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Retrofit kit KYSSLBT001: Press Conveyor Belt Spring Tension Kit

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Retrofit kit KYSSLBT001: Press Conveyor Belt Spring Tension Kit

This kit contains all the necessary brackets and hardware to replace the manual conveyor belt tensioning system used on presses manufactured prior to S/N#03016216101, with a revised belt tensioning system utilizing spring preload, as used on current production machines. The new system requires no periodic adjustment and greatly lengthens belt drive component life by eliminating belt over-tightening.

WARNING 1: Crush Hazard—Descending can and/or diaphragm will crush anyone under it. Can and/or diaphragm can descend even with power off.

- Never crawl or reach under the can\diaphragm, except as described below.
- Lock OFF and tag out power and secure factory-supplied safety supports in place before crawling or reaching under the can and/or diaphragm to perform service or maintenance.
- ALWAYS ensure all personnel are clear of the press and receiving conveyor before returning power to either machine for service or maintenance.

WARNING 2: Crush Hazard—Devices in and above the press move without warning and can entangle, crush, or sever limbs on contact.

- NEVER touch or reach into assemblies in or above press frame unless power is locked OFF and tagged out, and then only for maintenance.
- ALWAYS ensure all personnel are clear of the press and the receiving conveyor and all press side doors are closed and guards are in place before returning power to either machine.
- DO NOT climb on press unless press power is locked OFF and tagged out.

WARNING 3: Fall Hazard—The receiving conveyor starts without warning. Standing or walking on the conveyor may cause you to fall or be entangled in or struck by moving system devices.

- Lock OFF and tag out power at wall disconnect before servicing the receiving conveyor or press.
- DO NOT stand or walk on the receiving conveyor or belt at the press discharge end when performing service or maintenance.
- ALWAYS ensure all personnel are clear of press and receiving conveyor before returning power to either machine.

1. Preparations

The diaphragm and can must be raised off the bed and secured, then press power locked off and tagged out before beginning. This releases the belt, and allows the can and ram to be secured, preventing the unpowered can and/or ram from drifting downward.

1. Using manual operations, raise both the can and the diaphragm into their full-up position.
2. Secure the ram with the diaphragm safety bars (Figure 1).
3. Lay wooden planks across the top of the splash guards as shown in Figure 2. Although the can hydraulic cylinders are fitted with check valves, preventing the can from drifting downwards, the wooden planks serve as a safety device during this procedure in the event of a hydraulic line rupture.
4. Lock OFF and tag out power to the machine at the wall disconnect.

Figure 1: Diaphragm safety bars

Figure 2: Planks across the splash guards

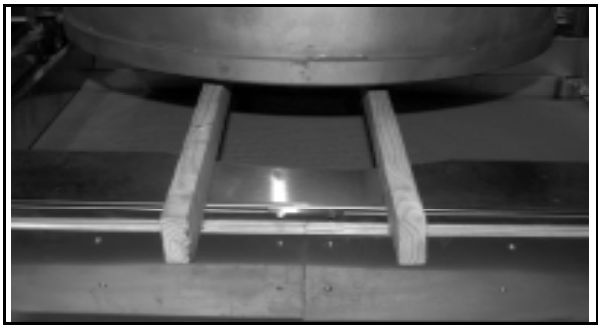
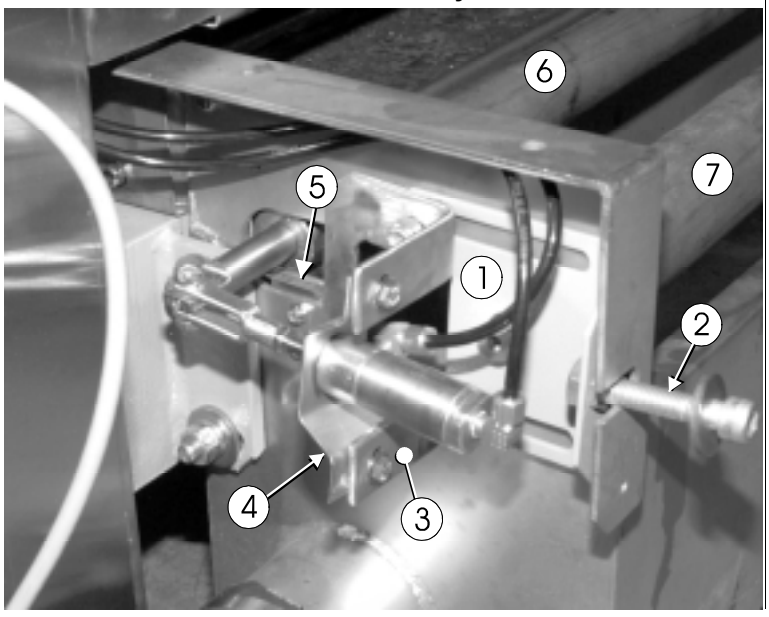


Figure 3: Existing belt tension system

Old assembly



Legend

1. Tension roller adjustment bracket
2. Hex tap screw
3. Belt tracking bracket
4. Air cylinder mounting bracket
5. Roller support bracket
6. Tracking roller
7. Tension roller

2. Removing the existing belt tension system

1. Remove the cover over the tension roller.
2. Remove the bolts securing the air cylinder mounting bracket (item 4, Figure 3) to the belt tracking bracket (item 3). Leave the air cylinder attached to the tracking roller.

