

# Pivot Table Maintenance & Service

This section will describe service procedures for major mechanical elements of a pivot table.

## ⚠ 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.

## How to Replace a Gearmotor

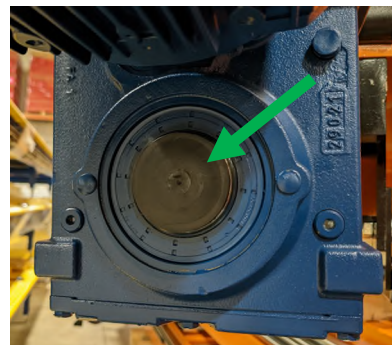
- 1 Remove and lock out power to the shuttle using your plant's procedures.



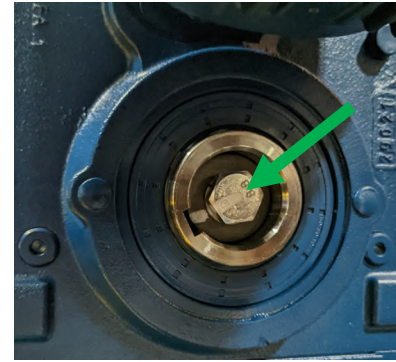
- 2 Disconnect the cables from the gearmotor.



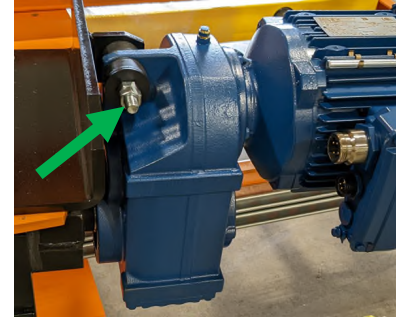
- 3 Remove the drive shaft cover on the gearmotor.



- 4 Loosen and remove the screw that connects the gearmotor to the drive shaft.



- 5 Loosen the nut and bolt that holds the gearmotor to the trolley.



Remove the gearmotor from drive shaft.

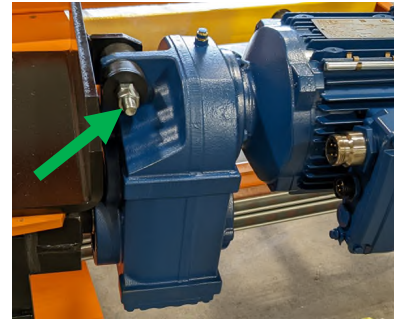
- 6 **Note:** Remove gearmotor exactly in axial direction using an appropriate handling device if necessary.



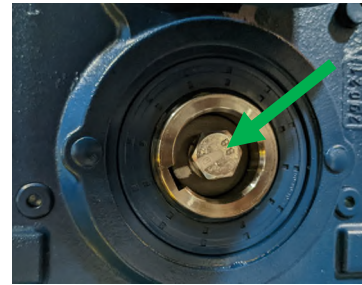
- 7 Install the new gearmotor onto the drive shaft, after checking parallel key for integrity.



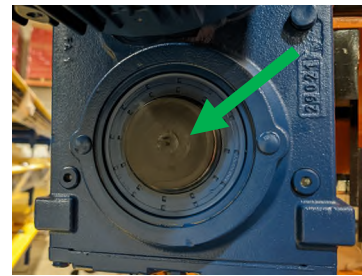
- 8 Insert and tighten the nut and bolt to 20 Nm that holds the gearmotor to the trolley.



- 9 Insert and tighten the screw to 88 Nm that connects the gearmotor to the drive shaft.



- 10 Install the drive shaft cover.



- 11 Reconnect the cables to the new gearmotor.



- 12 Complete restore power procedure and verify proper function.



## Replacing the Drive Wheel

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- 1 Remove any payload from the pivot/turn table.



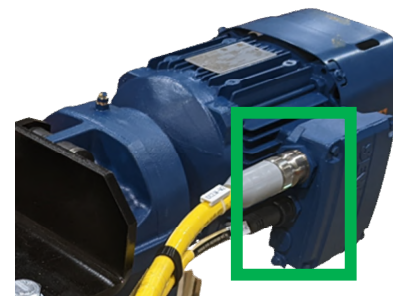
- 2 Remove and lockout all power sources to the area.



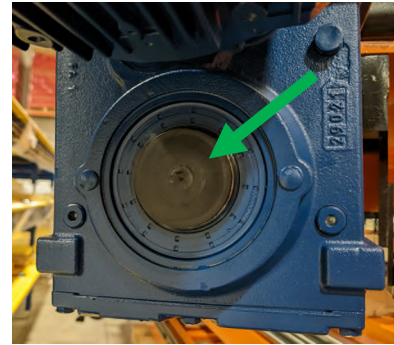
- 3 Raise the end of the drive wheel assembly slightly using a hoisting device (chain hoist or jack), until the drive wheel is just off the rail. Do not lift further than to this point.



