

MiTek[®]

SERVICE BULLETIN

Affected machinery:

Matchpoint[®] *BLADE*[™] Wood Processing System

Document:

SB234

Title:

LASM Assembly Replacement Instructions

Distribution:

Customers upon order

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Approved By	XX

Purpose and Scope

This document provides instructions for removing and replacing the Lumber Advance Short Movement (LASM) cylinder and clamping jaw assembly on a *Matchpoint*[®] *BLADE*[™] wood processing system. For more information, please refer to the *Matchpoint BLADE* wood processing system manual set.

Overview

The parts included in this kit are listed individually below. However, they should arrive already assembled. Please make sure all parts are present before starting this procedure.

SB234KIT

Quantity	Description	Part #
1	LASM cylinder assembly	89347-501
1	Lumber ram shim	89149
1	Tubing clamp	511273
1	1/4" Lock washer	364034
1	1/4"-20 X 1/2" socket head cap screw	326153
1	Service bulletin document	SB234

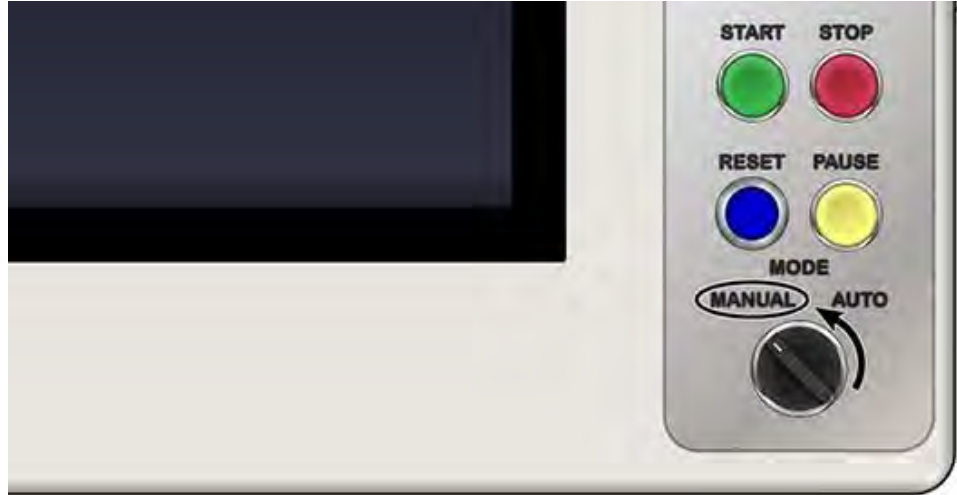
Before beginning the procedure, gather the following supplies:

- Standard hex key wrench set or standard hex bit socket set and ratchet
- 6' straight edge
- Permanent marker
- Safety glasses

If you have any questions, call MiTek Machinery Division Customer Service at 1-800-523-3380.

Preparing the Saw

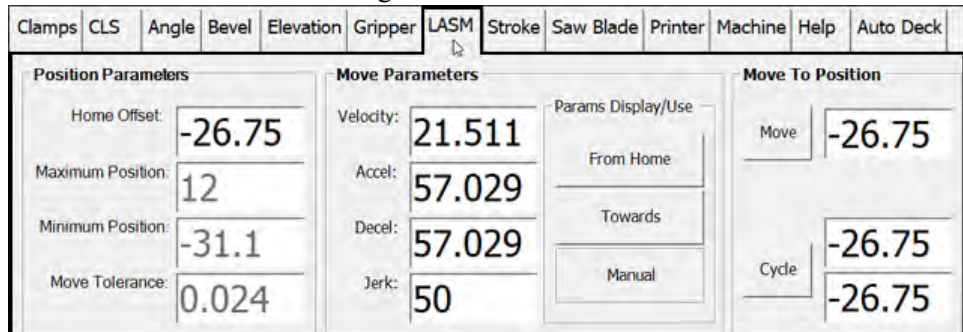
1. Turn the Auto/Manual Mode switch on the main control panel to MANUAL.



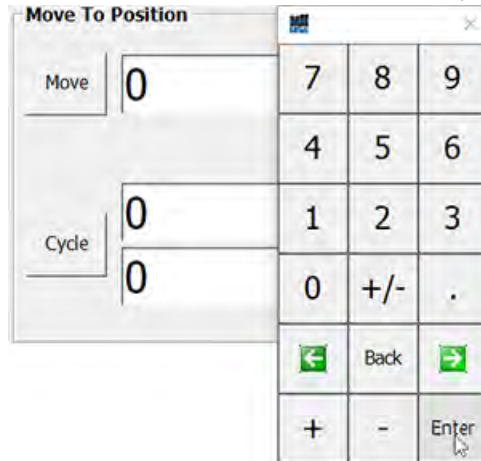
2. Select the DIAGNOSTICS tab, and then select DETAILED DIAGNOSTICS.



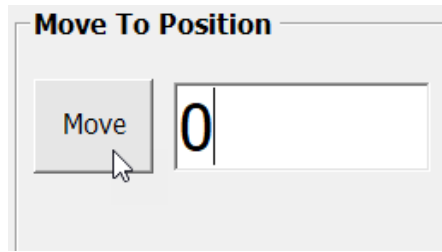
3. Select the LASM tab in the Diagnostics window.



