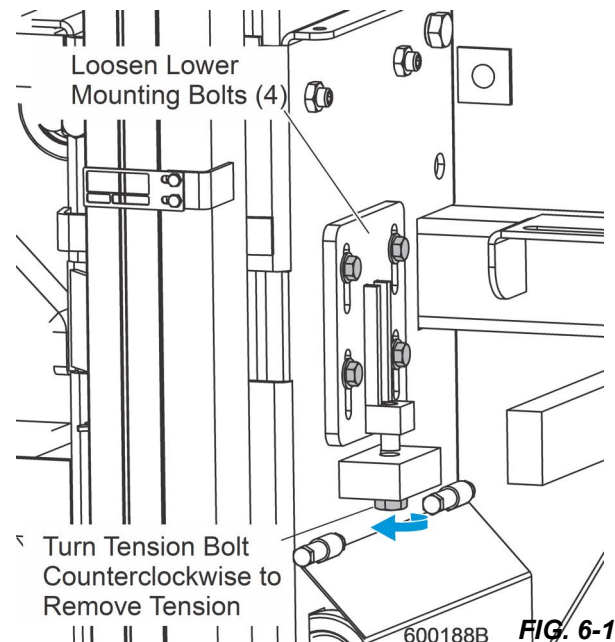


FIG. 6-13

10. Secure the chain at the top of the assist assembly to prevent it from falling down into the tube.
11. Remove the two remaining upper mounting bolts at the top of the assist assembly and lift the assembly from the mast tube.

NOTE: The assist assembly weighs approximately 70 lbs (32Kg). It is recommended two people lift the assembly from the mast. A hoist or some other mechanical method may also be used.

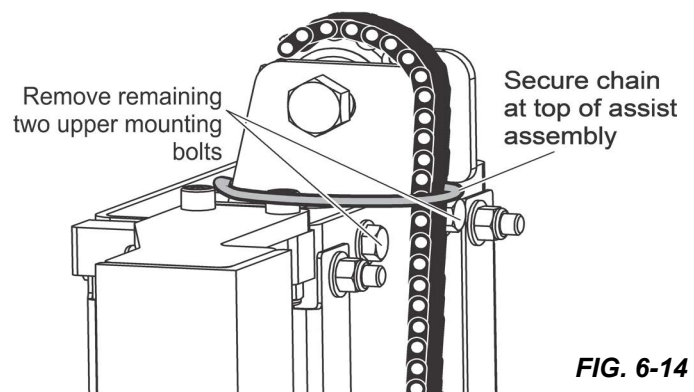


FIG. 6-14

- Once the assist assembly is removed, components may easily be disassembled and serviced as needed. Do not disassemble the gas spring cylinders.



WARNING! The gas spring cylinders are pressurized. Disassembly of cylinder may result in injury or damage to the cylinder.

- When service is complete, reinstall the assist assembly in the reverse order of the disassembly procedure.
- Reattach the chain with the master link.
- Replace the lower mounting bracket and bolts (do not tighten bolts yet).
- Tighten the tension bolt until the end of the bolt is flush with the top of the threaded block of the mounting plate.
- Tighten the mounting bolts.

6.14 Power Feed



WARNING! Before performing service near moving parts such as blades, pulleys, motors, belts and chains, first turn the key switch to the OFF (#0) position and remove the key. If the key is turned on and moving parts activated, serious injury may result.



WARNING! Disconnect and lockout power before performing any service to the electrical system. For battery-powered equipment, disconnect the negative battery terminal cable. For AC-powered equipment, follow the lockout procedure provided in the safety section ([See Section 2.2](#)). Failure to do so may result in injury and/or electrical system damage.

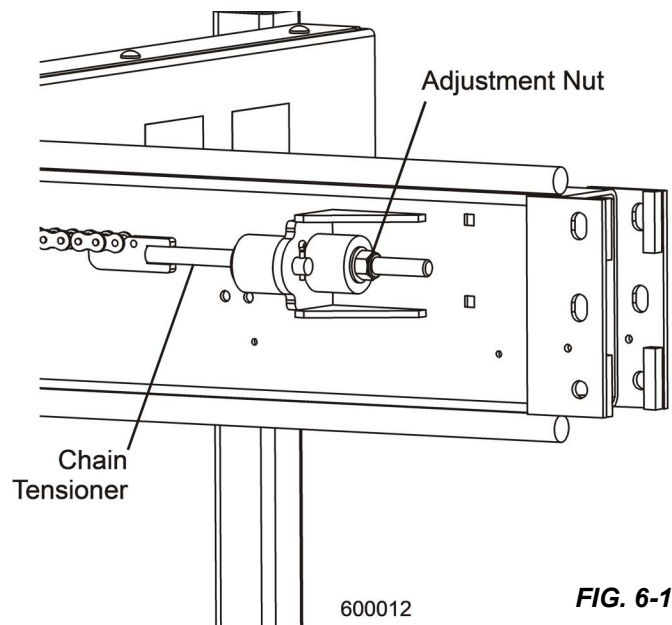
- Adjust the power feed chain as needed.
- Measure the power feed chain tension with the saw head all the way toward the rear of the mill.
- Use the adjustment nut on the feed tensioner at the front of the mill to tighten or loosen the power feed chain.
- Adjust the chain until it measures 7 to 8 inches (17.8 to 20.3 cm) from the top of the top rail at its lowest point.



CAUTION! Do not overtighten the feed chain. Damage to the power feed motor may result.

Refer to the diagram for power feed chain routing instructions See FIG. 5-11.

- Inspect the power feed motor brushes every 750 hours of operation.



- Remove brush dust and replace the brushes if they worn to a length of 5/8" (16mm) or shorter..



CAUTION! Do not operate the power feed system if the feed motor brushes are worn shorter than 5/8" (16mm). Damage to the feed motor may result.

- Check the power feed gearbox oil level.
- Add a synthetic gear oil such as Mobil Glygoyle 460 as needed.
- Drain and refill the gearbox with 12 - 15 ounces (0.35 - 0.44L) of oil after **every 5000 hours** of sawmill operation or every 2 years, whichever comes first.

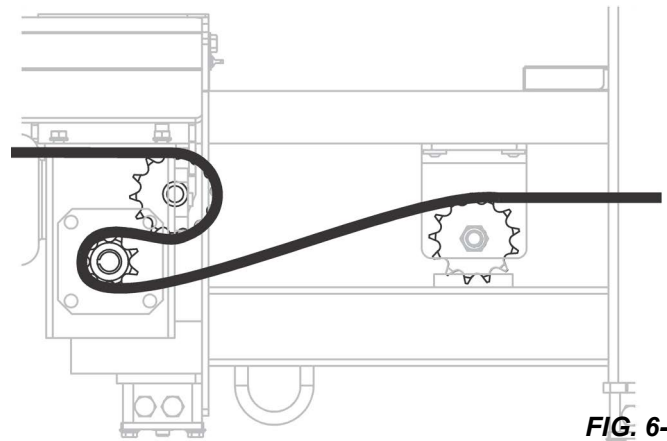


FIG. 6-16

Wood-Mizer offers replacement gear oil in 8 ounce (0.24L) bottles.

6.15 Turner Chain Tension



WARNING! Before performing service turn the key switch to the OFF (#0) position and remove the key. If the key is turned on and moving parts activated, serious injury may result.

- Adjust the turner chain tension **as necessary** to keep the turner operating properly.

If the chain becomes too loose, the log will catch on the support bracket and not turn.

- Loosen the clamping bolt nut and the jam nut on the adjustment bolt.
- Turn the adjustment bolt counterclockwise to tighten the chain until it is aligned with the curved portion of the support bracket.
- Retighten the jam nut and the clamping bolt nut.

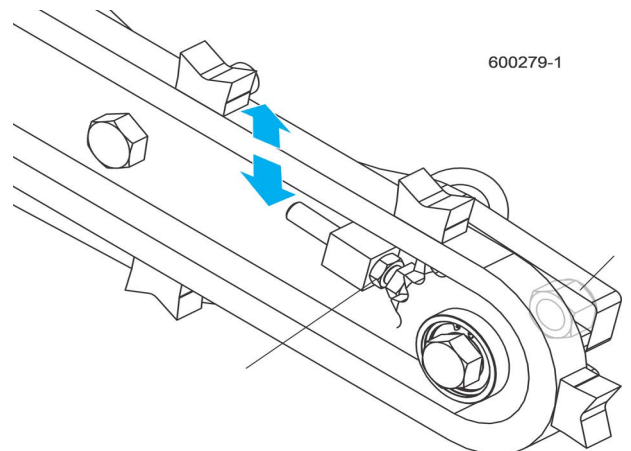


FIG. 6-17

6.16 Fine Adjustable Outriggers

Grease the Fine Adjust Outriggers (FAOs) every 200 hours of operation or once a month, whichever comes first.

Use one squeeze of a NLGI No. 2 grade lithium grease from a grease gun to lubricate the outrigger and remove any sawdust.

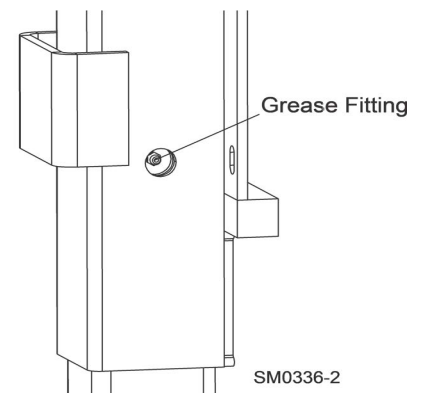


FIG. 6-18

6.17 Maintenance Chart

| MAINTENANCE LOG (Check <i>Engine And Option Manuals</i> for additional maintenance procedures) | MANUAL REFERENCE | MAINTENANCE INTERVAL |
|---|--|-------------------------------|
| Clean sawdust from hydraulic loader fuses , battery box lid & track cover | See Section 5.3 | 8 hours |
| Clean and lubricate top/bottom track | See Section 5.4 | 8 hours |
| Check blade guide Block/roller wear | See Section 5.2 | 8 hours Every blade change |
| Remove excess sawdust from blade wheel housings and sawdust chute | See Section 5.3 | 8 hours Every blade change |
| Inspect fingers inside sawdust chute | See Section 5.3 | 8 hours Every blade change |
| Remove sawdust from upper track roller housings | See Section 5.4 | 25 hours |
| Check Blade Guide Block Spacing | See Section 5.2 | 25 Hours |
| Clean and lubricate upper track wiper | See Section 5.4 | 25 hours |
| Clean & lube mast rails | See Section 5.5 | 50 hours |
| Lubricate drum switches | See Section 5.6 | 50 hours |
| Grease pivot points and bearings/oil chains | See Section 5.7 | 50 hours |
| Rotate drive/idle blade wheel belts/check for wear | See Section 5.9 | 50 hours |
| Inspect hydraulic lines & fittings | See Section 5.12 | 50 hours |
| Check belt tensions | See Section 5.10 See Section 5.14 | 50 hours |
| Check hydraulic fluid level | See Section 5.12 | 50 hours |
| Check feed & up/down chain tensions | See Section 5.14 See Section 5.15 | 50 hours |
| Check up/down & power feed gear box fluid levels | See Section 5.14 See Section 5.15 | 50 hours |
| Check brake pads | See Section 5.11 | 200 hours |
| Grease the Fine Adjust Outriggers (FAOs) every 200 hours of operation or once a month, whichever comes first. | See Section 5.18 | 200 hours |
| Re-check belt tensions | See Section 5.10 See Section 5.14 | 200 hours |
| Check blade throat screw | See Section 5.2 | 500 hours |
| Replace hydraulic system filter | See Section 5.12 | 500 hours |
| Inspect hydraulic pump, power feed and up/down motor brushes | See Section 5.12 See Section 5.14 See Section 5.15 | 750 hours |

SECTION 7 TROUBLESHOOTING GUIDE

7.1 Sawing Problems



WARNING! Before performing service near moving parts such as blades, pulleys, motors, belts and chains, first turn the key switch to the OFF (#0) position and remove the key. If the key is turned on and moving parts activated, serious injury may result.

| PROBLEM | CAUSE | SOLUTION |
|--|---|---|
| Blades Dull Quickly | Dirty logs | Clean or debark logs, especially on entry side of the cut |
| | 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) |
| Blades Break Prematurely | Poor sharpening techniques | See Sharpener Manual |
| | Tension too tight | Tension blade to recommended specifications |
| Blade Does Not Track Right on Drive Wheel | Cant adjustment is incorrect | Readjust |
| Drive Belts Wear Prematurely or Jump | Engine/motor and drive pulleys out of alignment | Align pulleys See Section 6.9. |
| Boards Thick Or Thin On Ends Or Middle Of Board. | Stress in log which causes log to not lay flat on the bed. | After log has been squared, take equal cuts off opposing sides. Take a board off the top. Turn the log 180 degrees. Take a board off. Repeat, keeping the heart in the middle of the cant, and making it your last cut. |
| | Set in teeth. | Resharpen and reset blade. |
| | Bed rails misaligned. | Realign sawmill. |
| Height Adjustment Jumps or Stutters When Moving Up or Down. | Up/down chain improperly adjusted. | Adjust up/down chain. |
| | Up/down belt loose. | Replace belt. |
| Lumber Is Not Square | Vertical side supports not square to bed | Adjust side supports. |
| | Blade not parallel to bed rails | Adjust bed rails parallel to blade. |
| | Sawdust or bark between cant and bed rails | Remove particles |
| Sawdust Builds Up On Track | Tooth set problems | Resharpen and reset blade |
| | Excessive oiling | Do not oil track |
| | Track wipers worn | Adjust wipers to firmly contact track |
| | Track is sticky | Clean track with solvent and apply silicone spray |
| Wavy Cuts | Excessive feed | Slow feed rate |

| PROBLEM | CAUSE | SOLUTION |
|---------|---|--|
| | Improperly sharpened blade (This will be the problem 99% of the time!) | Resharpener blade (See Sharpener Manual - read entire manual!) |
| | Blade guides improperly adjusted | Adjust blade guides. |
| | Sap buildup on blade | Use Water Lube. |
| | Tooth set problem | Resharpener and reset blade |

7.2 Electrical Problems



WARNING! Before performing service turn the key switch to the OFF (#0) position and remove the key. If the key is turned on and moving parts activated, serious injury may result.

