PROBLEM SOLVED™ PAPER

SOLUTION: Martin® Tracker™

INDUSTRY: Cement

LOCATION: Brennand Cimentos in Paraiba, Brazil

Upper and Lower Martin® Tracker™ systems help keep the belt centered and away from system components.

The sensor arms ride along the belt edge and make small adjustments using a trough idler.

Lower Trackers keep the return path in line to ensure that the belt is centered on the tail pulley.

PROBLEM

The Brennand Cimentos plant in Western Brazil was experiencing severe belt mistracking issues in the loading zone of the company's limestone conveyor. The 36-inch (914 mm) belt moving 550 tph (500 tonnes) came in contact with system components, causing the edge to fray and tear, reducing the usable width. The existing alignment system was not strong enough to handle the mistracking. A full inspection of the system by Martin Engineering technicians revealed that the belt began to misalign six meters prior to the loading zone, causing the cargo to load off-center. Compromising workplace safety and increasing the potential for a belt fire, the problem led to disruptive downtime to replace the expensive belt, which increased the cost of

SOLUTION

Technicians installed two Martin® Tracker™ systems, an upper unit after the loading zone and a lower unit leading to the tail pulley. Utilizing two long arms ending in roller guides set very close to the belt edge, the systems use the force of the belt to steer pivoting rollers against the wandering direction, resulting in a constant and immediate retraining of the belt. The upper tracker has a troughed roller in line with the idlers along the belt path, which pivots slightly to assure the belt enters the head pulley correctly. The lower tracker is positioned close to the tail pulley and employs a flat rubber roller set slightly higher than the belt plane, using the belt's tension to aid in realignment. A centered belt entering the loading zone means the cargo loads properly and

RESULT

Since installation the belt has remained centered, experiencing no edge damage or tearing of any kind, and there has been no downtime due to misalignment. The equipment has created a safer workplace and reduced the cost of operation, while increasing production. "We are very satisfied with the equipment performance and feel safer with the belt aligned and protected," said the plant manager. "We are also evaluating additional Martin solutions for other sections of the conveyor."

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