

HR250

TWIN HEAD HORIZONTAL BAND RESAW

OPERATIONS MANUAL



- The operator must thoroughly read this manual before operation.
- Keep this manual for future reference.

"ORIGINAL INSTRUCTION"



MANUFACTURER DETAILS

Wood-Mizer Asia Manufacturing Co. Ltd

No.2, Gongyequ 40th Road, Xitun District Taichung City, 40768
Taiwan R.O.C.

Contact Details	:
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Email: info@woodmizerasia.com

Tel: +886 4 2359 3022

Responsible for Technical Documentation: Tomasz Agaciński / Engineering Manager

Wood-Mizer Industries Sp. z o.o. 62-600 Koło, Nagórna 114, Poland

Tel. +48 63 26 26 000

Notified Body according to annex IV: TÜV Rheinland LGA Products GmbH

Authorized representative: Alister Ryan / Production Manager

Wood-Mizer Asia Manufacturing Co. Ltd No.2, Gongyequ 40th Road, Xitun District

Taichung City, 40768

Taiwan R.O.C

Tel. +886 4 2359 3022



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WARNING

Do not attempt to operate until you have read thoroughly and understood completely all instructions, rules etc. contained in this manual. Failure to comply can result in accidents involving fire, electric shock, or serious personal injury. Keep this operation manual and review frequently for continuous safe operations.

- Know your machine. For your own safety, read the operation manual carefully. Learn its applications and limitations, as well as specific potential hazards pertinent to this machine.
- 2. Make sure the machine is properly grounded.
- 3. Keep guards in place and in working order. If a guard must be removed for maintenance or cleaning, make sure it is properly reattached before using the machine again.
- 4. Remove adjusting keys and wrenches. Form the habit of checking to see that keys and adjusting wrenches are removed from the machine before turning it on.
- 5. Keep the work area clean. Cluttered areas and work benches increase the likelihood of an accident.
- Do not use in dangerous environments. Do not use the machine in damp or wet locations or exposure to rain. Keep the work area well illuminated.





- 7. Keep children away. All visitors should be kept at a safe distance from the work area.
- 8. Make workshop childproof. With padlocks, master switches, or by removing starter keys.
- 9. Do not force the machine. It will do the job better and be safer at the rate for which it was designed.
- 10. Use the right tools. Do not force the machine or attachments to do a job for which they were not designed for. Contact the manufacturer or distributor if there are any questions about the machine's suitability for a job.
- 11. Wear proper apparel. Avoid loose clothing, neckties, rings, bracelets, or jewelry which could be caught in moving parts. Nonslip footwear is recommended. Wear protective hair covering to contain long hair.



12. Always use safety glasses. Use face or dust masks if the operation area has too much sawdust. Do not wear general glasses, because they do not resist impact. They are not safety glasses.







- 13. Secure work.
- 14. Always keep proper footing and balance.
- 15. Maintain machine in top condition. Keep the machine clean for the best and safest performance. Follow instructions for lubricating and changing accessories.
- 16. Disconnect the machine from the power source before servicing and when changing accessories, or when mounting and remounting motor.
- 17. Avoid accidental starting. Make sure the switch is in the "off" position before plugging in the power cord.
- 18. Use recommended accessories. Consult the operating manual for recommended accessories.
- 19. Check for damaged parts. Before further use of the machine, guards and other safety parts should be carefully checked to make sure that it will operate properly and perform the intended function. Check for alignment of moving parts, binding of moving parts, broken parts, mounting, or any other condition that may affect operation. Guards or other parts that are damaged should be properly repaired or replaced.



- 20. Never leave the machine running unattended. Turn the power off. Do not leave the machine until it comes to a complete stop.
- 21. Do not use the machine while under the effects of drugs, alcohol, or any medication.
- 22. Always wear a face or dust mask if machinery operation produces a lot of saw dust and or wood chips. Always operate the machine in a well-ventilated area and provide for proper dust removal. Use a wood dust collection system whenever possible.
- 23. The HR250 Resaw is intended for sawing wood ONLY. The machine must not be used for other purposes such as cutting ice, metal or any other materials.
- 24. The blade is very sharp. Always wear safety gloves when handling the blade.
- 25. Never clean the blade or blade wheels with a brush or a scraper during sawmill operation.
- 26. Always wear ear protection when operating this machine.



SAFETY RULES FOR HORIZONTAL BAND RESAW

- 1. Do not attempt to remove any object from the conveyor belt when the machine is running.
- 2. The sawblade is very sharp. Care should be taken when replacing the sawblade.
- 3. Turn the power off before performing maintenance or servicing.
- 4. Keep all guards in place before starting the machine.
- 5. Always keep the sawblade sharp.
- Before installation of the blade, inspect it for damage and cracks.
 Use properly sharpened blades only. Always handle the blade with extreme caution. Use suitable carrier equipment for transporting the blades.
- 7. If sawblade breaks, turn the power off immediately. The operator should stand away from the machine until it comes to a complete stop.
- 8. When turning the power on for checking blade tracking, the operator should stand to the one side. This will prevent the danger of blade slip- out or breakage.
- 9. Use the proper feed speed according to wood material.
- 10. Make sure the sawblade is properly tensioned. Excessive tension may cause blade breakage.



SAFETY RULES FOR HORIZONTAL BAND RESAW

- 11. Make sure the machine is properly ground to avoid the danger of electric shock.
- 12. Before feeding wood into the machine, check if it contains nails or metallic objects or not.
- 13. Never clean the blade or blade wheels with a brush or a scraper during sawmill operation.
- 14. The blade tension should be released when the machine is not in use (e.g.: after a shift). There should be information on the machine that it is necessary to tension the blade before starting to use the machine again.
- 15. Before installation of the blade, inspect it for damage and cracks. Use only properly sharpened blades. Always handle the blade with extreme caution. Use suitable carrier equipment for transporting the blades.
- 16. This machine was designed for certain applications only. We strongly recommend that this machine NOT be modified and/or used for any application other than for which it was designed. If you have any questions relative to its application DO NOT use the machine until you have had detail instruction from your dealer.
- 17. SHUT OFF the power, remove the products and isolate the energy before leaving the machine. Cut-off the power and carried out only when the machine is stationary before inspection, maintenance, adjustment and cleaning.
- 18. Repairs should be carried out by qualified-persons using original spare parts, otherwise this may result in considerable danger to the user.



SAFETY RULES FOR HORIZONTAL BAND RESAW

- 19. Use recommended ancillary equipment. If ancillary equipment is removed the original guards or safety devices shall be replaced. Wood-Mizer and our authorized agency are responsible for a future connection of the machine with ancillary equipment only if we ourselves have designed such connection.
- 20. The training of the operator should be carried out by our authorized agent or service engineer in an oral/practical in site of the ordered sawing machine, including explanation of protective device, mechanism, adjustment and operation/use.



EMERGENCY RELEASE OF TRAPPED PERSON

- 1. All persons not trained in the operation or safety functions of the machine should **NOT** be allowed within proximity of the machine.
- 2. The machine has four "Emergency Stop" buttons located on the infeed and outfeed of the machine.
- 3. If an operator becomes trapped in the machine the first step is to **HIT ANYONE OF THE FOUR "EMERGENCY STOP" BUTTONS**.
- 4. All operators must become familiar with the locations of the "Emergency Stop" buttons to be able to react quickly.
- 5. All "Emergency Stop" buttons have been located to areas where there is quick access.
- 6. Once an "Emergency Stop" button has been hit, the machine will immediately shutdown and the blades will stop running in under 5 seconds.
- 7. **SWITCH OFF THE AIR SUPPLY** to the machine, this will allow any pneumatics/ hydraulics to release pressure.
- 8. Switch the main power supply to the machine **OFF** and lockout the switch to prevent any further incidents.
- 9. Access the extent of the operator's injuries, have a medic on standby as well as a technician that has been trained to work on the machine, you can now proceed to release the trapped operator.



Safety Labels Description

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

		want and inform the user about danger in the
996317	96317	Carefully read the operator's manual before operating the machine. Observe all safety instructions and rules when operating.
√ C O O O O O O O O O O O O O O O O O O O	99220	Close all guards prior to operating the machine
→ • • • • • • • • • • • • • • • • • • •	99221	Keep all persons at a safe distance from work area when operating the machine.
	96314	Keep all persons at a safe distance from work area when operating the machine.



1 ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○	96316	Opening of the electric box is possible only when the switch is in the "0" position.
1	96319	Always disconnect the power cord before opening the electric box. performing any service.
1	98177	Always disconnect the power cord before performing any service.
99660	99540	CAUTION! Gear train - Keep a safe distance!



101176	101176	CAUTION! Compressed air in the system even after electric power disconnection
096321	96321	Blade movement direction
	S12004G	Always wear eye protection equipment when operating this machine.
	S12005G	Always wear ear protection equipment when operating this machine.



	501465	CAUTION! Always wear safety boots when operating this machine.
	125030	Lifting point.
	501467	Lubrication point
(6	P85070	CE sign





M	achine Specification	<u>s</u>	
Blade Sizing	Setworks (Digital Sizing)		
Blade Tensioning	Air/ Oil Aut	o Tensioning	
Blade wheel sizes	44mm >	712mm	
blade wheel sizes	28mm x 712mm		
Bed Width	300mm		
	Length (mm) Width (m		
Blade sizes:	4270mm	28mm/32mm	
SELECTION CONTROL	4270mm	38mm/ 50mm	
Saw Wheel Motor:	15kW x 2		
Conveyor Motor:	1.5kW		
Rated Power:	31.5kW		
Cutting Speed:	5-25m/min		
Blade Speed:	24m/s (Fixed Speed)		
Machine Dimensions (LxWxH)	2727mm x 2324.1mm x 1967.8mm		
Net Weight:	1835 Kg		
Max Cutting Height:	170mm		
Max Cutting Width:	300mm		
Max Material Height:	250mm		
Max Material Width:	300mm		



IVI	achine Specification	15	
Blade Sizing	Setworks (E	Setworks (Digital Sizing)	
Blade Tensioning	Air/ Oil Aut	o Tensioning	
Blade wheel sizes	44mm >	x 712mm	
blade wheel sizes	28mm >	x 712mm	
Bed Width	400)mm	
3	Length (mm)	Width (mm)	
Blade sizes:	4470mm	28mm/32mm	
	4470mm	38mm/ 50mm	
Saw Wheel Motor:	15k	W x 2	
Conveyor Motor:	1.5kW		
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¹The noise level measurement was taken in accordance with PN-EN ISO 3746 Standard. The noise exposure level given above concerns an 8-hour workday. Value for associated uncertainty K=4dB.

² The figures quoted are emission levels and are not necessarily safe working levels. Whilst there is a correlation between the emission and exposure levels, this cannot be used reliably to determine whether or not further precautions are required. Factors that influence the actual level of exposure of the workforce include the characteristics of the work room and the other sources of noise etc. i.e. the number of machines and other adjacent processes. Also, the permissible exposure level can vary from country to country. This information, however, will enable the user of the machine to make a better evaluation of the hazard and risk.



