

ROAD MILLING BELTS

CASE STUDY



PROBLEM

HIGH SPEED, ABRASIVE APPLICATION

One of the largest road milling machine manufacturers needed conveyor belts to stand up to extremely harsh conditions. Each machine contained two belts that moved in excess of 900 FPM (feet per minute) – a primary belt that takes ground up concrete and asphalt from the earth, and a secondary belt that places the material in a dump truck. Small pulleys, high speeds, and the abrasiveness of the conveyed product combined to result in belt failure along the splice and the loss of cleats that carried material.

SOLUTION

IMPROVED CLEATS, COMPOUNDS, AND SPLICE

Mi Conveyance Solutions worked with the manufacturer to develop a state-of-the-art cleating and splicing technique designed to perform under extreme conditions. Working together, the team engineered a new, single-piece, fully molded cleat by melding the cleats to the top cover of the belt – which eliminated the probability of cleat loss. Along with a specially formulated cover compound, these improved fabrication techniques provided superior abrasion resistance. Additionally, the advanced splice ensured the ultimate strength, flexibility, and performance needed to withstand the high speeds and small pulley diameters.

WHERE THE ROAD MEETS THE RUBBER

Belting is critical to the operation of road milling machines. If the belt is out of service, so is the machine – equaling lost time and money. That's why a high-quality belt is viewed by experienced operators as an insurance policy. With over a decade of collaboration and innovation, Motion's OEM and MRO Road-Away™ offering makes us the industry leader in heavy-duty, road milling belts. Our continued dedication and investment in equipment, expertise, process improvement and research/development means we have more belts on the road today than any other domestic belting fabricator.

KEY POINTS

- Specially designed rubber compounds, for both belting and cleats, withstand impact from sharp, heavy materials
- Fully fabricated, single-piece belting and molded cleats eliminate the danger of cleats separating from belt covers
- Advanced splice ensures ultimate strength and flexibility, tolerating high speeds and small pulley diameters
- 3-Ply 225# belt enhances endless splice
- Offers a smoother and quieter operation due to a stabilizing center profile on the return side