HRS-28 Horizontal Band Resaw Owner's Manual

SKU/Model Number(s): MBANDHRS-28

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Scope of This Manual

This manual outlines the basic procedures for the HRS-28 Horizontal Band Resaw Owner's Manual.

For detailed instructions and videos, please go to www.lagunatools.com. Refer to www.lagunatools.com for the latest manual revision.

Customer Service

For technical support, please contact Laguna Tools Customer Service by phone 1-800-332-4094 or email customer_service@lagunatools.com. Please note the machine type in the subject line.

Revision 01 (12/17/2024)

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1.0 General Information and Safety

1.1 Overview

SAVE THIS MANUAL. Keep this manual for the safety warnings, precautions, assembly, operating, inspection, and maintenance procedures. Read this Owner's Manual in its entirety prior to assembly or operation.

Please read and understand all warnings and operation instructions before using any tool or equipment. Always follow basic safety precautions to reduce the risk of personal injury. Improper operation, maintenance, or modification of tools or equipment could result in serious injury or property damage. Laguna Tools equipment is designed for specific and limited applications. This product should neither be modified nor used for any application other than its intended use.

PERSONAL SAFETY IS THE RESPONSIBILITY OF THE OPERATOR

1.2 Safety Signs & Callouts

⚠ DANGER

An imminently hazardous situation which, if not avoided, will result in death or serious injury.

⚠ WARNING

A potentially hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION

A potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

NOTE

A helpful tip from Laguna Tools technical staff.

1.3 Proposition 65 Warning of Harmful Exposure

Some dust created by sanding, sawing, grinding, drilling, machining, and other construction activities contains chemicals known to the state of California to cause cancer, birth defects, or other reproductive harm. Some examples of these chemicals are:

- Lead from lead-based paint.
- Crystalline silica from bricks, cement, and other masonry products.
- Arsenic and chromium from chemically treated lumber.

⚠ DANGER

Fire Warning

Use extreme caution when working with flammable materials such as wood or acrylic, as they are more volatile than other materials. Keep the machine clean and follow the maintenance schedule. Always have a fire extinguisher ready to extinguish a fire. Never leave the machine running unattended. The tools sold by Laguna Tools are safe when used properly, as described by the American National Safety Institute, the UL Standards of safe tool use, and the IEC standards of safe tool use. Laguna Tools is in no way responsible for injury or death that occurs while using this product.

The risk of exposure varies depending on frequency of use. To reduce exposure to these chemicals, work in a well-ventilated area and work with approved safety equipment, such as face or dust masks that are specifically designed to filter out microscopic particles. For more information go to https://www.p65warnings.ca.gov/.

1.4 Intended Use

This machine is designed to cut wood and wood-fiber composites. Do not use this machine for other than its intended use.

1.5 Safety Information

The machine is an electrical appliance and precision machine. Please read and understand the entire owner's manual before attempting assembly or operation. Read and understand the warnings posted on the machine and in this manual. Failure to comply with all warnings may cause serious personal injury or damage to the machine.

The machine is designed and intended for use by properly trained and experienced personnel only. Personnel who are not familiar with the correct and safe operation of the machine should not operate the machine until properly trained.

1. Never operate machinery under the influence of drugs or alcohol, when tired, or when distracted.
2. Stay alert at all times while operating the machine.
3. Always wear safety glasses and hearing protection.
4. Do not wear clothing, apparel, or jewelry that can become entangled in moving parts. Always tie back or cover long hair. Wear non-slip footwear to reduce the risk of slipping and losing control or accidentally contacting cutting tool or moving parts.
5. Never stand on the machine. Serious injury may occur if the machine is tipped or if the cutting tool is unintentionally contacted.
6. Know where the emergency stop switch is located.
7. Perform daily inspection of the machine for damaged, loose, or improperly adjusted parts or any condition that could affect safe operation. For your own safety, do not operate the machine with damaged parts.
8. Use the machine only in clean areas free from excessive moisture or flammable objects.
9. Cables and cords should be inspected regularly.
10. Do not attempt to exceed the limits of the machine.
11. Keep the machine, electrical cabinet, and cables away from excessive heat, flammable substances, and sharp objects.
12. Keep the machine, electrical cabinet, and surrounding area clear of obstructions and free from excessive moisture.
13. Safety Signs should be attached to places that are easy to spot.
14. Disconnect power to all system components when not in use, when changing accessories, and before servicing. Remove the switch keys or lock-out the machine to prevent unauthorized use and child-proof the workshop.
15. Exercise care with machine controls and around keypad to avoid unintentional start-up.
16. The machine must be level. Level the machine if the ground is uneven.
17. Keep cutting tools clean and sharp.
18. Lubricate and change accessories when necessary.

19. Keep controls clean and dry.
20. Consult the Owner's Manual or contact Laguna Tools for recommended accessories. Using improper accessories will increase the risk of serious injury or damage.
21. Keep a copy of this manual for future reference.
22. All motion parameters have been set up by Laguna Tools. If any modifications are required, please have a qualified operator perform the changes.

1.5.1 Shop Environment

1. Verify the floor can bear the weight of the machine and workpieces.
2. Ensure the floor around the machine is clean and free of scrap material, oil, and grease.
3. Do not lean material against the gantry, guide rails, or table.
4. Support the weight of the dust hose attached to the dust shoe (optional) accessory to prevent the weight of the hose from dislodging the dust shoe. Ensure that there is sufficient slack in the dust collection hose to allow the spindle to cover the entire work area.
5. Position the machine away from overhead pipes and plumbing fixtures to prevent condensation from dripping on to the spoil boards and control system components.
6. Locate the machine away from sinks, faucets, or other water supplies or storage to prevent splash-outs that can damage the spoil boards and control system components.
7. Provide adequate room between this machine and other machines in the shop to reduce the chance of accidental jarring when transporting lumber or other heavy materials through the shop and while materials are being worked on other machines.
8. Verify there is adequate space between machines to allow for the possibility the workpiece will extend over the end of the machine.
9. Ensure that the lighting your machine is placed under is sufficient to safely perform regular operation and maintenance. Any glares, shadows, or strobe lighting which may distract or prevent the operator from safely operating the machinery should be removed from the working area.
10. Store cutting tools in a dry location and prevent contact to preserve the cutting edge.

1.5.2 Health and Safety

1. Always wear approved personal health and safety equipment as indicated for the materials and type of operations that will be performed. These should include a dust mask, hearing protection, safety clothing, and safety glasses/face shield. Wear ear protectors (plugs or muffs) even during short periods of operation.

2. Before operating this machine: remove all hand, wrist, or neck jewelry and push sleeves up over the elbows. Do not wear loose clothing which may become caught in the machine and confine long hair. Non-slip footwear or anti-skid floor strips are recommended.
3. Use a dust mask or other safeguards to avoid inhaling dust generated from wood products. Install dust collection equipment consistent with shop ventilation practices and budget. Remove dust and debris from the floor frequently to prevent slipping. Drilling, sawing, sanding, or machining wood products generates wood dust and other substances known to the State of California to cause cancer. Wood products also emit chemicals known to the State of California to cause birth defects or other reproductive harm (California Health and Safety Code Section 56).
4. In addition to other health hazards, dust from wood and other materials is flammable. Do not operate welding, wood burning, smelting, soldering, or other high-heat tools on the machine or vicinity.
5. Do not operate this machine while tired or under the influence of drugs, alcohol, or any medications.

1.5.3 Electrical Safety

1. Verify the switch is in the OFF position before connecting the machine to the power supply.
2. Verify the machine is properly grounded and the circuit is protected with a fuse or circuit breaker in accordance with local codes. Install a separate circuit if necessary to limit power loss when multiple machines in the shop are operating simultaneously. If necessary, place a cover on the outlet to prevent accidental disconnection.
3. Verify all machine adjustments or maintenance with the machine unplugged from the power source.
4. Follow effective lockout procedures to reduce the risk from high voltage wires and components and prevent accidental operation.
5. Do not operate in a damp or wet location or exposed to rain, fog, or snow.
6. Keep the electrical cord away from sharp edges, heat or moving parts, and do not store materials on top of it. Position the cord so it will not become a tripping hazard.
7. While the use of an extension cord is discouraged, if it is necessary, verify the cord is in good condition, meets the current requirements, and is located so as not to present a tripping hazard.

