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STANDARD MAINTENANCE PROCEDURE (SMP)

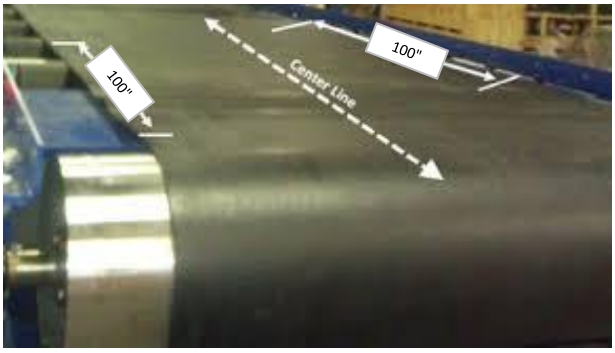
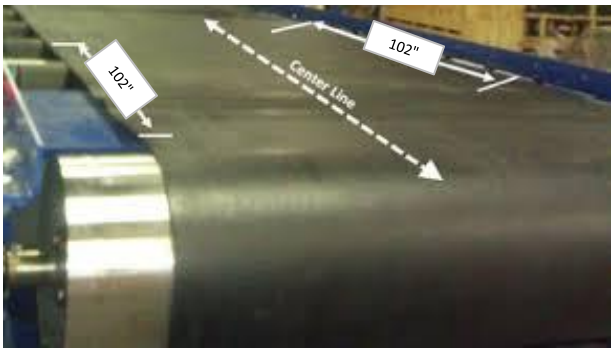
SMP NO: SG-SMP-MAINT-003	CONVEYOR BELT TENSIONING						
Equipment Type:	Conveyor Belt		System:				
Equipment Name:			Date:				
Equipment No:			Aproved:				
Maintenance Type:	Insp	Lub	S&A	Test	Cal	Rep	O/H
Frequency:	Daily	Weekly	Mth	3 Mth	6 Mth	Annual	
Risk Assess No:							

Materials/Tools Required:

1	Measurement Tape
2	Rubber Marking Ink Pen
3	Open/Box Wrench (Size to Fit the take-up jacking bolts)
4	Refer to the Video for further Instructions

Method:

1	**SAFETY:** When working on the belt or in and around the carrying and return rollers, always make sure that the drive system is locked out.
2	Proper conveyor belt tension is very important. If too slack, it will cause slippeage on the drive pulley resulting in premature belt wear. If too tight, it could result in belt splice premature failure. .
3	This method is using the elongation of the belt. The following formula is used for this method: $$L_T = L_F \times (1 + \frac{E}{100})$$ Where: L_T = Tensioned length of the belt L_F = Free length of the belt (untensioned) E = Required elongation percentage (specified by your belt manufacturer)
4	It is very important that the rollers and pulleys are clean of any build-up. The underside of the belt must also be clean of any build-up.

5	Make sure the belt is empty, with no load. Also ensure that there is no belt tension by backing off the take-up jack screws. 
6	Make marks on each edge of the belt that are precisely 50” or 100" apart. The longer, if possible, is better.These marks need to be perpendicular to the centerline of the belt. Be sure to take the time to double-check your measurements. 
7	With the use of the take-up jack screws, apply evenly gradual tension to both sides of the belt. This will ensure the take-up roller is kept parallel with the other conveyor rollers. There should not be any slop between the belt and the pulley.
8	Measuring the distance between the marks as you tension the belt will provide you with the tension percentage of your belt. For instance, if the belt requires a 2% elongation, and using the formula as described in section 3: Lt = 100" x (1 + 2/100) Lt = 102" .  As a rule of thumb, most single and 2 ply rubber belts calls for a 0.5% to 3% elongation. Because you might have different belt manufacturers and model #s at your site, you will need to consult your belting supplier or the manufacturer, for the recommended tension on each belt.
9	Run the belt for a few revolutions so as to allow the belt tension to distribute throughout the entire length.
10	Stop and relock the conveyor belt.
11	Re-measure the belt dimension between the 2 marked points to verify it is still at the desired tension.
12	Further checks. Start the conveyor belt under full load observing the drive pulley. If the belt slips on the drive pulley, you will need to increase the tension.

13	New belts will stretch. It is therefore very important to recheck the tension after the belt have been running for a few days and weeks. Thereafter, a belt tension should be checked on a regular schedule via a sustaining PM task.

SAFETY, REPORT ANY ABNORMAL ITEMS TO DEPARTMENT OR SAFETY MANAGER