Disconnect and lockout power before performing any service to the electrical system. For battery-powered equipment, disconnect the negative battery terminal cable. For AC-powered equipment, follow the lockout procedure provided in the safety section ([See Section 2.2](#)). Failure to do so may result in injury and/or electrical system damage.

| PROBLEM | CAUSE | SOLUTION |
|--|---|---|
| Up/down Excessively Slow. | Up/down belt loose. | Adjust belt to be as loose as possible without slipping. |
| | Worn up/down motor or motor brushes. | Replace up/down motor or motor brushes. |
| Up/down Or Power Feed Motors Do Not Work. | Worn/dirty contacts in drum switch. | Replace switch or remove control panel cover and clean contacts. |
| | Bad key switch. | Replace key switch. |
| | Circuit breaker. | Reset breaker in control box (See Section 6.3). |
| | Burned-out motor. | Replace motor. |
| Power Feed Motor Does Not Work. | Bad connection on battery post or loose wire. | Check for loose wire or terminal connections. |
| Power Feed Motor Does Not Work. | Sawdust buildup in the power feed pulleys. | Sawdust buildup puts mechanical bind on power feed which causes automatic motor protection circuit to activate. Remove sawdust from pulleys and operate normally. If motor does not operate after sawdust removal, reset circuit breaker on the front of the control box. |
| | Up/Down Or Power Feed Switches Remain Engaged When Switch Is Released. | Worn/dirty contacts in drum switch. |
| | Drum switch spring broken. | Manually move the power feed or up/down switch back to neutral or "off" position. Replace drum switch spring. |
| Up/Down Or Power Feed Motors Overheat And Lose Power. | System overload or bind occurred. | Correct problem (See Section 6.4). Allow motor to cool before restarting. |

| PROBLEM | CAUSE | SOLUTION |
|--|---|---|
| | Normal operation factors exceeded (eg: up/down control jockeyed excessively). | Allow motor to cool before restarting. |
| Everything Works And Then Cuts Out - Works Again. | Bad battery, fuse, or ground connection. | Check and tighten connections. |
| Nothing Works Electrically. | Dead battery. | Check for short circuit or turn OFF key. |
| | Blown fuse. | Replace. |
| | Corrosion on battery post. | Remove connection and clean posts. |
| Battery Will Not Stay Charged. | Key switch left ON. | Turn switch OFF when not in use. |
| | Short in system. | Visually check for bare wires and/or have checked. |
| | Charging system not functioning. | Have charging system checked by authorized dealer. |
| | Bad battery cells. | Check fluid levels and add proper solution |
| | Idle improper. | Adjust low end RPM per engine manual. |
| | Loose alternator belt. | Check belt tension and tighten if necessary. |
| | Loose connections at LED circuit board or alternator. | Check and tighten connections. |
| Intermittent Or Permanent Loss Of Accessory Motor Functions Occurs (Up/down, Fwd/rev, Blade Guide Functions Do Not Work). | Bad connections at accessory solenoid or bad solenoid. | Check all connections at accessory solenoid. If connections are good, replace solenoid. |

7.3 Circuit Breaker Operation

Sawmill controls are equipped with manual reset circuit breakers to protect the electrical circuits..

NOTE: If the breaker is still hot, you may not be able to reset it immediately. Allow the breaker to cool for a few minutes before attempting to reset.

The hydraulic, ignition, start and blade guide breakers are located inside the control box. Remove the circuit breaker panel from the control box to access the internal breakers

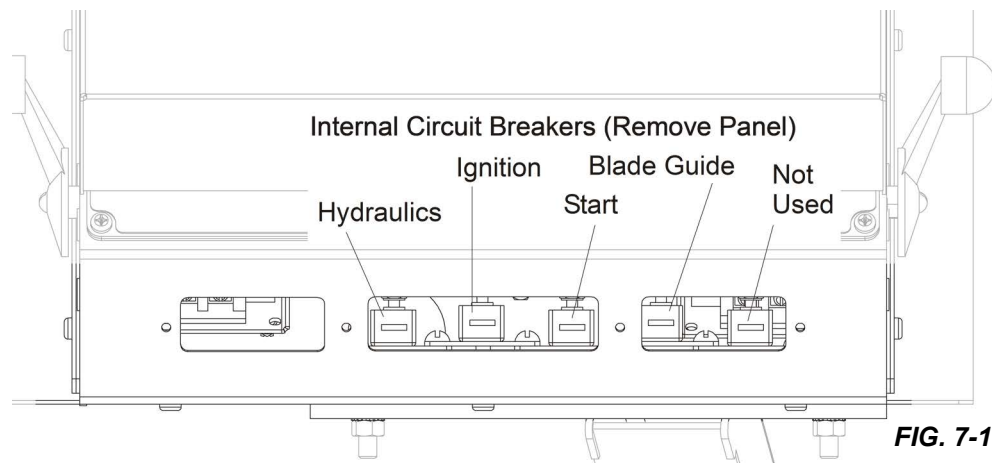


FIG. 7-1

7.4 Power Feed Preliminary Test

This test will determine if the problem is mechanical or electrical.

1. Remove the drive belt from the power feed drive pulley.
2. Turn the key switch to the ACC position.
3. Put the carriage forward/reverse switch into the forward position.
4. Turn the feed rate dial through all speeds. If the power feed motor runs properly at all speeds, the problem is a mechanical one instead of an electrical one.

7.5 Power Feed Problems



WARNING! Disconnect and lockout power before performing any service to the electrical system. For battery-powered equipment, disconnect the negative battery terminal cable. For AC-powered equipment, follow the lockout procedure provided in the safety section. Failure to do so may result in injury and/or electrical system damage.

NOTE: The Dual-Axis Control is equipped with LED lights to help determine the cause of any feed problems you may encounter. [See Accuset 2 option manual](#) for instructions.

| PROBLEM | CAUSE | SOLUTION |
|--|--|---|
| Power Feed Is Jerky At Low Speeds Or Does Not Move Until Speed Is Above Halfway Mark. | Drum switch is dirty. | Clean drum switch and lubricate with contact grease supplied by Wood-Mizer. |
| | Drum switch contacts are bad | Check that contacts are in good condition and positively close circuit. |
| | Components are loose or wires are broken. | Replace or repair PC board. |
| Power Feed Is Jerky When Shaft Of Feed Rate Dial Is Moved Back And Forth. | Variable speed switch is bad - perform the variable speed switch test. | Replace variable speed switch. |
| Power Feed Is Jerky, But Power Feed Motor Runs Properly At All Speeds. | Problem is mechanical. | Refer to the Mechanical Test. |
| Power Feed Motor Overheats. | Middle track oiler is dragging. | Clean middle track oiler and lubricate with 30-weight oil or ATF (Automatic Transmission Fluid) such as Dexron II. Allow motor to cool before restarting. |
| | Ground is not level. | Level mill with carpenter's level. Allow motor to cool before restarting. |
| | Track roller bearing drag is excessive. | Lubricate bearings; Replace tight bearings. Allow motor to cool before restarting. |
| | Lower track rollers are not aligned properly. | Check stop clearance from lower track rail. Allow motor to cool before restarting. |
| | Chain is dragging. | Make sure chain is centered on idler; Clean and lubricate chain; Adjust chain tension. Allow motor to cool before restarting. |
| Power Feed Motor Overheats. | Chain is improperly tensioned. | Adjust chain tension. Allow motor to cool before restarting. |
| | Operator Seat option load is excessive. | Check seat bearings for freedom of movement; Loosen clamping screw 1/4 turn. Allow motor to cool before restarting. |

| PROBLEM | CAUSE | SOLUTION |
|---------|----------------------------------|---|
| | Power feed is binding. | Adjust belt tension; Check condition of belt, pulleys, bearings, and sprocket; Check motor for ground fault. Allow motor to cool before restarting. |
| | Saw head load is excessive. | Avoid unnecessary modifications to saw heads that would give them extra weight. Allow motor to cool before restarting. |
| | Blade is dull or improperly set. | Use proper blade maintenance procedures (See Sharpener or Toothsetter manual). Allow motor to cool before restarting |

7.6 Power Feed Variable Feed Rate Switch Test

1. Turn the feed rate dial switch all the way down.
2. Move the shaft of the dial back and forth to see if there is a jerky response.
3. Turn the dial and move the shaft back and forth again.
4. Repeat several times.
5. If the jerkiness occurs at the same location on the dial several times, replace the variable speed switch.



WARNING! Disconnect and lockout power before performing any service to the electrical system. For battery-powered equipment, disconnect the negative battery terminal cable. For AC-powered equipment, follow the lockout procedure provided in the safety section ([See Section 2.2](#)). Failure to do so may result in injury and/or electrical system damage.

7.7 Power Feed Mechanical Test

1. Remove the weight from the track rollers. They should turn smoothly and easily with very little play.
2. Check the middle track cover to ensure it is not bent or touching the top rail.
3. Clean middle track oiler of sawdust buildup.
4. Make sure the power feed chain is not stiff from rust.
5. Ensure the chain is not too tight.
6. Check the power feed shaft. Visually inspect the bearings. The shaft should move neither in or out nor side to side.
7. Make sure the power feed chain cam bearing is not touching the main frame tube.
8. Make sure there is no sap or rust on the rails.
9. Make sure the stop on the lower track roller assembly is not rubbing the lower rail.
10. Make sure the track rollers are not too tight.
11. Make sure the power feed belt is properly tightened.

7.8 Hydraulic Problems



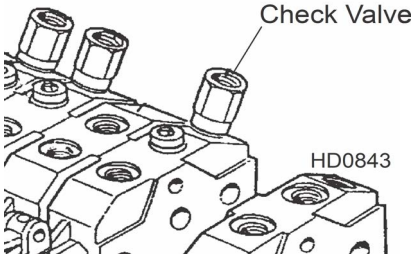
WARNING! Disconnect and lockout power before performing any service to the electrical system. For battery-powered equipment, disconnect the negative battery terminal cable. For

AC-powered equipment, follow the lockout procedure provided in the safety section ([See Section 2.2](#)). Failure to do so may result in injury and/or electrical system damage.

Before performing service turn the key switch to the OFF (#0) position and remove the key. If the key is turned on and moving parts activated, serious injury may result.

| PROBLEM | CAUSE | SOLUTION |
|---|---|--|
| Any Hydraulic Handle Can Be Actuated, But No Response From The Pump. | Carriage not positioned properly to provide power to the pump | Make sure carriage contact bracket is adjusted far enough forward for battery positive contact to touch 6ft. strip on main tube. Check contact and strip for tarnish or loose wires. Clean as necessary |
| | Poor ground connection | Check ground connection between pump and saw frame and between battery negative contact and lower rail. Check contact and rail for tarnish or loose wires. Clean as necessary |
| | Blown fuse | Replace |
| | Low or dead battery | Test battery amperage capability (such as low battery charge, low alternator output, defective voltage regulator, bad battery cell, battery age deterioration, etc.). Replace or recharge as necessary |
| | Poor cable connection | Check cable connection and make sure that battery terminals are in good condition (not corroded) |
| You Can Get Response From the Pump By Actuating All But One or Two Handles | Defective solenoid (may be indicated by solenoid clicking) See Monarch manual for troubleshooting solenoid | After checking all other possibilities for low voltage to solenoid, check solenoid. Tapping on solenoid may fix temporarily. Replace solenoid if necessary. NOTE: The solenoid is not a standard automotive type. Order from Wood-Mizer only |
| | Defective pump motor | Remove motor from pump and inspect. Repair or replace as necessary |
| Pump Motor Runs With Little Or No Response From The Cylinders | Valve assembly switch contacts are not properly adjusted | Locate the valve switch at the bottom of the valve assembly. Use a 3MM hex wrench to loosen the set screw on each of the five switch contacts. Press each contact to the valve block and tighten the contact set screw to secure in place. CAUTION! Do not over-tighten! NOTE: Do not adjust the valve switch or switch spring; they have been preset at the factory. |
| | Low battery | Test battery. Recharge or replace as necessary |
| Pump Motor Runs With Little Or No Response From The Cylinders | Low fluid level | Check fluid level. Add an all-season hydraulic fluid such as Amoco Rycon Oil MV or Mobil Multipurpose ATF (automatic transmission fluid) until level is 4 - 4 1/2" (100 - 114mm) from bottom of reservoir with all cylinders retracted |
| | Pressure relief valve moved from proper setting | Adjust pressure relief valve. |
| | Low air temperature causing fluid to thicken | Allow fluid to warm up. Synthetic fluids are available that allow for hydraulic operation in cold weather conditions (Univis HVI 13) |

| PROBLEM | CAUSE | SOLUTION |
|---|--|--|
| Pump Motor Runs Continuously When Power Contact Is Made | Solenoid is stuck closed | Tapping the solenoid may solve this problem temporarily. Replace solenoid |
| Fluid Leaks From Around Cylinder Piston Ram | Worn seals | Replace seals in cylinder. Check piston ram for abrasive weld that may be causing premature seal failure |
| Fluid Leak Around Pump Box | Loose seal or fitting | Wipe pump off completely to locate cause of leak. You may have to unbolt the pump to wipe behind it. NOTE: Movement of the sawmill can cause fluid to slosh up into the foam filter in the reservoir cap, and subsequently spray out, giving the appearance that fluid is leaking from the pump |
| Hydraulic Side Supports Go Down Before Or At Same Time As Log Turner | Dirt in sequence valve | Remove sequence valves and clean thoroughly with kerosene. NOTE: Be sure to reassemble the valve and install it in its original position on the cylinder |
| | Retainer in sequence valve worn | Replace sequence valve |
| | Low air temperature causing fluid to thicken | Allow fluid to warm up. Synthetic fluids are available that allow for hydraulic operation in cold weather conditions (Univis HVI 13) |
| Hydraulic Turner Goes Up Before Or At Same Time As Side Supports | Dirt in sequence valve | Remove sequence valves and clean thoroughly with kerosene. NOTE: Be sure to reassemble the valve and install it in its original position on the cylinder |
| | Retainer in sequence valve worn | Replace sequence valve |
| | Low air temperature causing fluid to thicken | Allow fluid to warm up. Synthetic fluids are available that allow for hydraulic operation in cold weather conditions. (Univis HVI 13) |

| PROBLEM | CAUSE | SOLUTION |
|--|---|---|
| <p>Hydraulic Toe Boards "Creep" UP or DOWN without the valve control handles being operated OR do not raise or lower at all</p> | <p>Can be a result of shock load caused by improperly using the toe boards to "cushion" or break the fall of a cant onto the bed):</p> <ul style="list-style-type: none"> · damaged hoses · damaged cylinder seals or cylinder · damaged valve | <p>INITIAL CHECK Disconnect the toe board hydraulic hose from its current valve section and temporarily connect it to another valve section. Check to see if the hydraulics operate properly. If hydraulics operate properly, hoses and cylinder seals are good. Perform further valve inspection, found below. If creep still occurs, check all hoses for possible pin-holes causing leakage. Replace if applicable. Retest. If creep still occurs, replace cylinder seals or cylinder and retest. Be sure to reconnect the hose to the proper valve section when done.</p> <p>FURTHER VALVE INSPECTION Remove the check valve shown below. Flush the check valve with an air hose or solvent to remove any dirt from the valve's seat. Reinstall and test again. Check to see if the hydraulics operate properly. If creep still occurs, replace the check valve with a new one. Retest. If creep still occurs, replace the hydraulic valve.</p>  |
| | <p>Bad check valve (results in one of the toe boards experiencing down-creep)</p> | <p>Check the release valve as instructed above. If the release valve is good, replace the high-pressure hydraulic check valves (A12869) located on the pump.</p> |
| <p>Pump runs but makes "growling" sound and hydraulic functions are slow, jerky or don't work at all</p> | <p>Low fluid level</p> | <p>Check fluid level and add fluid as necessary. Check for leaks in the system at the control box fittings, hoses and cylinders</p> |
| <p>A log loader cylinder does not move when lowering the loader causing the foot of other to raise completely before loader will start down</p> | <p>Damaged cylinder shaft</p> | <p>Replace the cylinder that is not moving</p> |