1.5.4 Additional Safeguards

1. Remove and store adjusting keys and wrenches before turning on the power. If necessary for visibility, apply safety markings to adjusting wrenches and keys.
2. Install safety guards consistent with general shop safety practices. Always keep safety guards in place when the machine is in use. If removed for maintenance purposes, use extreme caution, and replace the guards immediately after completion of maintenance.
3. Check damaged parts immediately. Before further use of the machine, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function.
4. Keep visitors a safe distance from the work area. Keep children away.
5. Control liquids in the shop to limit the possibility of spillage that can damage the machine and potentially cause damage or personal injury from electric shock or fire. Never use the table to apply or dry finishes.

1.5.5 Maintenance

1. Establish a weekly and monthly maintenance checklist and follow it diligently.
2. Routine maintenance should include periodic checks for alignment of moving parts, looseness, or binding of moving parts, worn or bare wires, breakage of parts, skewed mounting, and any other conditions that may affect its operation or cause injury. Analyze breakage or damage to determine the cause and take appropriate remedial action.
3. Do not operate the machine if a component of the control system is damaged. It should be properly repaired or replaced before use.
4. Follow instructions for lubricating and changing accessories.
5. Store maintenance tools and supplies nearby, consistent with the shop maintenance practices and resources.

1.5.6 Operational Practice

1. Never leave the machine running unattended. Always be in close reach of the emergency stop button.
2. Turn off the power and do not leave the machine until it comes to a complete stop.
3. Avoid pinch points and entanglement hazards. Keep hands and clothing away from any moving objects, rotating/moving cutting tools, ball screws, bearings, gantries, guide rails, and any other hazards while in operation.

4. Use the right tool at the correct speed and feed rate. Do not force a tool or attachment to do a job for which it was designed. The right tool will do the job better and more safely.
5. Do not touch a cutting tool immediately after use. It will be hot and may cause skin burns. Exercise caution when handling any cutting tool and accessories. If the cutting tool is hot, keep a heat-resistant glove or oven mitt on hand for this purpose.
6. Do not lay a hot cutting tool on its side.
7. Use recommended accessories; improper accessories may be hazardous.
8. Do not use dull, gummy, or damaged cutting tools such as blades, bits, etc. Keep cutting tools clean and sharp for the best and safest performance.
9. Turn off the machine before cleaning. Use a vacuum, brush, or compressed air to remove chips or debris. Do not use bare hands.
10. Do not climb or stand on the machine. Serious personal injury and costly damage could occur if the machine tips over or any component is dislodged.
11. Remove loose items and unnecessary workpieces from the table before starting the machine.
12. Inspect the material of the workpiece to detect any defects that may result in ejection of large pieces of scrap.
13. Verify the workpiece is free from nails, hardware, or other foreign objects.

NOTES:

2.0 Electrical Requirements

The machine requires permanent, direct power installed by a qualified electrician familiar with industrial best practices. Ensure that all power cords are protected from traffic, moisture, chemicals, or other hazards. For safety, always have a qualified electrician assess grounding and any further electrical needs.

⚠ WARNING

All electrical components must be performed by a qualified electrician and follow any local codes and ordinances. Failure to comply may result in serious injury.

Electrical connections that are improperly installed or are outside operational specifications may cause damage to the machine and void any warranties that are in place.

This machine requires a 230 Volt , 3 phase power source. A 100-amp breaker is required as well.

Electrical Requirements	
Voltage	230 Volts
Phase	3 Phase
Breaker Amperage Required	100 Amp Breaker

Verify the machine is connected to a matching outlet. No adapter is available, nor should one be used.

If the machine must be reconnected for use with a different type of electric circuit, the connection must be performed by qualified person(s) and must comply with all local codes and ordinances.

2.1 Grounding Instructions

This machines must be grounded. This grounding provides a path of least resistance for electrical current, which during a malfunction will reduce the risk of electrical shock.

All machines are equipped with an electrical cord with grounding conductor and plug. The plug must be used with a matching outlet that is properly installed and grounded in accordance with local codes and ordinances.

These plugs must not be modified, if a matching outlet is needed, one must be installed by a qualified electrician.

Improper installation may result in electrical shock.

⚠ WARNING

If grounding instructions are not completely understood or if in doubt as to whether the machine is properly grounded, a qualified electrician should be consulted.

The use of extension cords is discouraged. It is recommended to place the machines as near to the power source as possible.

If an extension cord is necessary, verify any cord used is in good condition. Worn or damaged cords should be replaced immediately.

Use an extension cord that is heavy enough to carry the required current and use only 3-wire extension cords that feature the correct 3-prong grounding plugs and 3-pole receptacles.

An undersized cord will cause a drop-in line voltage resulting in loss of power, overheating, and runs the risk of fire.

It is recommended that if an extension cord must be used, it be a 10-12 gauge grounded-three wire cord or no more than 8-10 feet.

3.0 Specifications

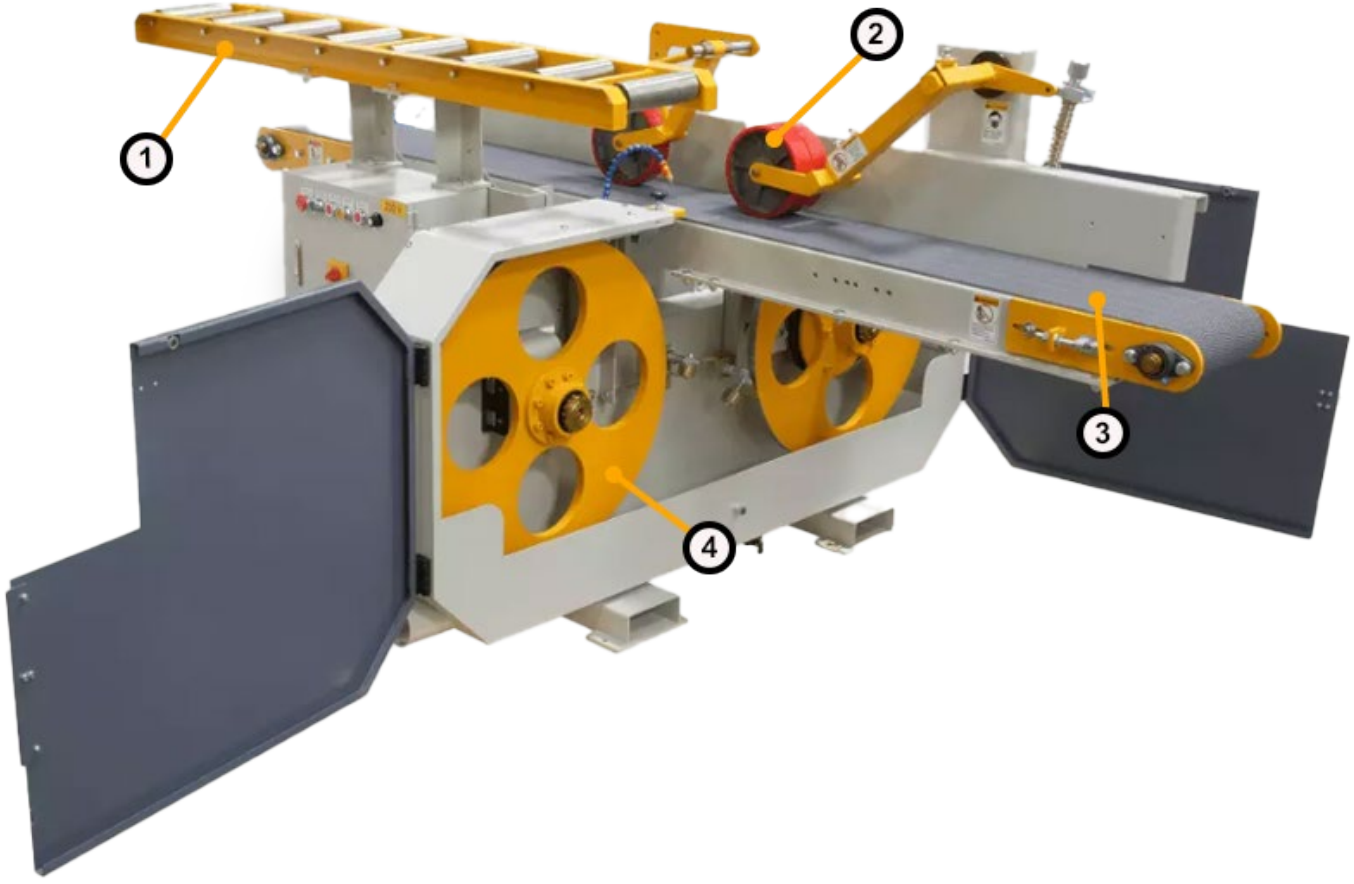
HRS-28 Specification Table	
Model	HP-12E SINGLE HEAD BAND SAW
Max. Workpiece Size	(W x H) 12" x 10" (300mm x 250mm)
Conveyor Belt Size	(W x L) 11.8" x 215.8" (300mm x 5480mm)
Saw Wheel Diameter	28"
Saw Wheel Width	1"
Saw Blade Size	(L x W) 168" x 1"
Dust Hood Diameter	4" x 3"
In-Feed Speed	5-25 M/m
Minimum Working Length	15.7"
Controlling Blade Tension	Hand press pump
Power Requirements	230 Volt / 3 phase / 100-amp breaker required
Full Load Amperage (FLA)	55 amps
Main Motor Horsepower	20HP
Conveyor Motor Horsepower	2HP Motor, 1 gearbox, 2HP Inverter
Base Construction	Steel
Saw Wheel	Steel
Conveyor Belt	Steel
Conveyor Table	Rubber
Saw Blade Guide	Steel
Machine Dimensions	210cm(L) x 112cm(W) x 100cm(T) 286cm(L) x 64cm(W) x 60cm(T)
Machine Weight	1500 (600kgs)
Distance From Blade to Conveyor Table	0"- 5" (4-125mm)
Packing Type	Pallet
Packing Dimensions	210cm(L) x 112cm(W) x 114cm(T) 287cm(L) x 65cm(W) x 77cm(T)
Packing Weight	1500 (680kgs)
Net Weight	1982 lbs (900kgs)
Country of Origin	Taiwan
Warranty	1 year

