MiTek®
SERVICE BULLETIN

Document ID:
SB278

Title:
Retrofitting the Chain Tensioner

Affected machinery: Horizontal Stackers

Distribution: Customers upon order

CAUTION:
MiTek recommends printing this document in high resolution using color ink. Many of the graphics may be unclear and may create an unsafe condition if this recommendation is not followed.

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Purpose and Scope

This service bulletin instructs how to replace the chain tensioners used in the Horizontal Stacker with the two retrofit chain tensioners (70327-501). This procedure will be performed twice; once for each chain tensioner being retrofitted.

Overview

Parts Included

The parts included in this kit are shown in Table 1. Please make sure all parts and supplies are present before starting the procedure.

Table 1: Parts in SB278 KIT

Quantity	Description	Part #
2	Chain tensioner assembly	70327-501
1	Service bulletin document	SB278

If you have any questions, call MiTek Automation Support at 1-800-523-3380.

Supplies Needed

- 5/16" Hex Wrench
- 9/16" Wrench
- Two 3/4" Wrenches
- Pliers to remove/install master link

Lockout/Tagout Instructions

Electrical Lockout/Tagout Procedure

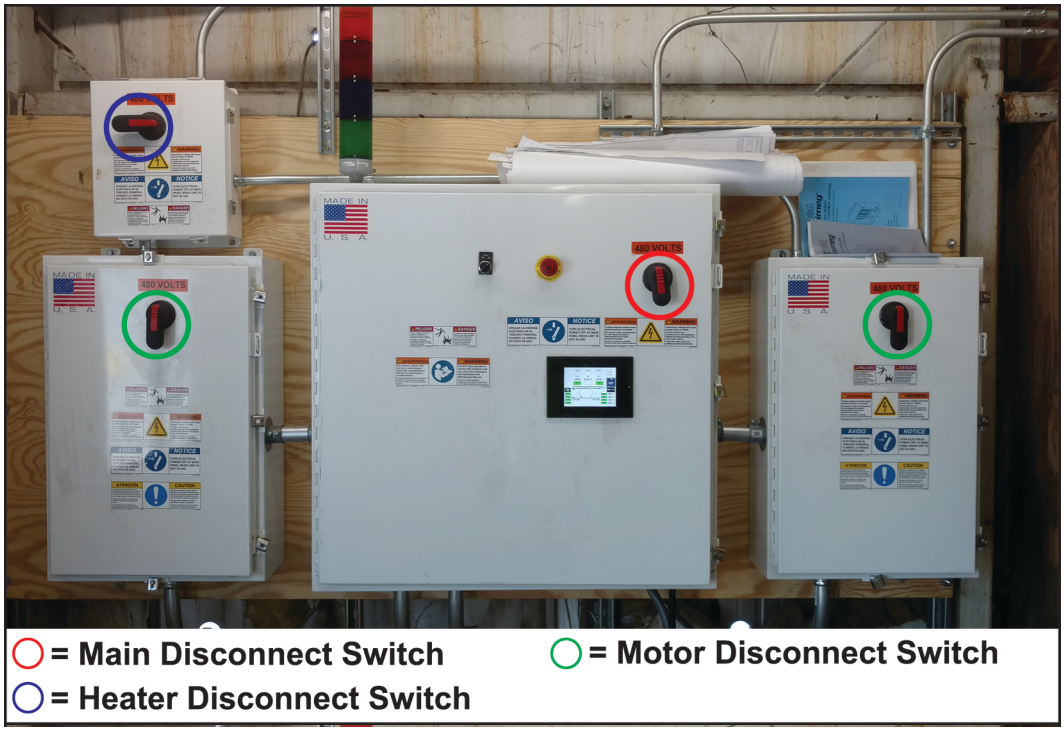
The lockout/tagout instructions for the electrical systems will be referenced as necessary in this document. Service Bulletin instructions start on page 4.

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

1. Engage an E-stop on the machine.
2. Turn all of the disconnect switch handles on the electrical enclosures to the Off position. Disconnect switches are shown in Figure 1.

If installed correctly, the heater electrical enclosure is on a separate circuit from the main electrical enclosure.

Figure 1: Disconnect Switches on Electrical Enclosures



	⚠ WARNING
	**Even when the main electrical enclosure disconnect switch is turned to the Off position, there is still live power to the enclosure. This live power may cause severe electric shock.** **Always turn off power at the upstream power source before opening an electrical enclosure.**

3. Attach locks and tags that meet OSHA requirements for lockout/tagout to both the heater electrical enclosure and the main electrical enclosure.