7.9 Hydraulic Pressure Test

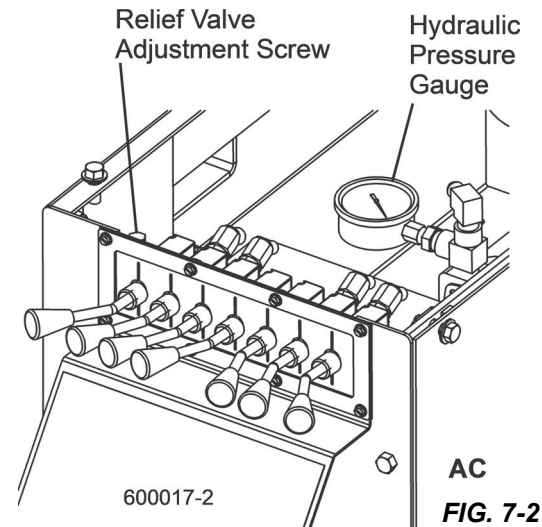
TO CHECK HYDRAULIC PRESSURE:

Operate the loading arm hydraulic lever and read the pressure on the gauge. Hydraulic pressure is factory-set at 2200 psi and should not need to be readjusted. The relief valve adjustment screw shown may be used to fine-tune the hydraulic pressure:

1. Remove the adjustment screw nut.
2. Tighten the adjustment screw (clockwise) to increase pressure.
3. Loosen the adjustment screw (counterclockwise) to lower pressure.



CAUTION! Pressure should not exceed 2200 psi. If it does, the amp draw will rise above the design maximum of 200 amps, and could cause battery and system problems. Pressure above 2200 psi may also damage the hydraulic hoses.



7.10 Engine/Motor and Drive Pulleys Alignment



WARNING! Before performing service turn the key switch to the OFF (#0) position and remove the key. If the key is turned on and moving parts activated, serious injury may result.

Do not for any reason adjust the engine drive belts or belt support bracket with the engine running.

1. Install and properly tension the drive belt ([See Section 5.10](#)).
2. With the autoclutch disengaged, use a straight edge to check the alignment of the pulley on the engine/motor to the alternator pulley. Loosen the bushing on the engine/motor pulley and adjust if necessary until it is aligned with the alternator pulley.
3. With the autoclutch disengaged, use a straight edge to check the alignment of the engine/motor pulley to the main drive pulley. Loosen the bushing on the drive pulley and adjust if necessary until it is aligned with the engine/motor pulley.
4. **(E25 Only):** Check that the engine/motor pulley is also square with the drive pulley. If necessary, loosen the engine mounting bolts and cock the engine until the pulley is square with the drive pulley. Retighten the engine mounting bolts.
5. Check that all engine mounting bolts and pivot bushing clamps are tight.
6. Engage the autoclutch and recheck the pulley alignment. Adjust if necessary.
7. If any pulleys were adjusted, recheck the drive belt support(s) and adjust if necessary ([See Section 5.10](#)).

7.11 Debarker Troubleshooting



DANGER! Before performing any service to this equipment, turn the key to the OFF (0) position, remove the key, and disconnect the sawmill battery ground terminal. Failure to do so will result in serious injury or death.

| PROBLEM | CAUSE | SOLUTION |
|---------------------------------|------------------------------------|--|
| 70 amp circuit breaker tripping | Wood or bark jammed in blade guard | Turn key to OFF position, remove key. Remove wood or bark from blade guard |

| | | |
|--|--|---|
| | Pivot pin is binding. | Inspect for bind by moving debarker head to full in position. Turn key to OFF position, remove key. Pull arm to full out position by hand. If available, use a weight scale to pull arm to full out position. Should not have more than 12 pounds of resistance to pull out. Ensure pivot pin has been greased properly. Check pivot clamps for correct installation. Loosen pivot clamp bolts slightly, check for reduced binding |
| | Ring terminal of red wire touching debarker motor housing at motor | Move terminal away from motor housing. Reset circuit breaker and retest. |
| | Circuit breaker weak from repeated tripping. | Replace circuit breaker |
| Light comes on, but debarker motor and warning light do not operate | Circuit breaker tripped | Reset circuit breaker. |
| Debarker shuts off, but the circuit breaker is not tripped. | Bad ignition wire connection | Check ignition wire connection outside and inside of debarker control box. |
| | Intermittent key switch | Replace key switch |
| | Other loose wiring connection | Check wiring connections inside control box. |
| Debarker will not shut off. | Solenoid is stuck closed. | Replace solenoid. |
| IN/OUT Motor does not move IN or OUT | Drive belt too loose | Tighten enough to allow movement. DO NOT OVER-TIGHTEN. |
| | Switch not working properly | Check wiring to switch for loose connections. If wiring looks OK, replace switch. |

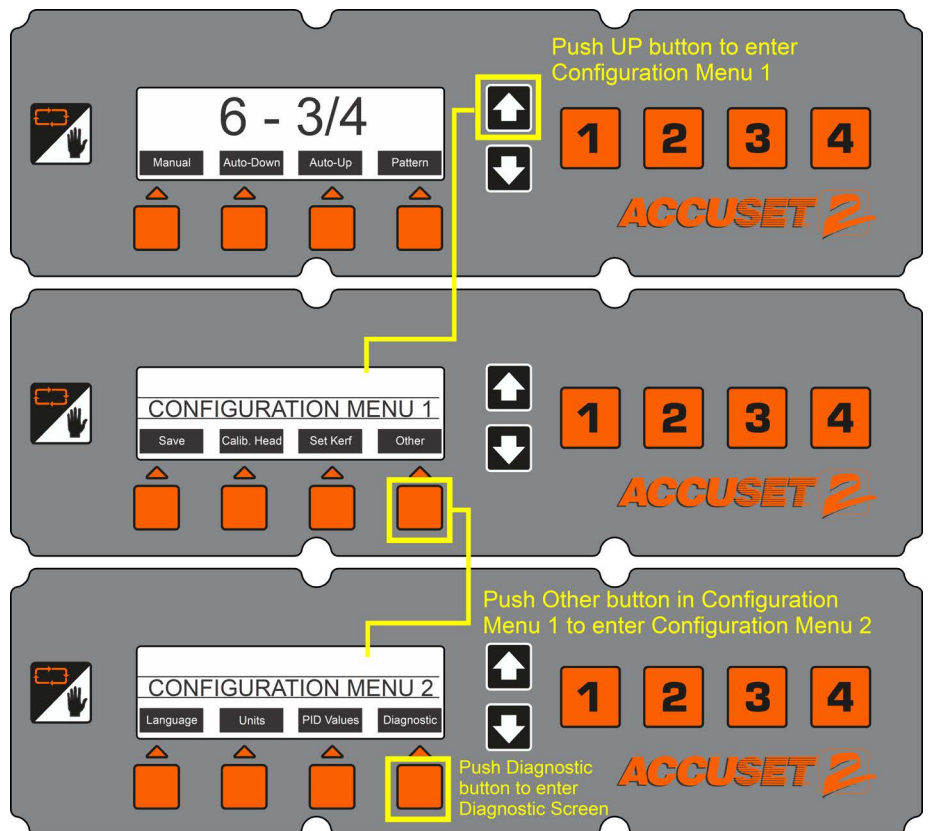
8.2 Error Messages Gas/Diesel (DC) Only

| Error | Possible Cause(s) |
|-------------------------------|---|
| CHECK TRANSUCER | Defective or loose transducer cable |
| | Defective transducer |
| MOTOR CURRENT | Excessive current draw on Up/Down motor caused by mechanical bind in saw head movement or defective up/down assist cylinder |
| | Short in up/down motor wires |
| VOLTAGE ERROR | Low voltage at the H-bridge or HMI (front panel) |
| | Weak battery |
| | Over-charging alternator |
| | Loose connections |
| CHECK BREAKER OR CABLE | Tripped Up/Down circuit breaker |
| | Defective or loose H-bridge communication (splitter) cable |

8.3 Diagnostic Screen

The diagnostic screen can be used to help diagnose battery, up/down and power feed potentiometer problems should they occur.

1. Push the Up button while in Manual Mode to display Configuration Menu 1.
2. Select Other to display Configuration Menu 2.
3. Push the Diagnostic button to display the Diagnostic Screen.



3H0989-8

FIG. 8-3

The Diagnostic Screen is shown in FIG. 8-4.

Battery Voltage. This shows battery voltage as read by the H-Bridge.

Controller Voltage. This shows battery voltage as read by the front panel.

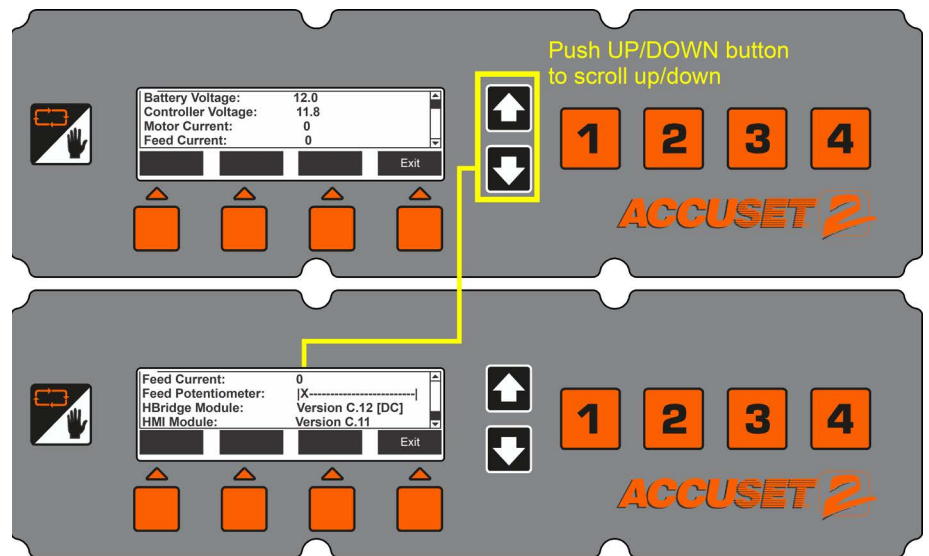
Motor Current. Amperage of the up/down motor.

Feed Current. Amperage of power feed motor.

Feed Potentiometer. This tests input signal of the power feed potentiometer. Turn the power feed potentiometer to check if it moves smoothly.

HBridge Module. This is the H-Bridge software revision.

HMI Module. This is the HMI module software revision.



3H0989-9
FIG. 8-4

SECTION 9 SAWMILL ALIGNMENT

The Wood-Mizer sawmill is factory aligned. Two alignment procedures are available to realign the sawmill if necessary.

- The Routine Alignment instructions should be performed as necessary to solve sawing problems not related to blade performance.
- The Complete Alignment procedure should be performed approximately every 1500 hours of operation (sooner if you regularly transport the sawmill over rough terrain).

NOTE: THE PROCEDURES LISTED HERE MUST BE PERFORMED IN THE ORDER THEY APPEAR.

9.1 Routine Alignment Procedure

Blade Installation

1. Remove the blade and check the blade wheel belts. Remove any sawdust buildup from the surface of the belts. Replace worn belts if they do not keep the blade from contacting the blade wheel.
2. Install a clean blade and apply the appropriate tension ([See Section 3.4](#)).
3. Inspect the blade guide blocks for damage or wear and replace as necessary. Check the blade guide blocks and drive side deflector plate are properly adjusted ([See Section 5.2](#)).
4. Adjust the idle-side cant control to track the blade ([See Section 3.5](#)).
5. Close the blade housing covers and make sure all persons are clear of the saw head.
6. Start the engine (or motor).
7. Engage the blade, rotating the blade 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.

8. Disengage the blade.
9. Turn the engine off and remove the key.
10. as described above.

Saw Head Tilt

As the blade enters a wide log or cant, the outside of the saw head will drop down slightly. To compensate for the drop, the saw head is adjusted 1/16" (1.5 mm) higher at the outside.

1. Move the saw head so the blade is positioned over a bed rail.
2. Adjust the blade guide arm to 1/2" (13 mm) from full open.
3. Measure from the blade to the bed rail near the outer blade guide assembly.

All measurements should be within +/- 1/32" (0.8 mm).

- 1). To adjust the saw head tilt, use the bolts located at the bottom of the saw head mast.
- 2). Loosen the three sets of four retaining plate bolts.
- 3). To raise the outside of the saw head, back the stop bolts out, then tighten the adjustment bolts.