4. Enter 0 into the Move to Position field, and select ENTER.



5. Press the MOVE button.





6. Verify the LASM is centered in the saw chamber.



Safety Procedures

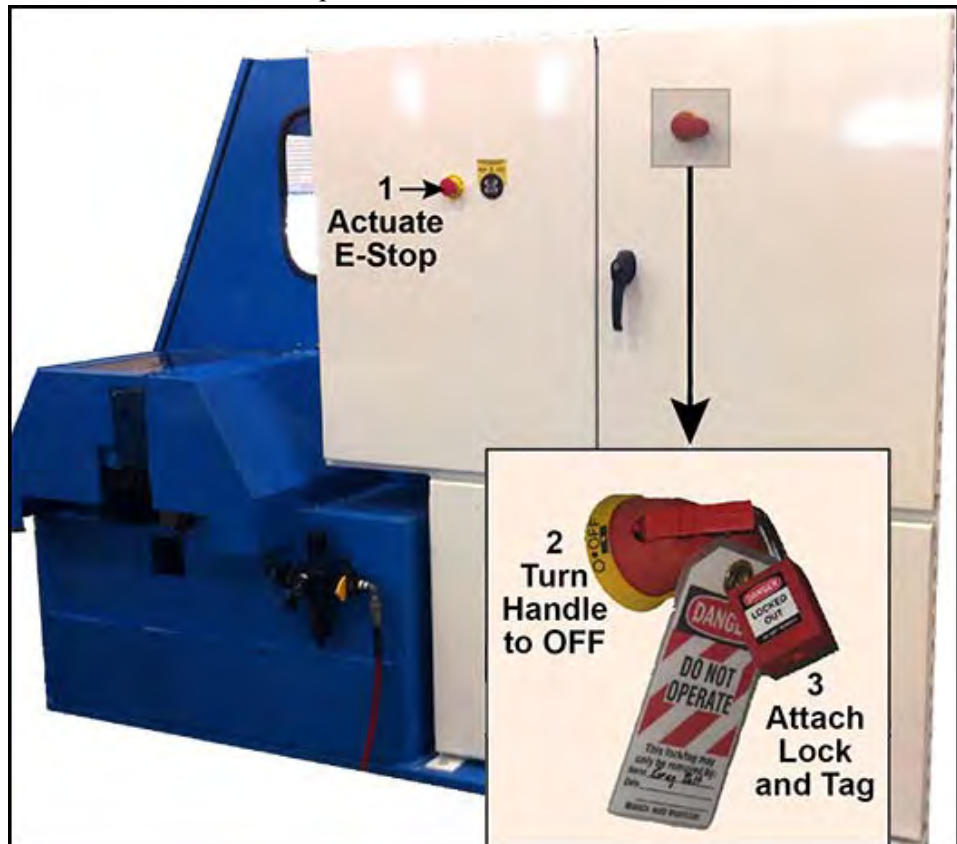
The following safety procedures must be followed.


Electrical Lockout/Tagout Procedure

	 WARNING
	<p>ELECTROCUTION HAZARD.</p> <p>All electrical work must be performed by a qualified electrician.</p> <p>Verify that all power to the machine has been turned off and follow approved lockout/tagout safety procedures before performing any maintenance.</p> <p>If it is absolutely necessary to troubleshoot an energized machine, follow NFPA 70E for proper procedures and person protective equipment.</p>

Before performing maintenance on any machine with electrical power, lockout/tagout the machine properly. Follow your company's approved lockout/tagout procedures, which should include, but are not limited to, the steps here.


1. Engage an E-stop on the machine.
2. Locate the disconnect switch on the main electrical enclosure. Turn the disconnect switch's handle to the Off position.




	⚠ WARNING
	<p>ELECTROCUTION HAZARD.</p> <p>Even when the disconnect switch is off, there is still live power supplied to the disconnect switch's enclosure.</p> <p>Always turn off power to the equipment before opening this enclosure.</p>

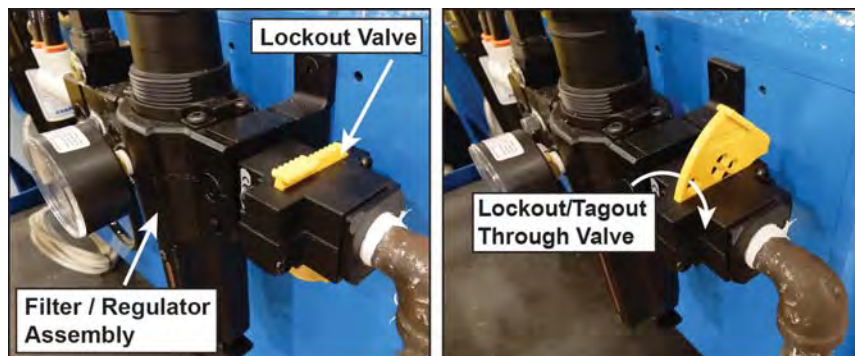
3. Attach a lock and tag that meet OSHA requirements for lockout/tagout.

Pneumatic System Lockout/Tagout Procedure

	⚠ WARNING
	<p>MOVING PARTS CAN CRUSH AND CUT.</p> <p>Always verify that power to the machine has been turned off and follow approved lockout/tagout procedures.</p>

	⚠ WARNING
	<p>HIGH PRESSURE HAZARD.</p> <p>Bleed pneumatic lines before performing any maintenance on the system.</p> <p>Working on pressurized lines may cause injury.</p>

1. Lockout/tagout the filter / regulator assembly by using the following steps.
2. Locate the yellow lockout valve on the filter / regulator assembly on the outfeed side of the saw.



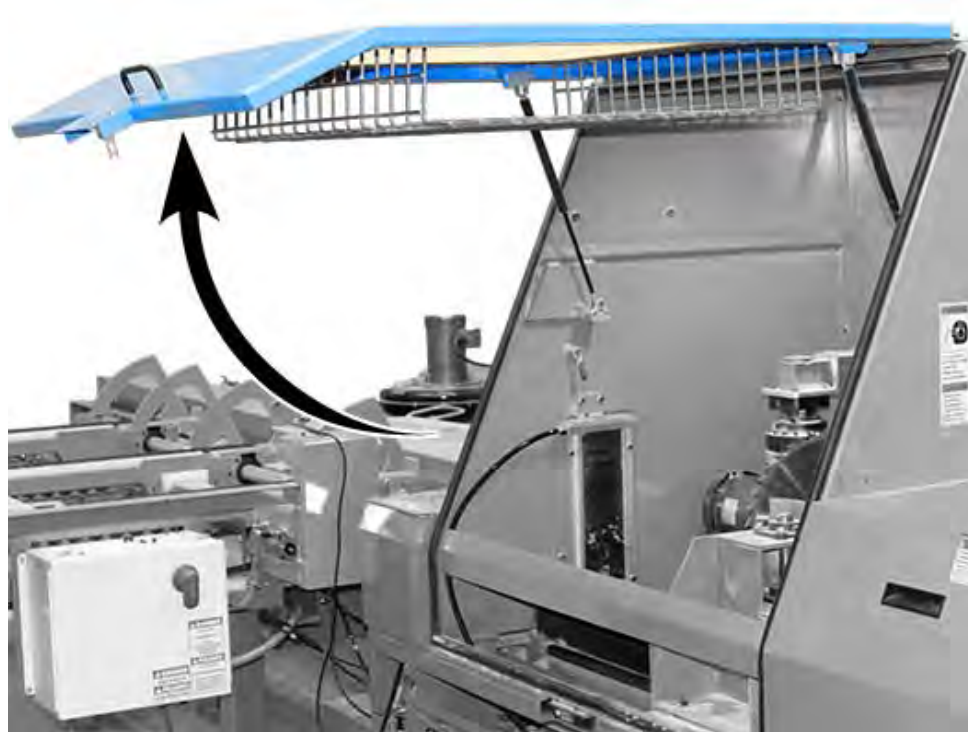
3. Push the valve up from below. Lockout/tagout on the valve as shown.