4.0 HRS-28 Overview

The HRS-28 Horizontal Band Resaw was designed to be Laguna tough to withstand any jobs thrown at it. We designed this bandsaw to be fully adjustable to accommodate a wider variety of stock so that users can get the most bang for their buck. See the specs below and take the first step toward a truly quality cut.

4.1 Features

- Manual Blade Tension Control
- Easy to Elevate Saw Wheels



1. **Manual return conveyor** — Area to set pieces on after they have been cut.
2. **In-Feed Pressure Rollers** — Allows for smooth and aligned movement when cutting.
3. **In-Feed Conveyor** — Smoothly moves the material in a straight path.
4. **Cast Iron Wheels** — The saw blade is wrapped around these two wheels to allow for smooth cutting.

4.2 Other Features

Main Motor- Drives the saw wheels for blade movement and drives the hydraulic pump for conveyor movement.

Electrical Conveyor Motor-2HP motor w/inverter to move the conveyor belt.

Conveyor Belt Controls- Controls ON/OFF and conveyor speed.

Electrical Control Box- Main area for wiring, rewiring, and changing the fuses. This should never be opened when the machine is connected to the power source!

Blade Elevation Gauge- Shows the blade height.

Blade Tensioner- Provide a mechanical means for properly tightening the blade.

4" Dust Port- Connection point for a dust collection system

5.0 Operation Instructions

5.1 Mounting resaw to the floor

We recommend that you bolt your new re-saw to the floor. Because this is optional and floor materials may vary, floor mounting hardware is not included. It may be necessary to level the floor before installing this machine.

NOTE

The instructions below are given for a typical heavy-duty shop floor made of 6" thick concrete. Also, anchor studs may be substituted for lag bolts, but they will stick out of the floor if you decide to move your machine at a later point.

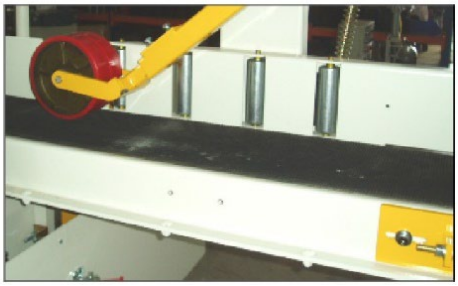
To mount the re-saw machine to the floor :

1. Put on safety glasses and a dust mask before starting!
2. Use the mounting holes in the resaw stand feet to act as a guide for drilling into your floor, and drill approximately 3ll2" deep into the concrete floor.
3. Using compressed air and a vacuum, remove the concrete dust from the newly drilled holes.
4. Using the hammer and punch, pound the lag shields into the concrete below the stand feet and flush with the
5. Secure the resaw to the floor with the lag bolts and washers.

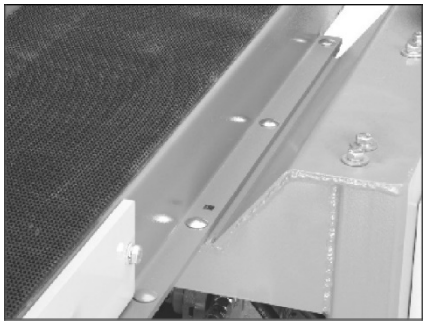
5.2 Mounting the Conveyor Belt

To install the conveyor belt onto the re-saw :

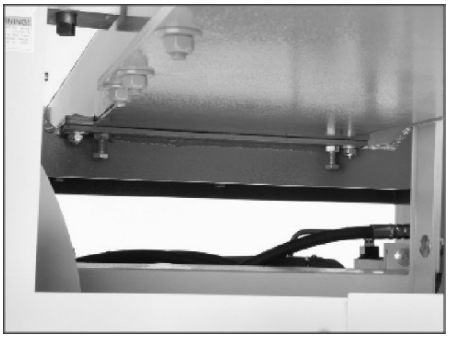
1. Remove the lag bolts that secure the conveyor belt assembly to the crate pallet.
2. Remove the blade guide from the wheel housing.



3. Lift the conveyor belt onto the resaw body as shown in the right photo.
4. Line up the holes and insert the carriage bolts.



5. Look under the conveyor for the carriage bolts. Place the flat washers and lock nuts on the carriage bolts and tighten.



6. Re-install the blade guard in the wheel housing.

5.3 Connect Power Wires

1. Before connecting the power source of your machine to the factory power supply, make sure the voltage, Hertz; and phase are compatible. The machine is prewired before shipment according to customers' requested voltage.
2. The power source connection points are provided inside of the electrical control box; located on the backside of the machine. Power wire connection points are marked as "R S T". The ground wire connection points are marked "E".
3. Make sure the machine is properly grounded to prevent the danger of electric shock.

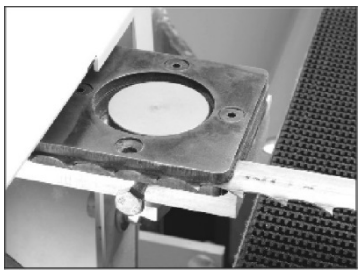
Check Power wire connection

After the power source wires have been connected, check if the power wires are connected to the correct points or not. This can be identified by checking the running direction of the conveyor. If the conveyor belt runs to the connect direction, this means the power wires are connected to the correct points. Otherwise, you should change any two of the three power wires.

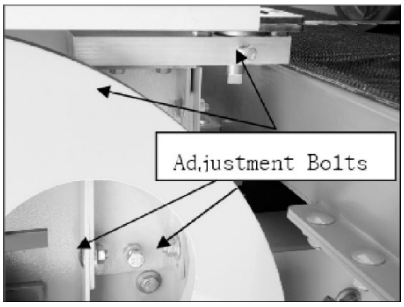
5.4 Saw Blade Tenison

To adjust the tension:

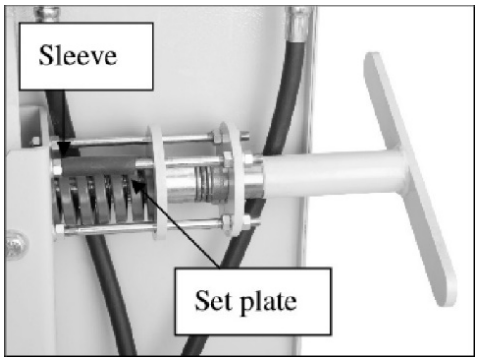
1. Disconnect the resaw from power!
2. Remove the upper plate.



