## **MB200 Slabmizer**

# Safety, Operation, Maintenance, & Parts Manual

**MB200** 

rev. A1.00

### Safety is our #1 concern!

Form #2396

#### **MODELS AFFECTED:**

MB200EA3U MB200EA3UAF MB200EA3UW MB200EA3UWAF



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

SECTION	N 1 INTRODUCTION	
1.1	About This Manual1	-1
1.2	Getting Service1	
1.3	Specifications1	
- 1.0	~ <b>F</b> ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	_
SECTION	N 2 GENERAL SAFETY	
2.1	Safety Symbols2-	-1
2.2	Safety Instructions2	-1
2.3	Electrical Lockout Procedures2	-2
2.4	Safety Labels Description2-	-3
SECTION	N 3 SLAB FLATTENER ASSEMBLY	
3.1	Uncrating the Slab Flattener3-	-1
3.2	Assemble the Bed Sections	
3.3	Install the Side Rails	
3.4	Install the Leg Assembly	
3.5	Install The Head Stops	
3.6	Install The Clamps	
3.7	Leg Adjustment	
3.8	Install the Gantry	
3.9	Install the Head Retainers	
3.10	Install the Feed Chain	
	N 4 SLAB FLATTENER SETUP  Bed Frame Setup4-	1
4.1 4.2	Electrical Installation	
4.2	Vacuum Hose Hookup	
4.3 4.4	•	
4.4	Sanding Head4	-0
SECTION	N 5 SLAB FLATTENER OPERATION	
5.1	Turning on Slab Flattener5-	-1
5.2	Power Feed5-	-1
5.3	Cross Feed5-	-2
5.4	Head Up & Down5	<b>-</b> 3
5.5	Start and Stop Cutter Head5	-4
5.6	Manual Operation5	-5
5.7	Sanding5	-8
5.8	Auto feed Operation5-	-8
SECTION	N 6 MAINTENANCE	
6.1	Rails, Chains and Rollers6	5-1
6.2		
	Cross Feed Rope6	-1
6.3	Cross Feed Rope6. Head Up & Down Threads6.	

## Table of Contents Section-Page

### **SECTION 7 TROUBLESHOOTING GUIDE**

1	SI	Ĉ.	$C^r$	Г	T	n	N	Ī	8	S	T	. 4	4	R	2	R	T	 Δ.	T	רי	ΓÏ	E.	N	П	R.	R	Δ	T	.1	1	7	N	T	N	1	H	1	J	T	

8.1	Routine Alignment Procedure	.8-
8.2	Complete Alignment Procedure	.8-

4 WM doc 10/5/22 Table of Contents

### Wood-Mizer<sup>®</sup> LLC Limited Product Warranty



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

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

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

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

#### **Design Changes**

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

#### **Rights of Purchasers**

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

#### Interpretations

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



### **SECTION 1 INTRODUCTION**

#### 1.1 About This Manual

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

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

### 1.2 Getting Service

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

### 1.3 Specifications

#### Power

3HP Electric 1-Phase 220V, 30A (Power Requirement: 1-Phase, 240V, 30A)

### **Material Capacities**

Min. Material Width: 0" or 3" if not clamped between larger material

Max. Material Width: 56" (72" Optional)

Min. Material Thickness: 1/2" Max. Material Thickness: 8" Min. Material Length: 22"

Max. Material Length: 13' or longer with Optional 5' Extensions

#### **Cutter Motor**

Cutter Head: 5" with Five 4-Sided Carbide Knives (15mm x 15mm x 2.5mm - R150)

Sanding Head: 7" Orbital with Hook/Loop Paper

Cutter Head Motor: 3HP, 3-Phase, Electric (converted to 1-Phase for operation)

Cutter Head Auto Feed: Optional on X and Y Axis

Cutter Head Speed: 5,500 RPM

Feed Motor: Motor, 1/6HP 90RPM 230V 3HP 19:1 Gear

#### **Machine Dimensions**

Machine Length: 182"
Machine Width: 65"

Table Height: 30" - 33" Adjustable with 8 Leveling Legs

Max. Machine Height: 71"

Dust Collection Port: 3-1/2" Diameter

CFM Rating of 600CFM

### **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 each use**. 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 cutter



Wear respiratory protection when cutting woods that require it. (It is up to the operator to know which woods require respiratory protection.

#### **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 the equipment.



**WARNING!** Be sure the cutter housing and pulley covers are in place and secure.

#### **KEEP PERSONS AWAY**



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

Ensure the cutter is disengaged and all persons are clear of the cutter head before starting the engine or motor.

#### **KEEP HANDS AWAY**



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

Disengage the cutter and shut off the equipment motor before changing the cutter.

Keep hands, feet, and other objects away from cutter guards when operating slab flattener.



**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 cutter head.

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 cutter head by hand as it may result in serious injury.

#### **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 MACHINE AND SURROUNDING AREA CLEAN



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

Do not allow children in the area of the equipment.

#### DISPOSE OF WOOD BY-PRODUCTS PROPERLY

**NOTICE** Properly dispose of all wood byproducts, including sawdust, chips, and other debris.

# USE CAUTION WHEN WORKING WITH HEAVY SLABS



**WARNING!** Always make sure slab is clamped securely before cutting.

#### 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
- Cléaning
- 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
- Electrocution
- Serious injury and death
- Amputation
- Burn
- Shock

#### TO CONTROL MAINTENANCE DANGERS:

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

#### **EQUIPMENT LOCKOUT PROCEDURE**

Lockout procedures per OSHA regulation 1910.147, appendix A:

#### **GENERAL**

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

#### **PURPOSE**

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

#### **COMPLIANCE WITH THIS PROGRAM**

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

#### **SEQUENCE OF LOCKOUT**

- 1. Notify all affected personnel that servicing or maintenance is required on a machine or equipment and that the machine or equipment must be shut down and locked out to perform the servicing or maintenance.
- 2. The authorized employee shall refer to the company procedure to identify the type and magnitude of the energy that the machine or equipment utilizes, shall understand the hazards of the energy, and shall know the methods to control the energy.
- 3. If the machine or equipment is operating, shut it down by the normal stopping procedure (depress the stop button, open switch, close valve, etc.).
- **4.** De-activate the energy isolating device(s) so that the machine or equipment is isolated from the energy source(s).
- Lock out the energy isolating device(s) with assigned individual lock(s).
- **6.** Stored or residual energy (such as that in capacitors, springs, elevated machine members, rotating fly-

wheels, hydraulic systems, and air, gas, steam, or water pressure, etc.) must be dissipated or restrained by methods such as grounding, repositioning, 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.