LASM Replacement

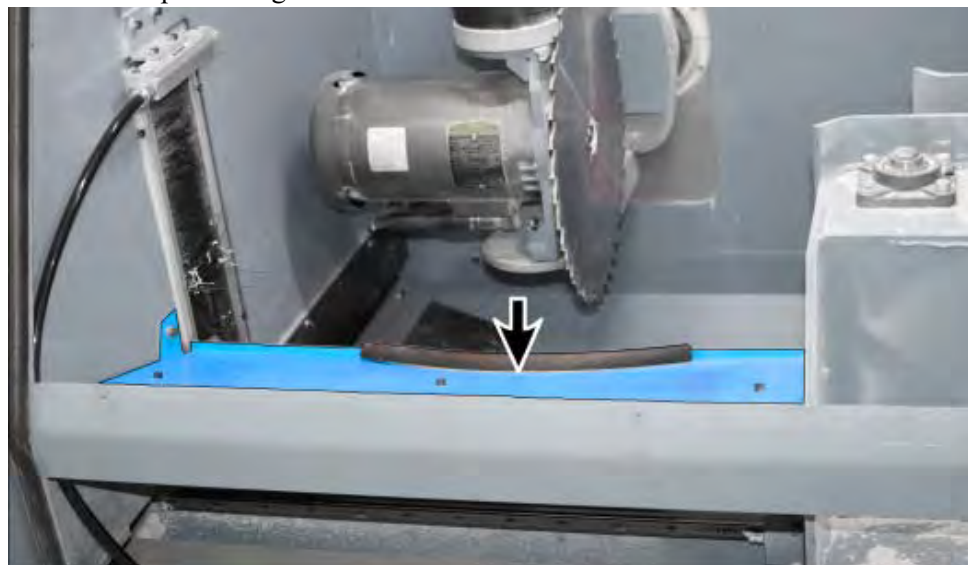
Use the following procedures to remove and replace the LASM cylinder and clamp. Retain *all* hardware for reassembly.

Accessing the LASM

1. Open the saw chamber door.



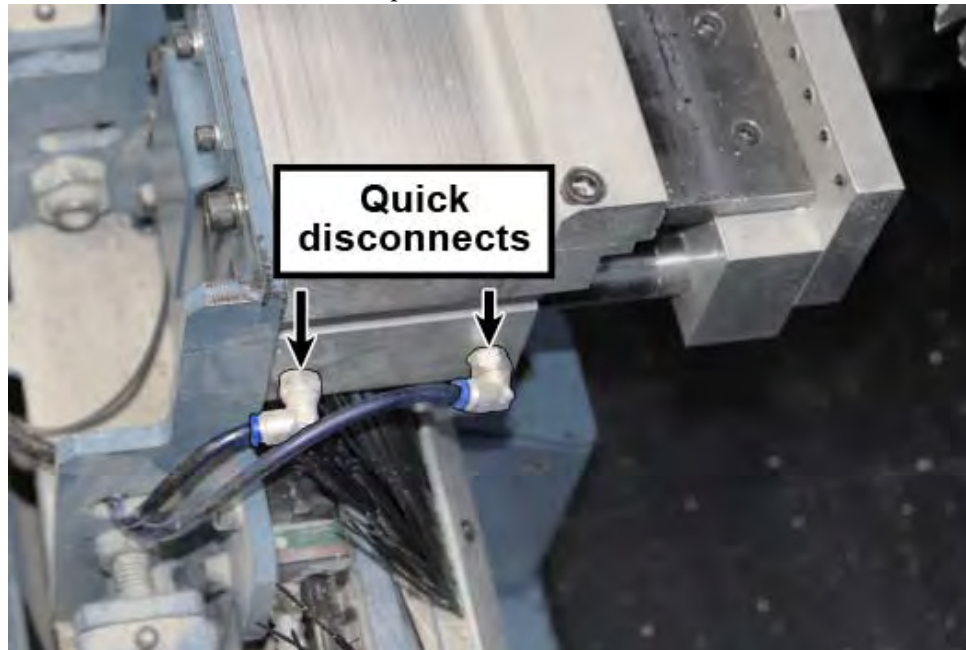
2. Locate the top LASM guard.



3. Remove the four 3/16" socket head cap screws securing the top LASM guard. Note that the two front screws are shorter than the two side screws.



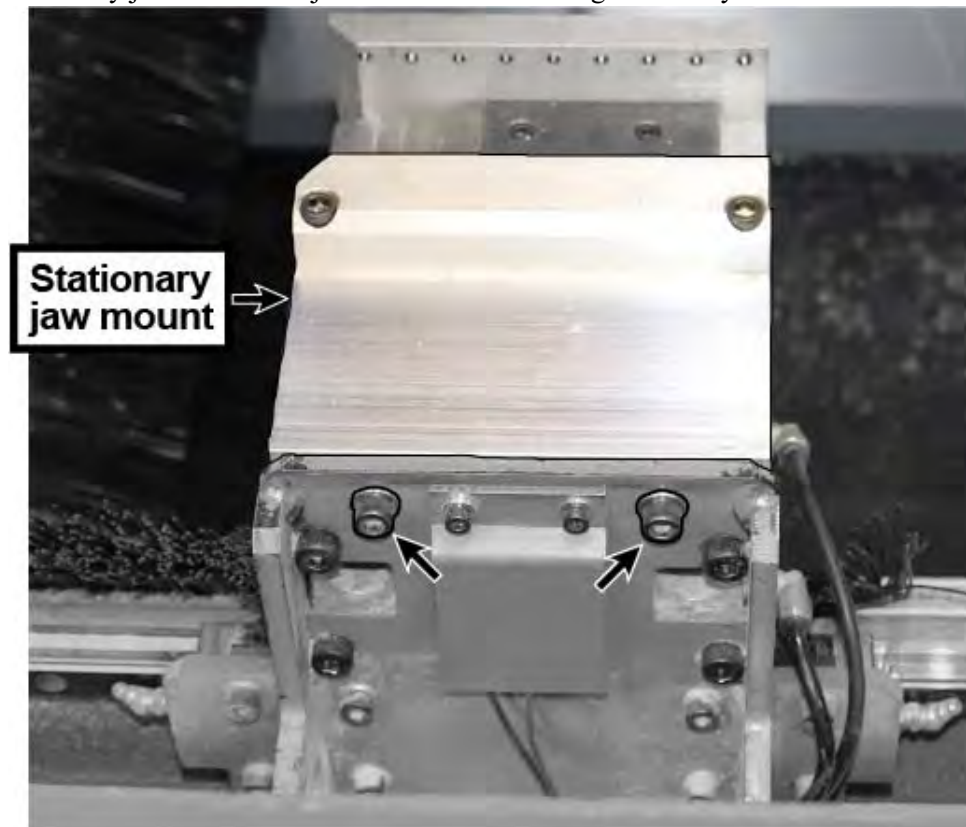
4. Mark the two air lines on the right side of the LASM cylinder for reassembly, and then disconnect the two air line quick disconnects.