- 4). To lower the outside of the saw head, loosen the adjustment bolts and tighten the stop bolts.

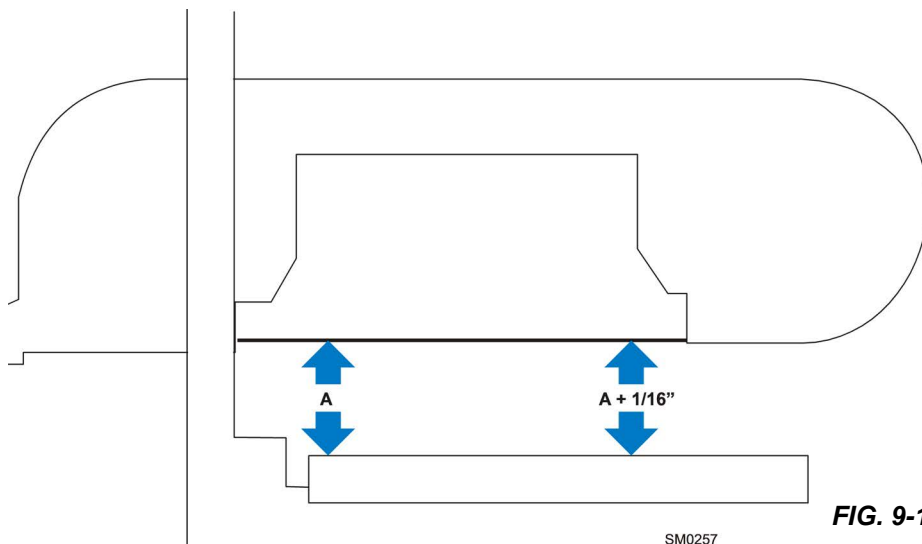


FIG. 9-1

SM0257

- 5). Recheck the measurement from the blade to the bed rails.
- 6). Adjust the stop bolts and adjustment bolts until the outside of the saw head is 1/16" higher than the inside.
- 7). Retighten the retaining plate bolts.



CAUTION! It is important that the lower stop bolts are properly adjusted to secure the carriage on the track rail. Failure to properly adjust the stop bolts can cause saw head damage, especially during mill transportation.

Blade Guide Arm Alignment

The blade guide arm moves the outer blade guide in and out. If the arm becomes loose, the blade guide will not deflect the blade properly, causing inaccurate cuts. A loose blade guide arm can also cause blade vibration.

1. Adjust the blade guide arm in to 1/2" (13 mm) from fully closed.
2. Manually try to move the arm up and down.

If you can move the arm by hand, you will need to tighten the arm rollers.

3. Loosen the jam nuts and turn the adjustment bolts in to tighten the blade guide arm rollers. See FIG. 7-30.
4. Retighten the jam nuts.
5. Check that the arm is aligned properly.
6. With the arm adjusted 1/2" (13 mm) from **fully closed**, measure the distance between the blade guide roller flange and the back of the blade.
7. Adjust the blade guide arm to 1/2" (13 mm) from **fully open** and remeasure the distance from the roller flange to the back of the blade.

The two measurements should be the same. If not, adjust the inner rollers in or out to tilt the arm horizontally. See FIG. 9-3.

8. Loosen the horizontal adjustment bolt jam nuts. See FIG. 9-4.

- 1). To tilt the arm in toward the blade, loosen the rear bolt and tighten the front bolt.
- 2). To tilt the arm out away from the blade, loosen the front bolt and tighten the rear bolt.
- 3). Retighten the jam nuts.
- 4). Recheck the blade guide arm horizontal tilt.

9. Check the vertical tilt of the blade guide arm.
10. Move the saw carriage so the blade guide arm is positioned over a bed rail.
11. With the arm 1/2" (15 mm) from **fully closed**, raise or lower the saw head until the bottom of the blade guide block is 15" (375 mm) from the top of the bed rail.

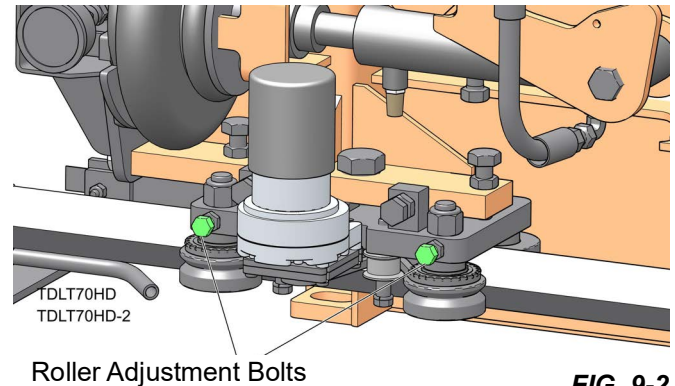


FIG. 9-2

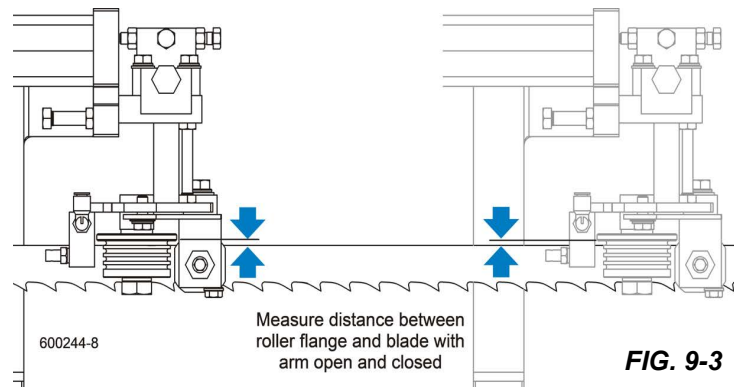


FIG. 9-3

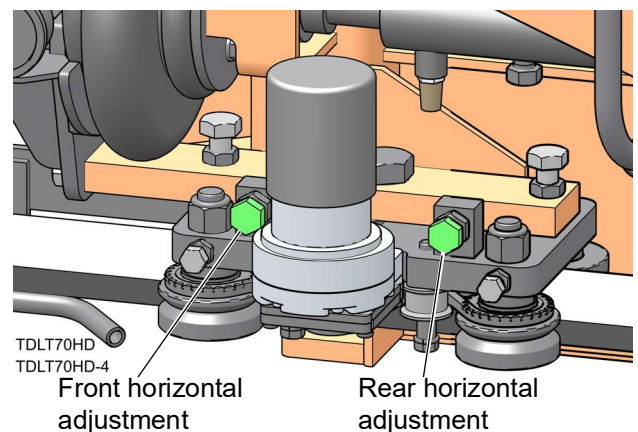


FIG. 9-4

12. Adjust the blade guide arm to 1/2" (15 mm) from **fully open**.
13. Measure the distance from the bottom of the blade guide mounting block to the bed rail. See FIG. 9-5.

This measurement should be 15" (376.5 mm). If the measurements are not the same, adjust the blade guide arm vertically.

14. Loosen the vertical adjustment bolt jam nuts.

- 1). To tilt the blade guide arm down, loosen the rear bolt and tighten the front bolt.
- 2). To tilt the blade guide arm up, loosen the front bolt and tighten the rear bolt.

15. Retighten the jam nuts and recheck the blade guide arm vertical tilt.

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 (BGAT) is provided to help you measure the vertical tilt of the blade.

1. Open the adjustable blade guide arm 1/2" (13 mm) from full open.
2. Clamp the alignment tool on the blade.
3. Position the tool close to the outer blade guide roller.

NOTE: Be sure the tool does not rest on a tooth or burr, and is lying flat on the blade.

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. Move the carriage so that the **back end** of the tool is positioned above the bed rail.
7. Measure the distance from the bed rail to the bottom edge of the tool.

If the measurement from the tool to the bed rail is not equal within 1/32" (.75 mm), adjust the vertical tilt of the outer blade guide roller.

8. Loosen one set screw at the side of the blade guide assembly. See FIG. 9-8.

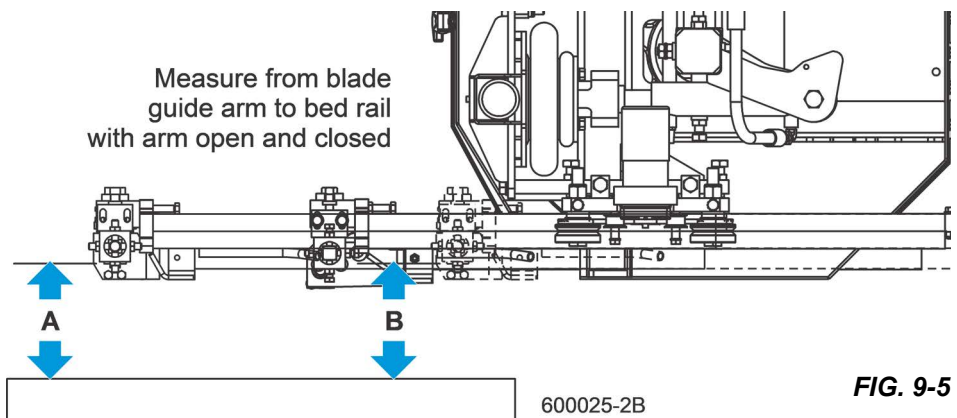


FIG. 9-5

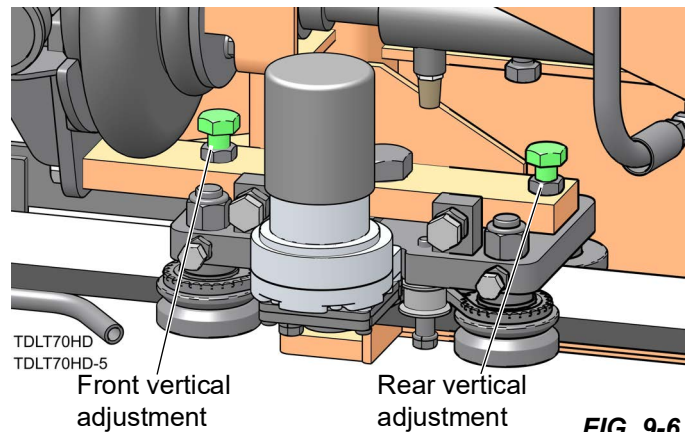


FIG. 9-6

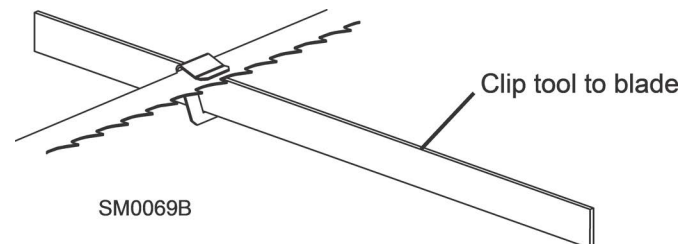


FIG. 9-7

9. Loosen the jam nuts on the top and bottom vertical tilt adjustment screws. See FIG. 9-8.
 - 1). To tilt the roller up, loosen the bottom screw and tighten top screw.
 - 2). To tilt the roller down, loosen the top screw and tighten the bottom screw.
 - 3). Tighten the jam nuts.
 - 4). Recheck the tilt of the blade.
10. Move the blade guide alignment tool close to the inner blade guide roller assembly and repeat the above steps.
11. Adjust the vertical tilt of the inner blade guide if necessary.
12. Recheck the blade deflection and readjust if necessary.

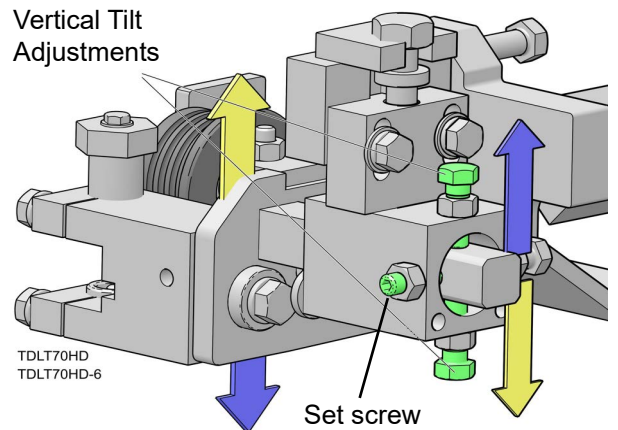


FIG. 9-8

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.

1. Remove the blade guide alignment tool from the blade and adjust the blade guide arm halfway in.
2. Remove the clip from the blade guide alignment tool.
3. Place the tool against the face of the outer blade guide roller.
4. Measure between the back edge of the blade and the tool at the end closest to the inner blade guide ("B").
5. 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' ±1/8" [3 mm]).

6. Loosen the jam nuts on the horizontal tilt adjustment screws.
 - 1). To tilt the roller left, loosen the right screw and tighten left screw.
 - 2). To tilt the roller right, loosen the left screw and tighten the right screw.
 - 3). Tighten the jam nuts.
 - 4). Recheck the tilt of the blade.
 - 5). Repeat the above steps for the inner blade guide roller assembly.

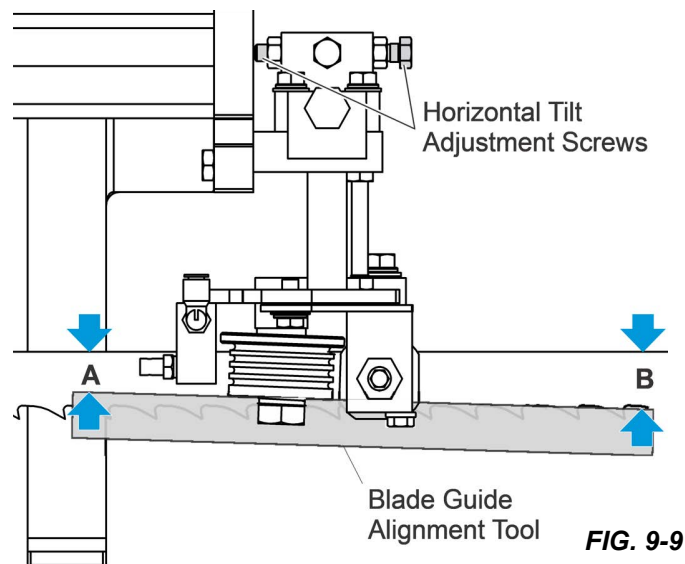


FIG. 9-9

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

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 sawmill will not cut accurately.