SAWDUST EXTRACTION SPECIFICATIONS

SAWDUST EXTRACTOR SPECIFICATION³

Air flow required: 1200m³/h
Collector Inlet Diameters (in front of fan): 150 mm
Electric Motor Horsepower: 1,5 kW

Number of Sacks for Waste 2 pc

Total Capacity of Sacks 0.25 m³

Pressure drop connection outlet: 1,5 kPa (0.22 psi)⁴

Weight 110 kg

Recommended conveying air

velocity in the duct 20 m/s

A CAUTION

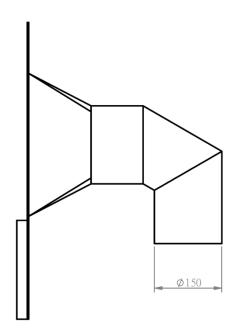
Always turn on the dust extractor before starting the machine.

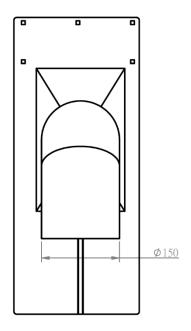
³ External chip and dust extraction equipment with fixed installation are dealt with EN 12779:2016-04 ⁴The pressure drop between the inlet of the capture device and the connection to the CADES should not exceed 1.5 kPa (for the nominal air flow rate). If the pressure drop exceeds 1.5 kPa the machine might not be compatible with conventional CADES.



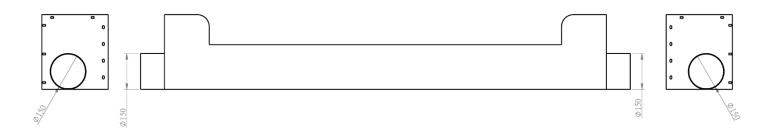
SAWDUST EXTRACTION SPECIFICATIONS

Top dust extraction chute





Bottom dust extraction chute





LIFTING/ MOVING THE MACHINE

This machine should be lifted or moved only by using a forklift. Make sure the loading capacity of the forklift is enough to lift the machine.

The weight of the HR250 is shown as below:

Net weight: 1630Kg

Gross weight: 1835Kg

Lifting a packed machine and unpacked machine is shown below. Always pay attention to the machine balance when lifting the machine.







Lifting an unpacked machine



UNPACKING AND CHECKING CONTENTS

The twin head horizontal band resaw is shipped in one wooden crate.

Carefully unpack the machine to avoid damage to the machine.

Check the machine to see if all parts are present and free of damage (Please refer to the Legend of the Machine, pages 22 and 23). If any parts are missing or damaged, contact your local distributor or the machine manufacturer immediately.



Do not attempt to assemble or operate the machine without all parts present and in working order.



CLEANING THE MACHINE

Before shipment, the machine is coated with a rustpreventive oil to prevent rusting during transportation.

Once you receive and unpack the machine, thoroughly remove rust preventive oil. To do this, use a clean cloth soaked in kerosene for removing the rust preventive oil.

A CAUTION

Do not use lacquer thinners or any solvents, because they can damage the painted surfaces of the machine.



INSTALLING MACHINE

IMPORTANT! Before starting to use the resaw, you must meet the following conditions:

- Set up the machine on firm and level ground. Secure the sawmill to the ground to prevent moving during operation.
- A concrete foundation and anchored bolts are recommended.
- When your HR250 resaw is used indoors, it must be operated with a sawdust exhaust system connected.
- The HR250 resaw must not be used outdoors when it is raining/snowing. In such a case, the machine must be placed under a roof or indoors.
- The machine should work in temperatures of 5°C to 40°C (41°F to 104°F) only.
- The light intensity in the operator's workplace must be 300 lux⁵.
- When installing the machine, be sure to leave proper spaces around the machine to facilitate material handling.
- The workplaces for two operators of the edger are shown in the figure below.

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⁵ The light source cannot cause the stroboscopic effect.



INSTALLING MACHINE

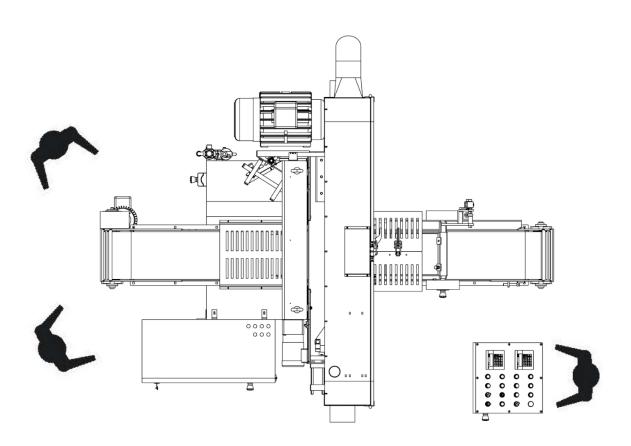
The following electrical requirements are HIGHLY recommended for safe electrical installation:

- Supply voltage: 0.9 1.1 nominal supply voltage
- Source frequency: 0.99 1.01 nominal frequency
- Ambient temperature: 5°C 40°C.
- Altitude: shall be at altitudes up to 1000m above mean sea level.
- Relative humidity: not exceed 50% at 40°C.
- Atmosphere: Free from excessive dust, acid fume, corrosive gases and salt.
- Avoid exposing to direct sunlight or heat rays which can change the environmental temp.
- Avoid exposing to abnormal vibration.
- Electrical equipment shall withstand the effects of transportation and storage temperature within a range of -25°C to 55°C and for short periods not exceeding 24 hours at up to +70°C.



INSTALLING MACHINE

Please see below WORKSTATIONS OR SAFE STANDING for three operators while operating the machine.



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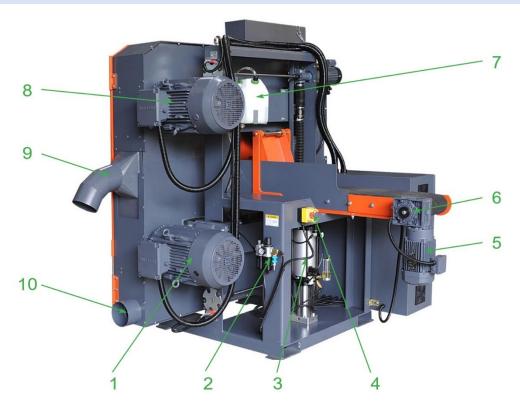
LEGEND OF THE MACHINE (FRONT VIEW)



- 1. Feed conveyor
- 2. Air cylinder for infeed pressure roller
- 3. Lifting channels for forklift
- 4. Front door
- 5. Dust outlet for lower sawblade (ø6")
- 6. Lower saw wheel drive motor (20HP)
- 7. Dust outlet for upper sawblade (ø6")
- 8. Upper saw wheel drive motor (20HP)
- 9. Control box
- 10. Infeed pressure roller assembly

Wood-Mizer®

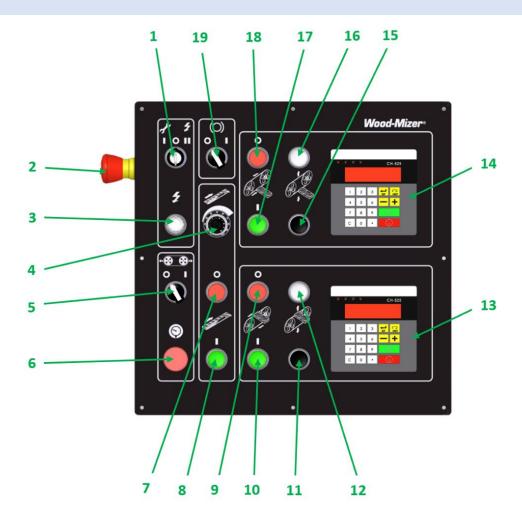
LEGEND OF THE MACHINE (BACK VIEW)



- 1. Lower saw wheel drive motor (20/ 25HP)
- 2. Filter/regulator/lubricator combination unit
- 3. Air/hydraulic combination unit for sawblade tension
- 4. Emergency stop switch
- 5. Conveyor belt drive motor (2HP)
- 6. Gear reducer
- 7. Oil box for oil mist cooler
- 8. Upper saw wheel drive motor (20/ 25HP)
- 9. Dust outlet for upper sawblade (ø6")
- 10. Dust outlet for lower sawblade (ø6")

Wood-Mizer®

CONTROL PANEL



- 1. KEY SWITCH- MAINTENANCE/ RUN
- 2. POWER ON SWITCH
- 3. EMERGENCY STOP SWITCH
- 4. CONVEYOR BELT SPEED REGULATOR
- 5. SAWBLADE TENSION SWITC
- 6. AIR PRESSURE WARNING LIGHT
- 7. CONVEYOR BELT STOP SWITCH
- 8. CONVEYOR BELT START SWITCH



- 9. LOWER SAW WHEEL STOP SWITCH
- 10. LOWER SAW WHEEL START SWITCH
- 11. LOWER SAW WHEEL LOWERING SWITCH
- 12. LOWER SAW WHEEL RAISING SWITCH
- 13. DIGITAL CONTROLLER FOR LOWER SAW WHEEL ELEVATION
- 14. DIGITAL CONTROLLER FOR UPPER SAW WHEEL ELEVATION
- 15. UPPER SAW WHEEL LOWERING SWITCH
- 16. UPPER SAW WHEEL RAISING SWITCH
- 17. UPPER SAW WHEEL START SWITCH
- 18. UPPER SAW WHEEL STOP SWITCH
- 19. MAGNETIC BRAKE CONTROL SWITCH

1. KEY SWITCH- MAINTENANCE/ RUN



(1) Turn the Key Switch to the left (Maintenance), this activates the switch to tension or release tension on the blades

Please Note when in Maintenance mode the machine is unable to start, only the tensioning of the blades and the magnetic brake switch are active.

- (2) Turn the Key to the right (Run), allows for normal cutting functions.
- (3) To turn power off, turn the Key switch to the "O" position or press the EMERGENCY STOP SWITCH (2).

2. POWER ON SWITCH



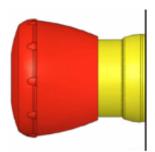
(1) Press this switch for turning power ON. At this time, the white-color indication lamp lights on.

⚠ NOTE

Be sure to turn the Key Switch (1) to maintenance/ run for the power switch to activate.

- (2) When this switch is pressed, the machine is then under a powered condition and ready for operation.
- (3) To turn power off, press the EMERGENCY STOP SWITCH (3) or turn the Key switch (1) to O position.

3. EMERGENCY STOP SWITCH



- (1) During operation, if any abnormal motion or emergency condition occurs, the operator should press the "EMERGENCY STOP SWITCH." Then all driven motions of the machine will stop.
- (2) Before restarting the machine, you need to turn the "EMERGENCY STOP SWITCH" clockwise to reset. Otherwise, the machine can't start.
- (3) When the "EMERGENCY STOP SWITCH" is pressed, the power source will shut off immediately.

4. CONVEYOR BELT SPEED REGULATOR



- (1) The feed conveyor belt is driven by an induction motor in combination with a gear reducer.
- (2) The conveyor belt feed speed is controlled by a frequency inverter, providing variable speed control.
- (3) Changing the conveyor belt speed is made simply by turning the "CONVEYOR BELT SPEED REGULATOR"

5. SAWBLADE TENSION SWITCH





The Key Switch (1) must be turned to Maintenance for the sawblade tension switch to activate.

- (1) Turn this switch to the Left for loosening sawblade tension.
- (2) Turn this switch to the Right for tightening sawblade tension

6. AIR PRESSURE WARNING LIGHT



(1) This is an Air pressure warning, if the air pressure drops below 4 Bar or a blade breaks the machine will automatically shut down and the air pressure warning light will start blinking to inform you that there has been a loss of pressure.