3. Loosen the vertical adjustment bolts and lower the guide block.



4. Hand tighten the handle until the set plate contacts the sleeve.



5. Turn the bandsaw ON.

   a. If the blade flutters, increase the tension until the fluttering stops, then increase the tension an additional quarter turn.

   b. If the blade does not flutter, decrease the tension until it begins to flutter, then re-tension until it stops fluttering, then increase the tension an additional quarter tur.

6. Turn the resaw OFF and disconnect the resaw from the power source!

If the blade does not cut properly, the tension may be incorrect. Re-adjust the tension. A tension that worked well on a new blade may not work on an old blade because blades stretch with use. Band-saw blades will last longer and stretch less if they are de-tensioned after each use.

NOTE

These instruction are for rough tensioning only. The only way to accurately tension the blade Is with a blade tension. Premature blade breakage Is often caused by Improper blade tensioning.

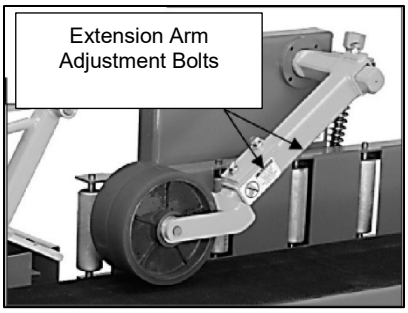
5.5 Pressure rollers

The pressure rollers hold the workpiece against the conveyor table for a smooth cut.

To adjust the pressure rollers :

1. Disconnect the resaw from power!

2. Loosen the jam nuts and hex bolts that secure the extension arm of the in-feed pressure roller .

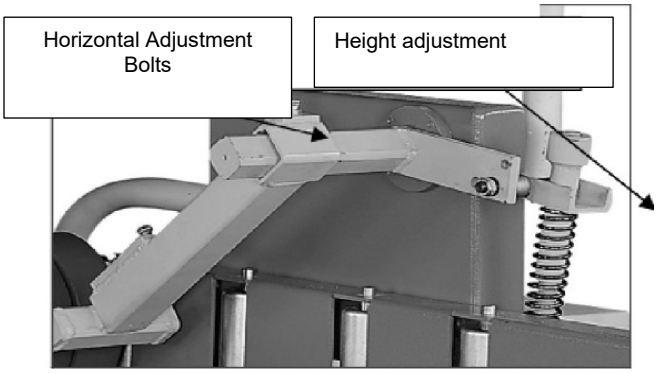


3. Extend the pressure roller close to the blade and tighten the jam nuts and hex bolts. Make sure the extension arm can rotate without hitting the pressure roller on the blade.

NOTE

The blade can move into the infeed pressure roller when the blade height Is changed. Prevent damage by checking the pressure rollers each time the blade is adjusted.

4. Loosen the horizontal adjustment bolt indicated in Figure 11, center the pressure rollers on the workpiece, then retighten the bolt and jam nut.

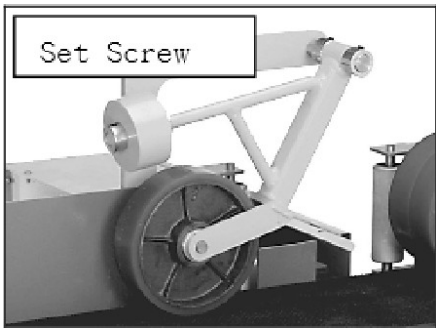


5. Rotate the height adjustment nut to raise or lower the in-feed pressure roller.

   a. Adjust the pressure roller to apply pressure to the top of the workpiece, **but** not touch the table after the workpiece passes.

   b. When working with thick workpieces, adjust the pressure roller so the workpiece does not hit the extension arm before contacting the pressure rollers.

6. If the workpiece hangs up on the out-feed pressure roller, loosen the set screws shown in Figure 12, and slide the weight up the shaft, then tighten the set screws.

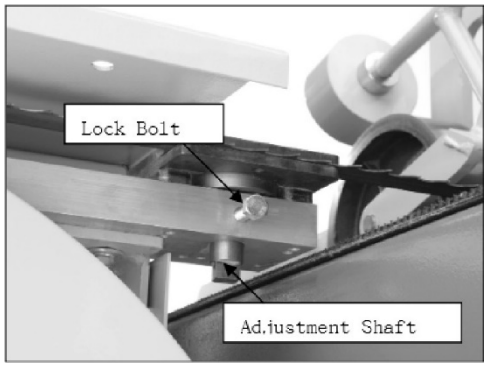


5.6 Adjusting the support wheel

The support wheel is positioned behind the blade to brace it from pushing backwards during a cut. Check the support wheel spacing each time a new blade is installed.

To adjust the support wheel :

1. Loosen the lock bolt.



2. Rotate the adjustment shaft until the support wheel is approximately 0.016" behind the back of the blade. Check with a feeler gauge or four thicknesses of a dollar bill.
3. Tighten the lock bolt.
4. Spin the wheels clockwise by hand. If the support wheels turn, increase the spacing between the blade and the bearing (the bearings should only tum when cutting).

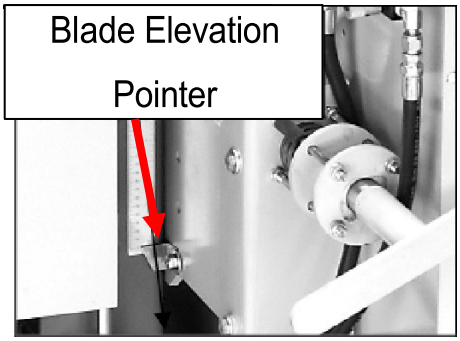
NOTE

To prevent the blade from wearing a groove into the support wheel adjust the height periodically. Move the adjustment shaft up or down until the blade contacts the support wheel in a new place.

5.7 Blade elevation gauge

To adjust the blade elevation gauge :

1. Adjust the blade height until the blade elevation gauge reads 112".
2. Run a test piece through the re-saw and measure the thickness of the test piece with calipers.
3. Disconnect the re-saw from power!
4. Loosen the bolt holding the blade elevation pointer and adjust the pointer until it is set at the same thickness as the test piece.



5. Tighten the blade elevation pointer bolt and run another test piece through the re-saw to confirm the elevation pointer setting.

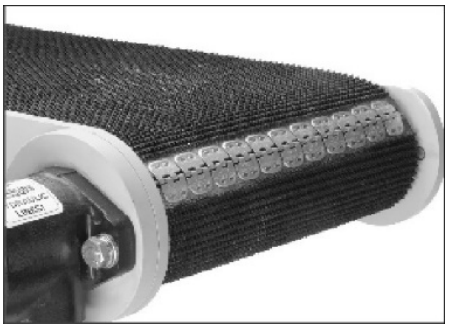
5.8 Adjusting Main Conveyor Table

The conveyor table can be adjusted left-to-right and front-to-back to make the table parallel to the blade in both directions. This is an involved procedure that requires you to cut up a piece of test stock and make many repeat adjustments.

Because of the complexity of this procedure, we will first give instructions on checking the table, so that you can be sure you need to perform the adjustment.
Before attempting these procedures, you need to have a perfectly squared piece of stock that is as wide as possible and is at least two feet long. The wider the stock, the more accurate your procedure **will** be (we recommend using the maximum width that the re-saw will allow). Also, you need to make sure that your blade is in good condition, tracked, and tensioned properly, and the blade guides are properly adjusted.