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

**NOTE:** The removal of some forms of blocking may require re-enervation of the machine before safe removal.

Notify affected personnel that the servicing or maintenance is completed and the machine or equipment is ready for use.

# PROCEDURE INVOLVING MORE THAN ONE PERSON

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

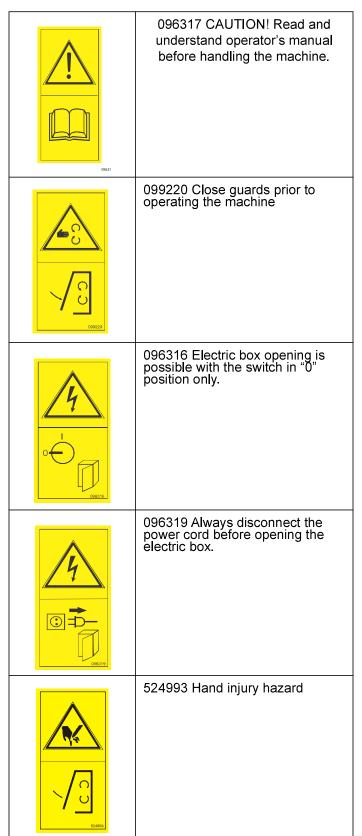
### 2.4 Safety Labels Description

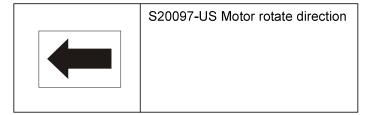
See table below for safety labels description.

TABLE 2-1

Label View	Description
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TABLE 2-1 TABLE 2-1



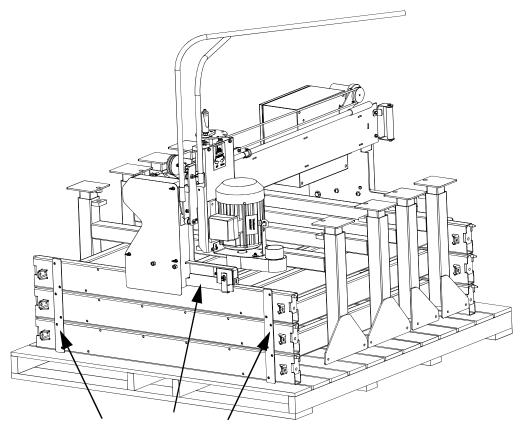


### **SECTION 3 SLAB FLATTENER ASSEMBLY**

**NOTICE!** Slab Flattener Assembly should be done on flat, level ground. As shipping brackets and straps are removed, bed pieces may slide.

### 3.1 Uncrating the Slab Flattener

- 1. Disassemble any shipping straps and brackets from the bed sections before beginning.
- 2. Remove bed sections from shipping skid.



Remove retaining straps. Keep hardware securing the straps; it will be reused in the assembly.

FIG. 3-1

- **3.** Open the parts box and spread the parts for easy visibility.
- **4.** Ensure all the parts are present.

REF	PART#	DESCRIPTION	QTY.
		PACKING LIST, MB200 SURFACE slab flattener	
1		Control Box Key	1
2		Control Box Switch Key	1
3		13mm Wrench	1
4		19mm Wrench	1
5		4mm Allen Key	1
6		6mm Allen Key	1
7		Cutter Head Box with T20 T Handle Wrench	1
8	127139	SANDING HEAD	1
9	127140	Head, Sanding Pad 7"	1
10	127141	Balance, Sanding	1
11	127142	Stud, Sanding	1
12	127199	Bolt, M5x10 Flat Head	1
13	127200	Bolt, M5x18 Socket Head	2
14	P10688	Bearing, R6-2NSL	2
15		Sandpaper, 40, 80, 180, 3 of each	1
16		Chain Assembly	2
17	127012	CLAMP ASSEMBLY, MB200	4
18	F05010-132	Nut, M8-1.25 Nylock	4
19	127173	Plate, Clamp	4
20	F05021-19	Bolt, M8-1.25x75 HH	4
21	127175	Bolt, 5/16-18x5 Carriage	8
22	127176	Nut, 5/16-18 Knob	8
23	127174	Clamp, Strap	4
24	127093	Stand	1
25	127163	Tube, Vacuum Hose Arm	1
26	127167	Rail, Long	10
27	127169	Rail, Short	4
28	127168	Plate, End Stop	4
29	127155	Clip Chain Retainer	4
30	F05011-134	Washer, M10	4
31	F05004-97	Bolt, M10-1.5x35mm HH Zinc	4
32	F05022-15	Bolt, M10-1.5x70 HH (52 Bolts Total - 28 Bolts on Shipping Brackets = 24)	24
33	F05023-10	Bolt, M12-1.75x110 HH	8
34	F05004-270	Nut, M10-1.5 Hex Nylock (52 Nuts Total - 28 Nuts on Shipping Brackets = 24)	24
35	F05010-209	Nut, M12x1.75 Hex Nylock Zinc	8
36	127165	Plate, Cover Roller	2
37	127180	Plate, Head Keeper	4

### 3.2 Assemble the Bed Sections

1. Carefully set the gantry to the side.

**NOTE:** Do not damage cam followers.

- 2. Lay the bed sections end-to-end so the side rail bolt holes are at the top off each section.
- **3.** Slide the sections together and secure with four M12-110mm hex head bolts and M12 nylon lock nuts.

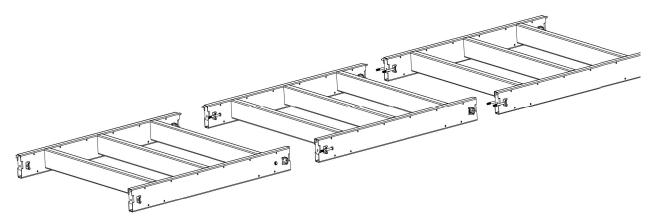


FIG. 3-2

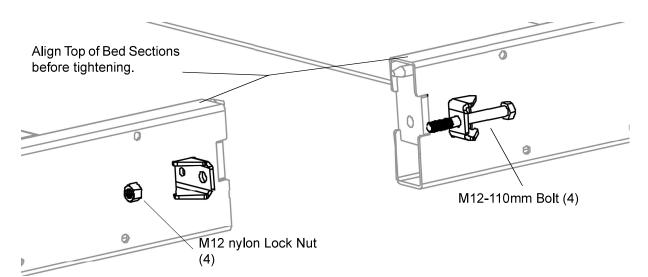


FIG. 3-3

NOTE: Make sure the top surfaces of the outer side of the bed sections are aligned. It may be necessary to pry one bed section up or down until the surfaces are aligned, then tighten the bolts.

Slab Flattener Assembly WM doc 10/5/22 3-3

Make sure the top surface of each section are flush, then tighten the fasteners completely.