3. Swing air cylinder and bracket out of the way. Remove the belt tracking bracket (item 3) and tension roller adjustment bracket (item 1). Discard the tension roller adjustment bracket.
4. Remove the existing roller support brackets (item 5) and discard. New brackets are shipped with the kit.

3. Installing the new belt tensioning system.

1. Install the new roller support brackets on the **outside** of the frame (as shown in Figure 4 and Figure 5).
2. Mount the new tension roller adjustment brackets on the existing bolts. Slide 3 bronze spacers into each slot (Figure 5).
3. Mount the belt tracking brackets on top of the new tension roller adjustment brackets (Figure 6). Tighten mounting bolts. Verify that the tension roller brackets still slide freely after bolts are tightened.
4. Install the belt tension support and bar (items 2 and 3, Figure 9).
5. Install the new hex tap screws and captive nuts (item 4).
6. Reinstall the air cylinder mounting brackets (item 7).
7. Tighten the hex tap screws on both sides until the inside of the belt tension bar is exactly 1 5/8" (41mm) from the frame (shown in Figure 8).
8. See “Adjusting the belt tracking” below.

Figure 4: Installing the new support brackets to outside of frame (air cylinder assembly removed for clarity)

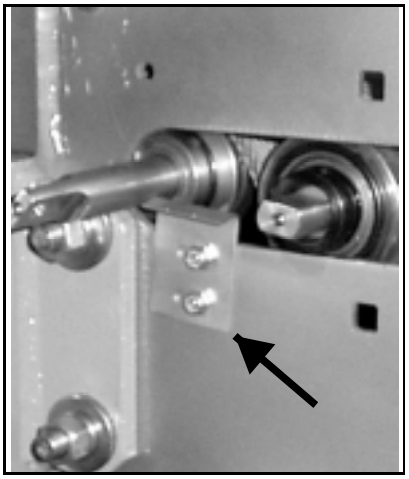


Figure 5: Mounting the new tension roller adjustment bracket (install 3 spacers per slot)

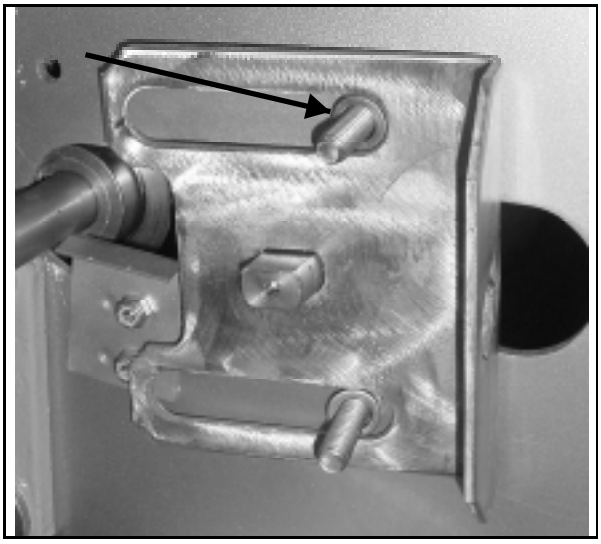


Figure 6: Belt tracking bracket (tension bracket must slide freely underneath)

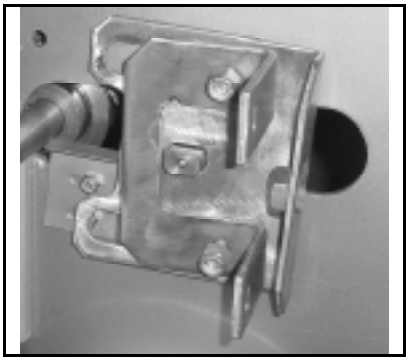


Figure 7: Install belt tension support & bar, hex tap screw & captive nut and air cylinder mounting bracket