7. CONVEYOR BELT STOP SWITCH



(1) Press this switch to stop the conveyor belt running.

8. CONVEYOR BELT START SWITCH



Press this switch to start the conveyor belt running.

9. LOWER SAW WHEEL STOP SWITCH



(1) Press this switch for stopping the lower saw wheels running.

10. LOWER SAW WHEEL START SWITCH



- Press this switch for starting the lower saw wheel running.
- (2) This switch is effective only when the Key Switch (1) has been turned to the run position and there is enough air pressure.
 (3) Operating pressure of 5-7 Bar required.

11. LOWER SAW WHEEL LOWERING SWITCH



- (1) Press this switch, then the lower saw wheels will lower.
- (2) Lowering distance is displayed on the digital controller (13).
- (3) This switch is a jog switch. When pressing on this switch, the lower saw wheels will lower. Release this switch, then the lower saw wheels lowering motion will stop immediately.

12. LOWER SAW WHEEL RAISING SWITCH



- (1) Press this switch, then the lower saw wheels will raise
- (2) The raising distance is displayed on the digital controller (13).
- (3) This switch is a jog switch. When pressing on this switch, the lower saw wheels will rise. Release this switch, then the lower saw wheels raising motion will stop immediately.

13. DIGITAL CONTROLLER FOR LOWER SAW WHEEL ELEVATION



(1) This digital controller indicates the lower saw wheel elevation and providing quick setting of thickness of cut.

14. DIGITAL CONTROLLER FOR UPPER SAW WHEEL ELEVATION



(1) This digital controller indicates the upper saw wheel elevation and providing quick setting of thickness of cut.

15. UPPER SAW WHEEL LOWERING SWITCH



- (1) Press this switch, then the upper saw wheels will raise.
- (2) The raising distance is displayed on the digital controller (14).
- (3) This switch is a jog switch. When pressing on this switch, the upper saw wheel will raise. Release this switch, then the upper saw wheels raising motion will stop immediately



16. UPPER SAW WHEEL RAISING SWITCH



- Press this switch, then the upper saw wheels will raise.
- (2) The raising distance is displayed on the digital controller (14).
 - (3) This switch is a jog switch. When pressing on this switch, the upper saw wheel will raise. Release this switch, then the upper saw wheels raising motion will stop immediately.

17. UPPER SAW WHEEL START SWITCH



- Press this switch for starting the lower saw wheel running.
- (2) This switch is effective only when the Key Switch (1) has been turned to the run position and there is enough air pressure.
 - (3) Operating pressure of 5-6 Bar required.

18. UPPER SAW WHEEL STOP SWITCH



(4) Press this switch for stopping the upper saw wheels running.



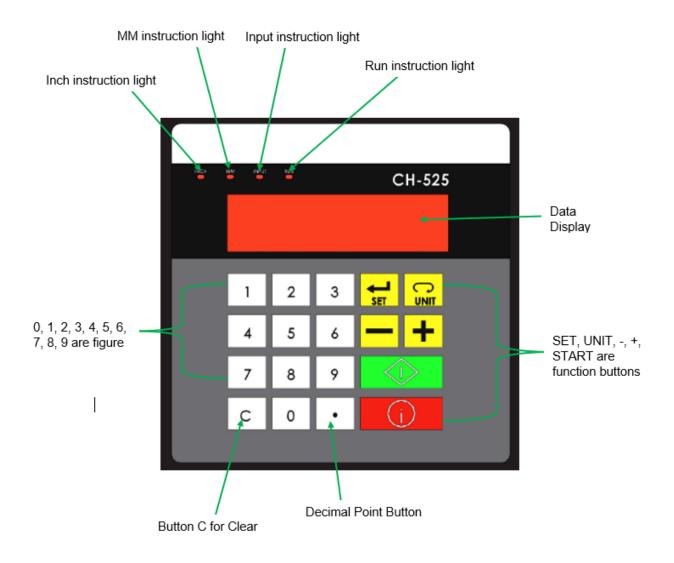
19. MAGNETIC BRAKE CONTROL SWITCH



- This switch is for releasing the magnetic brake in order to track and align blades.
- (2) This switch is effective only when the Key Switch (1) has been turned to the maintenance position.



(MODEL CH-525)



- 1) FIGURE BUTTONS ARE FROM 0 TO 9.
- 2) BUTTON C IS FOR CLEAR.
- 3) (.) BUTTON FOR SETTING THE DIGITS AT RIGHT SIDE OF THE DECIMAL POINT.
- 4) SET IS A BUTTON FOR SETTING DATA.
- 5) UNIT IS A BUTTON FOR TRANSITING BETWEEN INCHES AND MM.



- 6) (-) FOR MANUAL OPERATION TO DEDUCT THE FIGURE.
- 7) (+) FOR MANUAL OPERATION TO INCREASE THE FIGURE.
- 8) "START" IS A BUTTON TO START.
- 9) "STOP" IS A BUTTON TO STOP AND STOP ALL OPERATIONS MEANWHILE.

OPERATING INSTRUCTION FOR CORRECTING DATA

In accordance with the dimension of the actual material, press "SET" button and 0 will show on the display. Use correct figures and press "0-9" buttons, then press SET button for 2-3

seconds. The display will start to flash and then stop flashing. The figures put in earlier will be shown and correcting the data is complete. If the time for pressing the "SET" button or input incorrect figures, that means the previous input is ineffective. Operate again.

NOTE: When correcting existing data, the buttons "C",".", "STOP" can be operated at the same time. Refer to the diagrams below. If the current figure shown on the control unit is 200.0 and the correct one is 100.0, the steps to operate are as the following diagrams demonstrate

Current figure shown is 200.0





STEP 1: Press "SET" button, take your finger off the "SET" button and 0 will show on the display



STEP 2: Press "1" button followed by pressing "0" button twice.



STEP 3: Press "SET" button and hold for 2-3 seconds. Figure 100.0 will be displayed. Correcting the data is complete.



DIMENSION UNIT SELECTING & DESCRIPTION OF CHANGE

The user can choose between INCH and MM in accordance with their common use. This control unit can change the dimension units swiftly by pressing the "UNIT" button. A light will indicate on the top left corner which unit is currently selected.

STEP 1: Current dimension unit shown is MM, Press the "UNIT" button to toggle between INCH and MM.



STEP 2: Once you have pushed the "UNIT" button the size will automatically change accordingly.



DESCRIPTION OF AUTOMATIC START OPERATING

If the figure shown on this control unit is 100.0 and we need to increase it to 200.0 press "SET" button first. The display will show 0. Then input the new figure we want to increase to and finally press "START" button.

NOTE: During operating of INPUT or START, if the "STOP" button is pressed, this control unit will stop running immediately and go back to the condition of repose.



Current figure shown is 100.0



STEP 1: Press "SET" button. Display will show 0.



STEP 2: Press "2" button, followed by pressing "0" button twice. Display will show 200.





STEP 3: Press "START" button. The control unit starts to run and the figure on the display changes Back to 100 and begins to increase until it reaches the set size.



Problem	Search for Failure	Correction
The display fails to show figures.	Inspect incoming voltage, it should be 220V or AC110V	Make sure wires are secure, ensure sufficient grounding.
	Inspect Fuse	Replace with a new 1A fuse.
	If the above two points are inspected and not faulty, it means the control unit is out of order.	Send back to the supplier for repair.
Figures on the display do not change when head is moved up and down or you lose correct sizing when moving the head.	Inspect for loose wires and ensure the wires to the sensor are not damaged	Tighten the loose connection, replace wiring if damaged.
	Inspect the distance that the sensor is positioned in relation to the sensor board.	Adjust sensor position to be within 1mm from sensor board.



LAYOUT OF VARIOUS LIMIT SWITCHES



Limit switch for min. distance between sawblades

LIMIT SWITCH FOR MIN. DISTANCE BETWEEN SAWBLADES

- 1. This limit switch is located at the right side of the machine back, which is used to control the minimum distance between the upper and the lower sawblades.
- 2. The allowable minimum distance between sawblades is 7 mm.

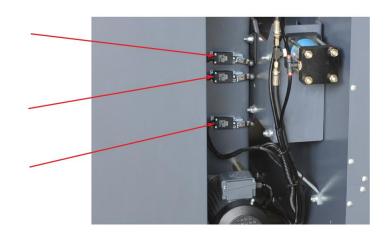


LAYOUT OF VARIOUS LIMIT SWITCHES

Limit switch for lower saw wheel position for blade loosening

Top limit switch for lower saw wheel.

Bottom limit switch for lower saw wheel.



These 3 limit switches are provided at the right side of the machine back.

- LIMIT SWITCH FOR LOWER SAW WHEEL POSITION FOR BLADE LOOSENING
 - (1) When performing sawblade loosening on lower saw wheels, this limit switch is used to prevent the lower saw wheel from colliding against the conveyor table.
 - (2) In case the lower saw wheel position displayed on the digital controller (13/14) is more than 30, sawblade loosening cannot be performed. This will avoid a collision between the lower saw wheel and the conveyor table.

The limit switch may prevent the lower saw wheel from colliding against the convey





LAYOUT OF VARIOUS LIMIT SWITCHES

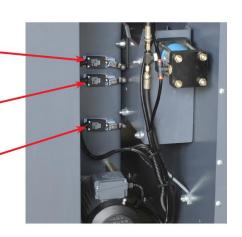




Limit switch for lower saw wheel position for blade loosening

Top limit switch for lower saw wheel.

Bottom limit switch for lower saw wheel.



Infeed hold down roller limit switch, prevents size changes while timber passes through the cut.