### 3.3 Install the Side Rails

- 1. Next install the side rails to the assembled bed sections.
- 2. Using the M10-70mm Hex Head Bolts and M10 Nylon Lock Washers to fasten the side rails to the bed section. There are two layers per side.
- 3. From one end of the bed section install the first layer of side rail strips in this order Short Strip Long Strip Short Strip

  The second Layer of side rails should be Long Strip Long Strip Long Strip
- **4.** Repeat this for both sides of the bed sections.

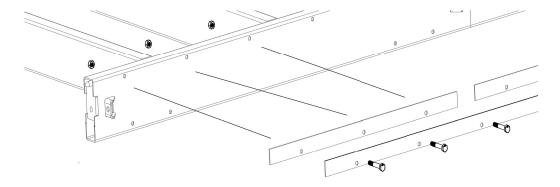


FIG. 3-4

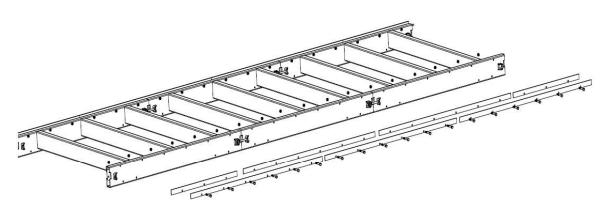


FIG. 3-5

### 3.4 Install the Leg Assembly

**1.** Attach the Leg Assemblies to the Bed Sections as shown in Figure 3-6 using the provided M10-70mm Hex Head Bolts and M10 Nylon Lock Washers.

Note: The Leg assemblies have a left and right assembly as well as the center leg assemblies. (Notice the Brackets). As shown Below.

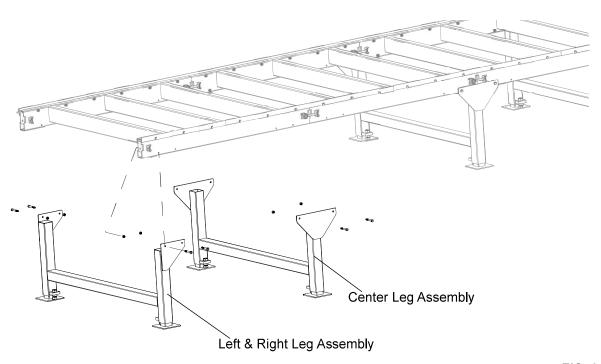
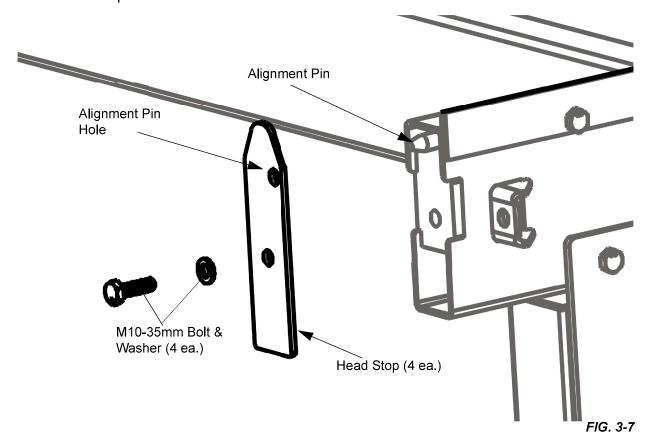


FIG. 3-6

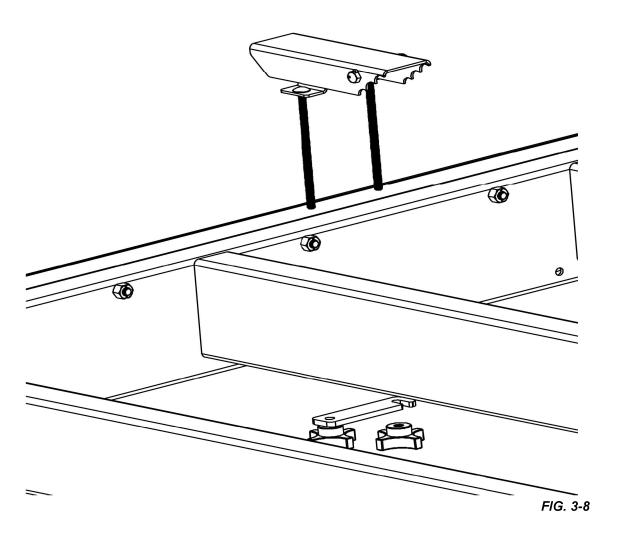
### 3.5 Install The Head Stops

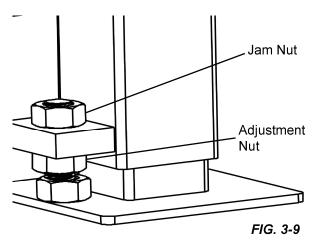
- 1. Once the Leg Assemblies are attached to the bed section, next install the Head Stops at each end of the bed section (4 Stops total) See Figure 3-7 for reference.
- Make sure the Head Stop's alignment hole is positioned correctly then secure each stop with (1) M10-35mm Hex Head Bolt and M10 Washer as shown. Repeat this for all four End Stops.



### 3.6 Install The Clamps

- 1. The Slab Flattener includes (4) Clamp assemblies for securing material to the bed. These clamps ride along the cross rails of the bed section and are secured from underneath using the clamp bracket plate and (2) star knobs for each clamp. See FIGURE 3-8
- 2. Position the clamps to best secure the slab being finished.





### 3.7Leg Adjustment

**1.**The bed section leveling will be discussed thoroughly in the Setup section of the manual. The legs are adjusted by loosening the upper jam nut and adjust leg height by tightening or loosening the lower adjustment nut. See FIGURE 3-9

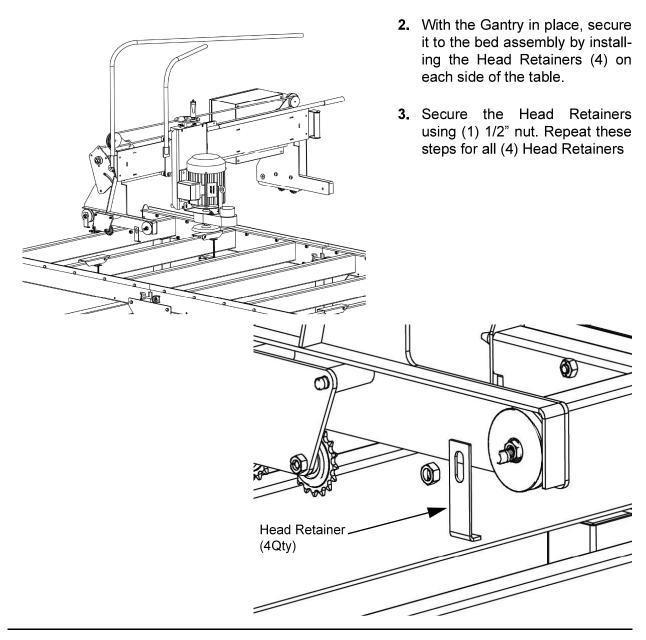
### 3.8 Install the Gantry



**WARNING!** Use a fork lift, crane, or other lifting device to remove the gantry from the packing crate. Failure to follow this may result in serious injury or death.