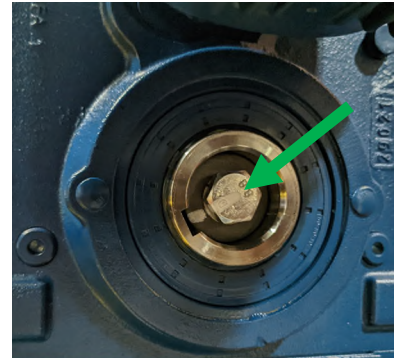
- 4 Disconnect the cables from the gearmotor.



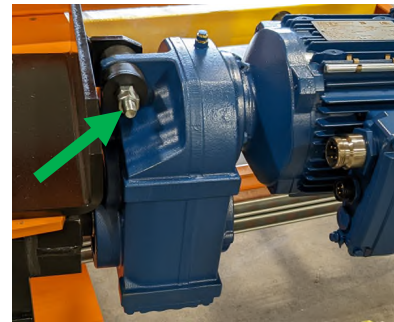
- 5 Remove the drive shaft cover on the gearmotor.



- 6 Loosen and remove the screw that connects the gearmotor to the drive shaft.



- 7 Loosen the nut and bolt that holds the gearmotor to the trolley.



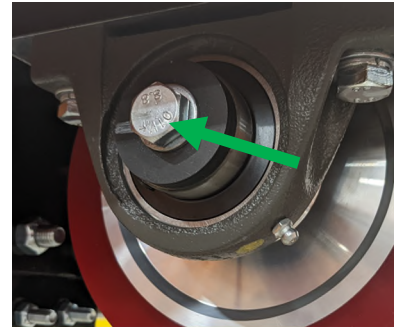
- 8 Remove the gearmotor from drive shaft.  
*Note: Remove gearmotor exactly in axial direction using an appropriate handling device if necessary.*



- 9 Loosen and remove the four screws holding the drive wheel block to the trolley, and transfer the drive wheel block to a workbench.

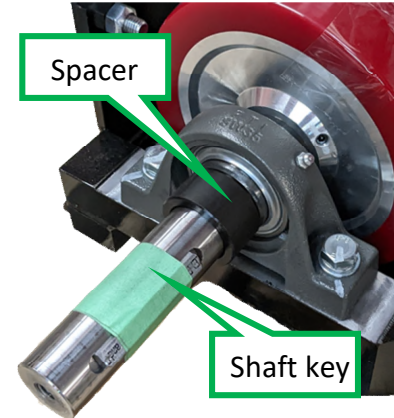


- 10 Remove the screw and end cap opposite of the drive shaft.



- 11 Pull the drive shaft through the pillow block bearings and drive wheel until you are able to lower the drive wheel out of the drive wheel block.

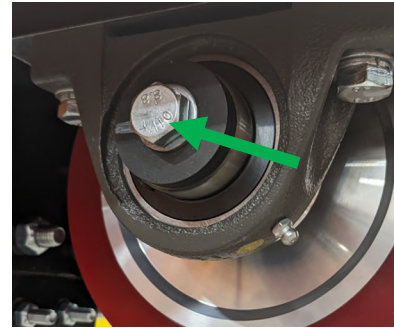
**Note:** Keep the spacers and drive shaft key to use with new drive wheel.



- 12 Place the new drive wheel into the drive wheel block and insert the drive shaft through the spacers and block.



- 13** Apply removable Loctite to screw from step 10 and insert and screw in with washer and shaft end cap into drive shaft. Tighten to 360 Nm.



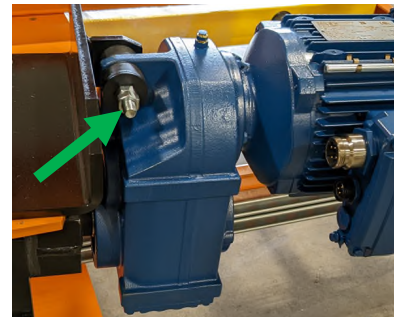
- 14** Install and secure the drive wheel block onto the pivot table with the four screws and washers from step 9. Apply removable Loctite onto the screws before inserting and tighten these screws to 330 Nm.



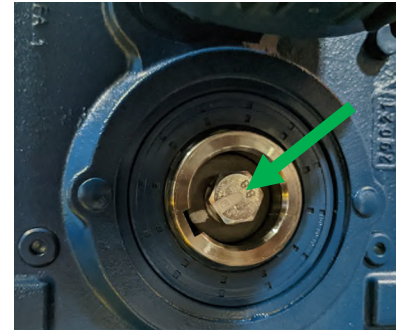
- 15** Install the new gearmotor onto the drive shaft, after checking parallel key for integrity.



- 16** Insert and tighten the nut and bolt that holds the gearmotor to the trolley.



- 17 Insert and tighten the screw to 88 Nm that connects the gearmotor to the drive shaft.



- 18 Install the drive shaft cover.



- 19 Reconnect the cables to the new gearmotor.



- 20 Lower the trolley back onto the rail.



- 21 Complete restore power procedure and verify proper function.





## Replacing the Idle Wheel

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- 1 Remove any payload from the pivot/turn table.