HINT: 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.

1. Measure the distance between the flange on the **outer blade guide roller** to the back edge of the blade. See FIG. 9-10.

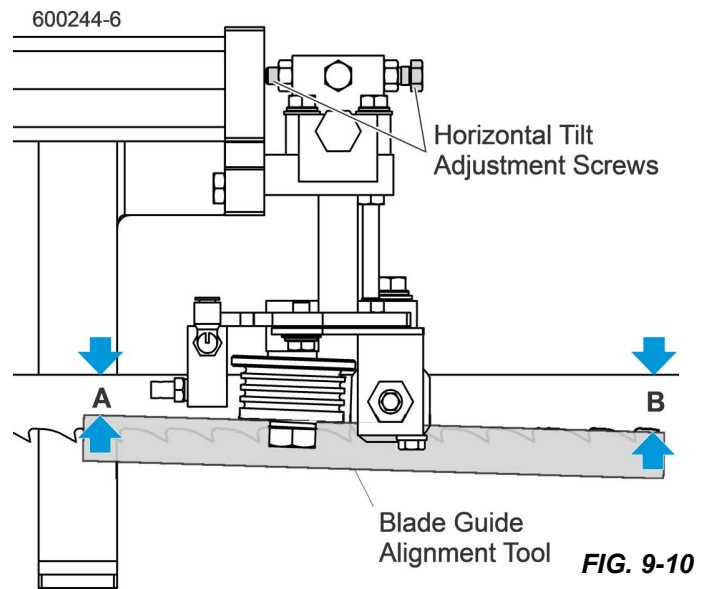
This distance should measure **1/8" (3.0 mm)**.

2. Adjust the roller back or forward if necessary.
 - 1). Loosen the top and one side screw shown.
 - 2). Back the stop bolt out of the way if necessary.
 - 3). Tap the blade guide forward or backward until properly positioned.
 - 4). Retighten the screws and jam nuts.

3. Measure the distance between the flange on the **inner blade guide roller** to the back edge of the blade.

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

4. Adjust the roller back or forward if necessary.



Manual Side Support Alignment

Logs and boards are clamped against the side supports when sawing. The side supports must be square to the bed to ensure square lumber.

1. Swing a side support down and measure between the face of the support and the main bed tube.

The distance at the top of the side support ('B') should be equal to or no more than 1/32" (0.8 mm) greater than the distance at the base of the side support ('A').

2. Adjust the horizontal tilt of the side support if necessary.

- 1). Loosen the two adjustment plate mounting bolts.
- 2). Use a mallet to move the plate until the side support is parallel to the bed tube in the horizontal position.
- 3). Retighten the mounting bolts.

3. Repeat the horizontal check for the remaining side supports.

4. Adjust as necessary.

5. Place square alignment tubes (Part No. S12831 - 2 required) across the bed rails. See FIG. 9-11.

6. Swing a side support up so that it is vertical.

7. Pull back at the top of the support to eliminate slack as if a log were being clamped against it.

8. Place a square against the face of the side support.

The side support should be square or slightly tilted forward 1/32" (0.8 mm).

9. Adjust the vertical tilt of the side support if necessary.

- 1). Loosen the side support mounting bolt.

- 2). Use a 3/8" ratchet to rotate the pin until the side support is square to the bed.

10. Repeat the vertical check for the remaining side supports and adjust as necessary.

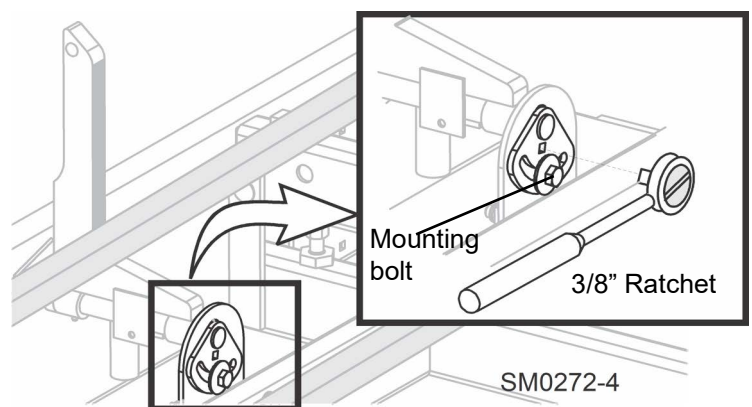
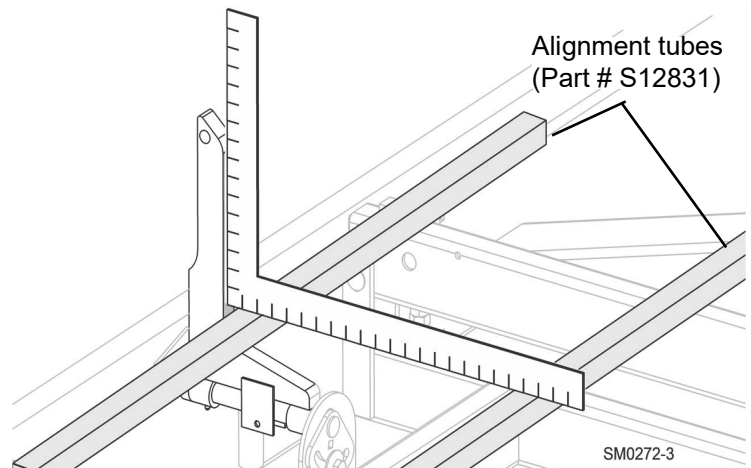
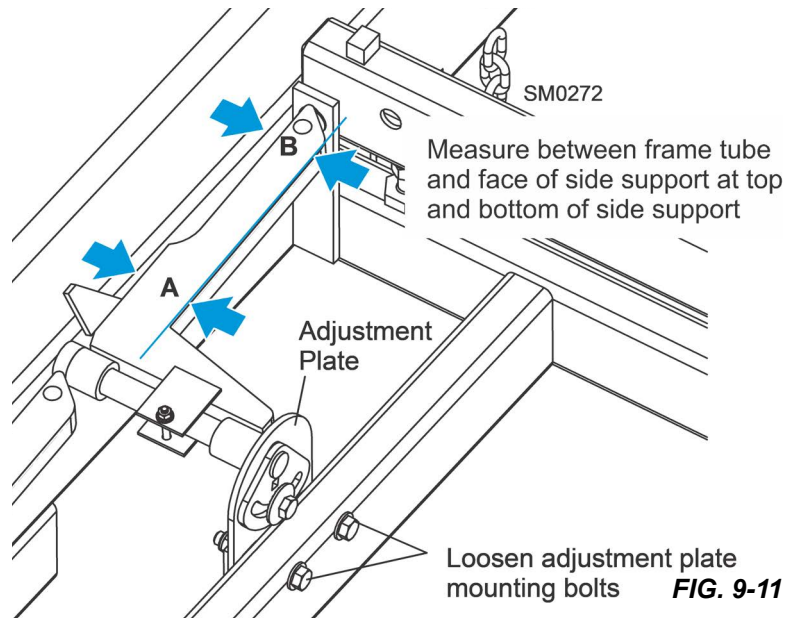


FIG. 9-12

Hydraulic Side Support Alignment

Place the square against the face of the side support. The side support should be square or slightly tilted forward $1/32"$ (0.8 mm).

1. Adjust the vertical tilt of the side support if necessary.
2. Loosen the top jam nut.
3. Adjust the two lower jam nuts up to tilt the side support back.
4. Adjust the two lower jam nuts down to tilt the side support forward.
5. Retighten the top jam nut and repeat for the other hydraulic side support.

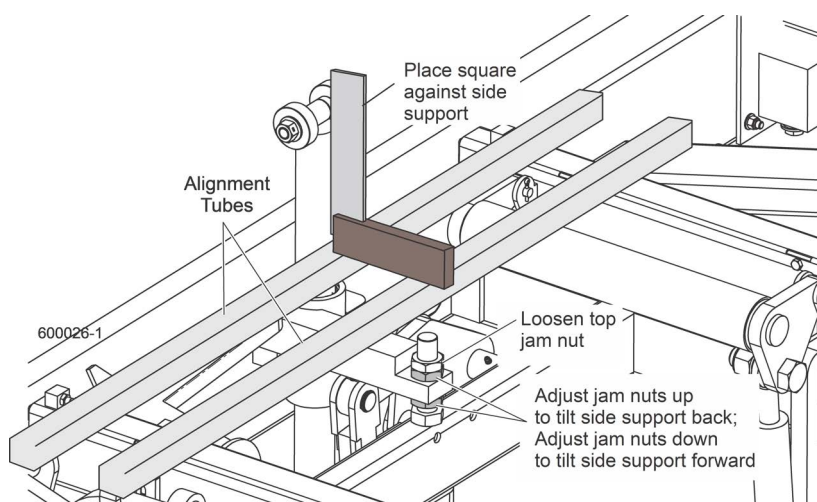


FIG. 9-13

Blade Height Scale Adjustment

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.

1. Move the saw carriage so the blade is positioned directly above one of the bed rails.
2. Measure from the bottom edge on a down-set tooth of the blade to the top of the bed rail, near the inner blade guide assembly.
3. View the blade height scale with eyes level with the indicator.

The scale should indicate the actual distance from the blade to the bed rail.

4. Adjust the indicator if necessary.
 - 1). Loosen the scale bracket mounting bolts.
 - 2). Adjust the bracket up or down until the indicator is aligned with the correct mark on the scale (+0 $-1/32$ [0.8 mm]).
 - 3). Retighten the bracket mounting bolts.

For example, if the measurement from the down-set tooth of the blade to the bed rail was $14 \frac{3}{4}"$ (375 mm), make sure the indicator reads $14 \frac{3}{4}"$ (375 mm) on the scale.

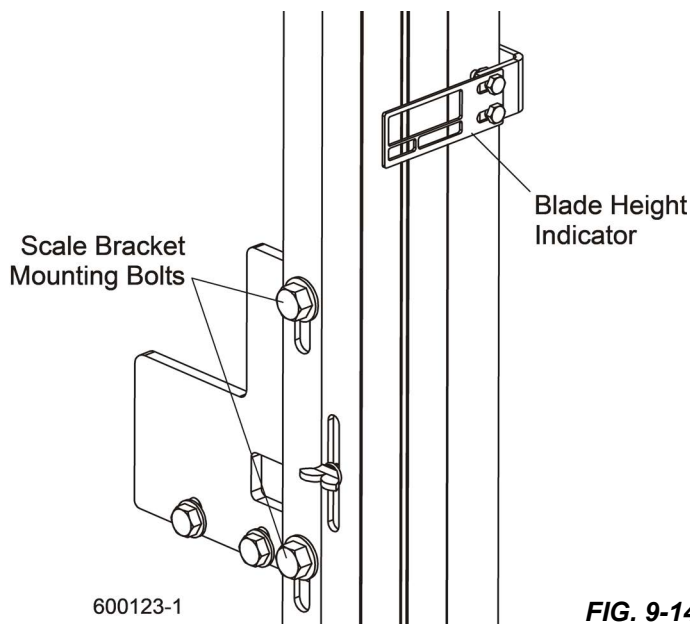


FIG. 9-14

9.2 Complete Alignment Procedure

NOTE: THE PROCEDURES LISTED HERE MUST BE PERFORMED IN THE ORDER THEY APPEAR.

Frame Setup

Before performing the following alignment procedures, setup the mill on firm, level ground.

If your sawmill is stationary, with no trailer axle, shim the feet so the weight of the sawmill is evenly supported.

If your sawmill has a trailer axle and adjustable outriggers, adjust the outriggers as follows:

Adjust the front and third outriggers on the main frame tube down just enough to lift weight from the trailer tire.

All Portable Sawmills: Adjust the two outer outriggers down just so they touch the ground but do not bear weight.

[See SECTION 3](#) for additional setup information.

Blade Installation

1. Remove the blade.
2. Replace the blade wheel belts.

New blade wheel belts are required to perform the Complete Alignment procedure.

3. Blow sawdust off of the blade guide assemblies.
4. Remove sawdust from the blade housings.
5. Remove the blade guide assemblies.

NOTE: The Blade guide will be reinstalled later in the Complete Alignment. To remove the blade guide assemblies and maintain the tilt adjustments, only loosen one side screw and the top screw. Leaving the other side screw and bottom screw in position will insure you will return the rollers to their original tilt adjustment.

6. Adjust the outer blade guide arm in or out until the outer blade guide is approximately 24" from the inner blade guide.
7. Install a new blade and apply the appropriate tension ([See Section 3.4](#)).
8. Close the blade housing covers and make sure all persons are clear of the saw head.
9. Start the engine (or motor).
10. Engage the blade, rotating the blade 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.

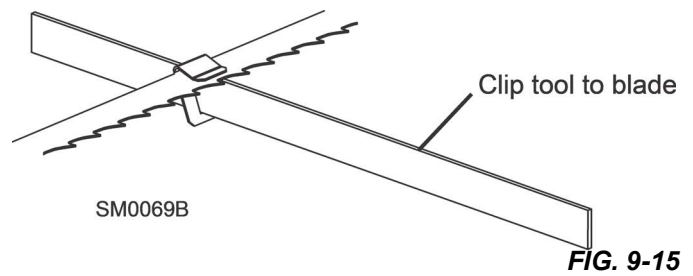
11. Disengage the blade.
12. Turn the engine off and remove the key.

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.

1. Use the blade guide alignment tool to check the vertical alignment of each blade wheel.
2. Attach the tool to the blade near the inner blade guide mount. See FIG. 9-15.

3. Be sure the tool does not rest on a tooth or burr, and is lying flat against the bottom of the blade.
4. Move the saw carriage so the front end of the tool is positioned over the first bed rail.
5. Measure from the bottom of the tool to the top surface of the bed rail.
6. 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.