Figure 2: Sample of a Lockout/Tagout Mechanism on an Electrical Enclosure

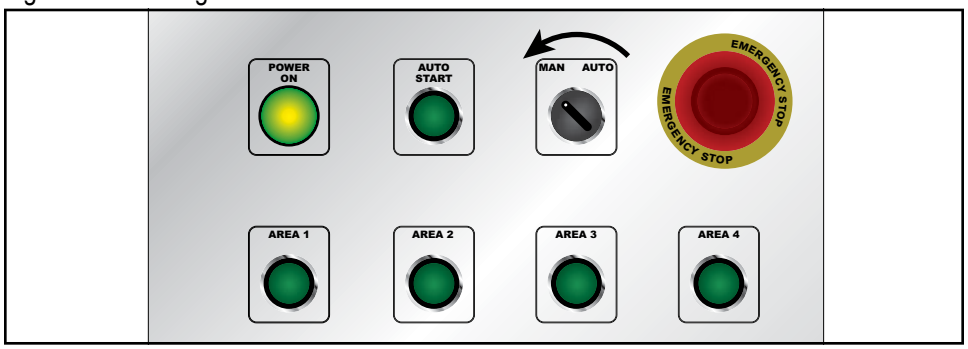
Procedure

Bracing Transporters

Brace the transporters to keep them from lowering while performing maintenance.

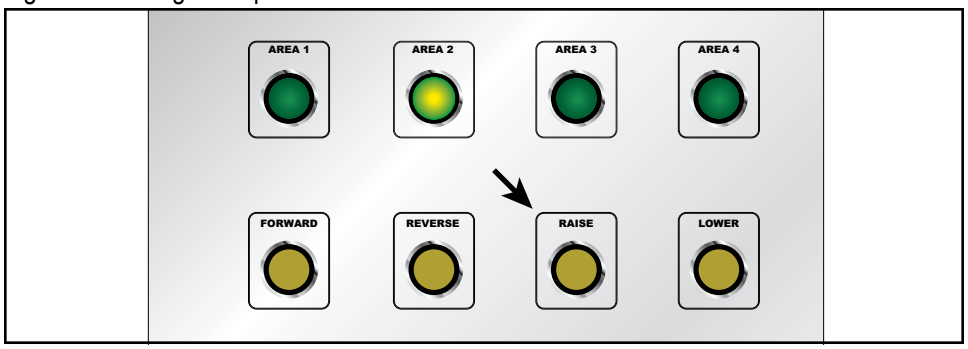
1. Using Manual mode, press and hold the **Raise** button until the transporters fully extend upward to approximately 4’ 6”.
   a) Turn the selector switch on the pushbutton enclosure to Manual mode (Figure 3).

Figure 3: Switching to Manual Mode



   b) Press and hold the **Raise** button until the transporters fully extend upward (Figure 4).

