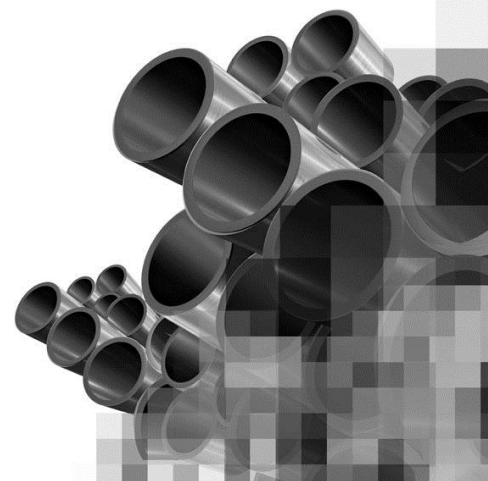


METALS (USA)

WELDED TUBE MILLS

Castrol Tribol® GR 1350-2.5 PD Grease*

ANNUAL SAVINGS: \$107,040



THE SITUATION

A major Pipe Mill needed to increase their production to meet the needs of their customers. The increase in production runs caused excessive work roll bearing losses which resulted in unscheduled downtime. The loss of production due to bearing failures was not acceptable to the management of the Pipe Mill.

BEFORE

- Production runs were increased from two weeks to four weeks.
- Lubrication of work roll bearings was done manually at the end of each production run.
- 2.3 hours per month was the average loss of production due to bearing failures.

AFTER

- Production runs could be increased to over six weeks without bearing failures.
- No unscheduled downtime due to lubrication failures.

THE SOLUTION

- Castrol recommended a combination of products and services to address the lubrication failures and help increase production.
- Castrol Tribol GR 1350-2.5 PD high-performance grease was used to handle the extreme conditions of high water washout, high pressures and heavy shock loads.

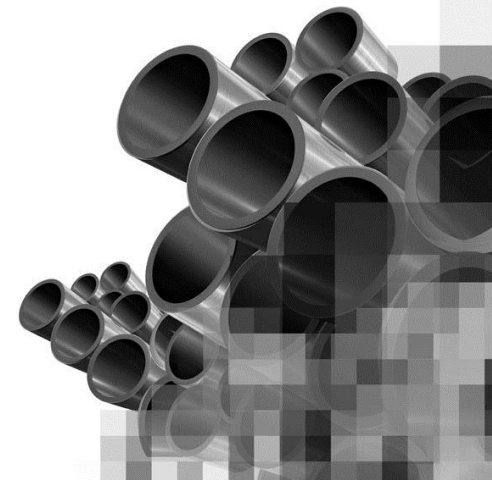
- Providing a solution of increased production and decreased costs
- High-performance technologies to meet extreme conditions

RECOMMENDATIONS

Castrol's product and service offer is designed to deliver cost savings and improved application performance. Experience in tube mill applications has shown that greases can be adversely affected by the mill water used in the tube process. Having a full range of products gives Castrol the ability to provide compatible products for a variety of applications.

CONCLUSION

- An increase of seven hours of production was achieved within the first three months.
- Manual lubrication intervals could be extended by three times resulting in reduced grease consumption and labor costs due to the high performance technology.
- Over \$99,360 was saved in lost production in the first year.



ANNUAL SAVINGS PROJECTION

| | |
|-----------------------|------------------|
| Lube cost related: | \$ 7,680 |
| Production related: | \$ 99,360 |
| Total Savings: | \$107,040 |

OTHER POTENTIAL APPLICATIONS

Castrol has product and service offers for most mechanical, structural and coated welded tube operations including Tube Forming, Corrosion Prevention, Tube Cut Off and Maintenance Lubrication.