**1.** Place the Gantry onto the assembled bed section. Use care when mounting the gantry to avoid damage.

### 3.9 Install the Head Retainers

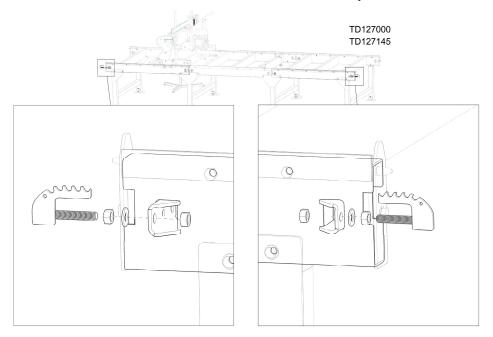


3-8 WM doc 10/5/22 Slab Flattener Assembly

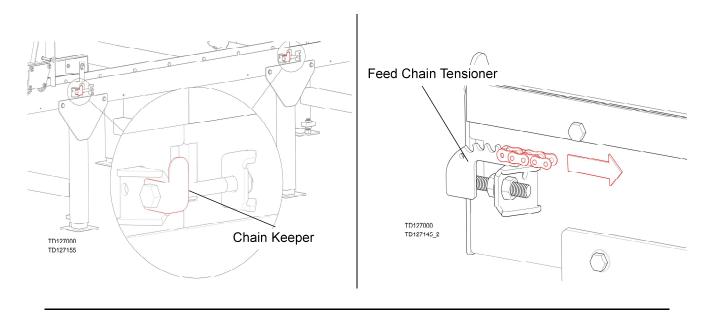
### 3.10 Install the Feed Chain

#### **INSTALLATION**

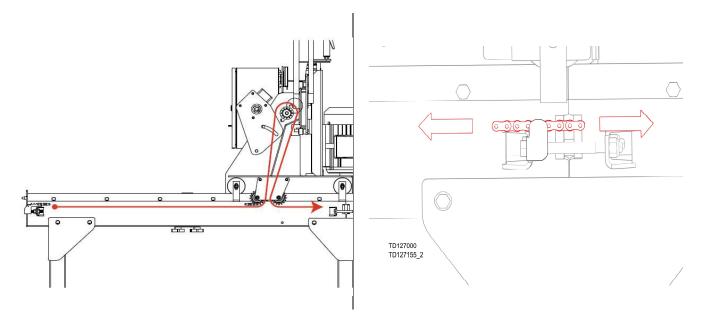
1. Install Feed Chain Tensioner on each end of bed assembly, oriented as shown.



- 2. Install Chain Keepers on bed assembly as shown in left-hand image below.
- 3. Connect Feed Chain to Feed Chain Tensioner located at end of bed assembly.



- 4. Route Feed Chain under idler sprockets and over drive sprockets as shown.
- 5. Place chain on top of brackets and inside Chain Keepers.



- **6.** Connect the other end of the feed chain to the Feed Chain Tensioner at the opposite end of the table assembly.
- 7. Repeat Steps 1-3 on the opposite side of Table and Gantry.

#### **TENSIONING**

1. Use nuts on chain tensioners to tighten chain.

**NOTE**: Do not over tighten tensioners. They will bend.

Brackets and keepers keep chain from sagging.

As chains are tensioned, do not put gantry or head in a bind.

- **2.** Measure from gantry to end stops on each side of bed assembly.
- **3.** Adjust tension until they are equal distance.

### **SECTION 4 SLAB FLATTENER SETUP**

### 4.1 Bed Frame Setup

The following setup procedure should be performed whenever the slab flattener is moved or reassembled. If surfacing problems occur and misalignment is suspected, <u>See SEC-TION 8</u> for complete alignment instructions. <u>See SECTION 3</u> for slab flattener assembly instructions.



**DANGER!** Do not use a gas engine indoors. Failure to follow this will result in serious injury or death.

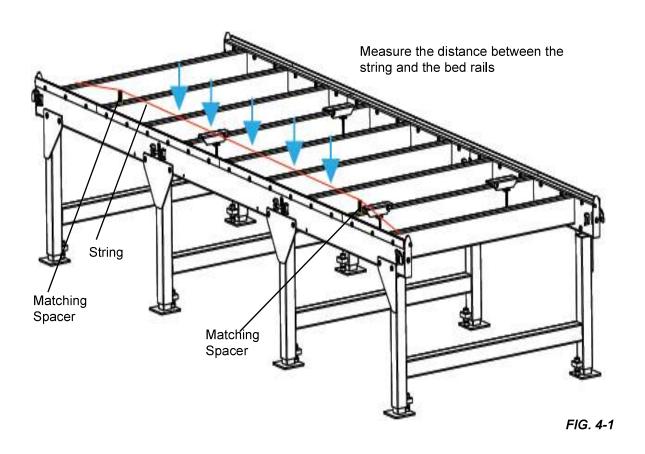
**NOTICE!** Set up conditions include:

- Set up the slab flattener on firm, level ground and level the slab flattener.
- Use a sawdust collection system when operating under roof or indoors (electric only).

**NOTE**: Additional bed sections (MB200BS) can also be purchased separately to extend the board length capacity.

#### **ADJUSTING THE BED**

- **1.** Adjust the frame legs so the slab flattener appears level; use shims under the legs, if necessary.
- 2. Run a string from the front bed rail to the rear bed rail near the operator's side of the frame. <u>See FIG. 4-1</u>
- 3. Place **IDENTICAL** matching spacers between the string and the front and rear bed rails.
- **4.** Measure the distance between the string and the other bed rails.
- **5.** Adjust the frame legs until all bed rails measure the same distance from the string.



**6.** Repeat the bed rail adjustment with the string at the other side of the slab flattener frame.

### **LEG ADJUSTMENT**

**7.** The legs are adjusted by loosening the upper jam nut and adjust leg height by tightening or loosening the lower adjustment nut. See Figure 4-2.