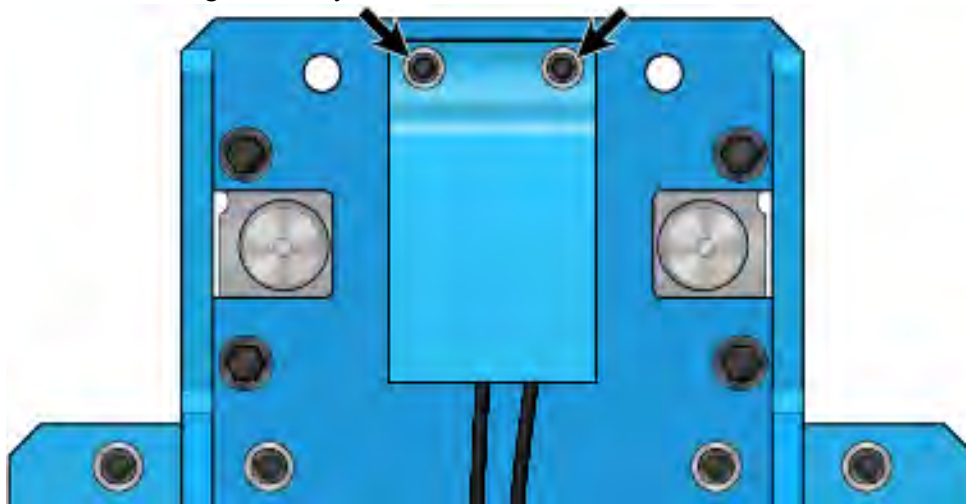
5. Inspect the air lines for damage or wear marks. Replace any air lines that appear damaged or exhibit signs of excessive wear.

Removing the LASM

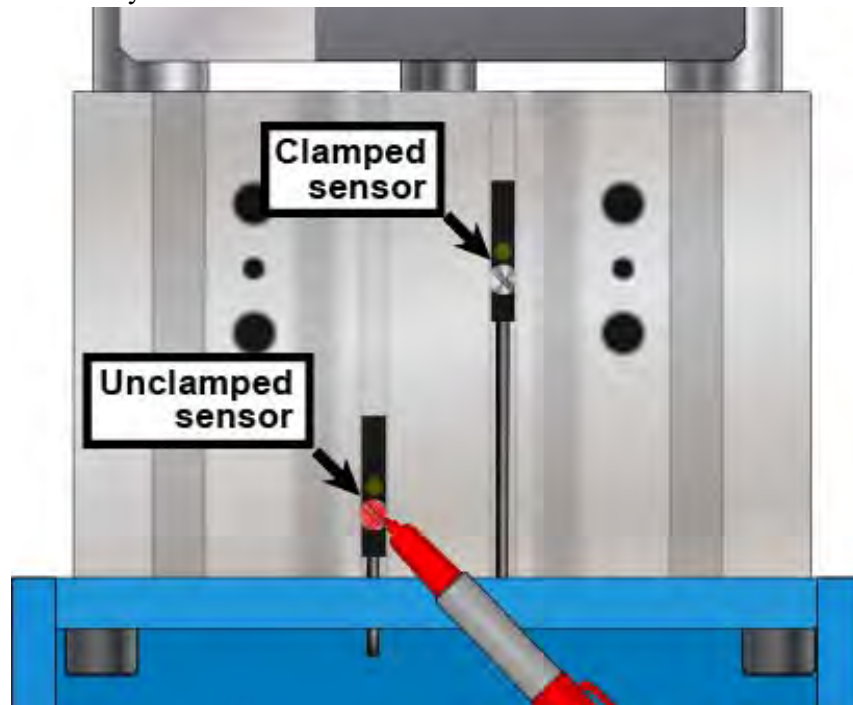
1. Remove the two 5/16" socket head cap screws and lock washers holding the stationary jaw mount and jaw to the LASM carriage assembly.



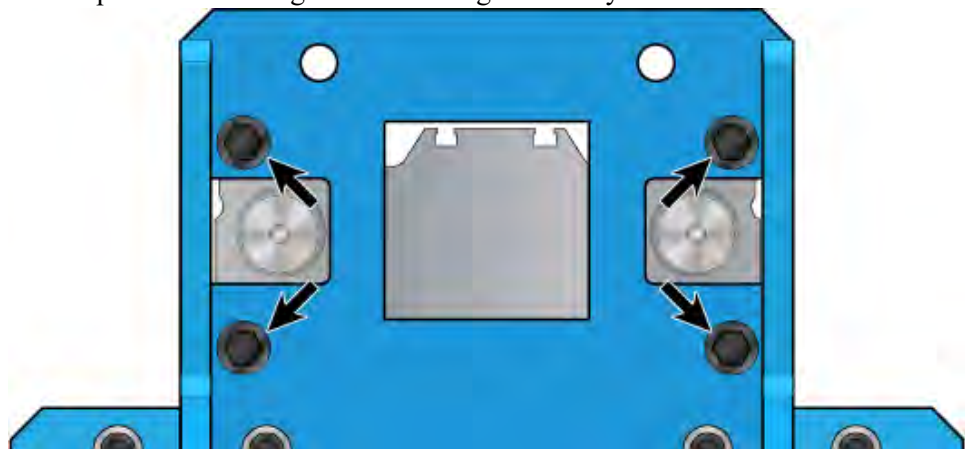
2. Remove the two 3/16" socket head cap screws holding the sensor wire shield to the LASM carriage assembly.