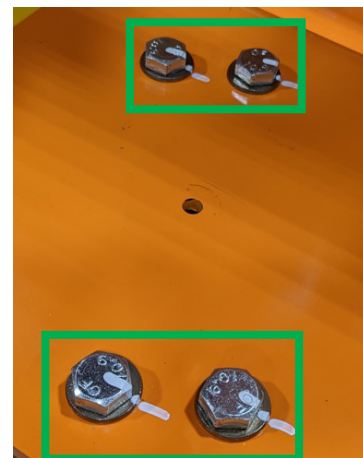
- 2 Remove and lockout all power sources to the area.



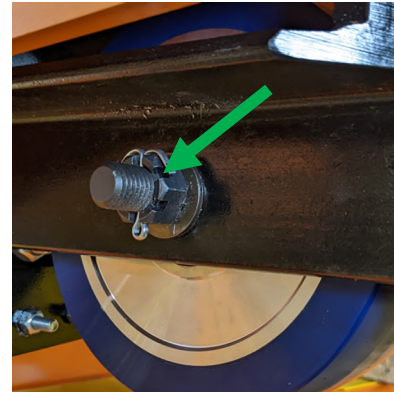
- 3 Raise the end of the trolley slightly using a hoisting device (chain hoist or jack), until the idle wheel is just off the rail. Do not lift further than to this point.



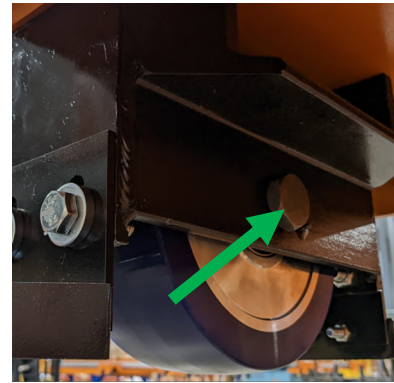
- 4 Loosen and remove the four screws holding the idle wheel block to the trolley and transfer the idle wheel block to a work bench.



- 5 Remove the cotter pin holding the slotted nut in place.  
Loosen and remove the nut.

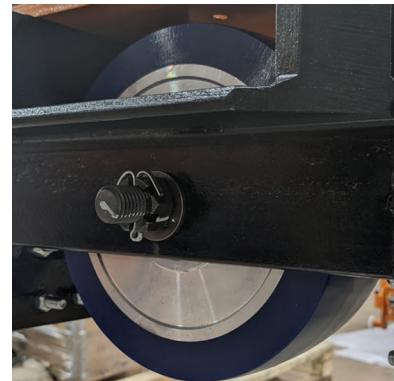


- 6 Remove the M25 shoulder screw that serves as the axle for the idle wheel.

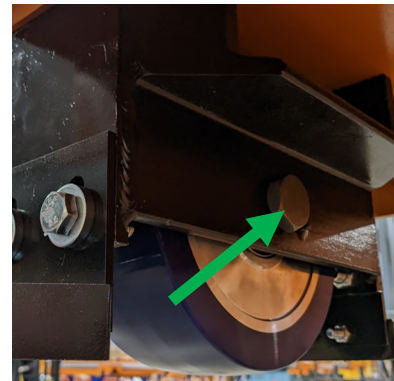


Replace the idle wheel.

- 7 **Note:** Be aware that there are two spacers – not shown in the figure – that fit in between the wheel and the block that you will need to re-use.

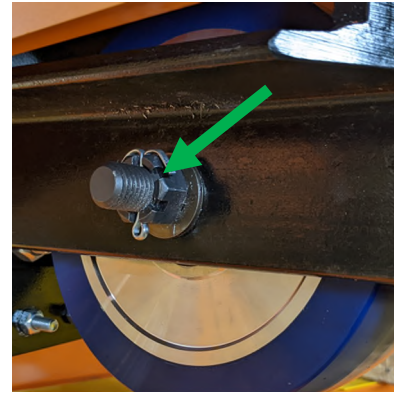


- 8 Insert the M25 shoulder screw. Screw on and snug up the hex nut.

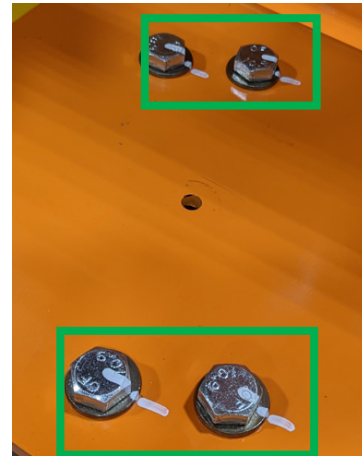


Insert the cotter pin to lock the hex nut in place.

- 9 **Note:** If you are using a new M25 shoulder screw, bore new hole for the cotter pin.



- 10 Install and secure the idle wheel block onto the trolley with the four screws and washers from step 0. Apply removable Loctite onto the screws before inserting and tighten these screws to 330 Nm.



- 11 Lower the trolley back onto the rail.



- 12 Complete restore power procedure and verify proper function.