CONNECTING POWER WIRES



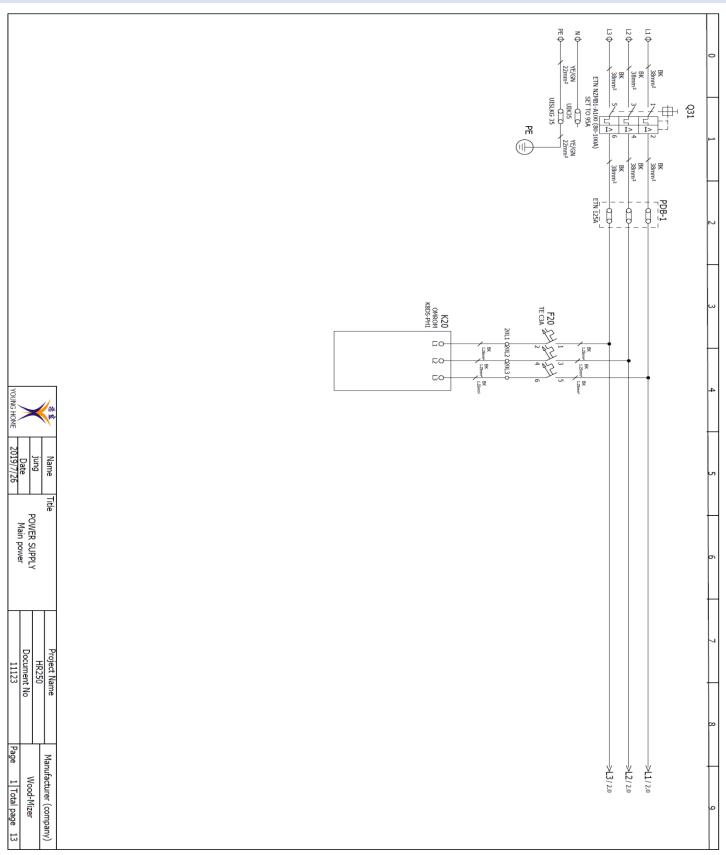
CAUTION

It is recommended that a 30mA

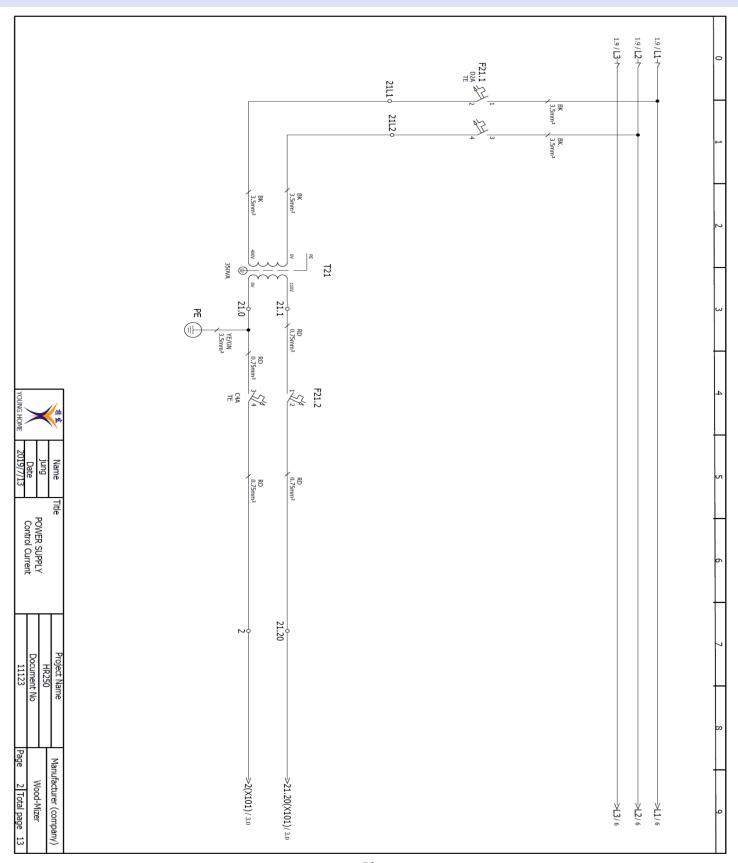
Ground Fault Interrupter (GFI) be used.

- Before connecting the power wires of the machine to your factory's power source, make sure the voltage, Hz and phase of the machine are same as that of your factory's power source.
- 2. The power wire connection points are provided at the left bottom corner in the electrical cabinet.
- 3. The wires marked with "L1, L2, L3" are power wires.
- 4. The wire marked with "PE "is a grounding wire, which should be properly connected to avoid a danger of electrical shock.
- 5. Once power wires have been connected, check if they are connected tightly to the correct terminals or not.