3. Mark the set screw of the Unclamped sensor with the permanent marker to aid in reassembly.

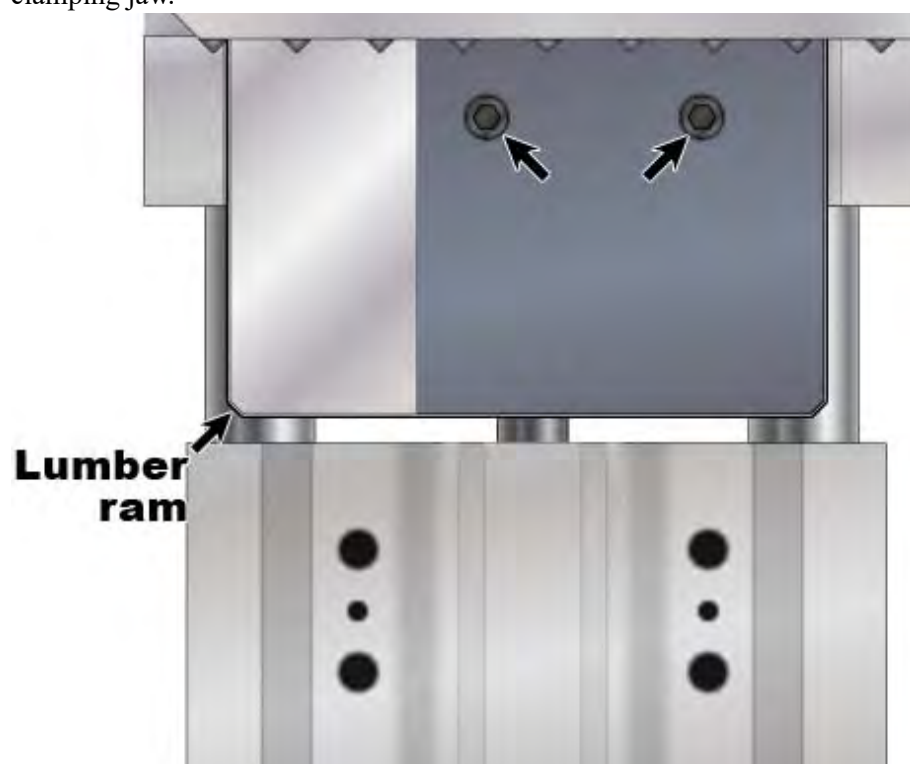


4. Loosen the set screw that secures the LASM Unclamped sensor to the LASM cylinder, and slide the sensor through the opening.
5. Loosen the set screw securing the LASM Clamped sensor to the LASM cylinder, and slide the sensor through the opening.
6. Remove the LASM cylinder and clamping jaw by removing the four 5/16" socket head cap screws securing it to the carriage assembly.

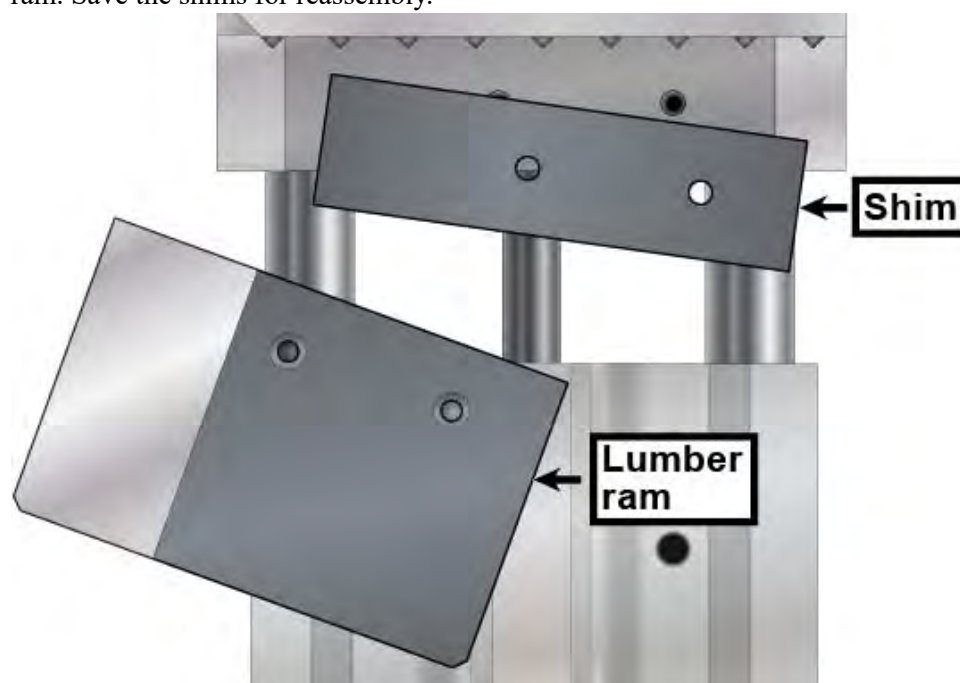


Removing Components from LASM Cylinder

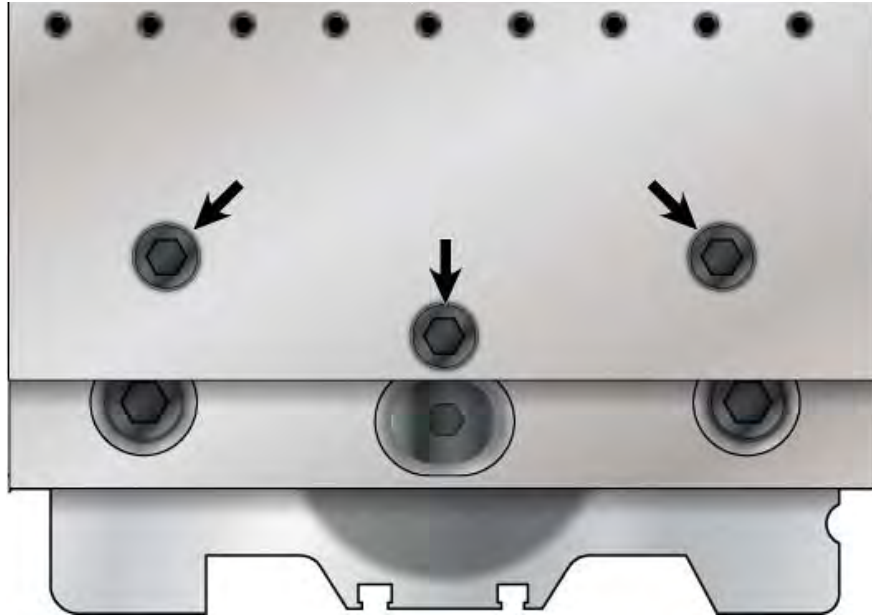
1. Remove the two 3/16" socket head cap screws securing the lumber ram to the clamping jaw.



