

Pneumatic Lift Table - Maintenance and Service

This section will describe service procedures for major mechanical elements of a Lift Table with Power Roll Bed (Normal Application) installed.

⚠ WARNING ⚠

- Only qualified and trained personnel should perform the disassembly and assembly of electrical and mechanical components.
- Before attempting any maintenance on this equipment all involved personnel should follow plant internal regulations along with any state, federal, or province regulations. Do not begin any repair procedure until the proper shutdown procedures and the appropriate power lockout procedures have been applied.

Mechanical Steps for Securing Pneumatic Lift Table for Maintenance



- 1 Remove any payload from the pneumatic lift.

- 2 Cut and Lock Out power to the lift using your plant's safety procedures.



- 3 Remove applicable safety covers.



Positioning the Lift

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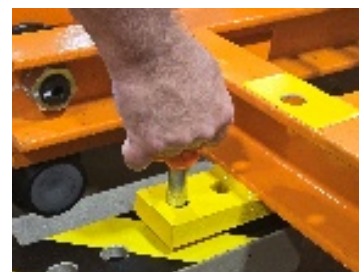
- Activate the pneumatic cylinder to raise or lower the lift table.
- Adjust the table to the maintenance height required for your operation.
- Carefully observe the alignment of the table and the stop block holes.



Inserting the Safety Pin

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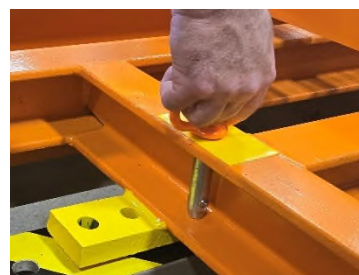
- Once the desired height is reached and the holes in the lift and stop block are properly lined up, insert the safety pin fully through the designated holes.
- This mechanical lock ensures the lift table remains securely in place during maintenance activities.
- Double-check that the pin is seated correctly and cannot be accidentally dislodged.



Once Maintenance Task is Complete

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- Remove Safety Pin before attempting to operate the lift table's pneumatic controls for testing or normal operation. Securely return the pin to the storage location on the lift.



How to Replace Rollers on a Pneumatic Lift Table

- 1 Lock Out the power to the lift using your plant's safety procedures.



- 2 Remove applicable safety covers and follow *Mechanical Steps for Securing Pneumatic Lift Table for Maintenance* as listed at the beginning of this section to safely secure the lift for maintenance on the equipment.



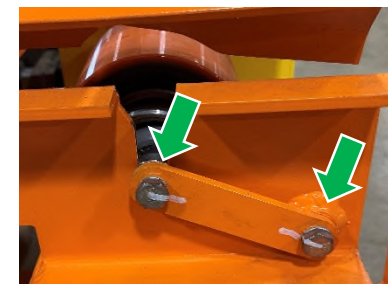
- 3 If the Drive Roller (the one the gearmotor is mounted on), is damaged and needs replacing, please see *How to Replace a Gearmotor* instructions for proper removal and reinstallation of gearmotor first.



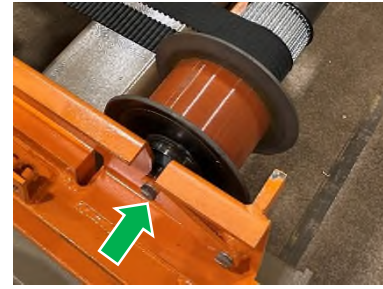
- 4 To replace a damaged roller (Drive or Driven), the two adjacent rollers and belt(s) must be loosened and lifted.



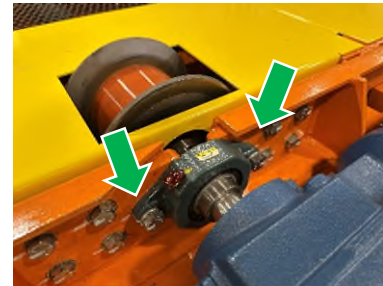
- 5 Remove the top bolt of the tensioner keeper on the end of the Driven Roller that is damaged. Loosen the lower bolt to free up tension.