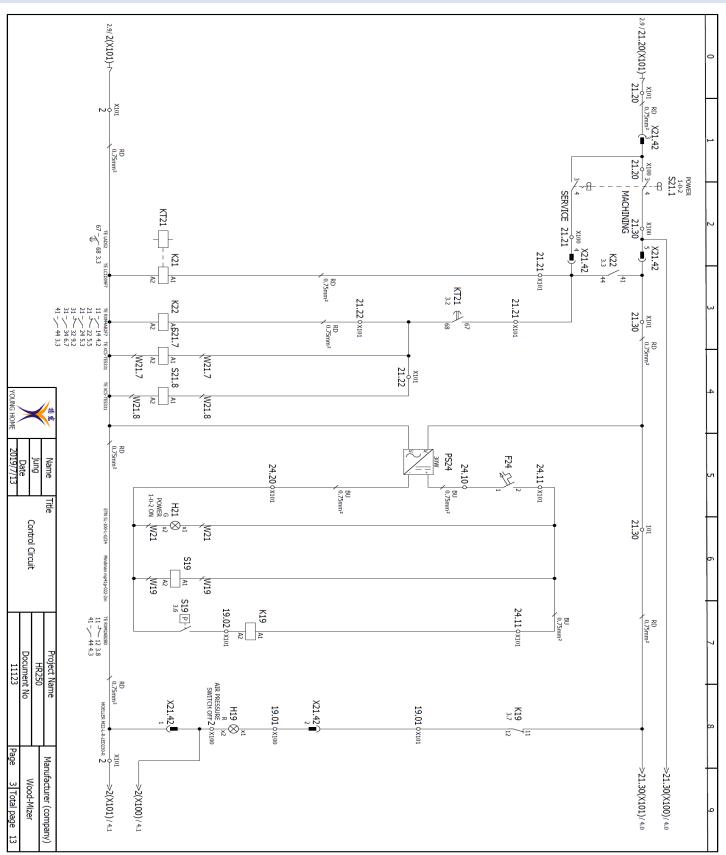




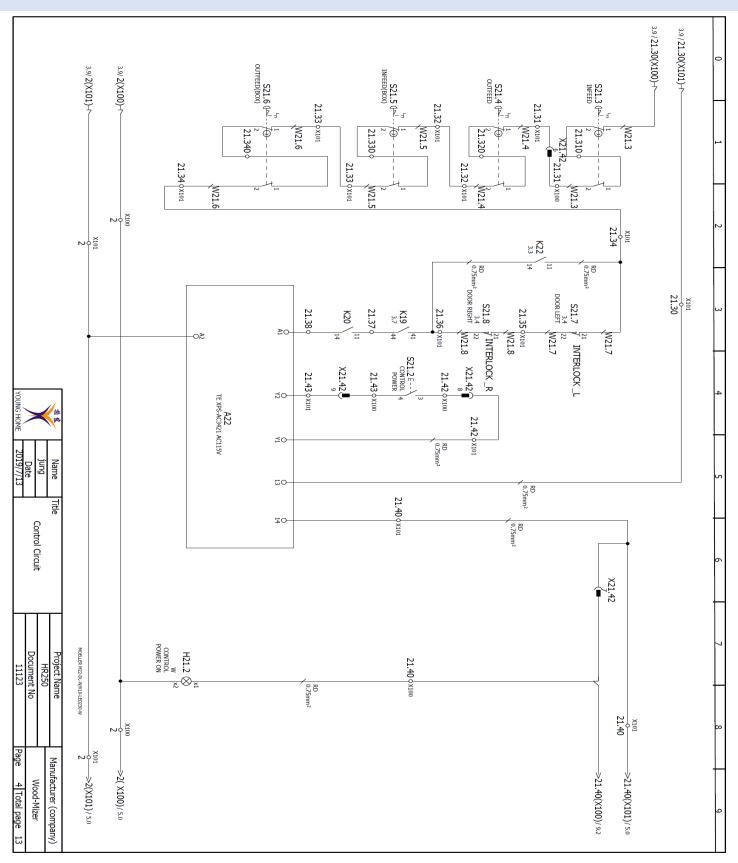




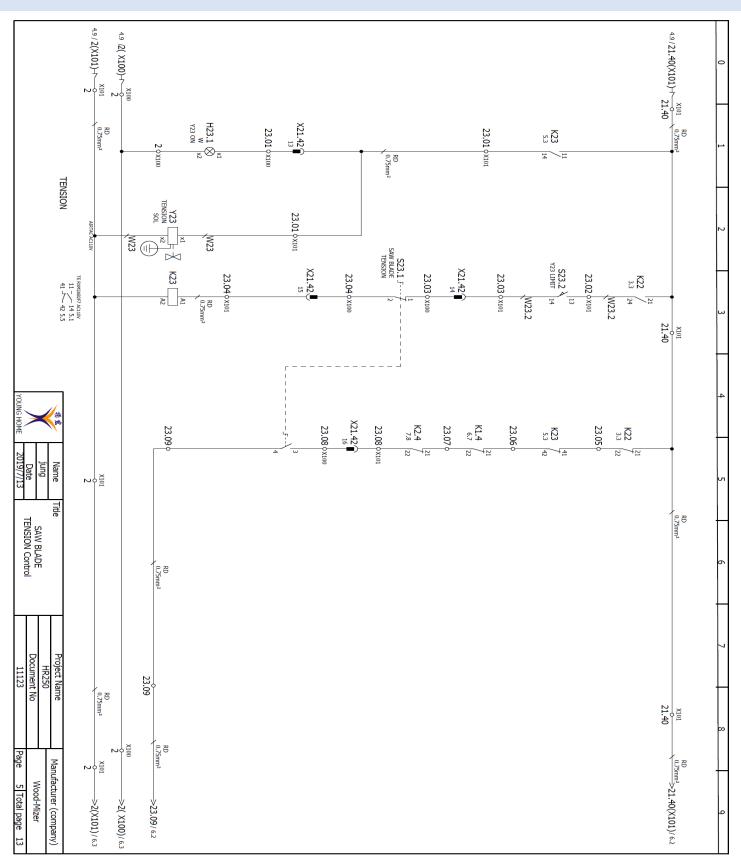




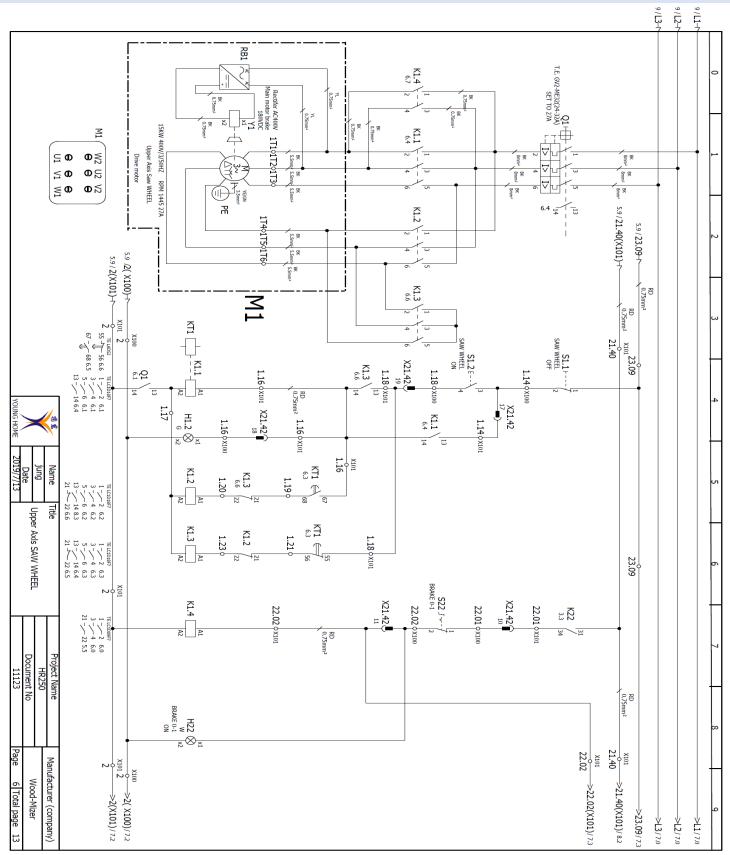




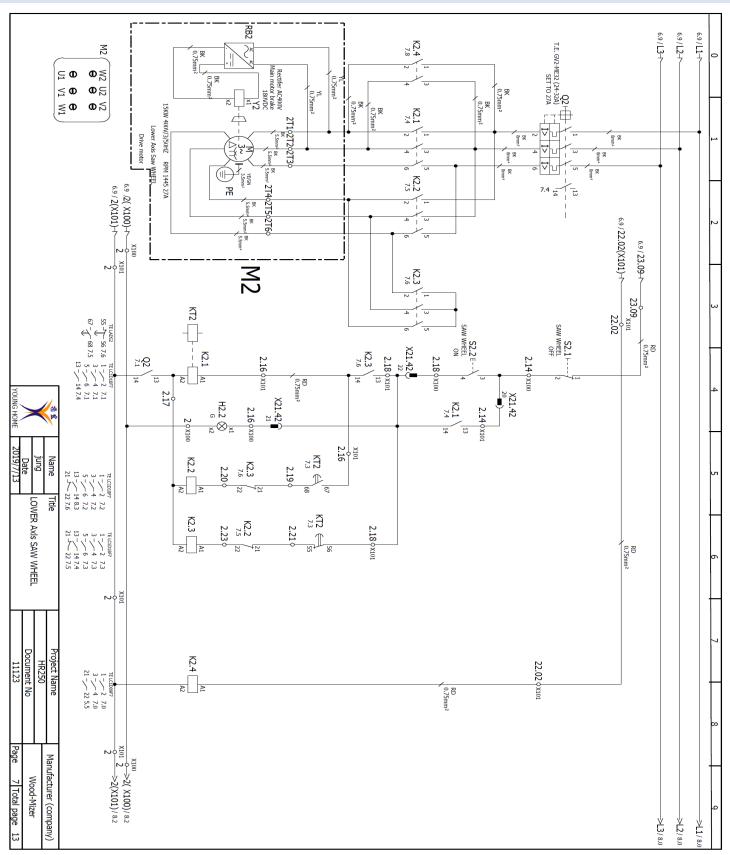




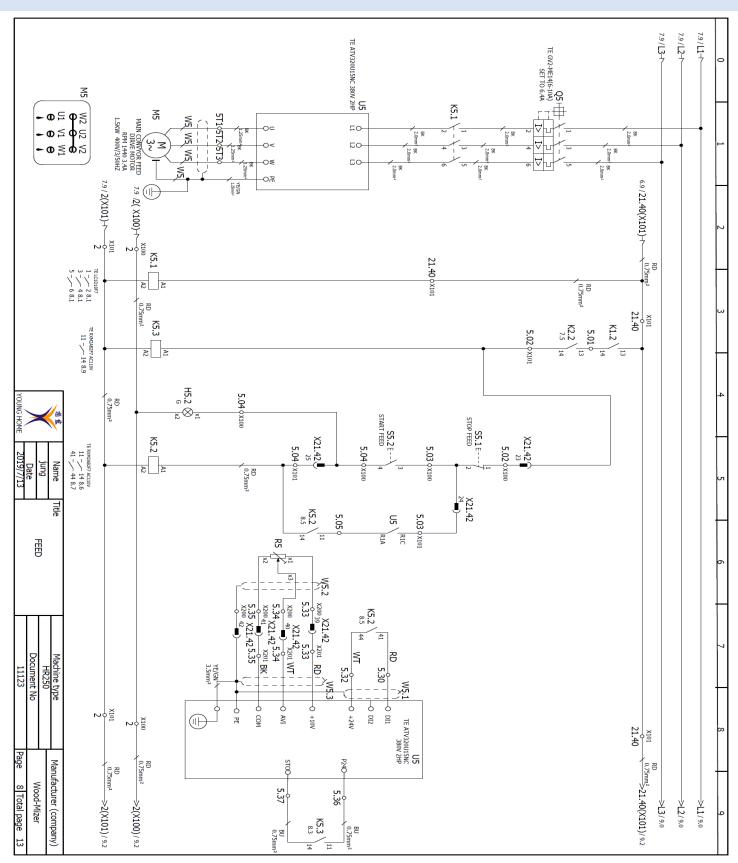




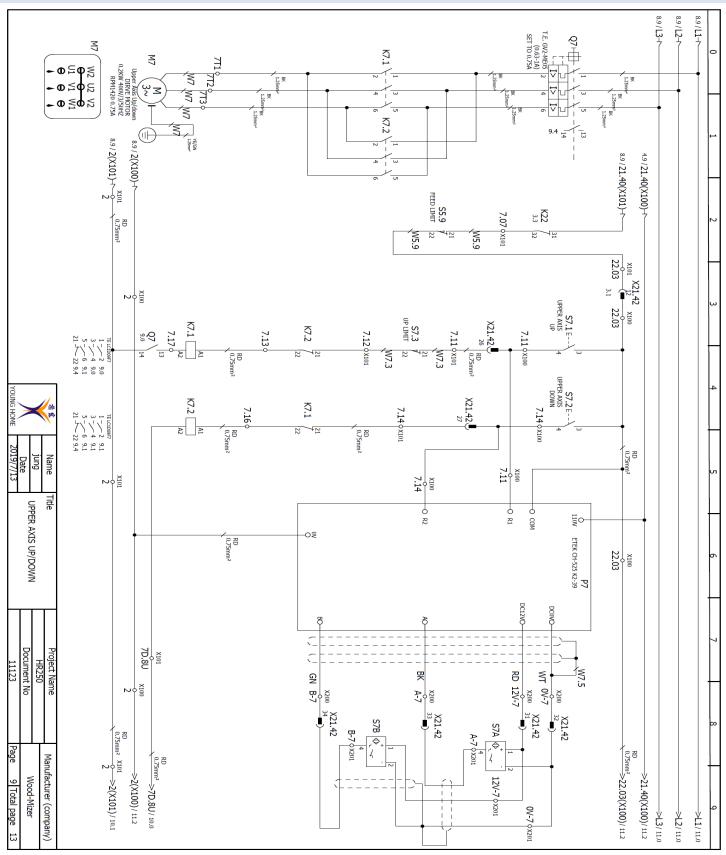




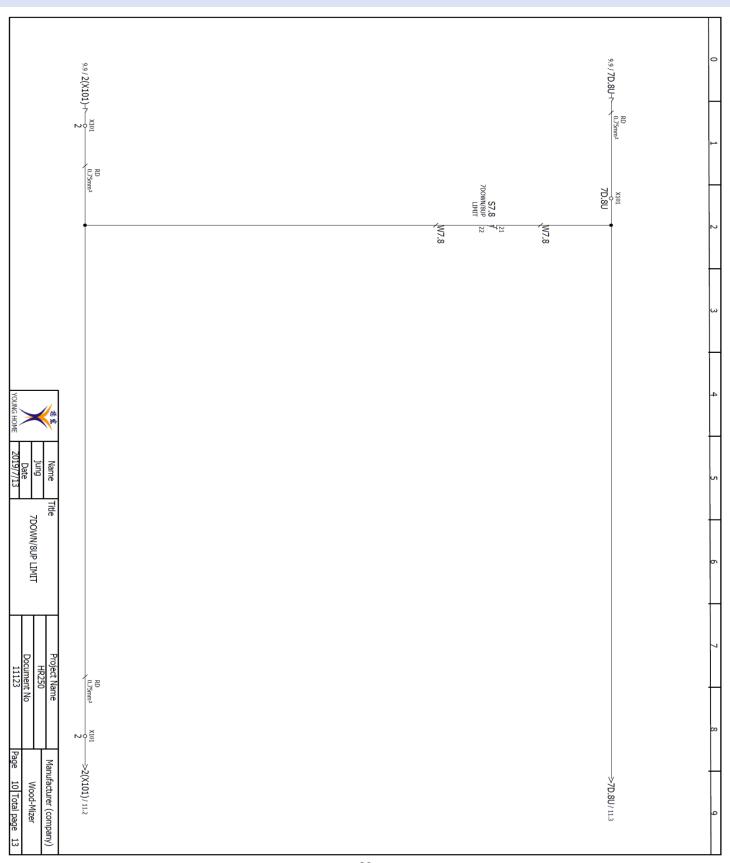




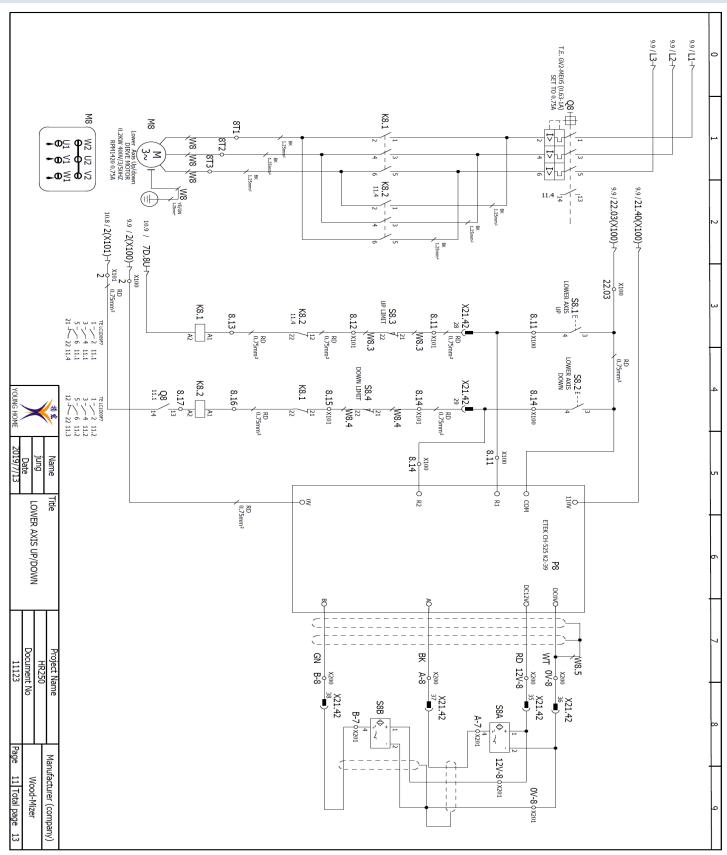




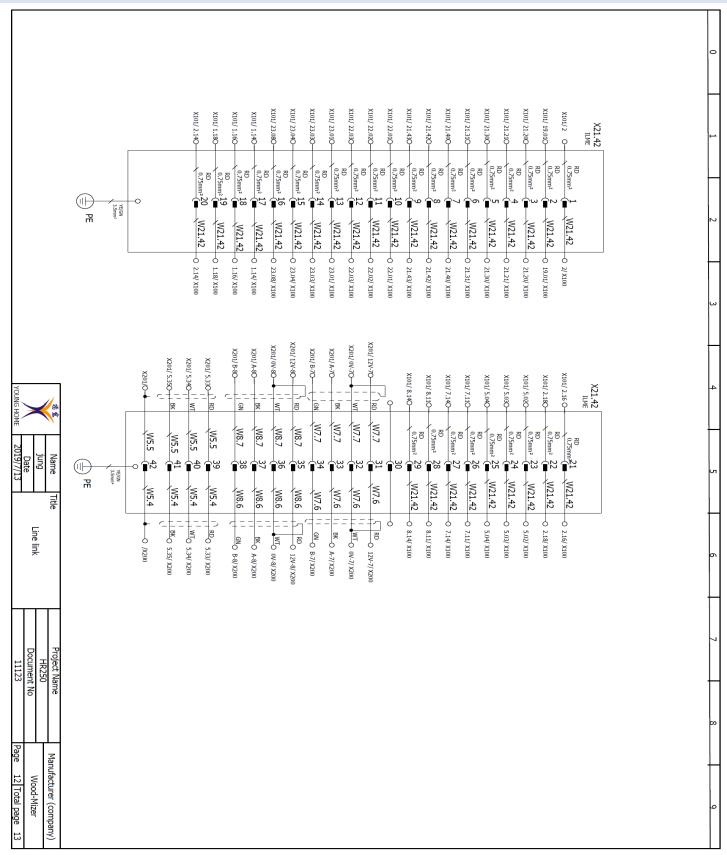




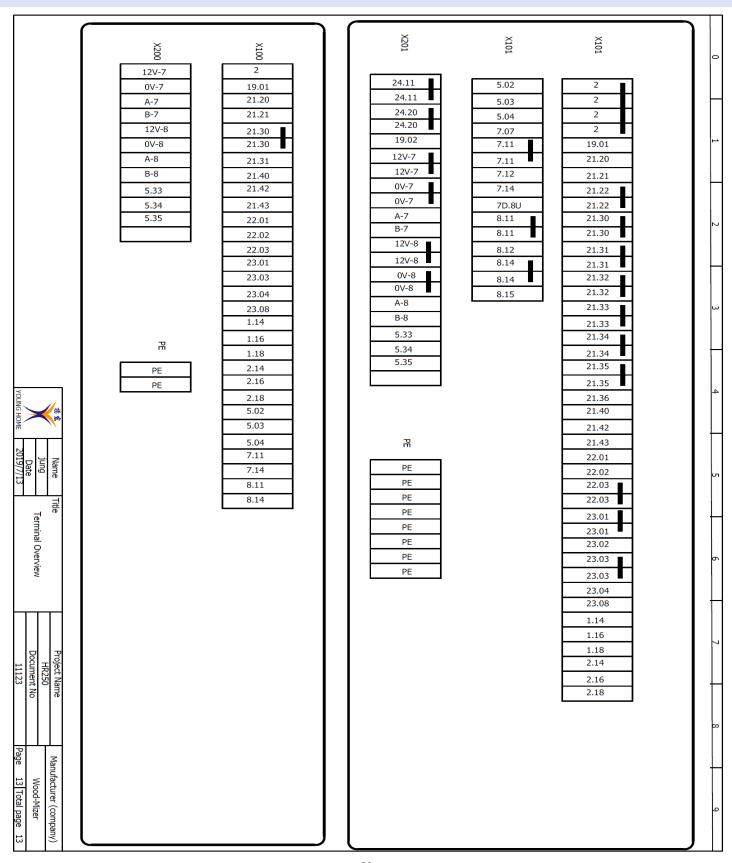














CONNECTING THE DUST HOOD OUTLET

- 1. This machine is equipped with three dust hood outlets. Two are located at the right side of the machine, and one is located at the left side.
- 2. Diameters of all dust hood outlets are all 6".
- 3. Use 6" flexible hoses to fit to all dust hood outlets, then connect them to a dust collector.



Dust hood outlets (ø6")

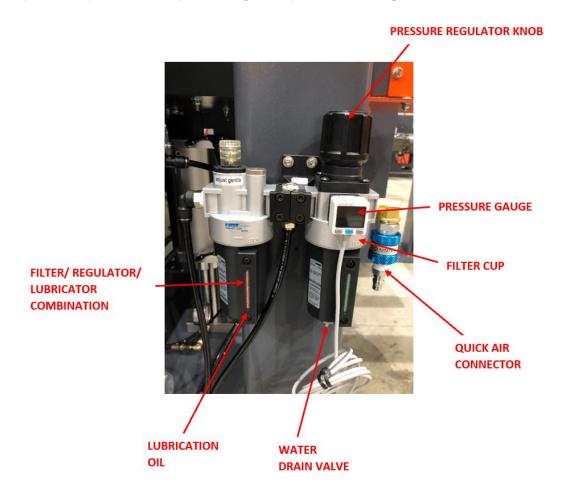


Dust hood outlet (ø6")



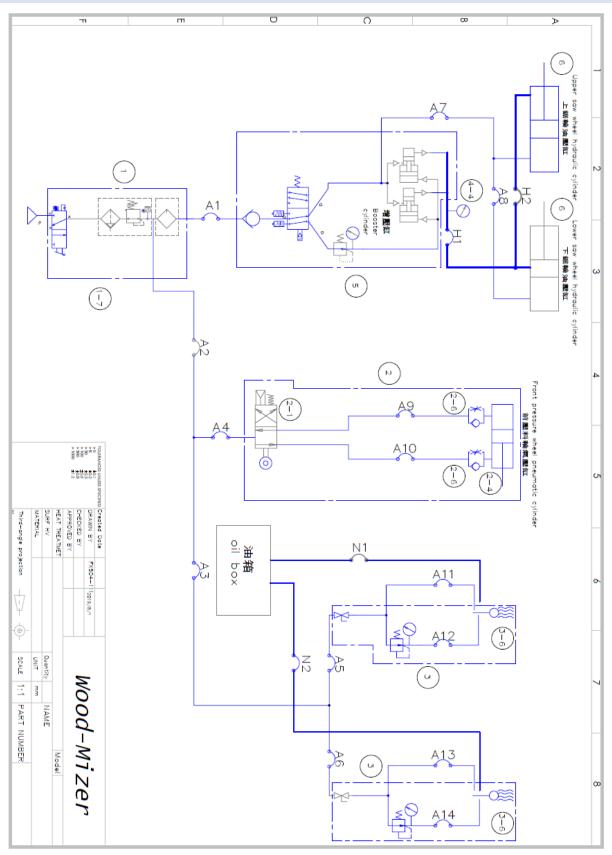
CONNECTING THE AIR CIRCUIT

- 1. The quick air connector is provided on the filter/regulator/lubricator combination unit (F.R.L. Unit).
- 2. You need to connect the quick air connector to an air source.
- 3. The size of the quick air connector is 3/8".
- 4. The filter / regulator / lubricator combination unit is located at the back-right hand side of the machine.
- 5. The working air pressure required by the machine is 5~8kg/cm². Adjust air pressure by turning the pressure regulation knob.





PNEUMATIC/ HYDRAULIC DIAGRAM





FILTER/ REGULATOR/ LUBRICATOR OIL (Turbine oil ISO-VG32) UNIT

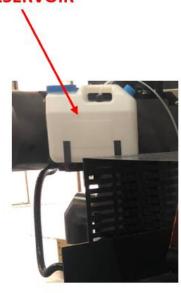


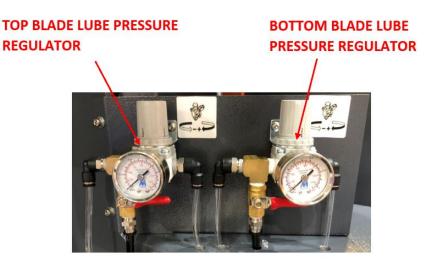
- 1. PRESSURE GAUGE. The pressure for the air system is indicated on the pressure gauge. Working air pressure can be adjusted by turning the pressure regulation knob located on the filter cup. Turn it clockwise for increasing pressure. Turn counterclockwise for decreasing pressure. Lift the regulation knob before setting pressure. Push it down to fix the pressure setting after pressure has been adjusted. The working air pressure should be set at about 5~7kg/cm².
- LUBRICATION OIL CUP. Periodically check to make sure that there is an adequate amount of oil in the lubrication oil cup. If necessary, fill oil into the lubrication oil cup until it reaches 80% of the cup capacity, ensuring that the air circuit is properly lubricated. It is recommended that Turbine oil ISO-VG32 be used.
