TECHNICAL
BULLETIN
#1213

PORTEC
IT'S YOUR TURN

# Checking and Adjusting Belt Chain Sprocket Alignment

Sprockets that are out of alignment can cause premature wearing of the chain, sprockets and chain guides. Once the belts have been adjusted for tension, check sprockets for proper alignment.

The sprocket should be centered in the chain path. Chain "rattle" or "popping" as the chain engages or disengages the end roll sprocket is a good indication that the sprocket needs to be aligned.

1. Remove the outside radius sideguard, chain cover and end caps.

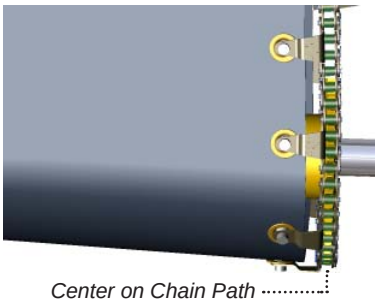
2. Check the condition of the sprocket teeth. Excessive or uneven wear on the teeth indicate misalignment of the sprocket.

3. Check the alignment of the chain, sprocket, and chain guides. The sprocket should be aligned in the center of the chain path.

## Sprocket is Less than 3/16" Misaligned

If the sprocket is less than 3/16" misaligned, the entire end roll assembly can be moved until the sprocket is in the correct position.

4. Loosen the bearing set screws to move the end roll assembly.* Gently tap either end of the shaft with a rubber or brass tip hammer, moving the end roll assembly until the sprocket is in the correct position. Tighten the set screws.



*Center on Chain Path*

* *Portec recommends applying Loctite 242 Blue to all set screws that are loosened/removed for maintenance.*

5. Test run the conveyor and listen for rattle or popping noise. If the sprocket is aligned correctly, the chain should not "rattle" or "pop". The conveyor should run quietly and smoothly.

6. As the conveyor is operating, light should be visible between the sprocket side and the chain on each side of the bottom of the sprocket.

7. Install chain cover, end caps, and sideguard. Move the end caps close to the end roll without touching the conveyor belt. Secure end cap fasteners.

The Portec power belt turn is designed to handle a serious amount of neglect and abuse and still function in a critical conveying line. But, it is also designed to run smoothly and quietly. Chain "rattle" or "popping" should be interpreted as a sign that something is not working correctly and needs attention. If aligning the sprocket does not remove the noise, call the factory for free troubleshooting advice.

## Sprocket is More than 3/16" Misaligned

The sprocket should *never* be more than 3/16" out of alignment. If it is, call the factory to discuss your current conveyor application requirements.

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