5.9 Replacing the Conveyor Belt

To replace the conveyor belts:



1. Start the conveyor belt and stop it when the conveyor belt seam is accessible.
2. Disconnect the resaw from the power source!
3. Loosen the roller bracket by turning the roller bracket cap screws ¾ of a turn.
4. Loosen the rear adjustment nuts away from the bracket plate.
5. Mark the front adjustment nut with a felt-tipped pen or a piece of tape, and thread the front adjustment nut all the way up, while keeping track of the number of full turns that you moved the nut.

NOTE

Write the number of turns down, so you do not forget. Remembering this number is an important part of the re-assembly process.

6. Slide the roller brackets toward the body of the re-saw to loosen the belt.
7. Remove the stiff cable from the center of the seam to separate the conveyor belt.
8. Remove the old conveyor belt from the conveyor table and install the new conveyor belt in its place.
9. Mesh the seam "teeth" together on the new belt and insert the stiff cable into the center of the seam to lock it together.
10. Slide the roller brackets away from the body of the re-saw to tighten the belt.
11. Thread the front adjustment bolts the same number of turns as in step 5.

NOTE

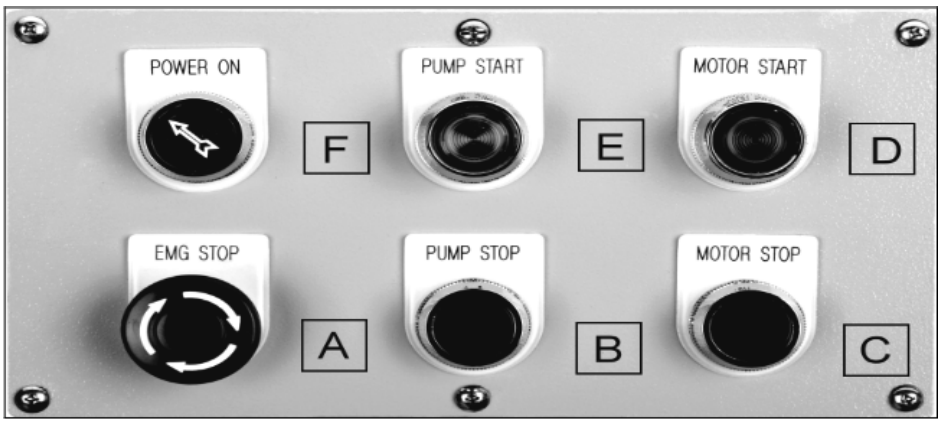
The new belt may be tighter than the old one because it has not been broken in. If this is the case, deduct one or two turns from your original number of turns.

6.0 Control System

Safety rules for control system

1. Do not alter or bypass any protective interlocking systems.
2. All electrical/electronic trouble shooting and repairs should be undertaken only by personnel who are properly trained and skilled.
3. Do not alter the electrical circuits unless authorized to do so by the machine manufacturer.
4. Before starting the machine, read and observe all warning labels and markings such as the name plates and indication plated.
5. Be alert and make sure you work without outside distractions.
6. Make sure your tools and body are clear of forming an electrical ground.
7. The control panel doors should be opened only when it is necessary to check out the electrical equipment or electrical wiring.
8. Take extra precautions in damp environments to protect you from accidental grounding. Before applying power to any equipment, ensure without doubt that all people are clear.
9. When replacing conductors, make sure they conform to the manufacturer's specifications, including correct color coding.
10. Avoid wearing metal frame glasses or metallic necklaces and chains. Never use electrical equipment while wearing rings, watches, or bracelets.
11. Give capacitors time to discharge; otherwise, it should be done manually with care.
12. Always assume that electrical power is ON and treat the circuit as live. The habit will help prevent accidents.
13. Use correct testing equipment to make certain you have an open circuit. Test equipment must be checked and calibrated at regular intervals.
14. Do not alter current protective devices.
15. All covers on the junction boxes must be closed before leaving any job.

6.1 Switch Function Control Panel



A. **Emergency stop button** —Turns off power to both motors in an emergency.

B. **Pump stop button** —Stops the hydraulic pump motor.

C. **Motor stop button** —Stops the main motor.

D. **Motor start button** —Starts the main motor and the saw blade.

E. **Pump start button** —Starts the hydraulic pump motor.

F. **Power on button** —Connects power to both motors.

7.0 HRS-28 Service

⚠ WARNING

Always disconnect power to the machine before performing service adjustments. Failure to do this may result in serious personal injury.

This section is designed to help the operator change adjustments that were made at the factory and that might also need to be made during the life of the machine.

7.1 Tracking

Blade tracking consists of aligning the wheels to keep the blade centered when the wheel is rotated under full tension. When replacing blades fine tuning may be necessary, but this entire process should not have to be repeated unless the wheels are removed.

Tools needed:

- Straight edge
- T-handle wrench
- 19mm wrench
- 4mm Hex wrench

To track the blade:

1. **Disconnect the resaw from the power source!**
2. Move the blade guides out of the way.
3. Turn the wheels by hand. If the bottom of the blade gullets do not remain approximately 1⁄16 " away from the front edge of the wheels, then adjust the tracking.
4. Place two flat bars under the conveyor belt and place a square against the fixed wheel as shown in **Figure 7-1**. Make note of the angle between the wheel and the square.

Figure 7–1: Vertical Wheel Adjustment

5. Move the bars to the other side of the conveyor belt and check the adjustable wheel.
    a. If the wheels have the same angle compared to the conveyor table, go to **step 8**.
    b. If the wheels have different angles, proceed to **step 6**.
6. Loosen the lock bolts and the jam nuts on the vertical adjusting bolts at the top of the adjusting plate shown in **Figure 7-2.**

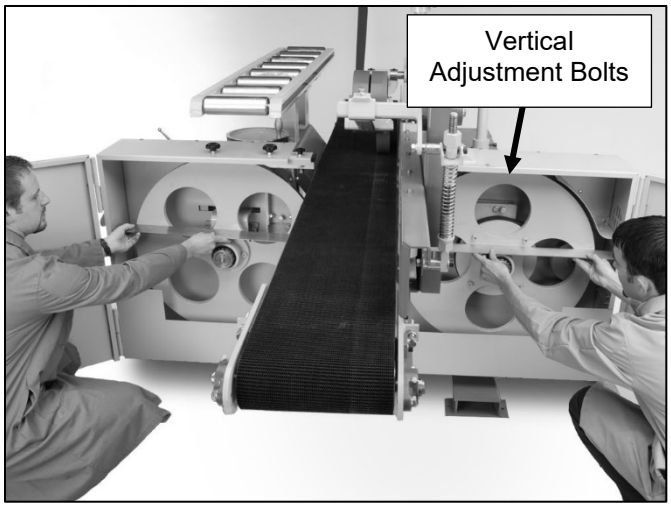


Figure 7–2: Straightedge Placement

7. **Tilting Forward**—To move the top of the wheel forward, loosen the lock bolt and tighten the neighboring adjustment bolt. Always loosen the jam nuts before moving the adjustment bolts, and always tighten the jam nuts after moving the adjustment bolts. **Tilting Backward**—To move the top of the wheel backward, loosen the adjustment bolt, then tighten the neighboring lock bolt.
8. Place the straightedge across the wheels, as shown in **Figure 02**, and examine how the wheels line up with each other.
    a. If the straightedge lies flat across the surface of both wheels as shown in **Figure 10-3**, skip to **step 11.**
    b. If the wheels are not aligned, determine which direction they need to move to be correct, then proceed to **step 9**.