- 3. FILTER CUP. Always remember that the moisture contained in air will be condensed and collected in the filter cup. The water accumulated in the filter cup should be released when the water reaches a certain amount. To release water, simply press the drain valve located at the bottom of the filter cup.



OIL MIST COOLER

OIL RESERVOIR

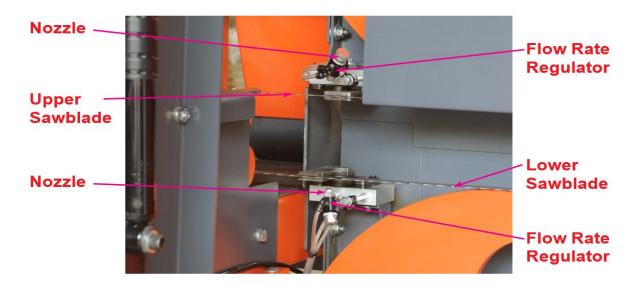




- This machine is equipped with an oil mist cooler for cooling the upper and the lower sawblades. In addition, the cooler can also remove dusts deposited on the sawblade.
- 2. The oil mist cooler requires air and oil to operate.
- 3. The working pressure of the oil mist cooler is about 1-2 kg/cm2. Adjust air pressure by turning the pressure regulation knob, located at the back side of the machine.
- 4. Start the oil mist by turning down the red lever.
- 5. Use R32 lubrication oi, Bio Lube 210 or Mineral spirits with a safe flash point to fill the oil reservoir until the oil amount reaches 80% of its full capacity.
- 6. The operator is requested to periodically check the oil amount in the oil box.



ADJUSTING OIL MIST FLOW RATE



1. Open the front doors before adjusting oil mist flow rate.



- 1. Adjusting the oil mist flow rate is made only when the machine is fully stopped.
- 2. The upper and lower sawblade are cooled through individual nozzles.
- 3. Adjusting the oil mist flow rate is made by turning the flow rate regulator.
- 4. Turn the flow rate regulator clockwise for reducing the flow rate. Turn counterclockwise for increasing the flow rate.



INSPECTING AND ADJUSTING SAWBLADE TENSION

When installing a new sawblade, it is necessary to inspect and adjust the sawblade tension. In addition, after the machine has operated for a long period, the sawblade tension may become loose gradually. Currently, it is also necessary to inspect and adjust the sawblade tension.



A loose sawblade may cause blade slippage.

Inspecting and adjusting sawblade tension according to following procedures:

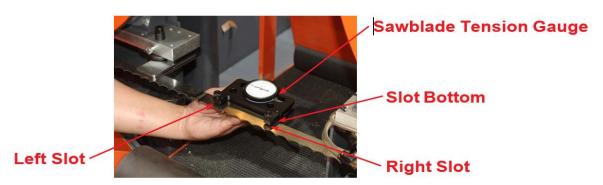
1. A sawblade tension gauge (optional accessory) shall be applied for inspecting the sawblade tension.





INSPECTING AND ADJUSTING SAWBLADE TENSION

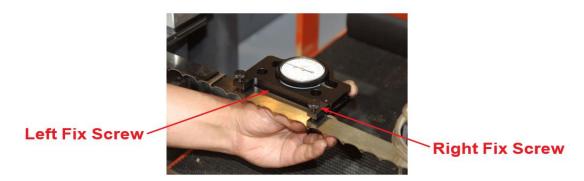
2. Fit the sawblade tension gauge onto the sawblade. Make sure the two slot bottoms on the sawblade tension gauge have touched the back side of the sawblade.



3. First tighten the left fix screw on the sawblade tension gauges.



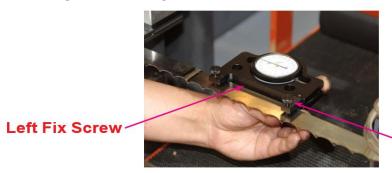
4. Make a micrometric adjustment on the right slot of the sawblade tension gauge by slightly shifting the slot to the right side, until the gauge indicates at graduation 15 (red graduation).