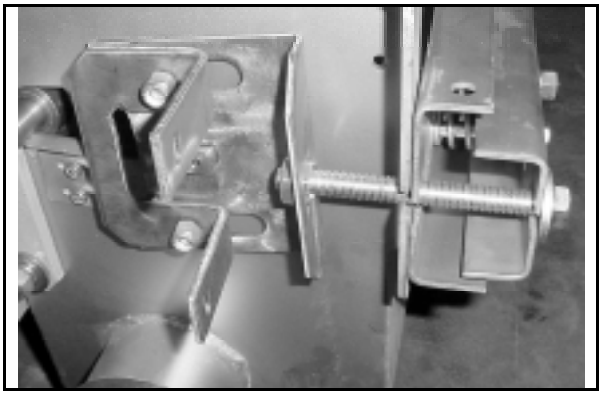


Figure 8: Adjust belt pre load at each side

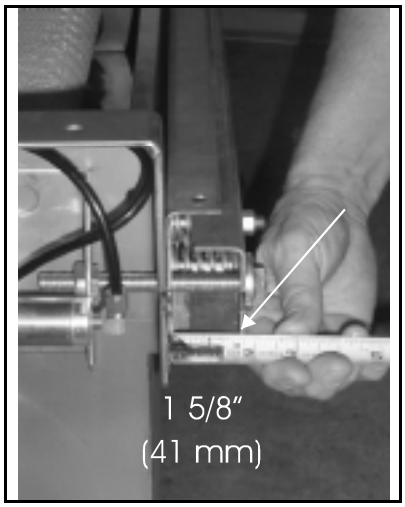
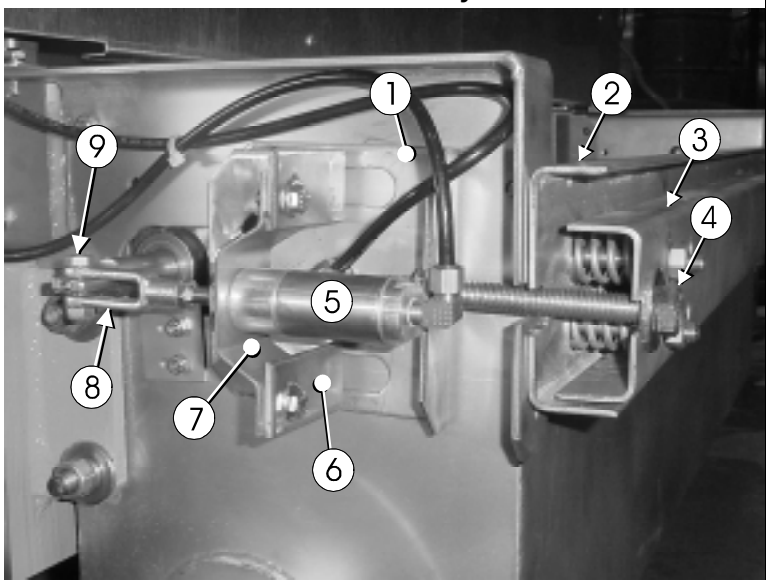


Figure 9: Revised belt tension assembly

New assembly



Legend

1. Tension roller adjustment bracket
2. Belt tension bar support
3. Belt tension bar
4. Hex tap screw
5. Air cylinder
6. Belt tracking bracket
7. Air cylinder mounting bracket
8. Adjustable yoke end
9. Cap screw and lock nut

4. Adjusting the belt tracking

Note 1: The pneumatic tracking controls are intended as a secondary method of belt control. If these controls actuate frequently, the belt tracking must be adjusted as described below. Observe belt in operation daily, and adjust as necessary. Milnor is not responsible for damaged belts due to neglect.

The conveyor belt should track down the center of the press bed without actuating the tracking controls or hitting the conveyor sides. Set belt tracking as follows:

1. Before starting, measure the distance between the press frame and the belt tension bar (Figure 8) on both sides of the press. Verify that the measurement is exactly 1 5/8" (41 mm). Measurements must be identical on both sides.
2. Restore power to the machine.
3. Using manual operation (see "MANUALLY OPERATING THE SINGLE STAGE PRESS...BICP1T02" in the technical reference manual), run the belt in the "TRACK BELT" option. Observe the belt in operation. The belt should run on the center of the drive roller. Initially though, the belt will probably move to either side of the drive roller. Note if the belt tracks to the left or the right side
4. Lock off and tag out power to the machine.
5. If the belt tracked to the left, go to the right end of the tracking roller. If the belt tracked to the right, make adjustment on the left side. Remove the cap screw (item 9, Figure 9) from the adjustable yoke end (item 8, Figure 9), of the tracking roller.
6. Turn the adjustable yoke end (item 8) one half turn CCW (out). Reinsert bolt and install nut.
7. Restore power then watch belt tracking.
8. Repeat steps 4 through 7 until belt tracks straight down middle of press bed.

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