2. Remove the lumber ram and any shim(s) that may be present under the lumber ram. Save the shims for reassembly.



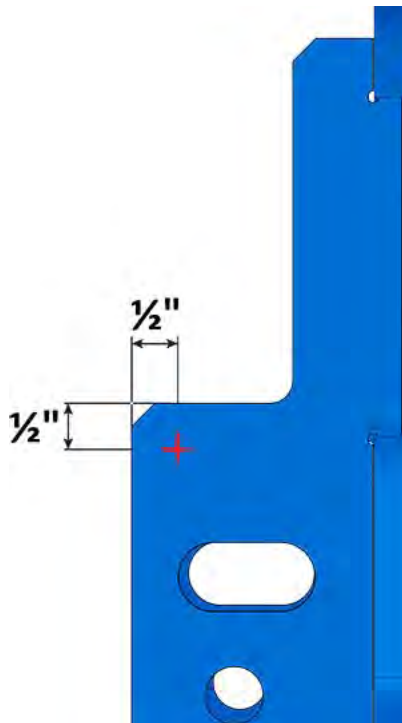
3. Remove the three 5/16" socket head cap screws securing the clamping jaw to the LASM cylinder. Retain the clamping jaw and bolts for reassembly.



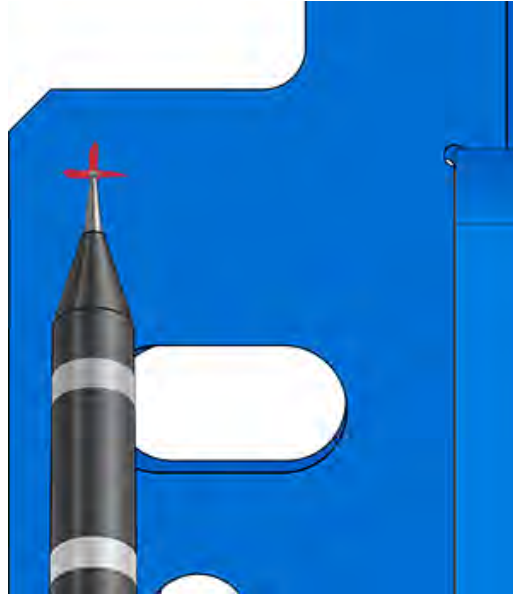
Preparing the Carriage

If the LASM carriage does not have the air line clamp on the side of the carriage closest to the air lines, MiTek recommends adding the clamp included in Kit SB234 to reduce wear on the air lines. Use this procedure to install the included air line clamp.

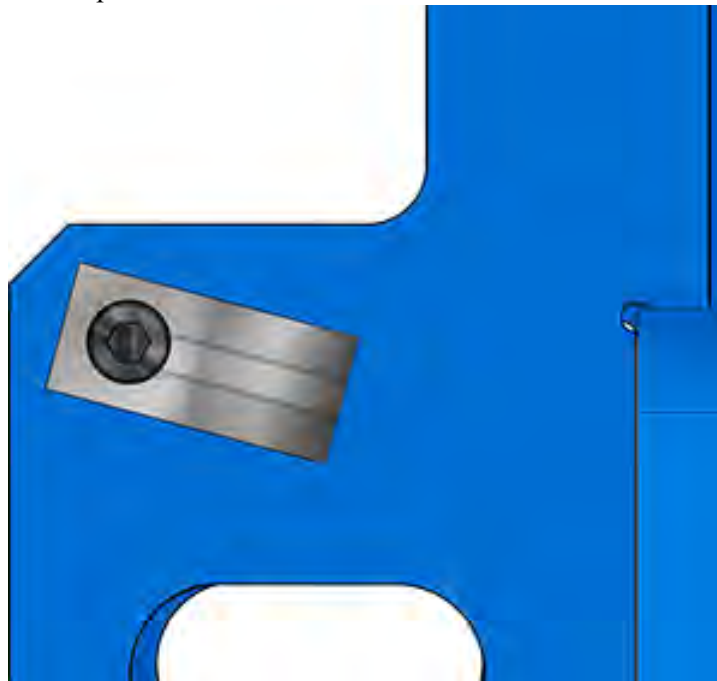
1. Mark 1/2" down from shoulder and 1/2" in on the right gusset of the carriage frame..



2. Create an indent at the marked point with a center punch.

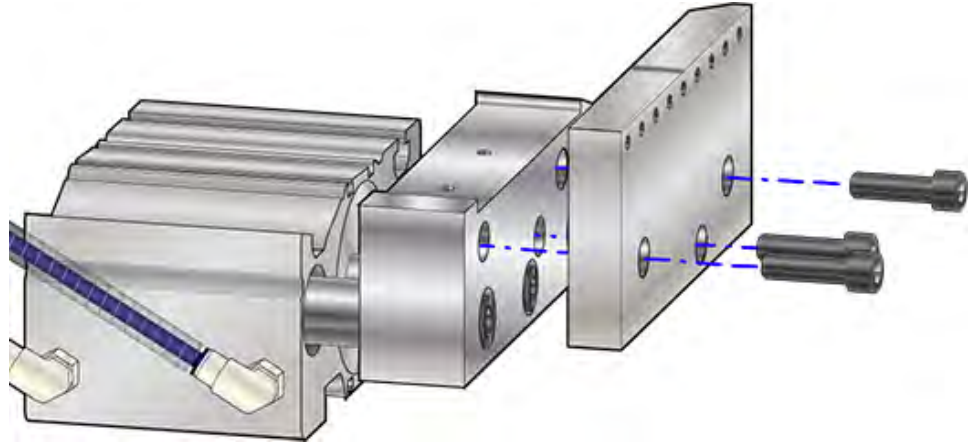


3. Drill a hole using a number 7 (.201") drill bit.
4. Use a 1/4"-20 UNC tap to thread the hole.
5. Remove any burrs or metal shavings from the threaded hole.
6. Loosely secure the clamp to the carriage using the included 1/4-20 x 1/2" socket head cap screw and lock washer.

