PROBLEM SOLVED™ PAPER

SOLUTION: Martin® QC1™ Cleaner HD and Martin® SC16 Cleaner

INDUSTRY: Cement

LOCATION: Siam City Cement Co. Ltd (SCCC), Saraburi Province, Thailand

The Patented "CARP" Constant Angle Radial Pressure design keeps a tight seal on the belt.

Martin Engineering technicians install the Martin® QC1™ HD cleaner on the underside of the head pulley.

Martin® SC16 Cleaner uses a tungsten blade to dislodge adhered material.

PROBLEM

Operators at SCCC in central Thailand realized that the belt cleaners on the current conveyor belt system were not adequately cleaning the belt, allowing excessive carryback to spill along the 800 m (2624-foot) length of the belt path. Carrying 5 million MTPY (5.5 mil. TPY) of limestone, the 2000 mm (78-inch) wide belt traveling at 1.2 MPS (244 FPM) spilled dust and fines, which built up around the mainframe and along walkways. This posed a potential workplace hazard and required workers to be assigned for regular cleanup. Rolling components also needed frequent replacement, which led to expensive downtime and increased the cost of operation.

SOLUTION

Technicians from CNS Thailand, a Martin distributor, and Martin Engineering Thailand examined the issue and determined that the best option was to replace the existing equipment with a Martin® QC1™ Cleaner HD and a Martin® SC16 Cleaner. Using the standard orange blade for heavy-duty applications, the Martin® QC1™ Cleaner HD is set on a mandrel connected to a spring tensioner. This allows the blade curved in the Patented "CARP" Constant Angle Radial Pressure design to keep a tight seal without damaging the belt's surface or splice. The Martin® SC16 Cleaner. backs up the Martin® QC1™ Cleaner HD designed to remove dust and fines from high-speed belts with high-tonnage loads under punishing conditions.

RESULTS

The new blades immediately improved the cleanliness of the belts and surrounding area, but after four months, operators also observed that, unlike the previous cleaners, the new system offered consistent performance throughout the blade life. They noted a significant drop in the amount of carryback and spillage, along with a great improvement to the safety of the work area. "We are very satisfied with the outcome," said a Mechanical Maintenance Engineer close to the installation project. "There has definitely been an improvement to plant efficiency." SCCC is now in the process of purchasing similar solutions for other areas in the plant.

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