

# Tech Note

Technical Notes from the Technical Committee, NIBA – The Belting Association

## #20 Troubleshooting Belting and Conveyor Component Problems Related to Material Buildup

The following is a quick guide to common problems along with solutions for reducing material buildup on belting and conveyor systems.

### Problem

The belt transports sticky material, resulting in material buildup on the snub pulley and return idlers.



(A head pulley scraper removes material carryback)

### Solution

Install a belt cleaner at the head pulley. Scrapers that have a continuous, even contact to the belt work best. Apply rubber lagging to the head and snub pulleys. Cover the return idlers with rubber or plastic sleeves to repel buildup.

The belt runs to one side for a long distance.

Often this problem is caused by off-center loading from material buildup in chutes. Use chute lining (i.e. rubber) to provide wear resistance and good flow of material.

The belt runs off at the head pulley.



Preventing material buildup will help avoid this spillage problem)

Material spillage can allow buildup between the head pulley and the belt, causing mis-tracking. Use profiled lagging on the head pulley to repel wet and sticky materials and increase the friction values between the head pulley and belt.



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## **Problem**

There is excessive wear on the belt top covers and edges.

The belt splices are separating.

## **Solution**

Buildup on return idlers and snub pulleys causes top cover wear. Reduce these effects by using sleeves and smooth lagging on the snub pulley. Make sure the loading is centered to eliminate mistracking and the resulting belt edge wear. Use impact idlers or slider-beds in the loading area with good quality skirting. Avoid using old belt for skirting.

Material can grind into the top cover and small imperfections in a splice, sometimes causing a splice failure. Install good quality skirting, never used belt. Use a rubber belt plow to eliminate trapped materials between the belt and the tail pulley.