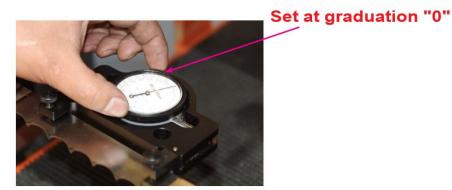
INSPECTING AND ADJUSTING SAWBLADE TENSION

5. Tighten the right fix screw on the sawblade tension gauge

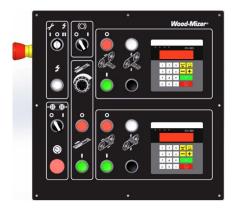


Right Fix Screw

6. Turn the gauge to set it at graduation "0."



7. Turn the sawblade tension switch (5), located on the operation panel, to the Right position (tighten) for tightening the sawblade.



8. Check the sawblade tension indicated on the gauge. The normal sawblade tension should be indicated on the graduation 35-40 (red graduation).



INSPECTING AND ADJUSTING SAWBLADE TENSION

9. If adjusting blade tension is required, turn the air pressure regulator on the air hydraulic combination unit, located at the back side of the machine.



10. Turn this air pressure regulator clockwise for increasing pressure, which will tighten the sawblade tension.



- 11. For convenience, when making air pressure adjustment it is suggested to ask another person to help look at the indication on the sawblade tension gauge.
- 12. The hydraulic pressure gauge on the air hydraulic combination unit does not require adjusting, which may automatic vary with the air pressure value. In general, the hydraulic pressure gauge indicates at 48.





ADJUSTING SAWBLADE TRACK (FORWARD/ BACKWARD DIRECTION)

- 1. Turn power off before conducting sawblade tracking adjustment.
- 2. Open the saw wheel guard (front doors).
- 3. Make sure the sawblade tension is proper before adjusting sawblade tracking.
- 4. Slowly turn the saw wheel by hand, and check the sawblade running track condition.
- 5. To adjust the sawblade track in forward/backward direction on the right upper saw wheel, loosen the fixing nut (1).

Blade Track Adj Screw (Forw/Backw.)

Blade Track Adj Screw (Rightw/Leftw.)

Fixing Nut (2)



RIGHT UPPER SAW WHEEL

Fixing Nut (1)



ADJUSTING SAWBLADE TRACK (FORWARD/ BACKWARD DIRECTION)

- 6. Turn the blade track adjustment screw 1/4 turn counterclockwise for moving the sawblade forward. Turn the screw1/4 turn clockwise for moving the sawblade backward.
- 7. After blade track is adjusted, tighten the fixing nut (1).
- 8. During track adjustment, slowly turn the saw wheel by hand to check if the sawblade runs on the correct track.
- 9. The sawblade tracking adjustment on the left upper saw wheel is same as that of the right upper saw wheel.

Left Upper Saw Wheel



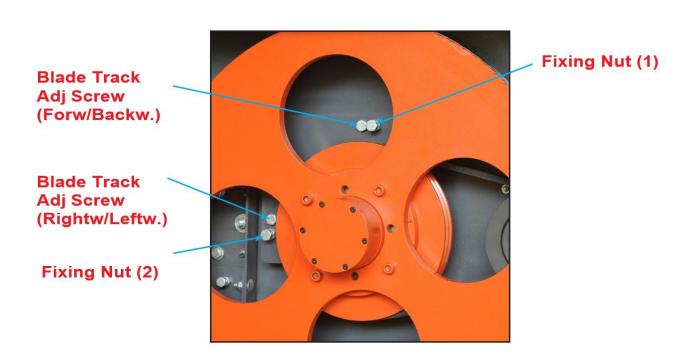
Right Upper Saw Wheel

RIGHT UPPER SAW WHEEL



ADJUSTING SAWBLADE TRACK (RIGHT/ LEFT DIRECTION)

- 1. Turn power off before conducting sawblade tracking adjustment.
- 2. Open the saw wheel guard (front doors).
- 3. Make sure the sawblade tension is so proper before adjusting sawblade tracking.
- 4. Slowly turn the saw wheel by hand, and check the sawblade running track condition.
- 5. To adjust the sawblade track in rightward/leftward direction on the right upper saw wheel, loosen the fixing nut (2).



RIGHT UPPER SAW WHEEL



ADJUSTING SAWBLADE TRACK (RIGHT/ LEFT DIRECTION)

- 6. Turn the blade track adjustment screw 1/4 turn counterclockwise for moving the sawblade leftward. Turn the screw 1/4 turn clockwise for moving the sawblade rightward.
- 7. After blade track is adjusted, tighten the fixing nut (2).
- 8. During track adjustment, slowly turn the saw wheel by hand to check if the sawblade runs on the correct track.
- 9. The sawblade tracking adjustment on the left upper saw wheel is same as that of the right upper saw wheel.

Left Upper Saw Wheel

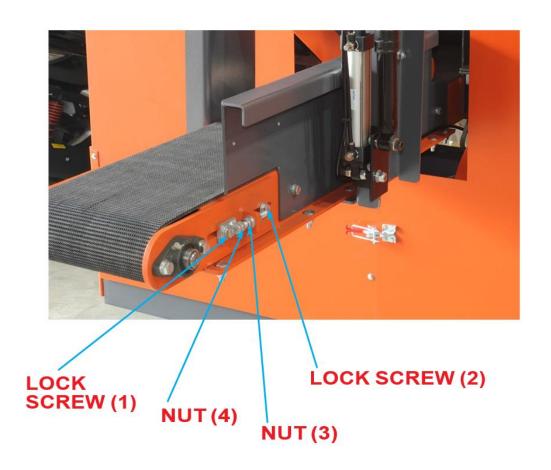
Right Upper Saw Wheel

RIGHT UPPER SAW WHEEL



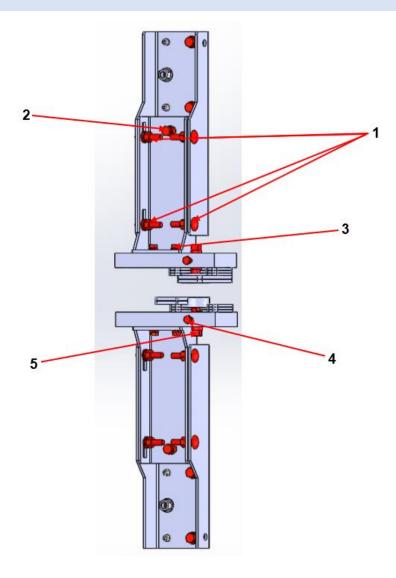
ADJUSTING CONVEYOR BELT TRACKING

- 1. If the conveyor belt runs to either right or left side, you need to adjust the conveyor belt running track.
- 2. Before adjusting the conveyor belt tracking, make sure the conveyor belt tension is tightened. Otherwise, you should adjust belt tension before adjusting its running track.
- 3. Loosen the two lock screws (1) (2). Loosen the nut (3). Tighten the nut (4) until the conveyor belt runs at a proper track.
- 4. After adjustment, tighten the lock screws (1) (2) and the nut (3).





BLADE GUIDE ALIGNMENT

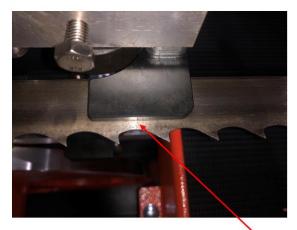


- 1. By loosening bolts 1 you can now adjust the height of the guide plates, it is important to make sure the guide plates both top and bottom are equally spaced from the blade. It is recommended that the correct shims be installed according to the current blade thickness being used to ensure there is space for the blade between the guide plates. It is recommended that shims be used to ensure equal spacing.
- 2. To adjust the lean angle of the guide plates simply loosen or tighten bolt 2, this will help ensure the guide plates are level and not touching the back or front of the blade.



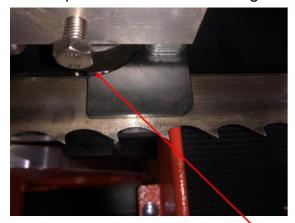
BLADE GUIDE ALIGNMENT

3. Once you are happy with the adjustment of the blade guides you can move the blade guide block forward or backwards by loosening bolts 3. (This is dependent on the blade width you are using) Try keep a 3mm gap from the gullet of the blade to the edge of the guide plate.



3mm gap from the gullet of the blade to the guide plate.

4. By loosening bolt 4 and turning 5 you can adjust the positioning of the eccentric bearing, set the eccentric bearing to be 3mm away from back of blade edge, this allows for the blade to have a small movement (leeway) when entering the timber or increasing cutting speed. If the eccentric bearing is positioned to close to the blade, the blade would continuously run up against the bearing and this would cause cracks on the back of the blade and premature blade breakage.

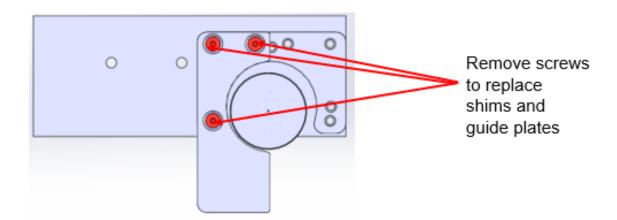


3mm gap from back of blade to bearing.

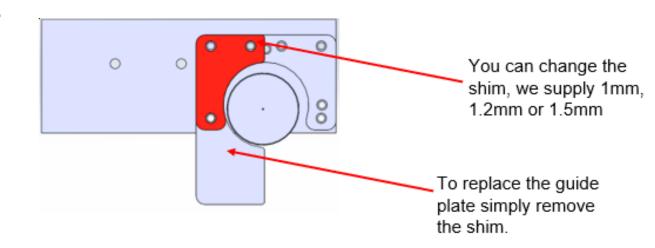


CHANGING SHIMS/ REPLACING GUIDE PLATES

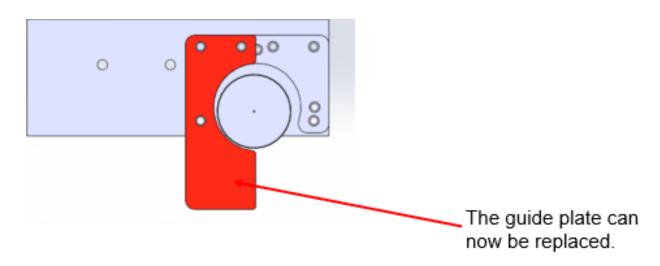
1.



2.



3.





ADJUSTING THE LOADING PRESSURE OF INFEED PRESSURE ROLLER

The loading (hold-down) pressure and raising sensitivity of the indeed pressure roller can be adjusted by turning the two air flow regulators, provided on the air cylinder located at the infeed end.

The "UPPER AIR FLOW REGULATOR "is used to adjust the hold-down pressure of the infeed pressure roller.

The "LOWER AIR FLOW REGULATOR "is used to adjust the sensitivity of the infeed pressure roller.

