

# METALS (Americas)

## Continuous Caster Lubrication

### Castrol Molub-Alloy® 860/460-1 ES Grease

**COST SAVINGS: \$1,200,000 over 4 years**



#### THE SITUATION

- The customer was experiencing premature bearing failures in the bender segments of their continuous caster.
- Average bender segment life between rebuilds was only 50,000 tons of steel produced.

#### BEFORE

- Conventional polyurea grease was providing poor roll stability allowing cooling water intrusion.
- Centralized lubrication system was not adequately lubricating all caster segment roll bearings.
- Cooling water system was not providing adequate cooling.

#### AFTER

- Average bender segment life was increased from 50,000 tons to 350,000 tons of steel
- The average segment cost per rebuild was reduced from \$1.56/ton to \$0.23/ton
- Annual cost for bender segment rebuilds were reduced by approximately \$300,000

#### THE SOLUTION

- Castrol provided a detailed solution to address the challenge in the caster.
- Molub-Alloy 860/460-1 ES was implemented throughout the entire caster.
- Recommended upgrades to the centralized lubrication system were completed.
- Optimized lube cycles were made possible through improved high performance grease.
- The customer modified the caster cooling system.

- **Fully understand the customer's situation and objectives**
- **Utilization of engineering services for lubrication systems**
- **High-performance grease technology developed to work with aggressive process waters**

## RECOMMENDATIONS

- Successful solutions typically are derived from more than just product recommendations. Understanding the applications, ability to design lubrication systems and utilizing optimal lubrication intervals with high-performance grease can contribute to a winning solution.

## CONCLUSION

- Due to a combination of the use of Castrol Molub-Alloy 860/460-1 ES grease, upgrading the centralized grease system and modification of the cooling water system, the customer was able to obtain significant savings.
- Bender segment life was increased by 700% with an annual cost savings of \$300,000 with decreased downtime and costly rebuilds.
- A total savings of \$1,200,000 was achieved in reduced maintenance/replacement parts and operating costs.



## OTHER POTENTIAL APPLICATIONS

Castrol Molub-Alloy 860 ES high performance grease is formulated to handle high temperatures, heavy & shock loads, water contamination, and other harsh conditions found throughout the steel industry.