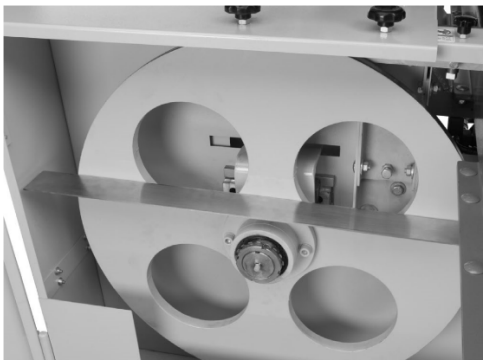


Figure 7–3: Correct Adjustment

9. Loosen the jam nuts on the tracking adjusting bolts and loosen the lock bolts. (See **Figure 7-4**)

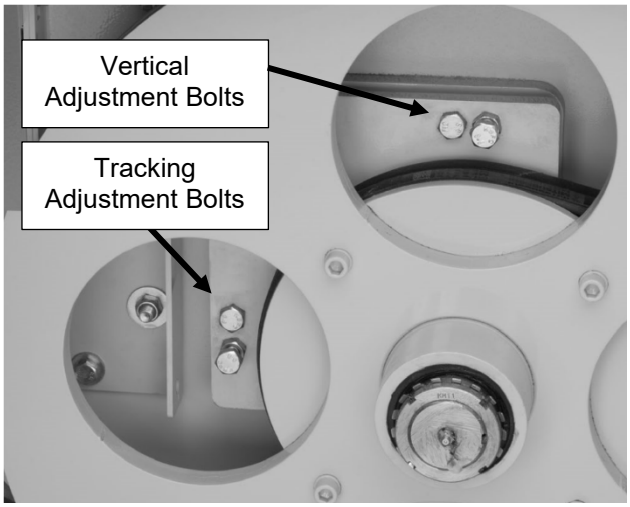


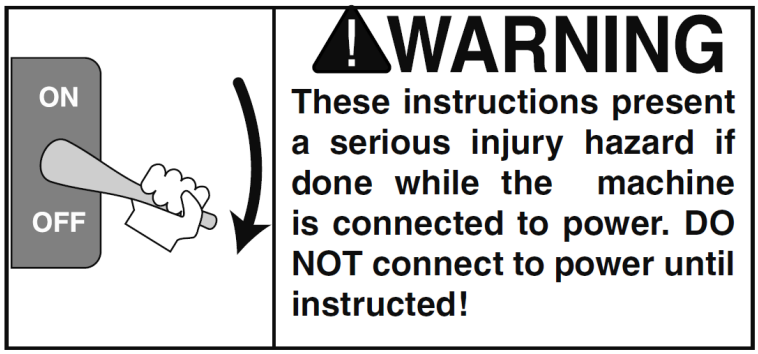
Figure 7–4: Tracking Adjustment Bolts

10. Adjust the wheels until the wheel position is correct when checked with the straightedge.
11. Spin the wheels by hand to check tracking.
12. Fine tune the adjustment bolts until the blade tracks correctly.
13. Adjust the guide bearings, close the wheel cover, and connect the machine to the power source to prepare the saw for a test run.
14. Test run the resaw and repeat this entire section if the blade does not track correctly.

7.2 Adjusting the Blade Guides

Each blade guide assembly consists of a guide block and a support wheel.

Each metal guide block has a guide slot that stabilizes the up/down movement of the blade and a support wheel to control backward movement. The guide block alignment should be checked each time a blade is installed.



Tools Needed:

- 17mm socket and ratchet
- 17mm wrench
- 19mm T-handle wrench
- 19mm socket and ratchet
- 19mm wrench

To align the guide blocks:

1. Rotate the wheels by hand and watch how the blade feeds through the blade guides.
    a. If the blade feeds through the blade guide without touching the guide block or rotating the support wheel, no adjustment is necessary.
    b. If the blade rotates the support wheel but does not touch the guide blocks, go to the *Adjusting the Support Wheel* section.
    c. If the blade rubs against the guide blocks, continue to the next step.
2. Loosen the vertical adjustment bolts shown in Figure 05 if the blade is not centered vertically in the guide slot.

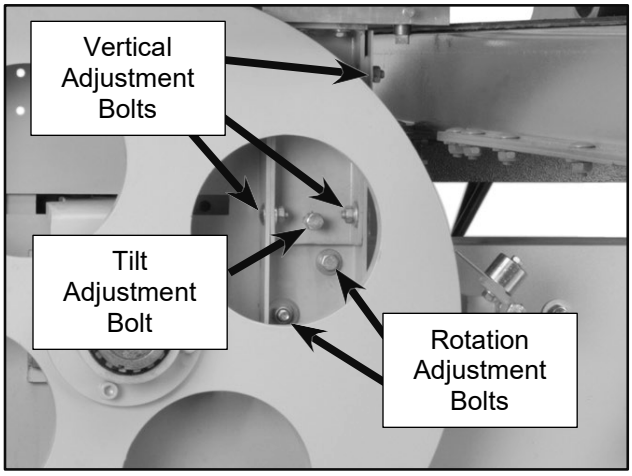


Figure 7–5:Guide block adjusting bolts. (fourth vertical adjustment bolt hidden behind the wheel in this picture)

3. Shift the blade guide adjusting bracket until the blade is centered in the guide slot.
4. Tighten the vertical adjustment bolts and repeat **step 1**.
5. Loosen the lower two vertical adjustment bolts if the blade guide is tilted so the blade touches the front or back.
6. Loosen the lock nut on the tilt adjustment bolt indicated in **Figure 7-5** and adjust the tilt adjustment bolt until the guide block is level.
7. Tighten the lock nut and the vertical adjustment bolts, and repeat **step 1**.
8. Loosen the rotation adjustment bolts shown in **Figure 7-5** if the blade touches the guide on the right or left sides.

9. Rotate the guide block until it is level and tighten the rotation adjustment bolts.
10. Test the alignment as described in **step 1**. Continue to adjust until the guide block no longer touches the blade.
11. Repeat the previous steps for the other guide block.

7.3 Adjusting the Support Wheel

The support wheel is positioned behind the blade to brace it from pushing backwards during a cut. Check the support wheel spacing each time a new blade is installed.

Tools Needed:

- 17mm wrench
- 17mm socket and ratchet

To adjust the support wheel:

1. Loosen the lock bolt shown in Figure 10-6.

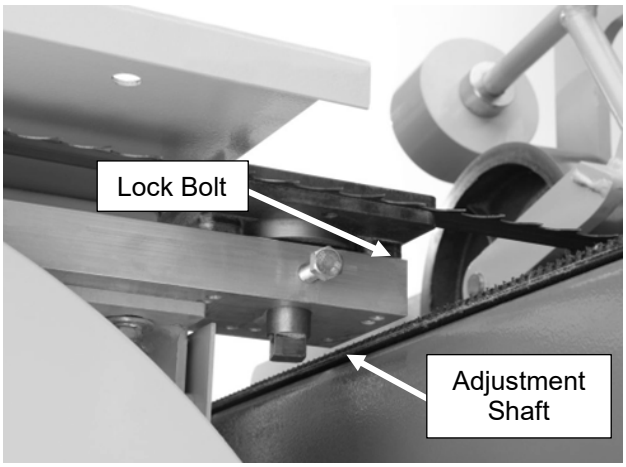


Figure 7–6: Support Wheel Components

1. Rotate the adjustment shaft until the support wheel is approximately 0.016" behind the back of the blade. Check with a feeler gauge or four thicknesses of a dollar bill.
2. Tighten the lock bolt.
3. Spin the wheels clockwise by hand. If the support wheels turn, increase the spacing between the blade and the bearing (the bearings should only turn when cutting).

NOTE

To prevent the blade from wearing a groove into the support wheel, adjust the height periodically. Move the adjustment shaft up or down until the blade contacts the support wheel in a new place.