INFEED PRESSURE ROLLER ASSEMBLY



UPPER AIR FLOW REGULATOR

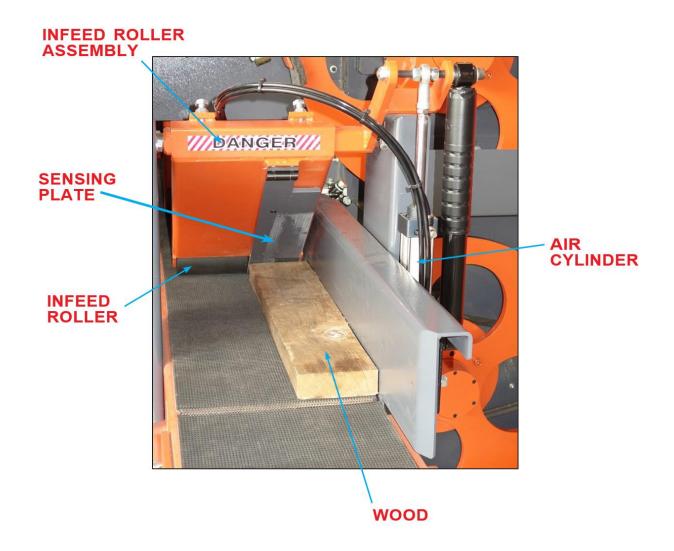
AIR CYLINDER AT INFEED END

LOWER AIR FLOW REGULATOR



CONVENIENT TIMBER INFEED

The infeed roller assembly is equipped with a sensing plate. Once the wood touches the sensing plate, the infeed roller assembly will raise slowly. This allows the wood to be pressed by the infeed roller easily without blocking problems.





Proper maintenance is important to keep the machine in the best condition. Note that a small problem may lead to poor machine performance or even cause a serious damage. Therefore, the operator and maintenance personnel should not neglect the maintenance work

A CAUTION

Disconnect air supply and release compressed air from the air system before servicing the machine!

Failure to do so may result in serious injury.

Before performing any maintenance, stored energy such as moving blades, feed system and air pressure shall be dissipated.

Stop the machine by the normal stopping procedure. Wait until all rotating parts are completely stop. Disconnect the power supply. Release compressed air from the air system.

1.NOTICES FOR GENERAL MAINTENANCE.

- (1) Keep the machine from direct sun light.
- (2) The machine installation location should be dry and well ventilated.
- (3) Do not use poor quality lubrication oil.
- (4) When the job is finished, clean the machine and turn the power off.
- (5) In case abnormal motion occurs, it is necessary to record the malfunction and troubleshooting result.
- (6) It is strongly recommended that only original spare parts be used.



2.DAILY MAINTENANCE

- (1) Every day before starting the machine, check all lubrication positions of the machine.
- (2) Every day when the work is finished, clean the machine. Remove wood chips from the machine and surroundings. Apply oil on the sliding parts. Turn power off.
- (3) During operation, if any abnormal noise occurs, stop machine operation immediately.
- (4) If inaccurate cutting size occurs, stop the machine. Inspect and make correction.
- (5) Ensure correct blade pressure, ensure no blockages have formed in air system.
- (6) Inspect air supply and ensure the machine is obtaining the correct operational pressure.
- (7) Inspect all safety systems to ensure all is functioning correctly.



3. WEEKLY MAINTENANCE

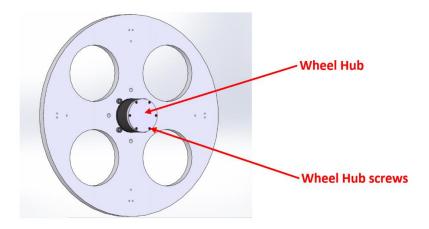
- (1) Clean the filter screen and fan in the electrical cabinet.
- (2) Clean the entire machine and the working area.
- (3) Check if any switch or push-button has loosened or not. If loosened, tighten securely.
- (4) Check if warning devices and proximity sensors work normally on not.
- (5) Inspect all safety systems to ensure all functioning correctly.
- (6) Check conveyor belt tension and tracking.
- (7) Check blade guide alignment ensure the guide plates are not rubbing against the blade.
- (8) Ensure that alignment and tracking of blade wheels are correct.



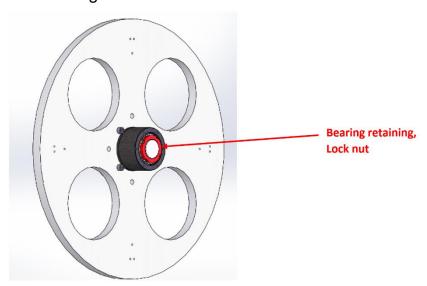
4. AFTER FIRST WEEK OF USE

After the first week of running, it is important to tension up the main wheel bearings to ensure that there is not a lot of play (Loose) on the bearing that can potentially destroy the bearing and wheel shaft.

1. Remove wheel hub screws and wheel hub.



2. Turn the bearing retaining lock nut clockwise to tighten (Torque: 100N/ 81ft pounds). Ensure once tightened the wheel still turns freely, if the wheel does not turn freely it means it has been over tightened.





5.HALF-YEAR MAINTENANCE

- (1) Check if air source pressure is set in the normal range.
- (2) Check home positions of various mechanisms.
- (3) Check positioning accuracy and gear backlash.
- (4) Check blade wheel tracking and aligning.
- (5) Change blade guide plates if not changed yet.
- (6) Check drive belts and possibly replace.
- (7) Check conveyor belt tension and tracking.
- (8) Inspect all safety systems to ensure all is functioning correctly.



6.YEARLY MAINTENANCE

- (1) Inspect machine accuracy. If necessary, make adjustment.
- (2) Inspect leveling accuracy.
- (3) Check if all switches and pushbuttons work normally or not.

Safety devices on the HR250 resaw which must be checked before every shift:

- E-STOP button and its circuit inspection
- Up/down limit switches
- Blade cover safety switch and its circuit inspection.

E-STOP button and its circuit inspection

Turn on the blade motor. Press and hold the E-STOP button. The blade and feed motors should be stopped. Pressing the START button should not start the motor until the E-STOP button is released.

With E-STOP button pressed, try to move the saw head up and down (using the switch and the Setworks buttons). Try to start the feed. Up/down and feed systems should not start.

Up/down limit switches

Turn on the blade motor. Try to move the saw head over the maximum saw head height and below the minimum saw head height specified in the "Machine Specification" Section. Saw head should stop when reaching up or down height limit.

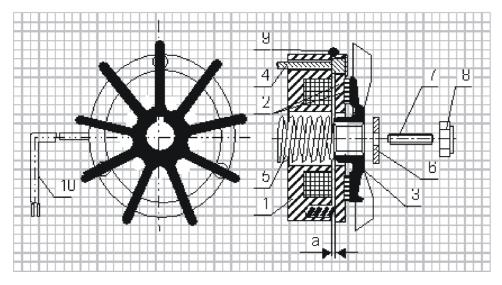


Blade cover safety switch and its circuit inspection

Turn on the blade motor. Try to open the blade covers. They should not open.

Stop the blade motor. Open the blade cover. Try to start the blade motor. The motor should not start.





- 1 Electromagnet,
- 2 Armature complete with brake linings,
- 3 Fan,
- 4 Retaining bolt
- 5 Central spring,
- 6 Special washer,
- 7 Set screw,
- 8 Self-locking nut,
- 9 Sealing ring,
- 10 Output cable.

7.1 Design and principle of operation

The DC electromagnetic brake type H consists of 3 main subassemblies:

- electromagnet (1),
- armature complete (2)
- cast iron fan (3).

Electromagnet (1) energized: The DC voltage from the motor applied via the rectifying circuit causes the attraction of the armature (2) releasing the brake and thus the fan (3) is free to rotate.

Electromagnet (1) de-energized: The electromagnet stops to attract the armature (2) and spring presses the armature with brake linings (2) against the fan and the brake is thus applied.



7.2 Service

During normal operation and at the routine inspections verify the air gap and check if all screws are tight. In case when any symptoms of inefficient braking are observed, then use the self-locking nut (8) to re-adjust the air gap to the value corresponding to Table 1.

Such readjustment may be repeated until the brake linings are completely worn out. When this will occur, a complete armature with brake linings (2) must be replaced.

If the air gap of the brake is correctly adjusted and despite of it the brake does not operate properly (the brake fails to release), it may be caused by:

- the electromagnet (1): burned coil or defected output cable (10),
- rectifying circuit (installed in the electric motor terminal box).

The above-mentioned subassemblies should be checked and defected part replaced.

Table 1:

TYPE	H-63	H-71	H-80	H-90	H-100	H-112	H-132	H-160
Nominal	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Gap "a"	±0,05	±0,05	±0,05	±0,05	±0,1	±0,1	±0,1	±0,1



TROUBLE SHOOTING

PROBLEM	PROBABLECAUSES	CORRECTION	
	1.Sawblade is dulled	Sharpen or replace sawblade	
SAWBLADE SLOW DOWN DURING CUTTING	2. Motor overload	2. Reduce cutting speed	
COTTING	3. Sawblade tension is too loose	3. Tighten sawblade tension	
SAWBLADEBREAK	Too tight tension of sawblade	Adjust sawblade tension properly	
SAWBLADE RUNNING TRACK IS IMPROPER	Sawblade running track is not adjusted properly	Adjust sawblade running track	
SAWBLADE DULL QUICKLY	Cutting incorrect material	Cutting correct material only.	

SERIAL PLATE

MANUFACTURED

Wood-Mizer Asia Manufacturing Co. Ltd. No 2, Gongyequ 40th Rd., Xitun District Taichung City 40788 Taiwan R.O.C.

Wood-Mizer

Phone: +886 4 2359 3022

Email: info@woodmizerasia.com

HR250ASEH20S-2

Horizontal Band Resaw

Rated Power: 31.5kW

Power supply: 3~ 400V/ 50Hz

Full Load Current: 90 A

Short-Circuit Current: 25 kA

Pneumatic Pressure: 6 bar

Document No: 11123

Machine Weight: 1835 kg Mfg.Year: March, 2019

Serial No: T03190067

EC declaration of conformity

according to EC Machinery Directive 2006/42/EC, Annex II, 1.A

Manufacturer: Wood-Mizer Asia Manufacturing Co. Ltd

No.2, Gongyequ 40th Road, Xitun District

Taichung City, 40768 Taiwan R.O.C.

This declaration of conformity is issued under the sole responsibility of the manufacturer.

Following machine in our delivered version complies with the appropriate essential safety and health requirements of the EC Machinery Directive 2006/42/EC based on its design and type, as brought into circulation by us. In case of alteration of the machine, not agreed by us, this declaration is no longer valid.

We, the undersigned herewith declare							
Designation of the machine:	Horizontal Band Resaw						
Model:	HR250 Series						
Type:	HR250ASEH20S-2						
No. of manufacturer:	T03190067						
Is in conformity with the following EC directives:	EC Machinery Directive 2006/42/EC EC Electromagnetic Compatibility Directive						
And the form of the state of th	2014/30/EU						
And is in conformity with the followin Harmonized Standards:	PN-EN 1807-1:2013 PN-EN 60204-1:2010 PN-EN ISO 13849-1:2016-02						
Notified Body according to annex IV:	TÜV Rheinland LGA Products GmbH						
Notification No:	BN 0197						
Responsible for Technical Documentation	on: Tomasz Agaciński / Engineering Manager Wood-Mizer Industries Sp. z o.o. 62-600 Koło, Nagórna 114, Poland Tel. +48 63 26 26 000						
Place:	Wood-Mizer Asia Manufacturing Co. Ltd						
Date:	19/11/2019						
Name:	Alister Ryan						
Title:	Production Manager						
Authorized Signature:							