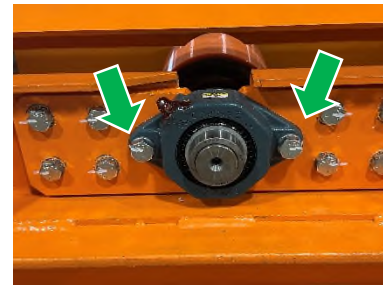
- 6 Remove bolt from the other end of the Driven Roller.



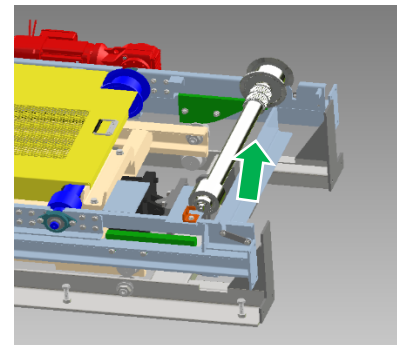
- 7 Loosen bolts for the bearing on drive side of the lift. This bearing is designed with some flexibility for maintenance at the frame.



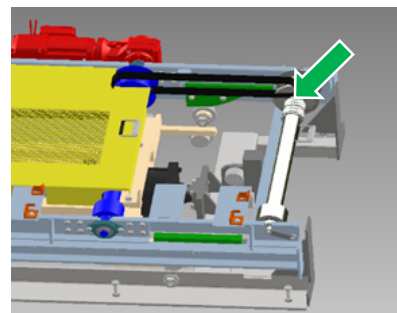
- 8 Remove bolts from bearing on opposite side.



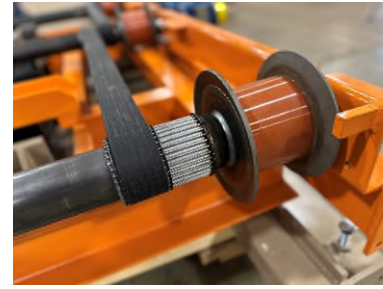
- 9 With the rollers lifted and the belt slackened, carefully slide the belt off the damaged roller and remove roller, taking note of its orientation. Inspect the belt for wear or damage; replace it if necessary.



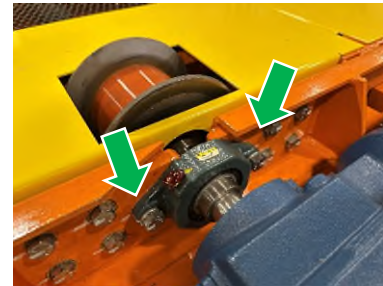
- 10 Set new roller into position and slide the belt over it and any adjacent roller(s).



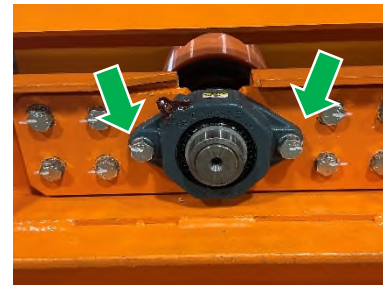
- 11** Lower the lifted rollers back into the slots of the frame and ensure the belt is properly seated and aligned.



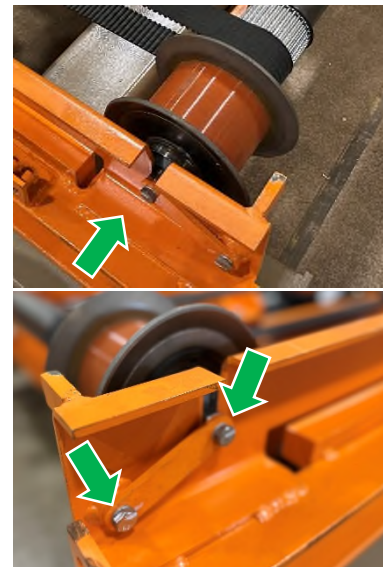
- 12** Secure bolts for the bearing on drive side of the lift.