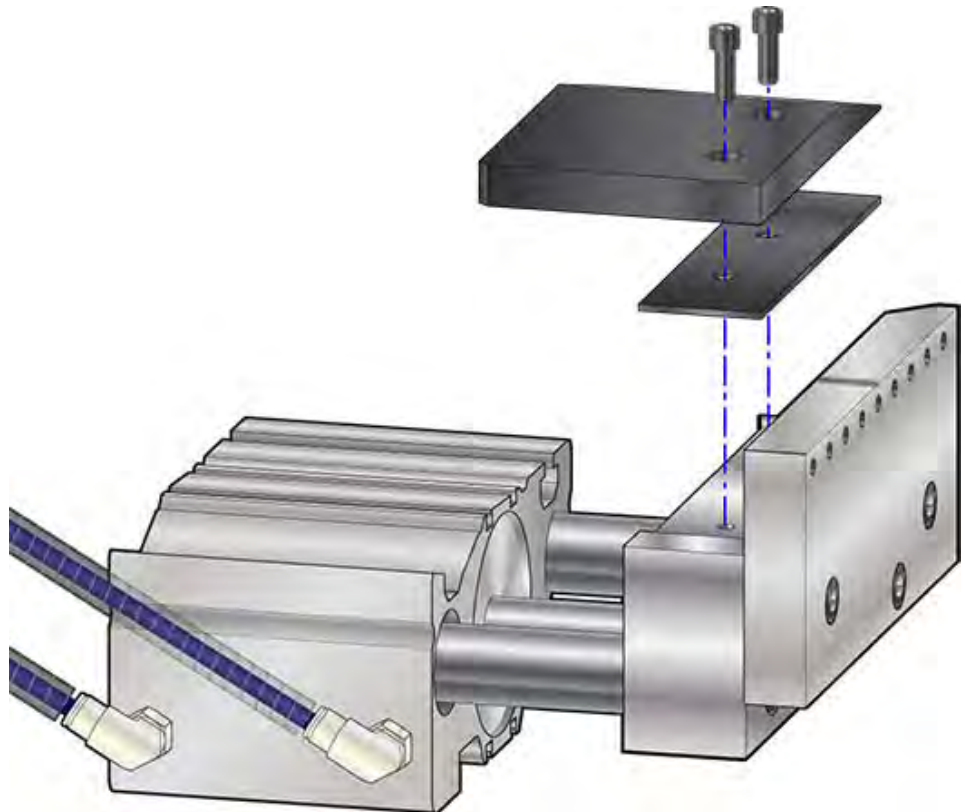


Installing Components on New LASM Cylinder

1. Secure the clamping jaw to the new LASM cylinder clamping jaw mount using the three 5/16" socket head cap screws removed in step 3 of the previous section.

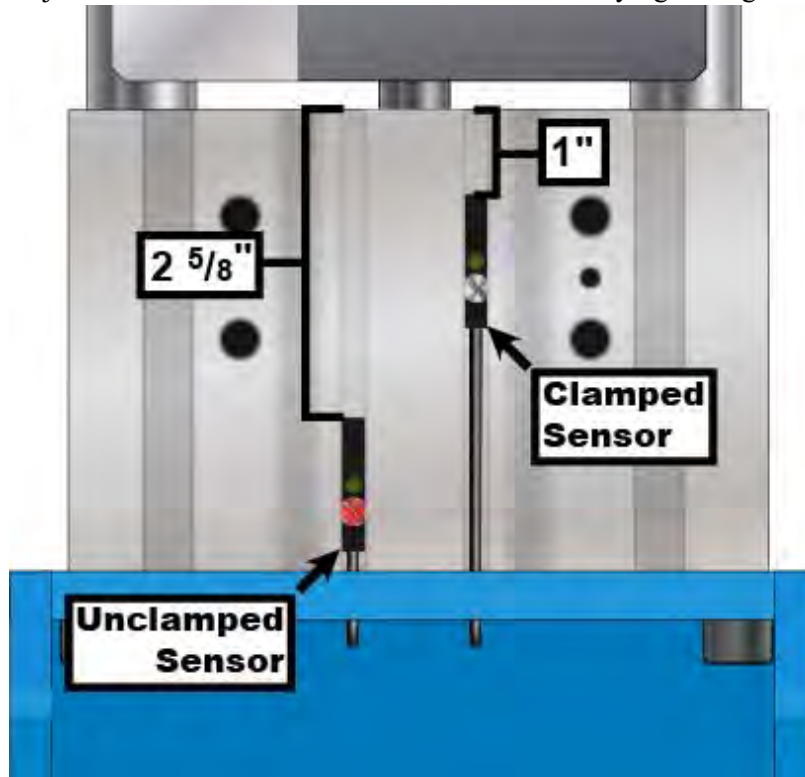


2. Install the shims and lumber ram to the clamping jaw mount of the new LASM cylinder using the two 3/16" socket head cap screws removed in step 2 on page 10.



Installing LASM Assembly

1. Secure the new LASM cylinder and clamping jaw assembly to the carriage using the four 5/16" socket head cap screws removed in step 6 on page 9.
2. Slide the Unclamped sensor (marked in step 3 on page 9) into the left slot on top of the LASM cylinder.
3. Slide the Clamped sensor into the right slot on top of the new LASM cylinder.
4. Adjust both sensors as shown. Secure each sensor by tightening the set screw.



5. Secure the sensor wire shield to the carriage assembly using the two screws removed in step 2 on page 8.
6. Secure the stationary jaw mount and jaw assembly, to the LASM carriage assembly using the two 5/16" socket head cap screws and lock washers removed in step 1 on page 8.
7. Install the fixed clamping jaw removed

Checking Lumber Ram Height

1. Place a 6' long straight edge so that one end rests on the infeed rollers and the other rests on the outfeed rollers.
2. The lumber ram should not touch the straight edge and should not be lower than 1/16" below the straight edge.



(Illustrations simplified for clarity.)