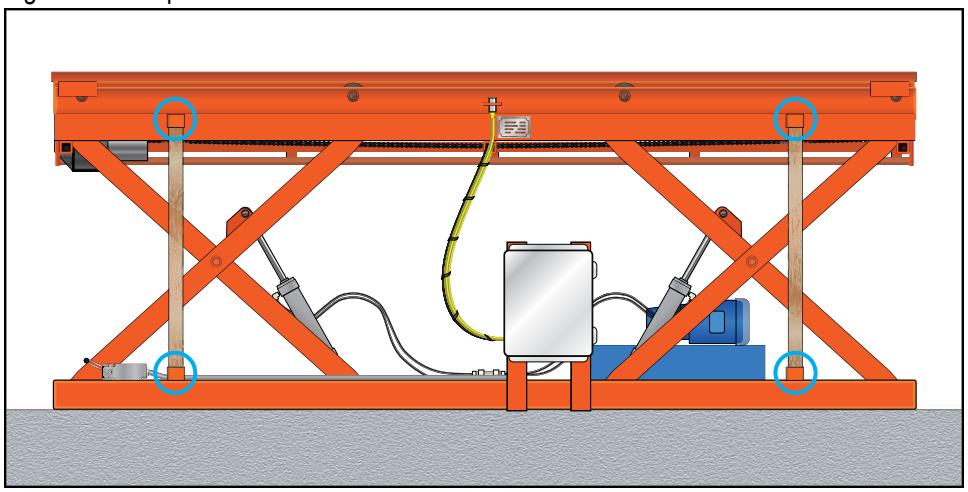
Figure 4: Raising Transporters



2. Lockout/tagout the electrical systems of the machine using the Electrical Lockout/Tagout Procedure on page 2.

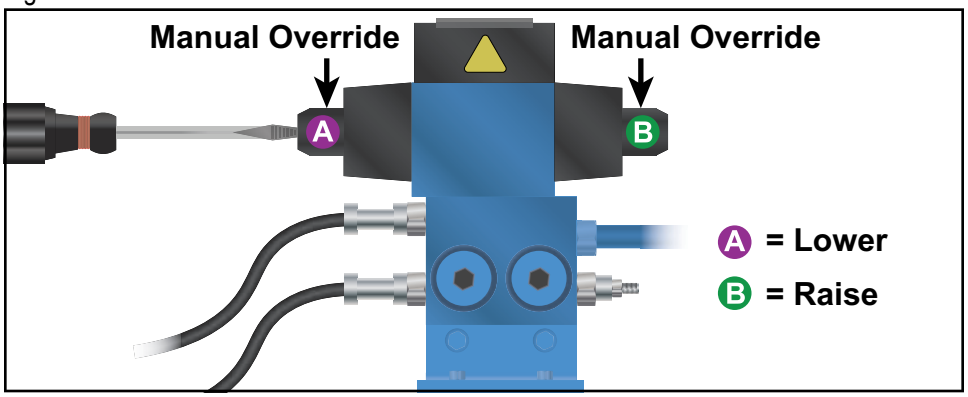
3. Insert a pair of 2x4 boards into the brace pockets near the corners of the transporter. Brace pockets are circled in blue in Figure 5.

Figure 5: Transporter Braced with Boards



4. Locate the valve on the hydraulic pressure unit pictured in Figure 6. With a screwdriver, use the valve's manual override to lower the transporter onto the boards.

Figure 6: Manual Override on Valve



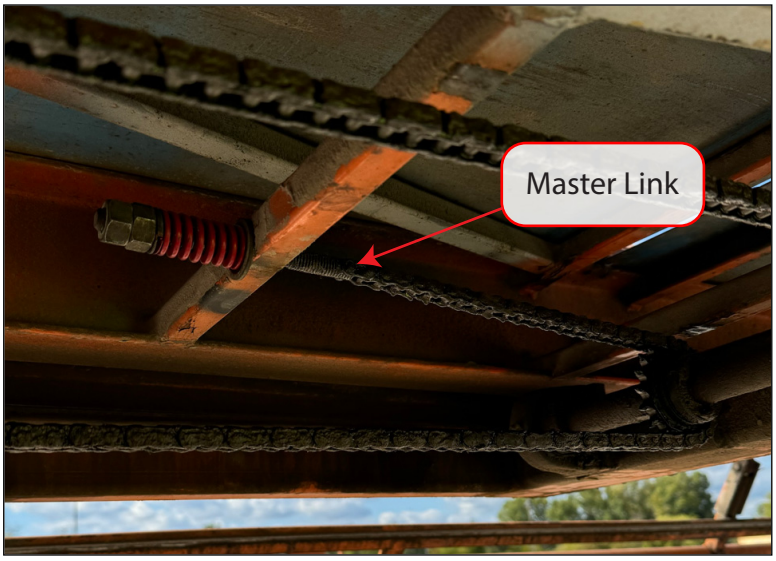
5. Press and hold the other side of the manual override for a few seconds to bleed residual pressure.

Replacing the Existing Chain Tensioner

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

1. With power locked out as previously described, remove the master link from the existing chain tensioner with a pair of pliers, then remove the chain tensioner from the frame (Figure 7).