- 13** Return and secure bearing on opposite side of Drive Roller. New bolts are recommended.



- 14** Secure roller on both ends with new bolts and restore the tension to the belt by tightening the tensioner keeper.



- 15** Inspect the assembly to confirm that all components are secure and correctly installed. Ensure that the table is square, straight and level. Correct if necessary.



- 16** Remove the safety pin from the Lift Table Safety Block.



- 17** Restore power and cycle the table and observe that the belt(s) are tracking straight. Listen and look for any unusual noises, vibrations, or misalignments. Make final adjustments if necessary.



- 18** Lock Out the system again to return all safety covers then operate as normal.



How to Replace Belts on a Pneumatic Lift Table

- 1 Lock Out the power to the lift using your plant's safety procedures.



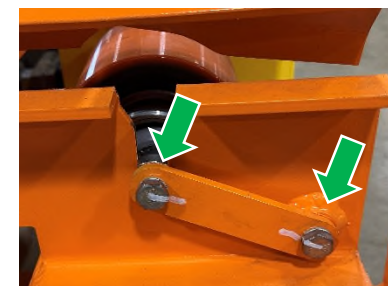
- 2 Remove applicable safety covers and follow *Mechanical Steps for Securing Pneumatic Lift Table for Maintenance* as listed at the beginning of this section to safely secure the lift for maintenance on the equipment.



- 3 To replace a damaged belt, the adjacent rollers and belt(s) must be loosened and lifted.



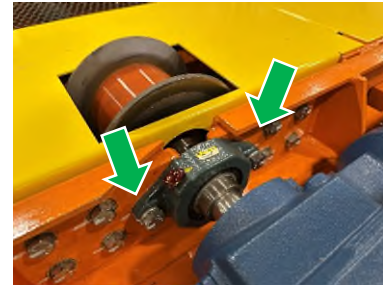
- 4 Remove the top bolt of the tensioner keeper on the end of the Driven Roller that is damaged. Loosen the lower bolt to free up tension.



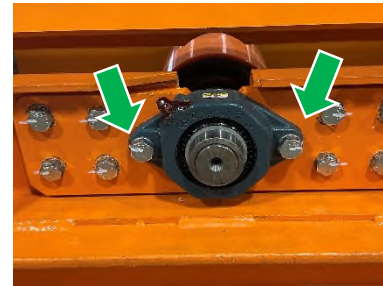
- 5 Remove bolt from the other end of the Driven Roller.



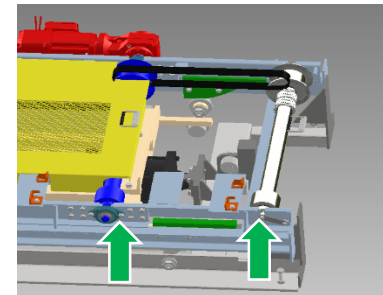
- 6** Loosen bolts for the bearing on drive side of the lift. This bearing is designed with some flexibility for maintenance at the frame.



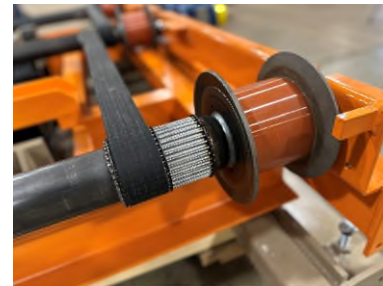
- 7** Remove bolts from bearing on opposite side.



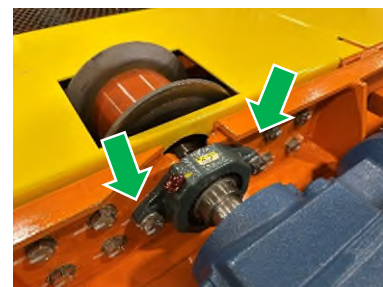
- 8** Lift rollers enough to be able to slide belt to the opposite side of drive and remove damaged belt. Replace with new.