4-2

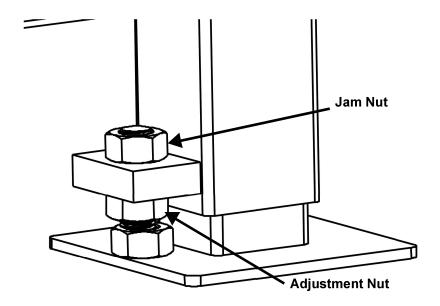


FIG. 4-2

### 4.2 Electrical Installation

**NOTICE!** This information is provided so that you may have your site prepared for installation of your electric slab flattener. In order to properly install your slab flattener, you need to:

- 1. Prepare a firm, level area where the slab flattener can be operated. There should be enough room around the slab flattener for operators, sawdust removal, material loading and board removal.
- 2. Have a qualified electrician install the power supply before receipt of your slab flattener. The power supply must meet the enclosed specifications concerning wire size, fused disconnect, and voltage. The electrical installation must also meet local codes.
- **3.** Be sure the power supply cables are properly secured. Secure the power supply cables in the provided power cord boom system.
- **4.** Have a qualified electrician present when the slab flattener is to be installed. All relevant motor specifications and wiring information is provided. When scheduling an electrician for the day of installation, please confirm that they have enough of the proper size cable (wiring). Many electricians may not stock the cable, which could seriously delay installation and training.

# 4 Electrical Installation

#### **ELECTRIC WIRING**



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



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

**See Table 3.** All electrical installation must meet local electrical codes. Install a fused disconnect switch within sight of the machine. The disconnect must be equipped with Class J fuses. Fuse size will be determined by the conductor wire size, but must be at least as large as the full-load amperage of the machine (See Below). Fuses supplied in the slab flattener electrical control are sized for short-circuit protection only.

Model	Full Load Amperage						
MB200EA3U	30A						

TABLE 3

- 1. Route the incoming power supply to the main electrical control cabinet.
- **2.** Punch a hole in the box and route the cable through the box.

**NOTE:** The hole for incoming power can be located on the right side of the top of the box or near the top of the right side of the box.

- **3.** Secure the cable properly.
- **4.** Connect to cable wires to the power disconnect in the Lower-right corner of the cabinet.
- **5.** Connect the ground wire to a panel mount stud.

4-4 WM doc 10/5/22

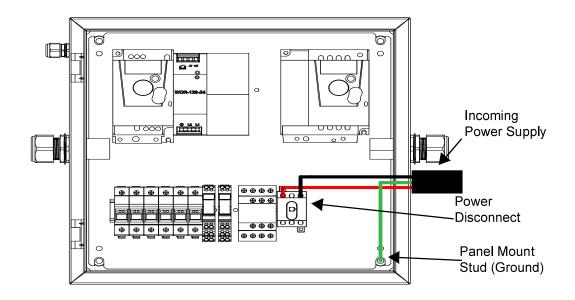


FIG. 4-3

See Table 4. This table lists the specifications for the slab flattener blade motor.

*NOTE:* The MB200 runs on 1PH power. The control cabinet contains a drive which converts 1PH to 3PH only for the motor.

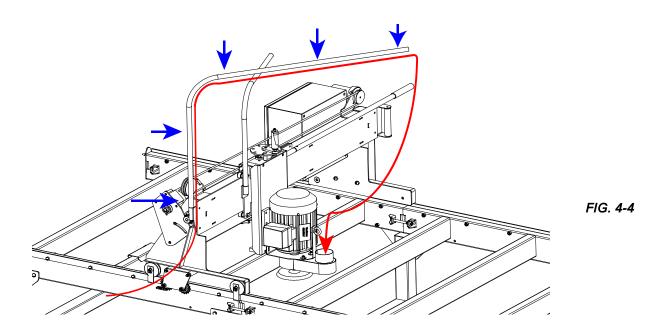
Electric Blade Motor Specifications	MB200EA3U
Horsepower	3
RPM	4300
Volts	240
Full-Load Amps	30
SF	1.25
NOM EFF	86.5
Frame	182E
Design	В
AMB	40° C
INS	F3
PH	3
ENCL	TEFC
Code	K

TABLE 4

### 4.3 Vacuum Hose Hookup

IF INSTALLING A DUST COLLECTION SYSTEM TO THE SLAB FLATTENER, THE HOSE MUST BE PROPERLY SECURED TO PREVENT INTERFERENCE WITH THE MACHINE OPERATION.

- 1. Route the vacuum hose to the Vacuum Hose Arm.
- **2.** Secure the hose using appropriately sized hose clamps or zip ties. (Minimum 5 locations as shown in Figure 4-4).



### 4.4 Sanding Head

- **1.** Fit the Orbital Balance onto the retaining washer.
- 2. Insert the (2) M5x18 SH Bolts. Tighten the two bolts with the 4mm hex wrench. as shown in Figure 4-5.
- 3. Thread the Sanding Pad onto the Sanding Stud using the 19mm wrench.



**CAUTION:** Ensure the Orbital Head is fully seated to prevent cross threading of the bolts.

4-6 WM doc 10/5/22

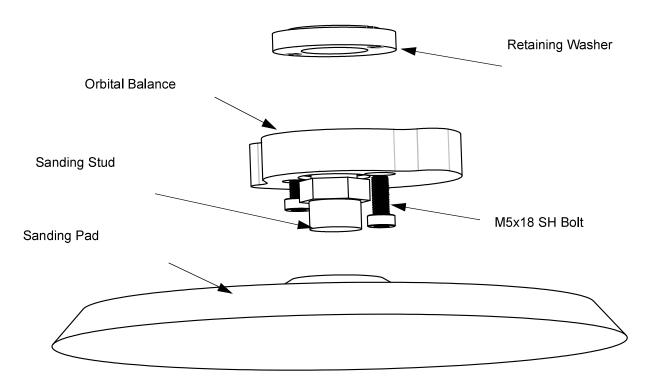
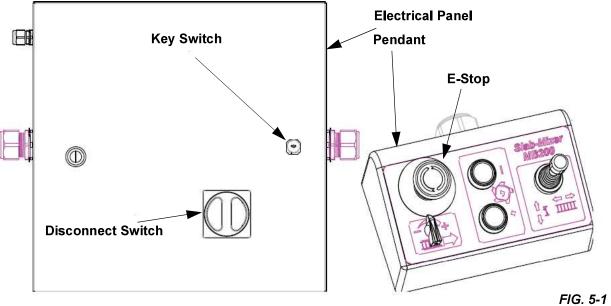


FIG. 4-5

### **SECTION 5 SLAB FLATTENER OPERATION**

### 5.1 Turning on Slab Flattener

- 1. Turn Disconnect Switch to ON position.
- **2.** Turn the Key Switch located on the unit's Electrical panel to the ON Position.
- **3.** Disengage the E-Stop located on the unit's Pendant with a clockwise twist. When Disengaged the E-Stop will unlock and the knob will pop outwards.