7.4 Blade Elevation Gauge

Tools Needed:

- 17mm wrench
- 17mm socket and ratchet
- Measuring caliper

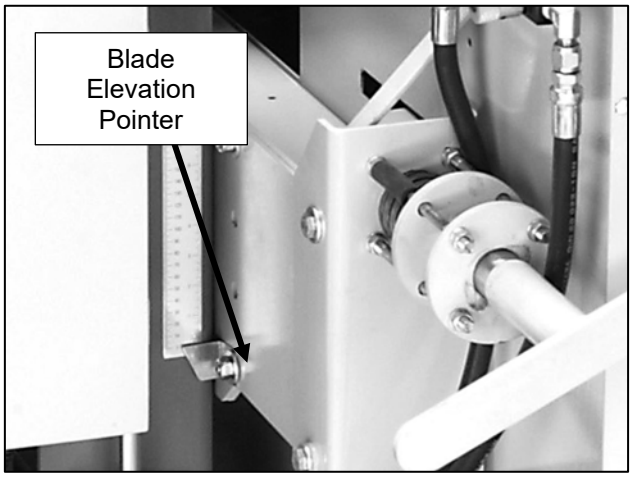
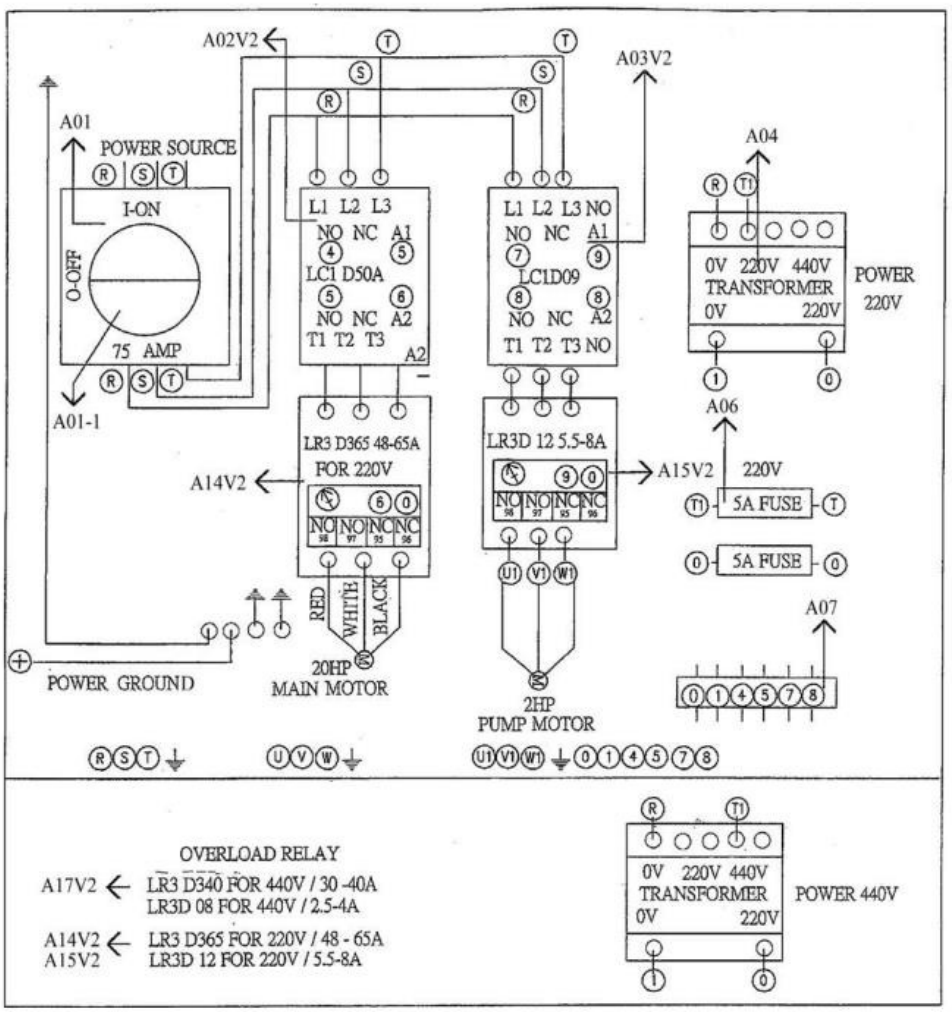
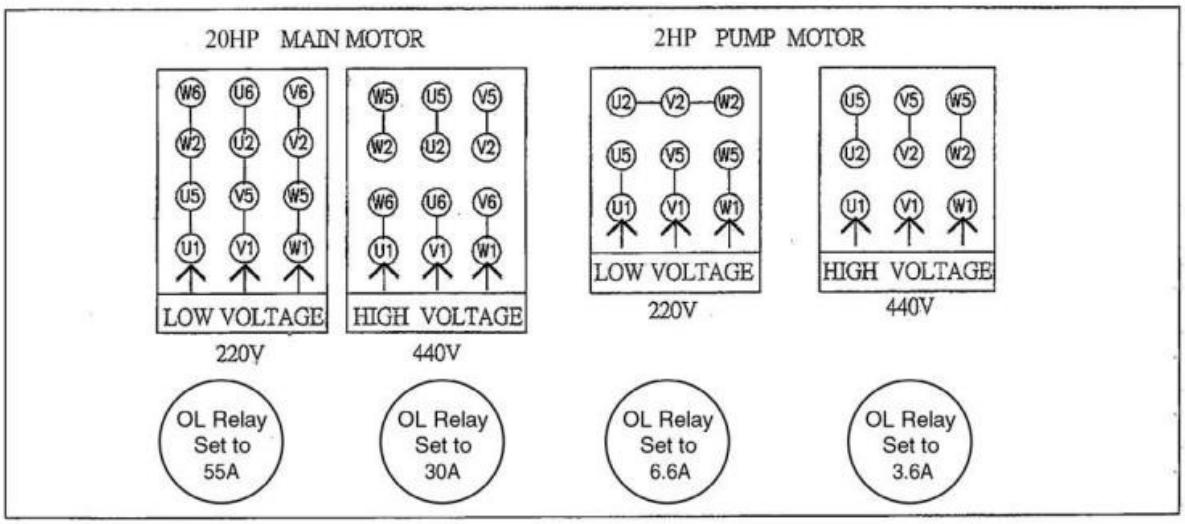


Figure 7–7: Blade Guide Upper Plate

Tighten the blade elevation pointer bolt and run another test piece through the resaw to confirm the elevation pointer setting.

8.0 Wiring Diagrams





9.0 Maintenance

To ensure optimal machine performance, you must conduct regular maintenance.

Failure to follow maintenance procedures will void the warranty.

⚠ WARNING

Always disconnect power to the machine before performing maintenance. Failure to do this may result in serious personal injury or damage to the machine.

9.1 Cleaning

Inside Wheel Cover

To keep the handsaw working properly, regularly open the wheel cover and vacuum any sawdust from the machine that did not make **it** into the dust collector.

Conveyor Belts

Use compressed air to clean the built-up sawdust from the conveyor belts. Eye injuries frequently occur when cleaning with compressed air-wear safety glasses to protect you. Also wear a dust mask or respirator to protect your lungs from airborne dust particles.

Painted Surfaces

These areas may be cleaned with a dry or damp rag; however, make sure you Do not clean bare metal surfaces with a damp rag, or they may rust.

Miscellaneous

Always be aware of the condition of your machine. Routinely check the condition of the following items and repair or replace as necessary :

- Loose mounting bolts
- Worn switch
- Worn or damaged blade
- Worn or damaged support bearings or guide bearings

Bearings

Sealed and pre-lubricated ball bearings require no lubrication for the life of the bearings. All bearings are standard sizes, and replacements can be purchased from our parts department or bearing supply store.

Greasing

The photos on this page label the grease fittings by number for easy identification. Wipe clean and lubricate the grease fittings with two pumps of high temp bearing grease. The proper greasing intervals are indicated by white boxes on the chart below.

NOTE

The chart below was designed to be copied and used as a check-off chart to help maintain a regular lubrication schedule

□ Check white boxes after lubricating fittings. Date Started :

HP-12E GREASE SCHEDULE/CHECK-OFF CHART							
MACHINE AREA	FITTINGS	HOURS OF USE					
		160	320	480	640	800	960
Main Wheels	4,9						
Blade Tension Device	2, 3, 17						
Main Conveyor	6, 11, 14						
Return Conveyor	7, 12, 13						
Lifting Posts	10, 16						
Pressure Rollers	8, 15						
Wheel Cover Bearings	1, 5						

Note: 160 hours is the equivalent of 1 month

10.0 Warranties

Dealer Machinery Warranty

New woodworking machines sold by Laguna Tools carry a two-year warranty effective from the date of dealer invoice to customer/end-user. Machines sold through dealers must be registered with Laguna Tools within thirty (30) days of purchase to be covered by this warranty. Laguna Tools guarantees all new machines sold to be free of manufacturers' defective workmanship, parts, and materials. We will repair or replace, without charge, any parts determined by Laguna Tools, Inc. to be a manufacturer's defect. We require that the defective item/part be returned to Laguna Tools with the complaint. The end-user must request a Return Material Authorization (RMA) number from Customer Service. Include the RMA number with any and all returned parts/components requesting warranty coverage*. Any machines returned to Laguna Tools must be returned with packaging in the same manner in which it was received. A part or blade is being returned must have adequate packaging to ensure it is not damaged during shipping. In the event the item/part is determined to be damaged due to lack of maintenance, cleaning, or misuse/abuse, the customer will be responsible for the cost to replace the item/part, plus all related shipping charges. This limited warranty does not apply to natural disasters, acts of terrorism, normal wear and tear, product failure due to lack of maintenance or cleaning, damage caused by accident, neglect, lack of or inadequate dust collection, misuse/abuse or damage caused where repair or alterations have been made or attempted by others.