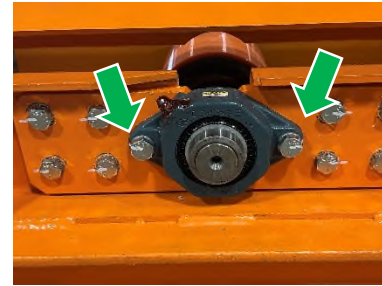
- 9** Lower the lifted rollers back into the slots of the frame and ensure the belt is properly seated and aligned.



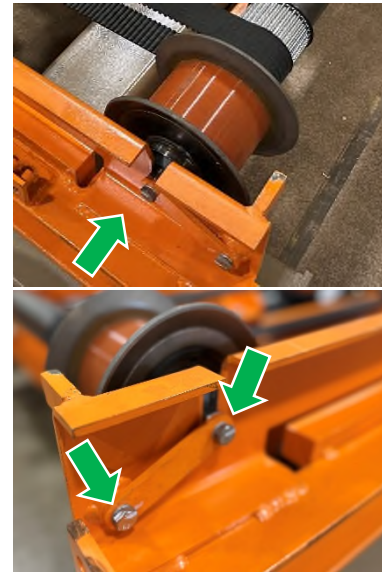
- 10** Secure bolts for the bearing on drive side of the lift.



- 11** Return and secure bearing on opposite side of Drive Roller. New bolts are recommended.



- 12** Secure roller on both ends with new bolts and restore the tension to the belt by tightening the tensioner keeper.



- 13** Inspect the assembly to confirm that all components are secure and correctly installed. Ensure that the table is square, straight and level. Correct if necessary.



- 14** Remove the safety pin from the Lift Table Safety Block.



15

Restore power and cycle the table and observe that the belt(s) are tracking straight. Listen and look for any unusual noises, vibrations, or misalignments. Make final adjustments if necessary.

**16**

Lock Out the system again to return all safety covers then operate as normal.



How to Replace Cam Roller on Lift Table

- 1 Lock Out the power to the lift using your plant's safety procedures.



- 2 Remove applicable safety covers and follow *Mechanical Steps for Securing Pneumatic Lift Table for Maintenance* as listed at the beginning of this section to safely secure the lift for maintenance on the equipment.



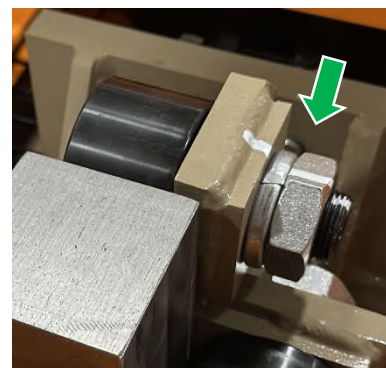
- 3 There are multiple locations where cam rollers are utilized. The following maintenance steps apply for all.



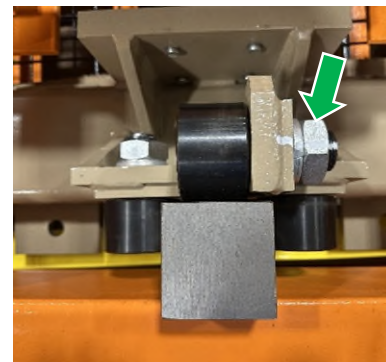
- 4 Inspect the mounting surface for damage or wear. If damaged, address as necessary before installing the new roller.



- 5 Remove damaged cam roller by loosening nut on the backside of roller.



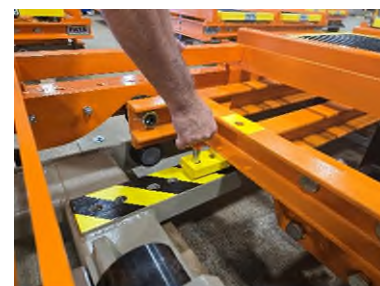
- 6 Replace with new by aligning with the mounting holes and fastening in place with new washer and nut.



- 7 Inspect the assembly to confirm that all components are secure and correctly installed. Ensure that the table is square, straight and level. Correct if necessary.