### 5.2 Power Feed

# THE SLAB FLATTENER'S POWER FEED IS CONTROLLED BY THE PENDANT. (AUTOMATIC OPERATION)

**1.** Use the Joystick (Left - Right) motion to control Power Feed movement.

The Power Feed speed can be controlled by the Variable Speed Control on the pendant.

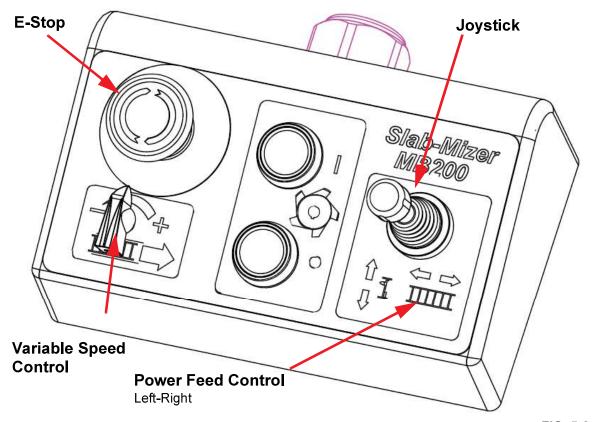


FIG. 5-2

### 5.3 Cross Feed

# THE SLAB FLATTENER'S CROSS FEED IS CONTROLLED BY THE PENDANT. (AUTOMATIC OPERATION)

**1.** Use the Joystick (Up-Down) motion to control Cross Feed movement.

The Cross Feed speed <u>cannot</u> be controlled by the variable speed control on the pendant. It has a set Feed rate.

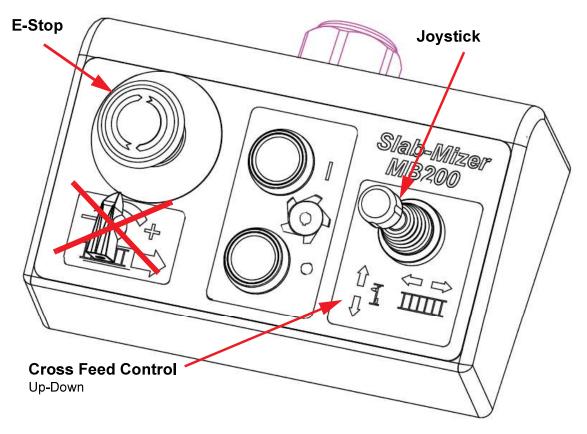


FIG. 5-3

### 5.4 Head Up & Down

THE CUTTER HEAD UP & DOWN MOTION IS CONTROLLED MANUALLY BY THE HAND TURNING WHEEL LOCATED ON THE TOP OF THE GANTRY.

- **1.** Turn the hand-wheel clockwise to lower the head.
- **2.** Turn the hand-wheel counter-clockwise to raise the head.

**NOTE:** The Cutter Head height can be adjusted by increments of 1/64" with the positive stops located on the turning wheel.

3. Squeeze the handle to unlock the Turning wheel to make height adjustments.

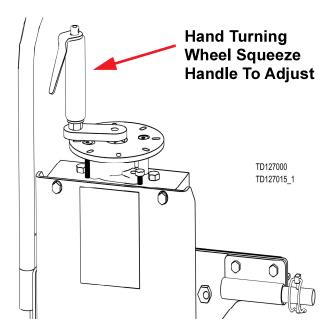


FIG. 5-4

### 5.5 Start and Stop Cutter Head

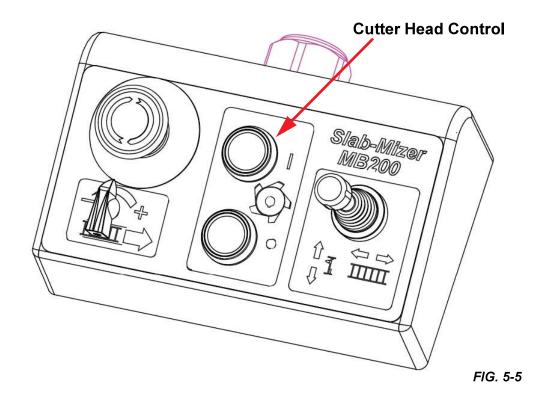
**1.** The Slab Flattener's Cutter Head is activated using the Motor Start (**|**) & Stop (**o**) buttons located on the control pendant.

**WARNING!** Before activating the cutter head clear the working area of any tools, debris or other obstacles that could cause interference with cutter.





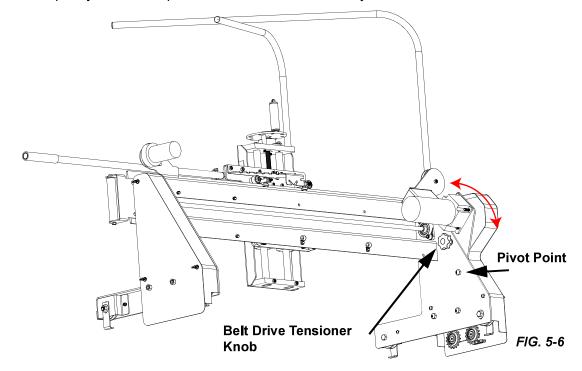
**WARNING!** Make sure the user and all personnel are clear of the cutter head before activating. failure to do so can result in Serious Injury or death.



### 5.6 Manual Operation

- **1.** The slab flattener can be operated manually by the user in order to target specific planing needs. To convert the slab flattener to manual operation follow the steps below.
- 2. Loosen the drive Belt by loosening the Drive Belt Tensioner Knob and pivoting the Drive Motor up to loosen the belt, once loose, tighten the tensioner knob to secure the drive motor.

**3.** Remove the Cross Feed Drive Rope from the rope mount and remove rope from around the drive pulleys in order operate the cross feed manually.