* The issue of an RMA number is for reference only; it DOES NOT indicate acceptance of the warranty claim.

CNC Limited Warranty

New CNC machines sold by Laguna Tools carry a one-year warranty effective from the date of shipping. Laguna Tools guarantees all new machines sold to be free of manufacturers' defective workmanship, parts, and materials. We will repair or replace, without charge, any parts determined by Laguna Tools, Inc. to be a manufacturer's defect. If the defective item/part is determined to be damaged due to lack of maintenance, cleaning or misuse/abuse, the customer will be responsible for the cost to replace the item/part, plus all related shipping charges. This limited warranty does not apply to natural disasters, acts of terrorism, normal wear and tear, product failure due to lack of maintenance or cleaning, damage caused by accident, neglect, lack of or inadequate dust collection, misuse/abuse or damage caused where repair or alterations have been made or attempted by others.

Laguna Tools, Inc. is not responsible for additional tools or modifications sold or performed (other than from/by Laguna Tools, Inc.) on any Laguna Tools, Inc. woodworking machine. The warranty may be voided upon the addition of such described tools and/or modifications, determined on a case-by-case basis. Software purchased through Laguna Tools, Inc., is not covered under this warranty and all

technical support must be managed through the software provider. Normal user alignment, adjustment, tuning, and machine settings are not covered by this warranty. It is the responsibility of the user to understand basic woodworking machinery settings and procedures and to properly maintain the equipment in accordance with the standards provided by the manufacturer.

Parts under warranty are shipped at Laguna Tools, Inc.'s cost either by common carrier, FEDEX ground service, or a similar method. Technical support to install replacement parts is primarily provided by phone, fax, email, or Laguna Tools Customer Support Website. The labor required to install replacement parts is the responsibility of the user. Laguna Tools is not responsible for damage or loss caused by a freight company or other circumstances not in our control. All claims for loss or damaged goods must be notified to Laguna Tools within twenty-four (24) hours of delivery.

Please contact our Customer Service Department for more information. Only NEW machines sold to the original owner are covered by this warranty.

For warranty repair information, call 1-800-332-4094.

No Modifications Allowed or Sold

Laguna Tools, Inc. is not responsible for additional tools or modifications sold or performed (other than from/by Laguna Tools, Inc.) on any Laguna Tools, Inc. woodworking machine. The warranty may be voided upon the addition of such described tools and/or modifications, determined on a case-by-case basis. Normal user alignment, adjustment, tuning, and machine settings are not covered by this warranty. It is the responsibility of the user to understand basic woodworking machinery settings and procedures and to properly maintain the equipment in accordance with the standards provided by the manufacturer. Parts, under warranty, are shipped at Laguna Tools, Inc.'s cost either by common carrier, FEDEX ground service or a similar method. Technical support to install replacement parts is primarily provided by phone, fax, e-mail, or Laguna Tools Customer Support Website. The labor required to install replacement parts is the responsibility of the user. Laguna Tools is not responsible for damage or loss caused by a freight company or other circumstances not in our control. All claims for loss or damaged goods must be notified to Laguna Tools within twenty-four (24) hours of delivery. Please contact our Customer Service Department for more information. Only new machines sold to the original owner are covered by this warranty.

For warranty repair information call 1-800-332-4094.

Laguna Tools Warranty

WARRANTY & REGISTRATION

Thank You!

Welcome to the Laguna Tools® group of discriminating industrial machinery owners. We understand that you have a choice of where to purchase your machines and appreciate the confidence you have in the Laguna Tools® brand.

Through hands-on experience, Laguna Tools® is constantly working hard to make innovative, precision products. Products that inspire you to create works of art are a joy to operate and encourage your best work.

Laguna Tools®
Imagination, Innovation, and Invention at Work

Warranty & Registration

Every product sold is warranted to be free of manufacturer's defective workmanship, parts, and materials. For any questions about this produce, the intended use or what it was designed for, customer service, or replacement parts, please contact our customer service department:

Laguna Tools® Customer Service
744 Refuge Way, Grand Prairie, Texas 75050, USA
1-800-234-1976
customerservice@lagunatools.com
www.lagunatools.com/why/customer-service/
8AM. To 5PM PSF. Monday through Friday

For warranty claims or to report damage upon receiving-please reach out to our warranty department:

Laguna Tools® Warranty Service
744 Refuge Way, Grand Prairie, Texas 75050, USA
1-800-234-1976
customerservice@lagunatools.com
www.lagunatools.come/policies/warranty
8AM to 5PM PST, Monday through Friday

Registration

To prevent voiding this warranty, all products sold must be registered within thirty (30) days of receiving the product. Registering the product will enable the original purchaser to receive notifications about important product changes, receive customer service, and be able to file a warranty claim against defective workmanship, parts, or materials.

Who is Covered

The applicable warranty covers only the initial purchaser of the product from the date of receiving the product. To file such claims, the original purchaser must present the original receipt as proof of purchase.

What is Covered

The warranty covers any defects in the workmanship of all parts and materials that make up the machine unless otherwise specified. Any part determined by Laguna Tools® to have a defect will be repaired or replaced (and shipped), without charge. The defective item/part must be returned to Laguna Tools® with the complaint and proof of purchase in the original packaging that it was received in. In the event the item/part is determined to be not covered by this warranty, the customer will be responsible for the cost to replace the item/part and all related shipping charges

Warranty Limitations

This limited warranty does not apply to natural disasters, acts of terrorism, normal wear and tear, product failure due to lack of maintenance or cleaning, damage caused by accident, neglect, or lack-of inadequate dust collection. The warranty may be voided against proof of misuse/abuse, damage caused where repair or alterations have been made or attempted by others, using the product for purposes other than those described as intended use (unless with consent by Laguna Tools®), modification to the product, or use with an accessory that was not designed for the product. It is the responsibility of the user to understand basic woodworking machinery settings and procedures and to properly maintain the equipment in accordance with the standards provided in this manual.

Length of Warranty

All new machines and optional accessories sold through an authorized dealer carry a two-year warranty effective from the date of receiving the product. Machines sold for either commercial or industrial use have a one-year warranty. Wearable parts like throat plates, bandsaw guides, etc., have a ninety-day warranty.

Table A-1 Warranty Lengths

2 Year – New Machines Sold Through an Authorized Dealer
2 Year – Accessories Sold as Machine Options (excluding blades)
1 Year – Machines Sold for Commercial or Industrial Use
1 Year – Blades and Accessories outside or Machine Options
90 Days – Wearable Parts

Aside from being free of defects upon receiving, consumable parts, like cutters and abrasives, are not covered by this warranty unless otherwise stated by Laguna Tools®. These parts are designed to be used at the expense of the operator and are available for replacement or inventory purchase. The determination of a consumable part will be made on a case-by-case basis by Laguna Tools®.

Shipping Damage

Laguna Tools® is not responsible for damage or loss caused by a freight company or other circumstances not in the direct control of Laguna Tools®. All shipping-related claims for loss or damage to goods must be made to Laguna Tools® within twenty-four hours of delivery.

How to Receive Support

To file a warranty-claim please contact the warranty department at 1-800-234-1976. To receive customer service or technical support please contact the customer service or technical support please contact the customer service department at 1-800-332-4094. Parts, under warranty, are shipped at the expense of Laguna Tools® either by common carrier, FedEx ground services or similar method. Technical support to install replacement parts is primarily provided by phone, fax, email, or the Laguna Tools® Customer Service Support Website.

Laguna Tools, Inc.
744 Refuge Way
Grand Prairie, TX 75050
1-800-234-1976
www.lagunatools.com