Figure 7: Chain Tensioner Master Link

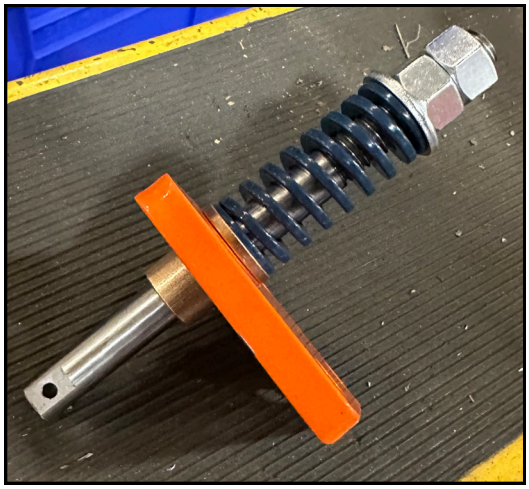


2. Assemble the new chain tensioner.
   a) Press the supplied bronze bushing through the mounting plate (Figure 8).

Figure 8: Bronze Bushing Through Mounting Plate

b) Insert the take-up rod through the bronze bushing, then slide the spring, washer, and nuts over the rod. (Figure 9).

Figure 9: Chain Tensioner Assembled

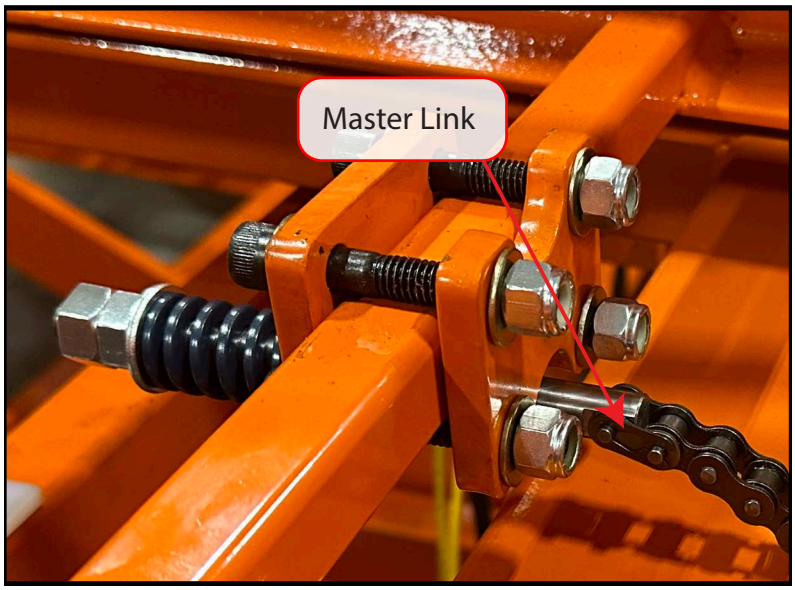


3. Loosely mount the mounting plate and clamping plate to the frame of the machine by using a 5/16” hex wrench on the bolts and a 9/16” wrench on the nuts supplied (Figure 10).

Figure 10: Chain Tensioner Mounted

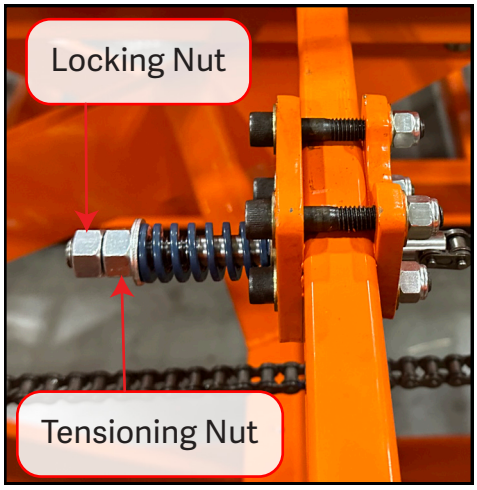
4. Align the chain tensioner take-up rod to the section of chain below, then attach the chain with the master link (Figure 11).

Figure 11: Chain Tensioner With Master Chain Attached



5. Tighten the mounting bolts, alternating corners to tighten evenly.
6. Adjust the chain tensioner by using a 3/4” wrench to turn the tensioning nut (Figure 12) clockwise until there is very little slack in the chain.

Figure 12: Tensioning and Locking Nuts



7. Using two 3/4” wrenches, tighten both the tensioning nut and the locking nut (Figure 12) against each other by turning the locking nut clockwise and the tensioning nut counterclockwise.

Unbracing Transporters

Use the following steps to unbrace a transporter after you have braced it using the procedure on page 4.

1. Remove the lock and tag from the main electrical enclosure.
2. Use manual mode to raise the transporter enough to remove the boards.
3. Lockout/tagout the main electrical enclosure.
4. Remove the boards.
5. Remove the lock and tag. Restore power.
6. Test for any strain or malfunctions on the machine by returning the transporter to its lowered position.

END OF SERVICE BULLETIN