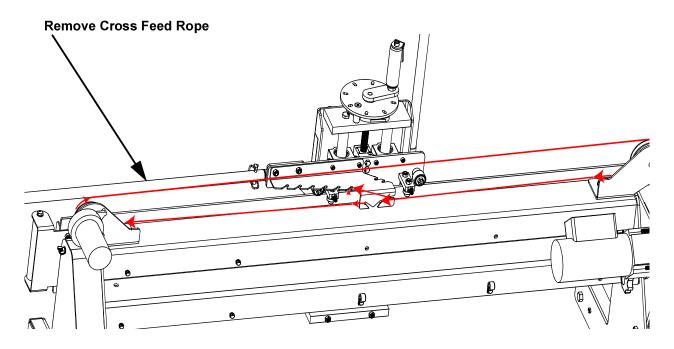
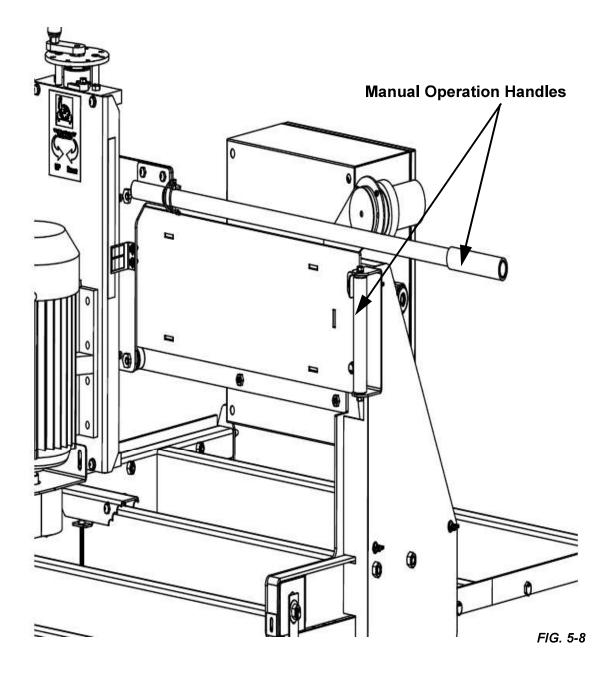


FIG. 5-7

**4.** Use the handles located on the operator side of the Gantry to manually control the Cross Feed and Power Feed of the slab flattener.

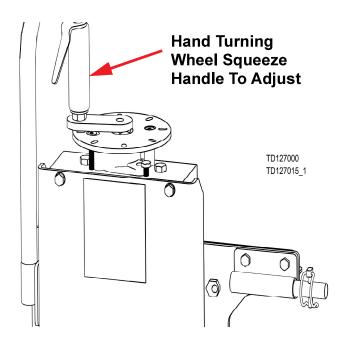


**CAUTION** When operating the slab flattener manually, use consistent controlled feed rates to prevent damaging the material surface and/or the cutter head.



### 5.7 Sanding

- **1.** Refer to Section 4.4 for installing the Sanding Head.
- 2. Sanding Operations can be performed manually or using the automatic drive of the Pendant.
- **3.** Sanding pressure can be adjusted by raising or lowering the Head no more than 1/64" Per pass. (positive stops located on the hand wheel are set to 1/64" per pass) Refer to Figure below.





**CAUTION!** Do not let sanding head leave slab surface otherwise, may cause damage to the sanding head or the sandpaper may detach.

### 5.8 Auto feed Operation

- **1.** Lift the cutting head to ensure that it clears any wood that is placed on the planer, and does not contact anything unintentionally.
- **2.** Place the feed limit brackets at least 12 inches away from the feed proximity switch, ensuring that the switch is between the two feed limit brackets.
- 3. Place the cross feed limit bracket within 10 inches of the cross feed proximity switch.

Cross feed begins at the far right side and runs to the left until it reaches the cross feed limit bracket.

**4.** Ensure the potentiometer on the door (for the cross feed distance) is set above zero.

**NOTE:** Ensure that the feed potentiometer (on the pendant) is adjusted for a low speed.

**5.** Press the yellow start button on the door to start the planer in Auto Feed Mode.

**NOTE:** The cutting head will not begin moving until it reaches full speed.

**NOTE:** The cutting head will travel at the speed set at the pendant.

Once the cutting head moves to each feed limit bracket, it will stop.

**6.** Adjust the potentiometer on the door to set the distance that the cutting head moves in the cross feed direction.

The cutting head will move back and forth from one feed limit bracket to the other feed limit bracket, indexing in the cross feed direction, until the cross feed limit bracket is reached.

**NOTICE** In Auto Feed Mode, movement of the cutting head in the "cross feed" direction using the pendant joystick is locked out. However, the pendant joystick will move the cutting head in the "feed" direction.

### **SECTION 6 MAINTENANCE**



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

Keep a log of machine maintenance by recording in the machine hours and the date you perform each procedure.

### 6.1 Rails, Chains and Rollers

- 1. Keep the Rails & Rollers free of Debris.
- 2. A light weight oil (ex. 3 in 1 oil) will assist with reducing pitch build up.
- 3. The unit should be lubricated as often as needed to maintain a good operating condition.

### 6.2 Cross Feed Rope



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

- **1.** Check the rollers for performance and wear often.
- **2.** Adjust the Cross Feed Rope as needed to remove slack in order to avoid slipping on the pulleys which can result in inaccurate cross feed performance.
- Lubricate the Cam Bearings with a light weight oil (Ex. 3-in-1 lubricating oil)

### 6.3 Head Up & Down Threads



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

- **1.** Up & Down Lead Screw located under the Hand Turning Wheel need to be lubricated regularly to ensure smooth operation and performance.
- 2. Lubricate the Lead Screw with a light weight oil (Ex. 3-in-1 lubricating oil) as needed.

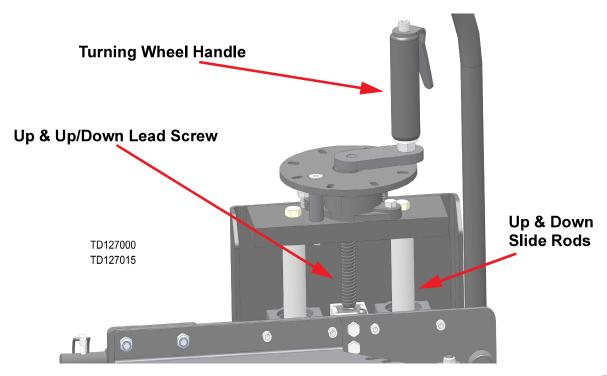


FIG. 6-1

3. Keep Up & Down Slide Rods free of debris, lubricate with a light weight oil.

### 6.4 Changing Cutter Knives

- **1.** Replace Cutter inserts as needed by removing the Insert Screw (Part 127209) using the provided T20 T-Handle wrench as shown in Figure 6-2. Place in the new insert.
- 2. Cutter Knives can be rotated up to 4 times to a fresh sharp cutting edge before replacing.



