

# **Case Study**

## Blue Star XH 9655/460-2 Improves Bearing Performance While Withstanding High Temperature and Water Exposure

### **OPPORTUNITY:**

The customer is a steel mill that produces long steel. In the final stages of manufacture, the steel moves through a casting process. Here, the liquid steel is fed to a caster, which solidifies, straightens, and stretches the steel, converting it into solid billets and blooms. This process requires the use of a high temperature lubricant on the bearings to reduce friction and keep the equipment running smoothly.

The manufacturer was utilizing a competitor's grease for this application. Over time, they noticed that this grease was not able to hold up against heavy loads, heat, and water run-off. This caused the grease to solidify, and in turn, was leading to bearing failures. A bearing failure is a costly mistake – not only do replacements cost thousands of dollars, but these repairs also resulted in unplanned downtime and a lower output. The customer began seeking an alternative that was able to hold up to high temperature, high moisture environments.

#### THE DUBOIS SOLUTION:

DuBois partnered with the manufacturer to decrease bearing failure and improve output by implementing Blue Star XH 9655/460-2. This product is a calcium sulfonate grease that is specifically designed to lubricate bearings, roll necks, spindles, and other parts operated at elevated temperatures and applications of extreme water exposure. Blue Star XH 9655/460-2 is ideal for providing superior corrosion protection, mechanical shear stability, and high oxidation stability, while resisting consistency breakdown from water, coolant, or process fluid contamination, making it an ideal product for extreme conditions like steel manufacturing.

#### **RESULTS AND BENEFITS:**

In a trial run, DuBois and the manufacturer tested one drum of Blue Star XH 9655/460-2. Upon implementation, the customer immediately noticed that the grease performance was not impacted by the heat, water, or soil. It did not dry out, allowing the bearings to continue running efficiently.

Impressed with these results, the customer made Blue Star XH 9655/460-2 a permanent solution. They converted all bearings to the product, and DuBois further improved the process by installing an automatic feeder for continuous, consistent lubrication. Since making the change, the customer has experienced **zero bearing failures**, saving money and increasing output, and have increased their reclaim rate from 30% to 92% - **a 62% increase!** Following this great success, DuBois and the manufacture continue to partner on other improvements throughout their operations.



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