



TECHNICAL BULLETIN

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960 Oven Chain Tension Procedure

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NOTE

Keep this T B With the Operations And Maintenance Manual.

Before Maintenance please read and understand all Safety Precautions in your Operations and Maintenance Manual.

A new Oven chain will need to be adjusted after the first (3) months of operation refer to your Operations and Maintenance Manual (see Preventative Maintenance table).

Super series Ovens (over 145 ft.) have pneumatic cyclinder take-ups, see Technical Bulletin for instructions.

0.1 960 Oven Chain

Occasionally the chains may surge slightly when the oven is cold. This is normal and should stop once the oven has reached baking temperatures provided the chains are properly tensioned and lubricated.

Since chain tension must only be determined by observation, it requires a certain degree of skill and patience to do the job properly. There is only one place where the chain tension can be observed and that is at the drive end. In any case, the proper tension is indicated when the chains makes a gentle arc as they come off the rear sprockets onto the track.

Loose Chain; A chain that is too loose may kink (two pitches lifting up on each other) as it leaves the sprockets or shoes (see Figure 0.2.4: "960 Oven Chain with Hearth Plates", on page -4). This can cause the conveyor to surge or jam.

Tight Chain; A chain that is too tight can cause premature wearing out of the chains, sprockets and shoes.

Setting 960 Chain Tension

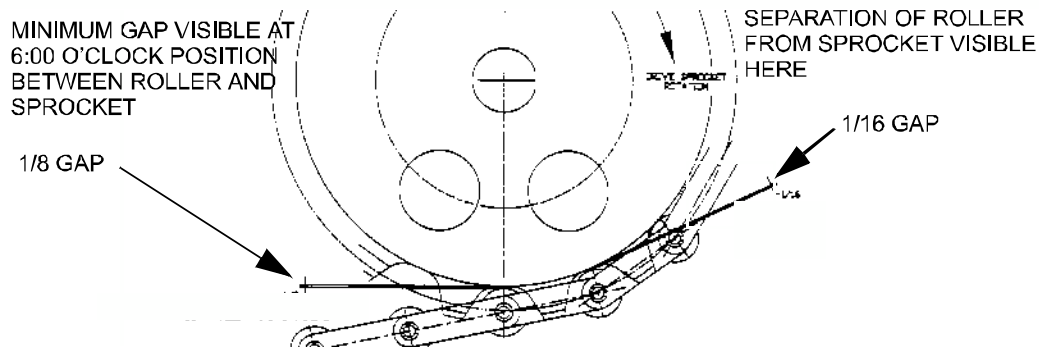
The conveyor chains on either side of the oven are adjusted independently of each other. The chain tension is increased by turning the take-up nut in a clockwise (CW) direction. In the same manner take up unit number 1 is set, proceed to take up unit number 2. It is adjusted after unit number 1, with the amount of take up determined by observing when the chain has the proper tension (see Figure 0.2.3: "960 Chain Tension Adjustment", on page -4), (see Figure 0.2.2: "960 Oven Chain Tension", on page -3) and (see Figure 0.2.4: "960 Oven Chain with Hearth Plates", on page -4).

Use the following procedure for setting tension:

- 1). The spring tension is set with the oven at temperature and full of product.

- 2). Open the back doors and look at the chain coming off the drive sprockets, the chain should start breaking loose from the sprocket at the 4:30 to 5:00 position, you should see the chain roller leave the sprocket by a 1/8" gap at the 6:00 position (see Figure 0.1.1: "Chain Leaving Sprocket", on page -2).
- 3). The chain coming off both sprockets should look the same.

Figure 0.1.1: Chain Leaving Sprocket



- 4). Check the chain about 8 to 16 inches after the sprockets on both sides of the oven, make sure the chain does not look as if it wants to start kinking up (two pitches lifting up on each other) if this happens then tighten the spring take-up nut until the chain lays back down on the track (see Figure 0.2.4: "960 Oven Chain with Hearth Plates", on page -4).

NOTE

After making adjustments on the take-up nut watch the chains for 1 hour to ensure that the chain is not trying to kink up.

Spring tensions vary from oven to oven and this is the only way to set the correct spring tension for your oven.

0.2 Maintaining Chain Tension

NOTE

It Is The Customer's Responsibility:

To have Maintenance monitor the chains and keep the chains stretching evenly from side to side, **THIS WILL SIGNIFICANTLY EXTEND THE LIFE OF THE OVEN CHAIN.**

TO TURN THE BURNERS AND THE MAIN CONVEYOR CHAIN DRIVE OFF IMMEDIATELY AFTER PRODUCTION, the exhausters and the coloraiders will run until the oven drops to 200° and after that they can be turned OFF.

If the oven chain drive is not turned OFF and is running hot to cold the chain starts shrinking and the oven springs are compressing more than normal.

Use the following procedure for Maintaining Chain Tension for your oven:

- 1). Attach a clip board on each side of the oven and every three months record the date and the following:
 - a). When the oven has cooled down and is shut off, measure and record the compressed spring lengths (Dim A & B) on both sides of the oven. This measurement is the starting point for maintaining chain tensions (see Figure 0.2.3: "960 Chain Tension Adjustment", on page -4).

- b). The chains (Dim A & B) should be the same on both sides of the oven, if the chain is longer on one side the following adjustment is needed:

Tension Adjustment

- 1). Tighten the spring take-up nut on the side Dim. A is the smallest until it equals the other side.
- 2). Be sure to write this down on the clip board and the date.
- 3). Three months after this adjustment check again to see if the chains are stretching back in line with each other.
- 4). If not, make another adjustment (repeat the above).