- 8 Remove the safety pin from the Lift Table Safety Block.



- 9 Restore power and cycle the table. Listen and look for any unusual noises, vibrations, or misalignments. Make final adjustments if necessary.



- 10 Lock Out the system again to return all safety covers then operate as normal.



How to Replace a Gearmotor

- 1 Lock Out the power to the lift using your plant's safety procedures.



- 2 Remove applicable safety covers and follow *Mechanical Steps for Securing Pneumatic Lift Table for Maintenance* as listed at the beginning of this section to safely secure the lift for maintenance on the equipment.



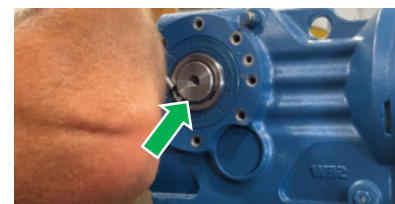
- 3 Remove all required electrical connections.



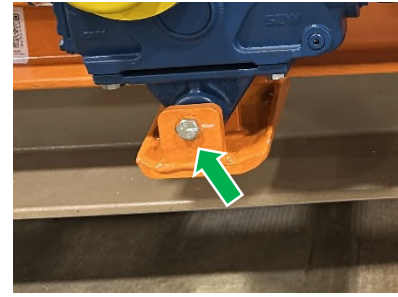
- 4 Remove all screws to remove the gearmotor cover.



- 5 Remove the retaining ring from the drive shaft.



- 6** Remove the mounting bolt from the frame mount.



- 7** Using a lift, carefully hoist the gearmotor off the Drive Shaft.



- 8** Remove gearmotor mounting base from gearmotor being replaced and set aside for use on new gearmotor.



- 9** Using a fine-grit sand disk, gently clean the external drive shaft to remove any material buildup.



- 10** Install a new key by carefully inserting and gently tapping it into the slot on the drive shaft.



- 11** Gently sand the edges of the new key to eliminate any burrs for easier insertion into the gearmotor.



- 12** Remove the protective shipping caps and the contents of the hollow bore in the SEW gearmotor.



- 13** Set aside the SEW provided NOCO-Paste corrosion protection and lubricant.



- 14** Remove the retaining ring from the hollow bore and set it aside.



- 15** Take out the screw plugs located around the perimeter of the hollow bore.



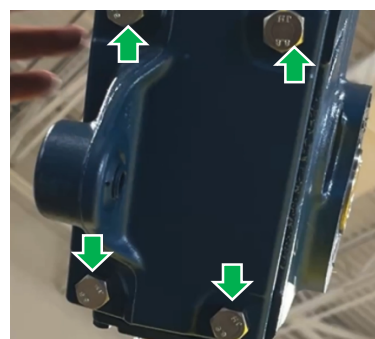
- 16** Remove the screw plugs from the bottom of the gearmotor as well.



- 17** Apply Loctite to the bolts intended for securing the gearmotor base to the bottom of the gearmotor.



- 18** Affix the gearmotor base to the underside of the gearmotor.



- 19** Apply the SEW-supplied NOCO-Paste for corrosion protection and lubrication on the drive shaft.



- 20** Using a lift, place the new gearmotor on the drive shaft. Remove any excess NOCO-Paste.



- 21** Align the mounting holes on the new gearmotor base with the holes on the conveyor frame. Reinsert the bolt on the frame and the gearmotor base.



- 22** Reinsert the retaining ring on the drive shaft.



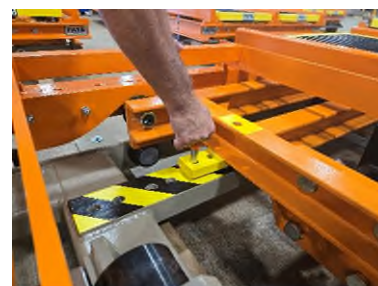
- 23** Place the gearmotor safety cover back on the gearmotor and re-attach all required electrical connections.