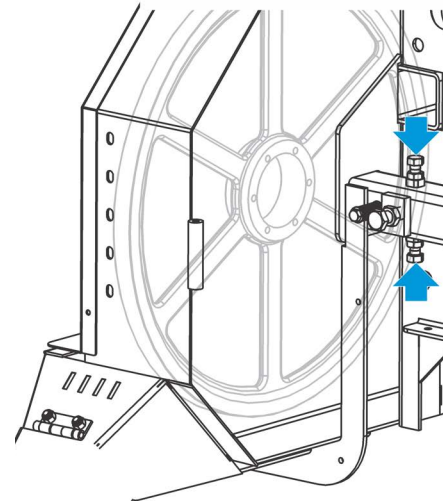


7. If the two measurements differ by more than 1/16" (1.5 mm), adjust the vertical tilt of the drive-side blade wheel.

- 1). Use the vertical adjustment screws to adjust the drive-side blade wheel.
- 2). To tilt the wheel **down**, loosen the **top** adjustment screw one quarter turn.
- 3). Loosen the jam nut on the bottom adjustment screw and tighten the screw.
- 4). Tighten the top and bottom jam nuts.
- 5). To tilt the wheel **up**, loosen the **bottom** adjustment screw one quarter turn.
- 6). Loosen the jam nut on the top adjustment screw and tighten the screw.
- 7). Tighten the top and bottom jam nuts.

8. Recheck the vertical tilt of the drive-side blade wheel with the blade guide alignment tool.
9. 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]).
10. Remove the tool from the blade and reattach it near the outer blade guide assembly.
11. Measure from the tool to the bed rail at both ends of the tool.

Adjust vertical adjustment screws up to tilt drive-side blade wheel down;
Adjust screws down to tilt wheel up



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.

12. Use the vertical adjustment screws to adjust the idle-side blade wheel.
 - 1). To tilt the wheel up, loosen the bottom adjustment screw one quarter turn.
 - 2). Loosen the jam nut on the top adjustment screw and tighten the screw.
 - 3). Tighten the top and bottom jam nuts.
 - 4). To tilt the wheel down, loosen the top adjustment screw one quarter turn.
 - 5). Loosen the jam nut on the bottom adjustment screw and tighten the screw.
 - 6). Tighten the top and bottom jam nuts.
13. Recheck the vertical tilt of the idle-side blade wheel with the blade guide alignment tool.
14. 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]).
15. Check the position of the blade on the idle-side blade wheel.

Adjust vertical adjustment screws up to tilt idle-side blade wheel down; Adjust screws down to tilt wheel up

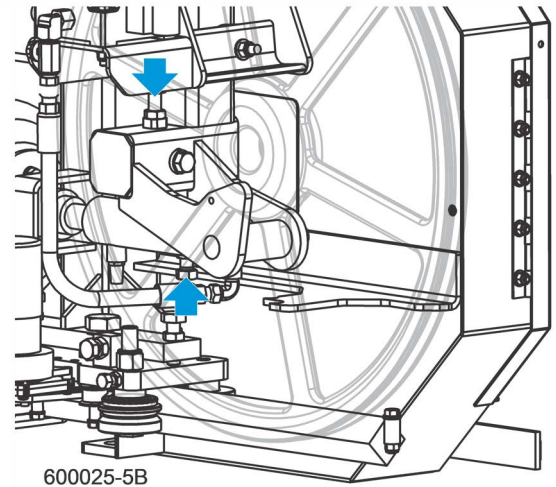


FIG. 9-17

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 ($\pm 1/16$ [1.5 mm]).

The gullet of an 1-1/2" blade should be 3/16" (4.5 mm) out from the front edge of the wheel ($\pm 1/16$ [1.5 mm]).

Do not let the teeth ride on the wheels.

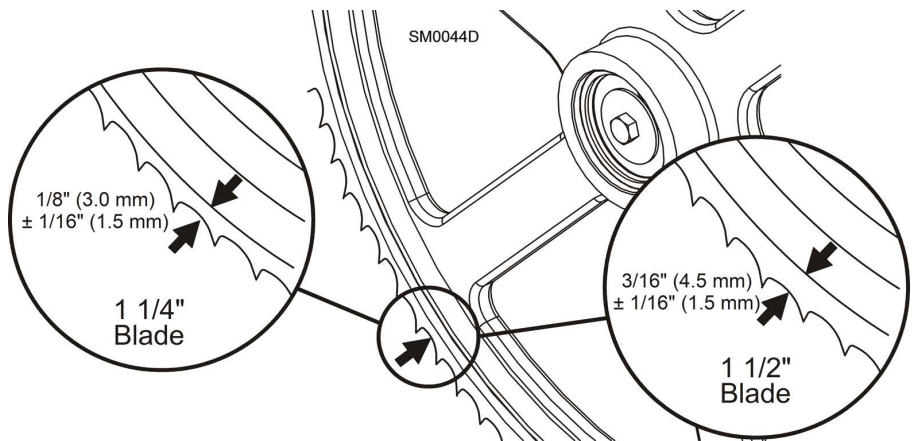


FIG. 9-18

16. Use the cant control adjustment to adjust the idle-side blade wheel. See FIG. 9-19.

If the blade is too far forward on the wheel, turn the cant control counterclockwise.

If it is too far back on the wheel, turn the cant control clockwise.

17. 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.

18. Adjust the drive-side blade wheel if necessary.
19. Use the horizontal adjustment screw to adjust the drive-side blade wheel.
20. Loosen the top vertical screw to allow movement of the drive shaft.

Turn cant control clockwise to move blade out on wheel; counterclockwise to move blade back on wheel

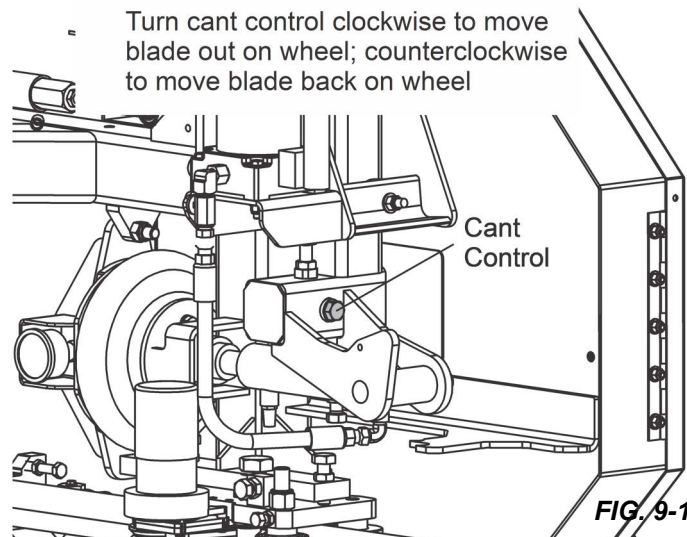


FIG. 9-19

21. To move the blade **back on the wheel**, loosen the jam nut and turn the horizontal adjustment screw clockwise one quarter turn. See FIG. 7-22.
22. To move the blade **out on the wheel**, loosen the jam nut and turn the horizontal adjustment screw counterclockwise one quarter turn.
23. Repeat adjustments in quarter-turn increments until the blade tracks properly on the drive-side blade wheel.
24. Tighten the horizontal adjustment screw jam nut and the top vertical screw.

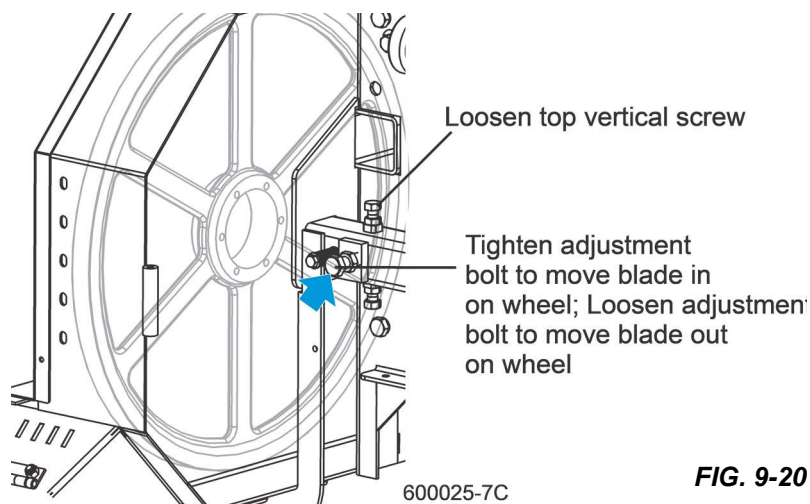


FIG. 9-20

Track Roller Adjustment

Making these adjustments correctly will insure the saw carriage travels smoothly along the track and blade will remain parallel with the bed frame.

LOWER ROLLERS

1. Using the feed controls, move the saw carriage so that the blade is positioned over the front pivot end rail.
2. Check the lower track rollers.

The rear rollers should touch the rail so that you cannot spin them by hand. If the rollers are not adjusted evenly and you can spin one by hand, use the adjustment bolts to adjust the roller.

3. Loosen the four retaining plate bolts. See FIG. 9-21.
4. Back out the stop bolt and jam nut. See FIG. 9-22.
5. Tighten the adjustment bolt to move the track roller(s) toward the rail.
6. When the roller touches the rail so you cannot spin it by hand, retighten the stop bolt.

NOTE: Do not to tighten the rollers so they cause the carriage to bind as it travels down the track.

7. Tighten the jam nut.
8. Replace the retaining plate and tighten the bolts.

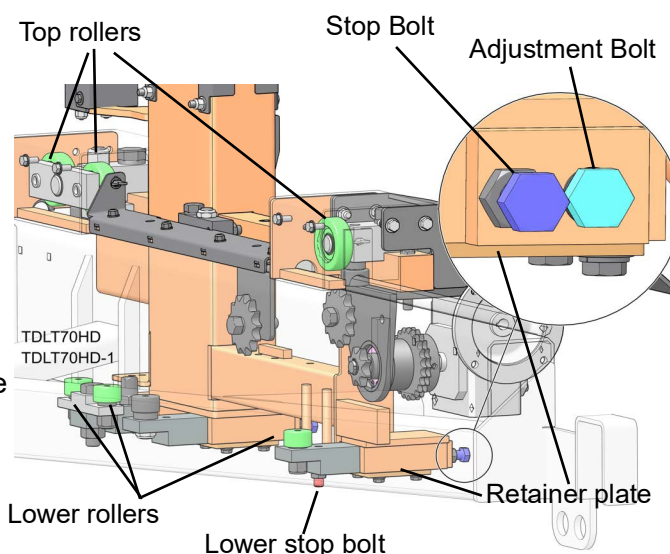


FIG. 9-21

UPPER ROLLERS

1. Remove the cover plates to observe the middle upper and lower track rollers as you move the saw carriage down the track. See FIG. 9-21. .

The middle rollers should touch the rail throughout most of the saw carriage travel.

2. If the rollers do not spin at least half the distance of the track, tighten them as described above.

Saw Head Tilt

1. Open the adjustable blade guide arm to within 1/2" (15 mm) of full open.
2. Move the carriage back to the front pivot end rail.

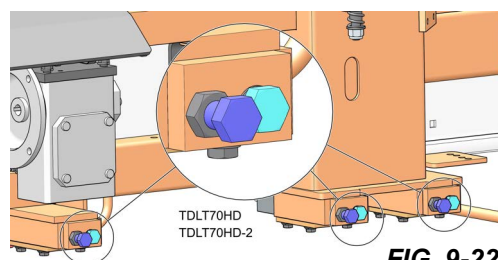


FIG. 9-22

3. Raise the saw head until the bottom of the blade is 17" (400 mm) above the outside of the pivot rail support by actual measurement with a tape or ruler.
4. Move the carriage forward to check the distance to the blade at the inside of the pivot rail support. See FIG. 9-23.

All measurements should be within +/- 1/32" (0.8 mm).

5. To adjust the saw head tilt, use the bolts located at the bottom of the saw head mast/track rollers. See FIG. 9-22.
6. Loosen the three sets of four retaining plate bolts.

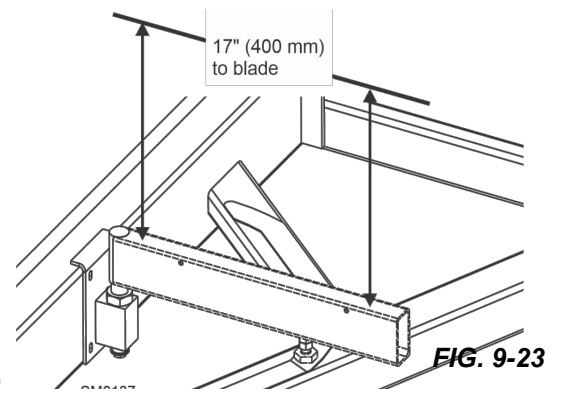


FIG. 9-23

- 1). To raise the outside of the saw head, back the stop bolts out, then tighten the adjustment bolts.
 - 2). To lower the outside of the saw head, loosen the adjustment bolts and tighten the stop bolts.
7. Recheck the saw head tilt and readjust the bolts as necessary.
 8. Retighten the retaining plate bolts.
 9. After the lower track rollers are adjusted properly, adjust lower stop screws. See FIG. 9-21.
 10. Tighten each screw until it just touches the rail.
 11. Back the screw off 1/2 turn.
 12. The gap will be approximately 1/32" (0.8mm).



CAUTION! It is important that the lower stop bolts are properly adjusted to secure the carriage on the track rail. Failure to properly adjust the stop bolts can cause saw head damage, especially during mill transportation.

Bed Rail Adjustment

1. Move the clamp so it is 10" (254mm) from the clamp stop.
2. Adjust the clamp down to its lowest position.
3. Move the saw head forward until it is positioned over the clamp.
4. Raise the saw head until the blade measures 15 5/16" (385 mm) from the clamp at its lowest position.
5. Adjust the front pivot rail 90° to the main bed tube.
6. Move the saw head to center the blade over the front pivot bed rail.
7. Measure the distance from the top of the pivot rail to the bottom of the blade. Make this measurement at each end of the pivot rail.

The two measurements should be 15" (375 mm).

8. Loosen the locking set screws and turn the inner height adjustment nut to adjust the height of the inner end of the pivot rail.
9. Loosen the jam nut and turn the outer adjustment bolt to adjust the height of the outer end of the pivot rail.
10. Move the saw head so the blade is positioned over the center of the front main bed rail.
11. Measure the distance between the bottom of the blade and the bed rail at each end of the bed rail.