Figure 0.2.2: 960 Oven Chain Tension

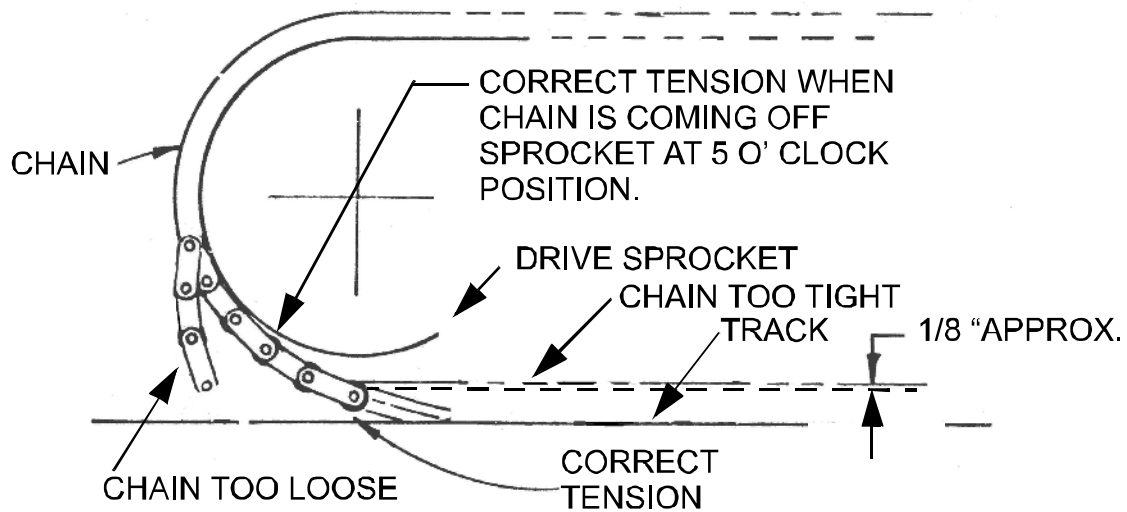


Figure 0.2.3: 960 Chain Tension Adjustment

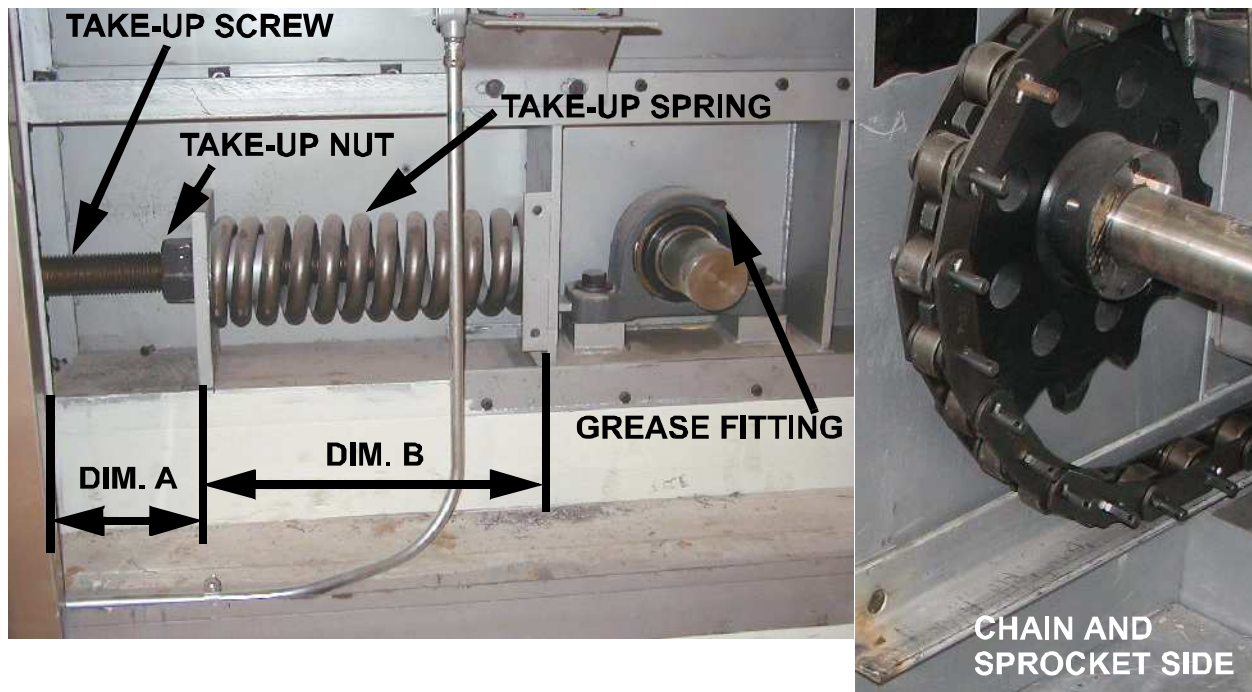


Figure 0.2.4: 960 Oven Chain with Hearth Plates

THIS FIGURE SHOWS THE PROPER RELEASE OF THE MAIN CHAIN FROM THE DRIVE SPROCKETS INTO THE LOWER (RETURN) TRACKS WITH CORRECT CHAIN TENSION.