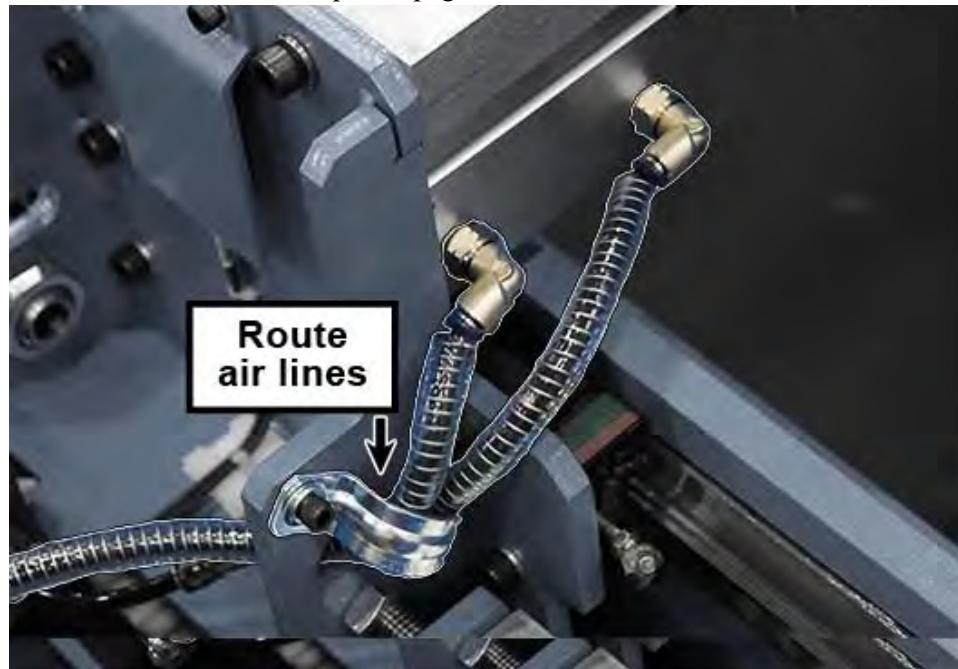
If the lumber ram is touching the straight edge, remove a shim from under the lumber ram.

If the lumber ram is more than 1/16" below the straight edge, add the included shim.

Connecting the Air Lines

1. Route the air lines of the new LASM cylinder through the clamp and the carriage gusset.
2. Connect the air lines marked in step 4 on page 7 to the connectors attached to the new LASM cylinder.

Note: If the old LASM had the unshielded air lines, it may be necessary to trim the air lines disconnected in step 4 on page 7 to eliminate excess..

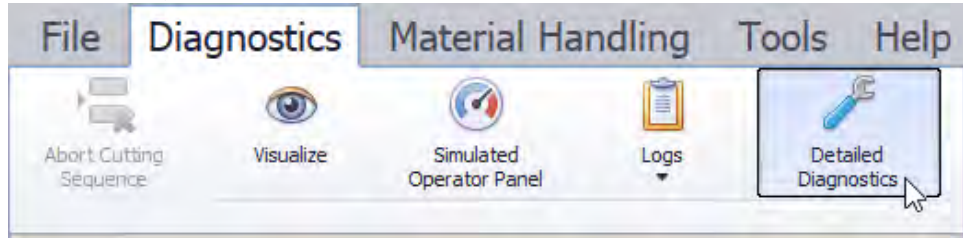


3. Tighten the screw holding the clamp to the carriage gusset being careful not to pinch or kink the air lines.

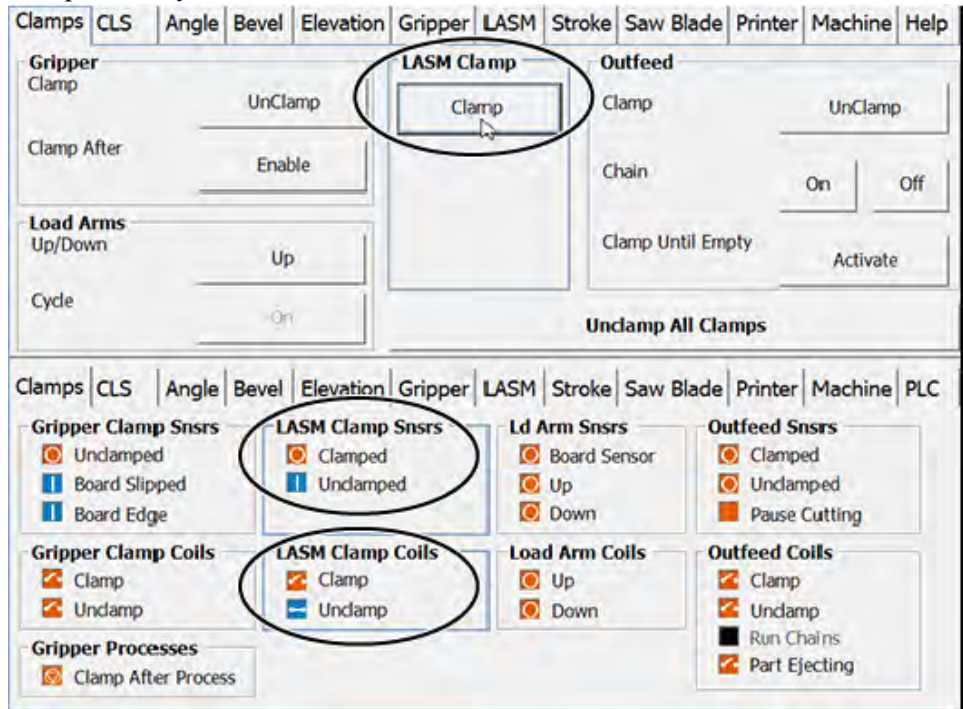
Verifying Operation

After removing all installed lockouts/tagouts, MiTek recommends verifying the clamps and sensors operate as expected prior to operating the saw in production.

1. Open the main air valve to the machine. Verify that the air pressure gauge is between 100 and 110 psi.
2. With the AUTO/MANUAL mode switch in MANUAL, select *Diagnostics* > *Detailed Diagnostics* from the Main Menu.



3. On the Clamps tab, use the LASM CLAMP/UNCLAMP button to verify the LASM clamp operates as expected and the sensors are reporting the state of the clamp correctly.



If the LASM clamp closes when UNCLAMP button is selected, or opens when CLAMP is selected, it is a good indication that the air lines were switched during reassembly. If the clamp operates correctly, and either sensor reports an incorrect state, the sensors are either reversed or the position must be adjusted.

Installing LASM Guard

1. Verify the saw stopped, and engage an E-stop on the machine.
2. Open the saw chamber door.
3. Reinstall the top LASM guard using the four 3/16" socket head cap screws removed in step 3 on page 7. Ensure the two longer screws are installed on the sides of the guard.
4. Reset the Emergency Stop.
5. Resume production. If you encounter any issues, please contact MiTek Machinery Division Customer Service at 800-523-3380.

END OF SERVICE BULLETIN