The bed rail should measure 15" (375 mm) from the blade at each end of the rail.

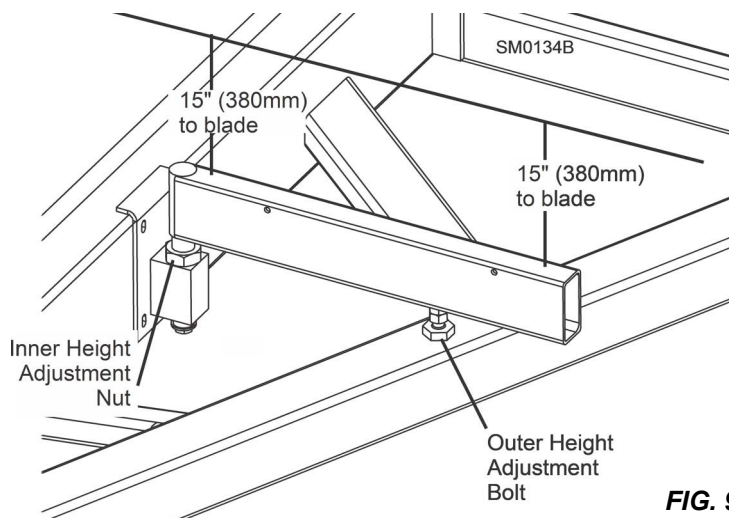


FIG. 9-24

12. Loosen the bed rail clamping bolts and turn the adjustment bolts to move the bed rails to the blade if necessary.
13. Retighten the clamping bolts and adjustment bolt jam nuts.
14. Without adjusting the saw head height, check the three remaining main bed rails and the rear pivot rail.
15. Adjust them so that all measure the same distance from the blade at both ends of the bed rail.

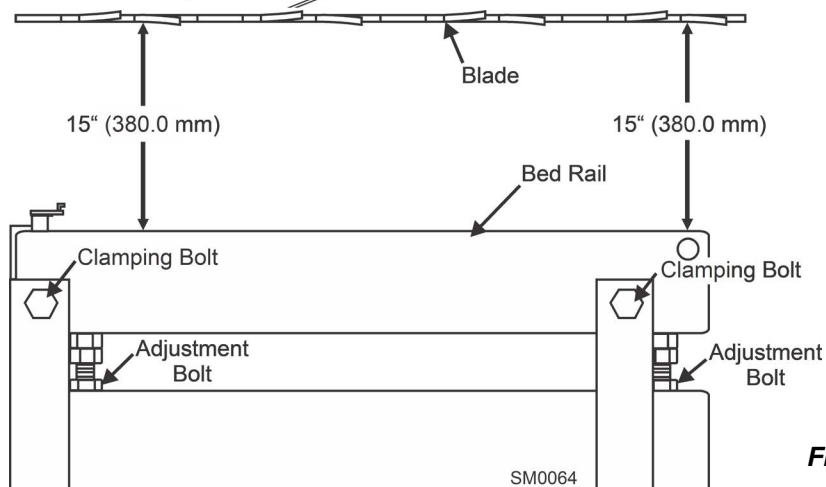


FIG. 9-25

Blade Guide Installation

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.

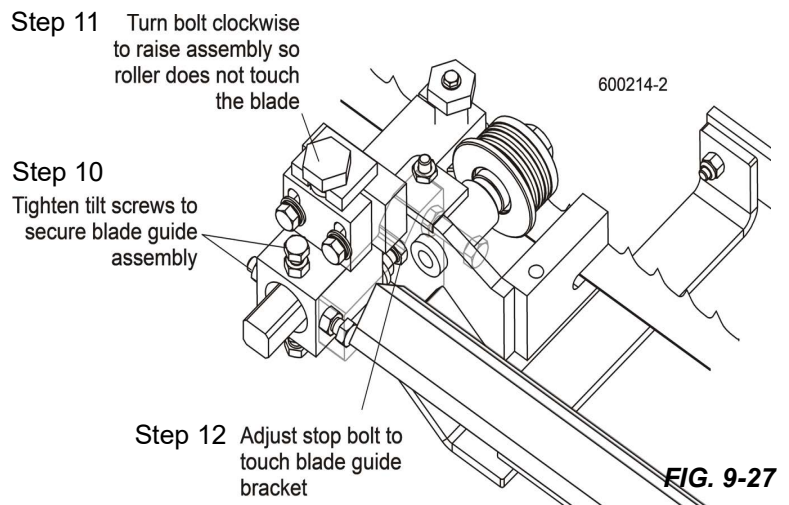
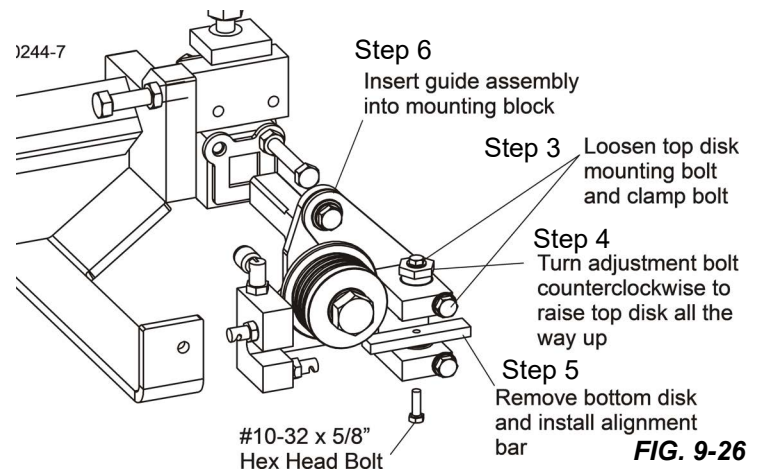
The other blade guide assembly is mounted on the idle side of the saw head. It is referred to as the "outer" assembly and is adjustable for various widths of materials to be processed.

NOTE: Before installing the blade guide assemblies, remove the blade guide adjusting screws and apply a lubricating oil such as 10W30 or Dexron III to each screw. This will prevent the screws and threaded holes from corroding and make screw adjustments easier.

1. Inspect the guide blocks and repair or replace as necessary.
2. Remove the blade from the sawmill.
3. Loosen the top block clamp bolt and mounting bolt. See FIG. 9-26.
4. Turn the adjustment bolt counterclockwise to raise the top block all the way up.
5. Remove the bottom guide block disc from each blade guide assembly and install the provided alignment bar.
6. Install each blade guide assembly to the mounting blocks and push all the way back.
7. Install, tension and track a new blade.
8. Adjust the outer blade guide assembly so the roller flange is 1/8" from the back of the blade.
9. Adjust the inner blade guide assembly so the roller flange is 1/16" from the blade.
10. Tighten the two previously-loosened tilt adjustment screws to secure the blade guide assembly.
11. Turn the top adjustment bolt clockwise to raise the blade guide assembly so the roller does not contact the blade.

NOTE: Before adjusting the top bolt, unload pressure on the bolt by turning 1/2 turn in the opposite direction it was last adjusted.

12. With the roller flange positioned properly from the back of the blade, adjust the stop bolt so it touches the blade guide bracket.



Blade Guide Arm Alignment

Perform [Blade Guide Arm Alignment](#) from the Routine Alignment at this point.

Blade Guide Deflection

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

- Turn the top adjustment bolt counterclockwise to lower the assembly until the blade guide roller deflects the blade down until the bottom of the blade measures 14 3/4" (370 mm) from the bed rail. See FIG. 9-28.

NOTE: Before adjusting the top bolt, unload pressure on the bolt by turning 1/2 turn in the opposite direction it was last adjusted.

- Repeat for the other blade guide.

Blade Guide Vertical Tilt Alignment

Perform [Blade Guide Vertical Tilt Alignment](#) from the Routine Alignment at this point.

Blade Guide Horizontal Tilt Adjustment

Perform [Blade Guide Horizontal Tilt Adjustment](#) from the Routine Alignment at this point.

Blade Guide Flange Spacing

Perform [Blade Guide Flange Spacing](#) from the Routine Alignment at this point.

Blade Guide Level

Perform the following adjustments to make sure the blade guide assembly is parallel to the blade.

- Loosen the alignment bar mounting bolt.
- Use the bottom block adjustment tool to adjust the alignment bar up so the bar is close to, *but not touching* the bottom of the blade.
- Retighten the alignment bar mounting bolt.
- Check that the gap from the alignment bar to the blade is the same along entire length of the bar.
- Shine a flashlight behind the blade guide assembly to help you see the gap between the bar and the blade.

- To adjust, turn the tilt adjustment jam nuts to pivot the block assembly until the alignment bar is parallel to the blade.
- Retighten the jam nuts.
- Repeat for the second blade guide assembly.

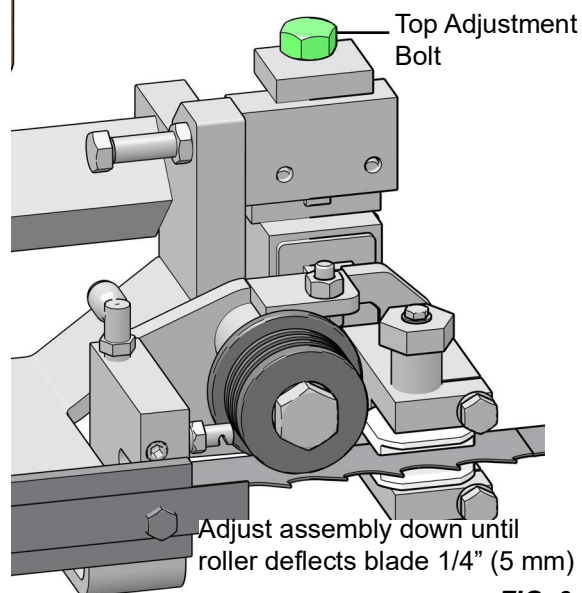
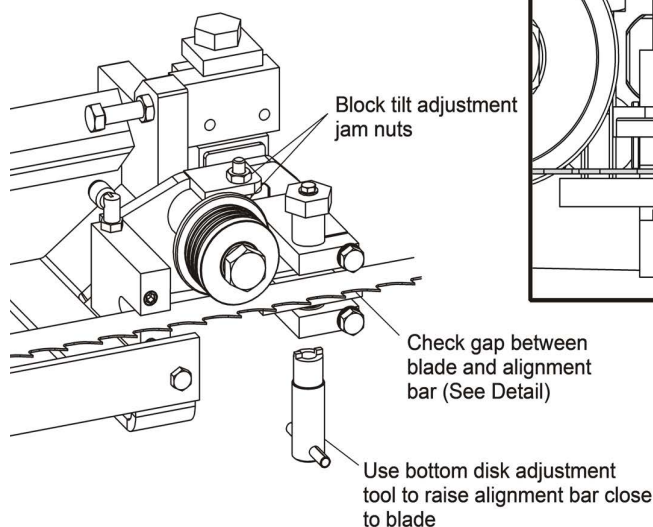


FIG. 9-28



600214-3

FIG. 9-29

Blade Block Adjustment

1. Remove the blade and remove the alignment bars from the blade guide assemblies.
2. Install new or reconditioned bottom guide blocks to both blade guide assemblies (leave mounting bolts loose).
3. Use the provided bottom block adjustment tool to lower the bottom block all the way down.
4. Install, tension and track the blade.
5. Use the bottom block adjustment tool to raise the bottom block to 0.008" - 0.010" (0.2-0.25mm) from the blade.
6. Use the provided shim to set the distance from the block to the blade.
7. Tighten the bottom block mounting bolt and clamp bolt.
8. Turn the top block adjustment bolt clockwise to lower the top block to 0.008" - 0.010" (0.2-0.25mm) from the blade (using the shim as a guide).
9. Tighten the top block mounting bolt and clamp bolt.
10. After tightening the clamp bolt, recheck the distance from the top block to the blade and readjust if necessary.

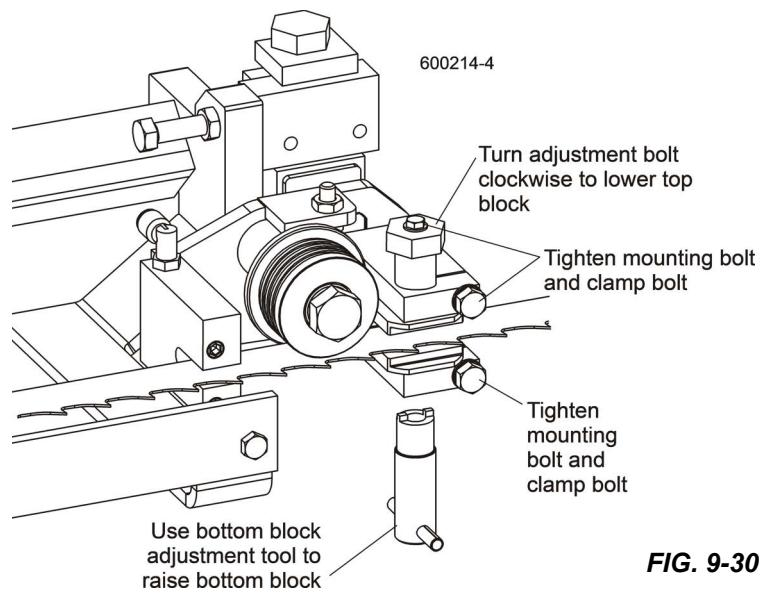


FIG. 9-30

Manual Side Support Alignment

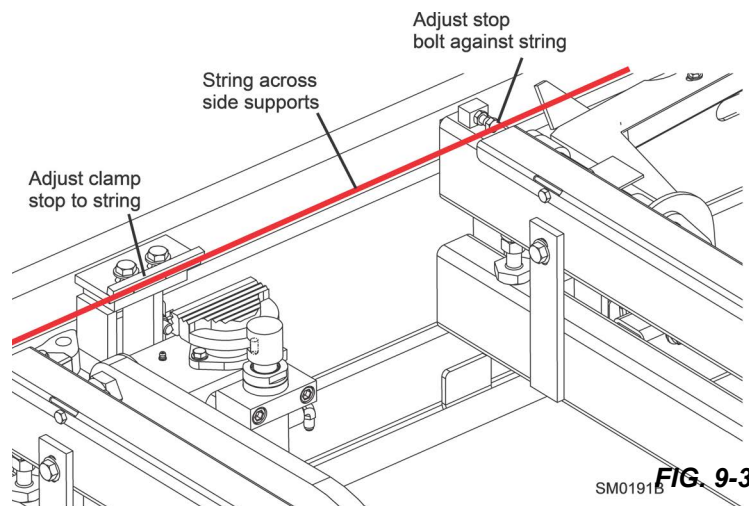
Perform [Manual Side Support Alignment](#) from the Routine Alignment at this point.