**CAUTION**: Do not over torque the insert screws to prevent damage to the screws and cutter head.

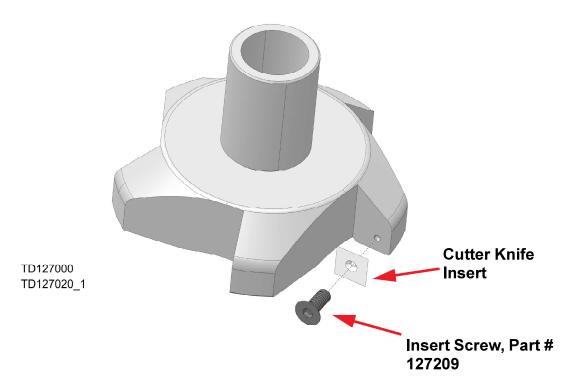


FIG. 6-2



### **SECTION 7 TROUBLESHOOTING GUIDE**



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

PROBLEM	CAUSE	SOLUTION
Burning Wood	Dull or dirty knives	Turn cutter inserts to sharp edge or replace inserts
	Inappropriate feed rate	Adjust feed rate faster or slower.
Leaving Lines	Misaligned cutter head	Align the Cutter Head, Refer to Alignment in Section 8
	Step-over of cutter is to large	Decrease the step-over to reduce the presence of lines
Nothing Working	No Power, Blown Fuses	Check incoming Power, Check Fuses located in the Control Panel
Cutting Head Not Turning	Bad Motor Fuse	Check Motor Fuse located in the Control Panel.
		Have a licensed Electrician inspect the fuses and power supply
Cross Feed Not Working	Slack or loose Cross feed rope	Check Rope Tension, remove any slack.
	Dirt, Debris, Resin, Pitch Build up on rails and rollers	Make sure head moves smoothly by removing Debris, Pitch, Resin and Dirt Buildup on Rails, pulleys and rollers.
	Unsuccessful resolve of issue	Contact Customer Support
Power Feed Not Working	Blown or bad fuse	Check fuses in Control Panel
	Loose or detached drive chain	Tighten the Drive Chain to ensure it stays on sprockets
	Debris build up	Clear all debris or buildup on Rails and rollers.

### **SECTION 8 SLAB FLATTENER ALIGNMENT**

Two alignment procedures are available to realign the Slab Flattener if necessary. The Routine Alignment instructions should be performed as necessary to solve planing problems not related to cutter performance. The Complete Alignment procedure should be performed approximately every 1500 hours of operation or as needed.

### 8.1 Routine Alignment Procedure

Misalignment of the cutter head can cause a variety of issues. It is important that the cutter head is parallel to the cutting surface in order to achieve optimal planing and sanding results.

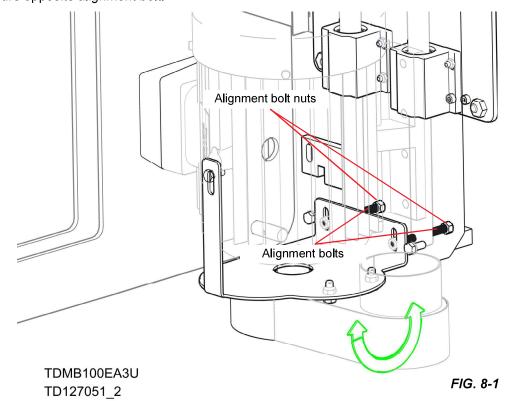
Level the frame and adjust the saw head as described in Section 3.

### 8.2 Complete Alignment Procedure

#### **ALIGNMENT FRONT & REAR**

The Cutter Head is aligned front and rear by adjusting the set screws on the Up & Down Mounting Plate. See FIG. 8-1.

- 3. Loosen alignment bolt nut on bottom of back-side of motor mounting plate.
  - Tighten alignment bolt to bring front of cutter downward.
  - Loosen rear bolt to raise the front of cutter head upward.
- **4.** Secure opposite alignment bolt.



Slab Flattener Alignment WM doc 10/5/22 8-1

#### **ALIGNMENT SIDE TO SIDE**

- 1. Locate (4) cam nuts on back plate of up/down assembly. See FIG. 8-2
- 2. Turn both cams on one side of motor equal amounts to raise or lower that side of cutter head.

Do not over tighten the cams as this will cause restriction to the Cross Feed movement.

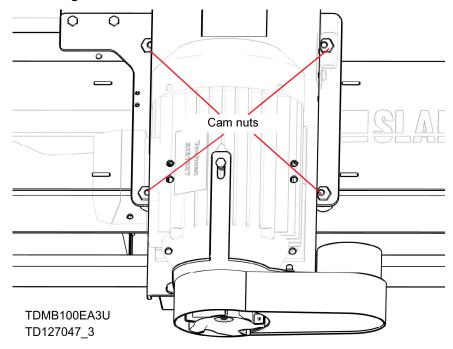
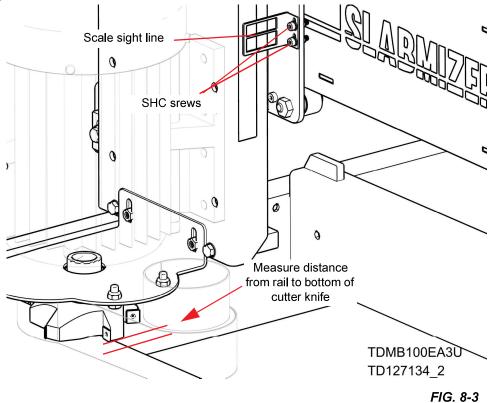


FIG. 8-2

#### **ADJUSTING THE SCALE**

- 1. Locate scale measuring strip at side of up/down mounting plate. See FIG. 8-3
- 2. Measure distance from bed rail surface to cutter head.
- 3. Compare measurement to scale reading.
- 4. If scale requires adjusting, loosen (2) socket head cap screws.
- **5.** Adjust scale's sight line to correct measurement.

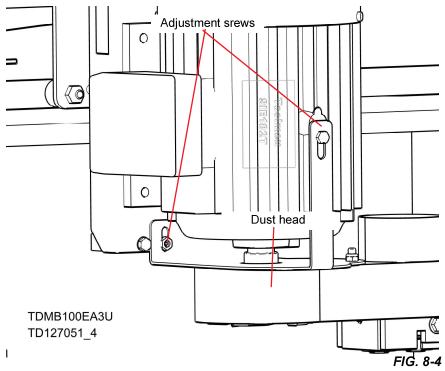
6. Tighten (2) SHC screws.



#### **DUST HEAD**

- 1. Raise or lower up/down so that cutting head is sitting on the surface of material.
- 2. Adjust dust head, leaving 1/8" gap between surface of material and bottom of Dust Head.

3. Use Dust head adjustment screws for moving dust head up and down as needed. See FIG. 8-4



8-4 WM doc 10/5/22 Slab Flattener Alignment