Baking Oven Chain Lubrication Reduces Down-Time

Food and Beverage Industry
650 Advanced Machinery Lubricant (AML)
IL/MRO Case Study

Challenge

Background

A food plant was lubricating chains and sprockets in a baking oven using a competitor's high viscosity product. The customer was not satisfied with the performance of the competitor's product and felt that it did not have good load-bearing capabilities. The oil was not penetrating the chain links well, and the high operating temperature of 180˚C (356˚F) caused the oil to evaporate and carbonize, leading to a waxy build-up.

This resulted in chain slippage and misalignment causing the trays to jam inside the oven, leading to unplanned downtime and damaged trays.

Waxy build-up on baking oven chain.

Solution

Product

The Chesterton specialist diagnosed the problem of high viscosity and inadequate heat resistance capabilities of the existing oil and recommended **Chesterton 650 Advanced Machinery Lubricant,** a low-viscosity ISO 22 grade and high-temperature chain oil that operates up to 211˚C (412˚F).

650 AML penetrates extremely well inside the micro spacings of the chains and can carry high loads. It avoids build up due to high detergency and higher operating temperature limits.

Chesteron 630 AML Lubrucant.

Results

Reduced Down-Time, Cost Savings

After applying **650 AML**, the customer's baking oven chain operation improved dramatically. The wear significantly reduced due to the high penetration and load carrying capabilities. **650 AML** heat resistance capabilities and inherent detergency reduced the build-up on the chains, which in turn reduced slippage and misalignment.

- Oil usage reduction of 25%
- Direct cost reduction of 15%
- Part replacement cost 100% savings
- Labor cost 100% saving for both breakdowns and cleaning

Cleaned and lubricated chain.

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