Hydraulic Side Support Alignment

Perform [Hydraulic Side Support Alignment](#) from the Routine Alignment at this point.

Clamp Stop/Stop Bolt Adjustment

1. Once the side supports are aligned, pivot them down to their horizontal position.
2. Tie a string to the stop block at the first bed rail.
3. Stretch the string toward the rear of the frame and tie to the stop block at the last bed rail.
4. Loosen the clamp stop bolts and adjust the clamp stop until it touches the string.
5. Loosen the jam nut and adjust the bolt on the middle-rear bed rail until it touches the string.



SM01915 FIG. 9-31

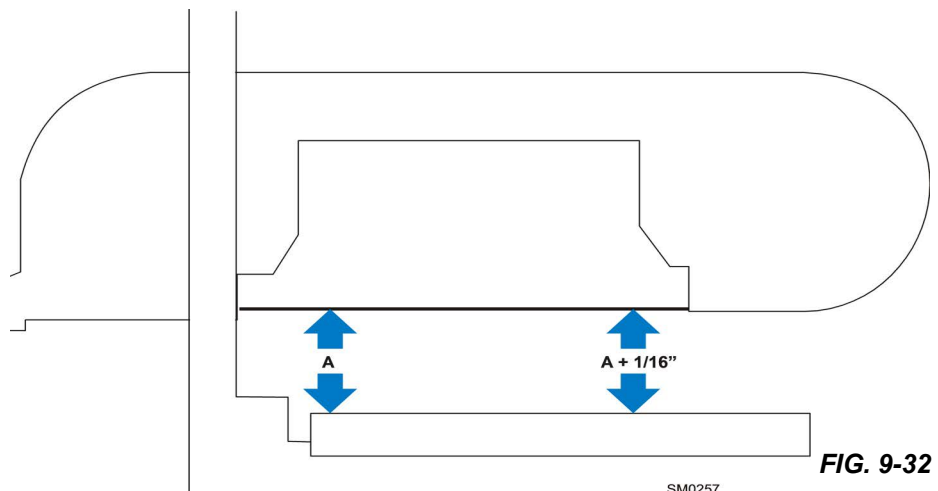
Saw Head Tilt

As the blade enters a wide log or cant, the outside of the saw head will drop down slightly. To compensate for the drop, the saw head is adjusted 1/16" (1.5 mm) higher at the outside.

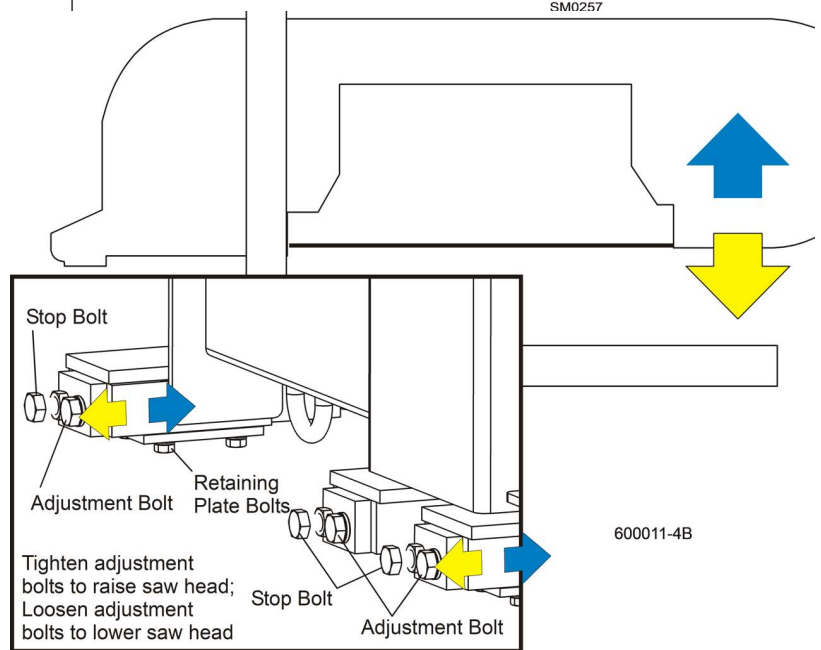
1. Move the saw carriage so the blade is positioned over a bed rail.
2. Adjust the blade guide arm to 1/2" (13 mm) from full open.

The saw head should still be adjusted so the blade is 14 3/4" (375 mm) above the bed rails. See FIG. 9-28.

3. Measure from the blade to the bed rail near the outer blade guide assembly.

**FIG. 9-32**

- 1). To adjust the saw head tilt, use the bolts located at the bottom of the saw head mast.
- 2). Loosen the three sets of four retaining plate bolts.
- 3). To raise the outside of the saw head, back the stop bolts out, then tighten the adjustment bolts.
- 4). To lower the outside of the saw head, loosen the adjustment bolts and tighten the stop bolts.
- 5). Recheck the measurement from the blade to the bed rails.
- 6). Adjust the stop bolts and adjustment bolts until the outside of the saw head is 1/16" higher than the inside.
- 7). Retighten the retaining plate bolts.

**DETAIL OF LOWER TRACK ROLLER ASSEMBLY****FIG. 9-33**

Blade Height Scale Adjustment

Perform [Blade Height Scale Adjustment](#) from the Routine Alignment at this point.

9.3 Debarker Alignment



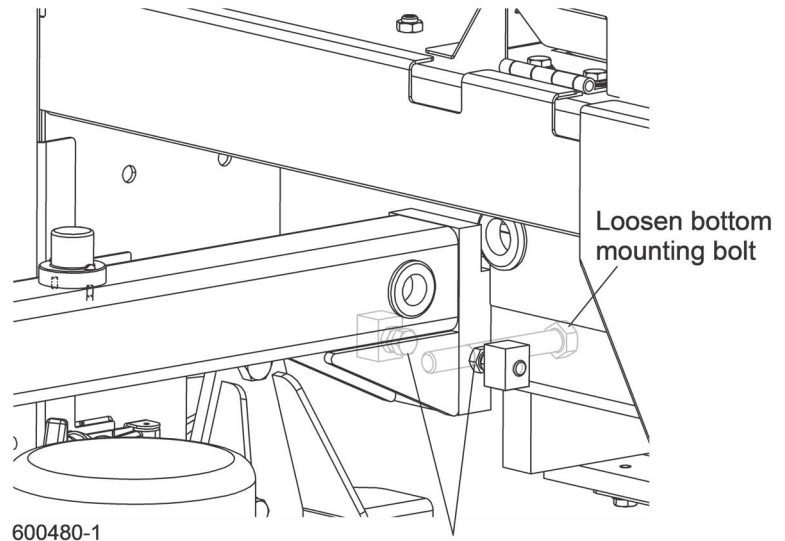
DANGER! Before performing any service to this equipment, turn the key to the OFF (0) position and remove the key. Failure to do so will result in serious injury or death.

The debarker blade should be aligned to the sawmill blade to insure proper operation. The debarker blade should be parallel with and aligned vertically with the sawmill blade.

1. Turn the key to ACC (3) and use the debarker in/out switch to move the debarker all the way in.
2. Turn the key to OFF (0) and remove the key.

This prevents the debarker from being turned on while performing alignment procedures.

3. Check the squareness of the debarker with the sawmill blade.
4. Adjust the debarker mounts if necessary until the debarker is square with the sawmill blade.
 - 1). Loosen the bottom debarker mounting bolt.
 - 2). Loosen the jam nuts on the adjustment bolts.
 - 3). Turn the adjustment bolts as necessary until the debarker is square with the sawmill blade.
 - 4). Retighten the jam nuts and bottom debarker mounting bolt.



Loosen jam nuts and adjust bolts to square debarker with sawmill blade

FIG. 9-34

5. Clip the blade guide alignment tool to the sawmill blade.
6. Ensure the tool lies flat on the blade and does not contact a tooth that could cause it to angle.
7. Check the height of the debarker blade against the alignment tool.

The bottom edge of the tool should align with the center of the debarker blade.

8. Insert the key and use the debarker in/out switch to move the debarker all the way out.
9. Turn the key to OFF (0) and remove the key.
10. Move the blade guide alignment tool on the sawmill blade and check the position of the debarker blade against the tool.

If the debarker blade is not centered with the tool, readjust the debarker mounting bolts to adjust the debarker assembly parallel to the blade.

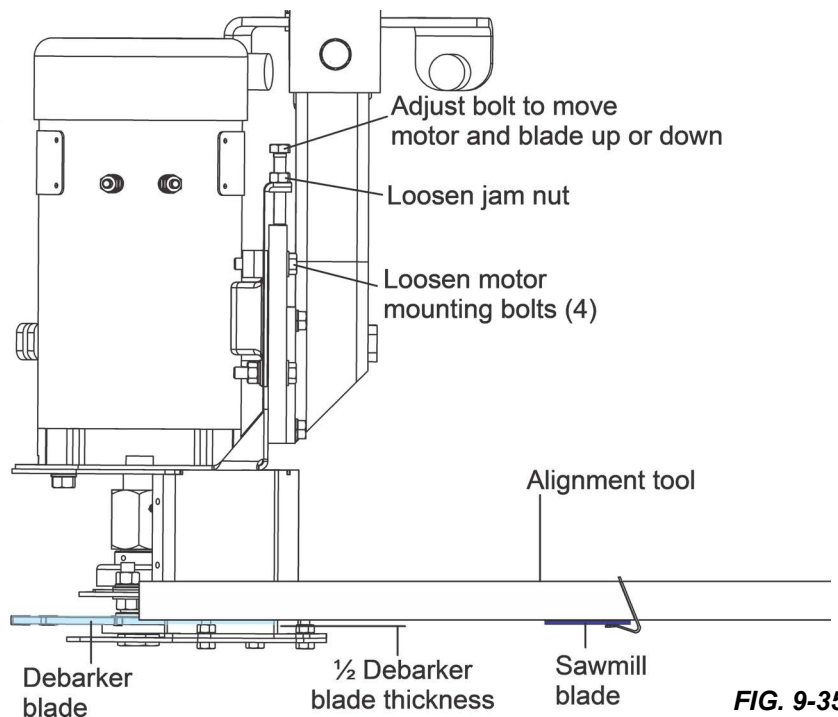


FIG. 9-35

10.2 Hydraulic Components

| ID | Wood-Mizer Part.# | Description |
|---------------|-------------------|---|
| C1 | 017275 | Hyd. Cylinder, 3" Bore X 7" Stroke |
| C2 | 015050 | Hyd. Cylinder, 1 1/2" Bore X 10" Stroke |
| C3 | 034267 | Hyd. Cylinder, 2" Bore x 10" Stroke |
| C4 | 034736 | Hyd. Cylinder, 2 1/2" Bore X 6" Stroke |
| C5, C6 | 014482 | Hyd. Cylinder, 1 1/2" Bore x 6" Stroke |
| C7, C8 | 042754 | Hyd. Cylinder, 3" Bore X 8" Stroke |
| F1 | P20301 | Filter, Hydraulic Fluid Cartridge |
| G1 | P10052 | Gauge, 5000 PSI Hydraulic |
| P1, P2 | P12701 | Hydraulic Pump, With Motor (DC) |
| P3 | 038963 | Hyd. Pump/Tank/Motor (230/460 AC) |
| | 034794 | Hydraulic Pump/Tank/Motor (575VAC) |
| V1 | 034451 | Valve, 7-Section Hydraulic |
| V2, V3 | 015484 | Sequence Valve, 700 psi |
| V4, V5 | 038734 | Valve, Hydraulic 6.5GPM Velocity Fuse |
| M1, M2 | 052807 | Motor, Iskra Hydraulic Pump (DC) |
| M3 | 007331 | Motor, Hydraulic Log Turner Chain |

TABLE 10-0

10.3 Hydraulic Hoses

| ID | Color Code | LENGTH "A" | Application | HOSE PART # |
|-----|------------|---------------|---|-------------|
| H1 | Purple | 219" | 1/4" Rear Toe Board Top | 018026 |
| H2 | Black | 219" | 1/4" Rear Toe Board Base | 018026 |
| H3 | Yellow | 117" | 1/4" Front Toe Board Top | P12542 |
| H4 | Gray | 117" | 1/4" Front Toe Board Base | P12542 |
| H5 | Green | 204" | 1/4" Clamp Up/Down Top | 014792 |
| H6 | Yellow | 193" | 1/4" Clamp Up/Down Base | 015692 |
| H7 | Red | 178" | 3/8" Loading Arm Base | 048291 |
| H8 | Blue | 178" | 3/8" Loading Arm Top | 048291 |
| H9 | Orange | 65" | 3/8" Side Support Base | 048292 |
| H10 | Plain | 73" | 3/8" Side Support Top | 048293 |
| H11 | Orange | 177" | 3/8" Clamp In/Out Base | 048295 |
| H12 | White | 151" | 3/8" Clamp In/Out Top | 048297 |
| H13 | Green | 38" | 3/8" Loading Arm Branch Top | 006875 |
| H14 | Green | 77" | 3/8" Loading Arm Branch Top | 048298 |
| H15 | Yellow | 81" | 3/8" Loading Arm Branch Base | 048299 |
| H16 | Yellow | 43" | 3/8" Loading Arm Branch Base | 048300 |
| H17 | Plain | 181" | 3/8" Log Turner Base | 048294 |
| H18 | Pink | 181" | 3/8" Log Turner Top | 048294 |
| H19 | Purple | 177" | 3/8" Log Turner Motor (Nearest Frame) | 006723 |
| H20 | Black | 180" | 3/8" Log Turner Motor (Furthest from Frame) | 006724 |
| H21 | Plain | 15" | 1/4" Pump To Valve (two hoses) | 057964 |
| H22 | Plain | 6 1/2" | 3/8" Gauge To Valve | 036303 |

TABLE 10-0