- 24** Inspect the assembly to confirm that all components are secure and correctly installed. Ensure that the table is square, straight and level. Correct if necessary.



- 25** Remove the safety pin from the Lift Table Safety Block.



- 26** Restore power and cycle the table. Listen and look for any unusual noises, vibrations, or misalignments. Make final adjustments if necessary.



- 27** Lock Out the system again to return all safety covers then operate as normal.



How to Replace Pneumatic Cylinder

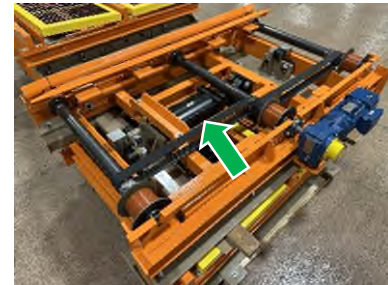
- 1 Lock Out the power to the lift using your plant's safety procedures.



- 2 Remove applicable safety covers and follow *Mechanical Steps for Securing Pneumatic Lift Table for Maintenance* as listed at the beginning of this section to safely secure the lift for maintenance on the equipment.



- 3 Locate the pneumatic cylinder on the equipment and make note of how the cylinder is installed, including air line connections, mounting brackets, etc.



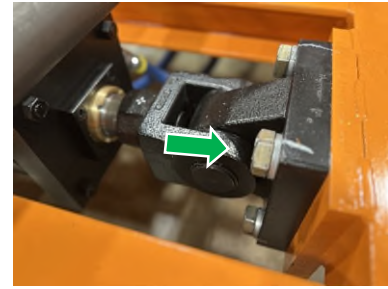
- 4 Ensure all air lines and the cylinder itself are fully depressurized. Confirm pressure gauges are at zero pressure.



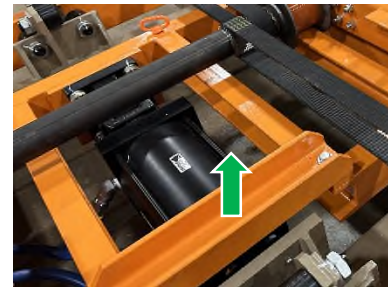
- 5 Mark each air line connected to the cylinder, using tags or colored tape. This will make reassembly much easier and reduce the risk of incorrect connections. Carefully disconnect the air lines and seal open air lines with caps or plugs to prevent contamination.



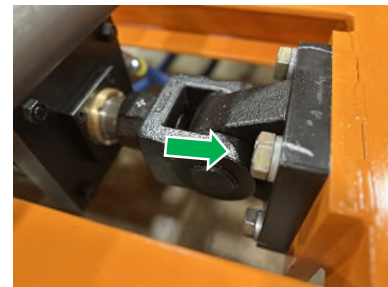
- 6 Unbolt the cylinder from its mounts.



- 7 Lift pneumatic cylinder out of frame and replace with new.



- 8 Resecure the cylinder to the mounting frame with new bolts and washers.



- 9** Reassembly air lines to the cylinder, matching connections as marked.



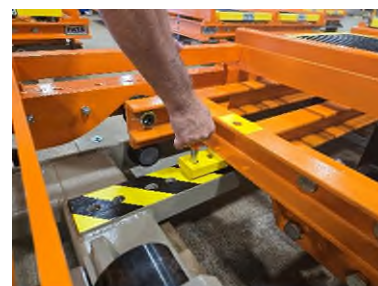
- 10** Gradually restore air pressure to the system, monitoring for any signs of leaks at the cylinder, fittings, or air lines.



- 11** Inspect the lift to confirm that all other components are secure and correctly installed. Ensure that the table is square, straight and level. Correct if necessary.



- 12** Remove the safety pin from the Lift Table Safety Block.



- 13** Restore power and cycle the table. Watch the cylinder run through its full stroke several times, observing its operation for smoothness and proper movement. Listen and look for any unusual noises, vibrations, or misalignments. Make final adjustments if necessary.



- 14** Lock Out the system again to return all safety covers then operate as normal.

