

**Description:** To drive the conveyor belt without slippage and to track it in a proper way, a certain belt tension is necessary. The tension applied has to be such that there is no slippage on the driving drum when the belt is started at full load.

Belt tension or tracking needs to be done anytime the belt starts slipping on the drive pulley or the belt starts moving to one side of the conveyor. Tensioning and tracking also needs to be done when a new belt is being installed.

The belt is tensioned and tracked with the adjustment bolts as shown.



Horizontal conveyor tensioning bolts



Incline conveyor tensioning bolts

#### **Tensioning the Conveyor Belt:**

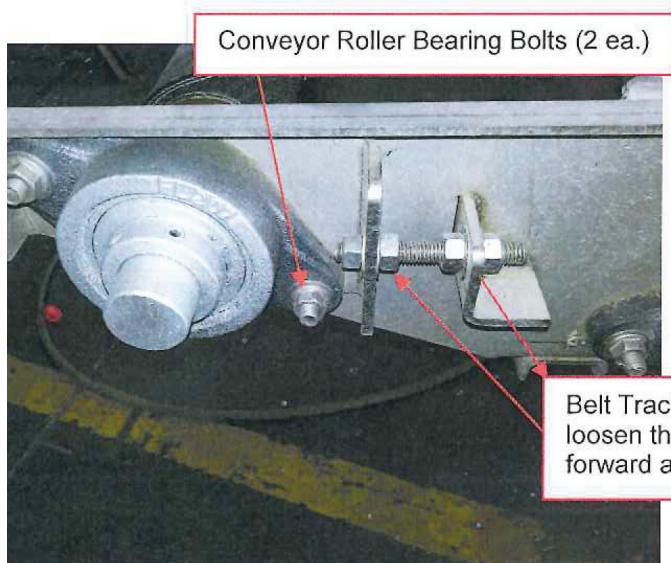
- Put marks on the un-tensioned belt exactly 100 inches apart.
- This has to be done on the left as well as the right side of the conveyor belt.
- Tension the belt and let it turn a few times to equally divide the belt tension over the belt.
- Then measure the elongation.
  - The recommended elongation for conveyor belts is 1%-3%.
  - The marks should be 101 to 103 inches apart for the recommended elongation.
- Adjust the belt tension, if necessary, to achieve the 101 inches.
- Check the belt for slippage between the belt and the drive pulley. If the belt slips, put more tension in the belt.

**Conveyor Belt Tracking Adjustment:**

Both the Inclined and Lower Conveyors have Belt Tracking adjustment mechanisms as part of the conveyor assemblies.

To Adjust belt tracking (belt centering on the conveyor):

- Loosen the tracking mechanism lock nuts (inside nuts) to allow belt tracking adjustment (forward or backward)
- Loosen the Belt Roller Bearing Bolts slightly to allow tracking adjustment (bearing on the shaft should not be loose, just allowed to let the roller move slightly)
- Adjust the tracking bolt to increase length to track the belt towards the adjustment mechanism side of the Conveyor or shorten the adjustment bolt length to adjust tracking away from the adjustment mechanism
- Allow the conveyor to operate, under load, to confirm belt tracking and adjust for best belt tracking
- Snug the belt tracking adjustment mechanism nuts once "best tracking" is achieved
- Run the conveyor to confirm tracking is consistent (some belt movement, side to side, will be normal)
- Once tracking is confirmed, lock the bearing bolts back to tight to prevent additional adjustment from occurring
- Operate the trailer, under load, to confirm consistent tracking



Lower Conveyor Belt Tracking Adjustment Mechanism



Inclined Conveyor Belt Tracking Adjustment Mechanism