

LARGE REDUCTION IN OPEN GEAR LUBRICANT USAGE

CEMENT (USA)

FINISH MILL OPEN GEARS

Castrol Molub-Alloy® OG 8031/6000-00*

ANNUAL SAVINGS: \$39,886

THE SITUATION

Castrol's Molub-Alloy OG 8031/6000 open gear lubricant was successfully used in the finish mill open gearing of a large cement manufacturer in the Midwest.

The customer challenged Castrol to help them lower costs through reduced lubricant usage and less maintenance time in applying the lubricant.

BEFORE

- Farval, dual-line intermittent spray system in use
- Lubricant is once-through, so it is not recovered / re-used
- **Lubricant usage: 110 lbs every 3 days**

AFTER

- Recirculating lube system in place
- Lubricant is filtered and re-used for a 90-day period
- **Lubricant usage: 440 lbs every 90 days (87% reduction!)**

THE SOLUTION

- Castrol Engineering designed a new system that would allow the Molub-Alloy OG 8031/6000 lubricant to be captured, filtered, and reapplied to the open gearing.
- An idler pinion was added to the system to provide back-up in case of lube system failure. This provided added protection to the gearing that was not present prior.
- Monitoring showed that the gear lube coverage was excellent and the lube condition was good for about 90 days.
- Simple components were used in the new system making it easier to repair and monitor on a regular basis.



Other benefits include:

- **Less maintenance time to change out drums**
- **Much lower waste generation**
- **Much simpler lube system to monitor**

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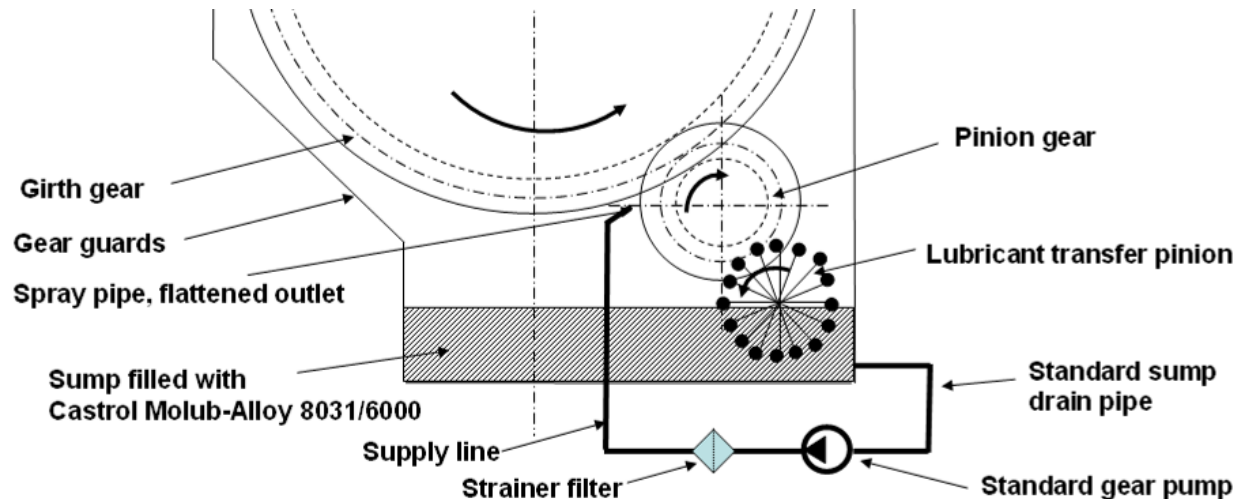
RECOMMENDATIONS

Many open gear lubricants are solvent diluted and asphaltic in nature, so they have no ability to be recirculated in a lube system. Molub-Alloy OG 8031 is a unique open gear compound that utilizes no solvents and flows more easily from gearing. Due to its nature, it may be filtered and re-used for a period of time with a properly engineered lube system in place.

CONCLUSION

The customer was pleased with the support from Castrol to design a recirculating lubrication system to meet their needs of lower lubricant and labor costs.

The result was \$39,886 in annual savings due to reduced lubricant usage.



OTHER POTENTIAL APPLICATIONS

Molub-Alloy OG 8031 Open Gear Compound is a grease-like lubricant designed to provide near continuous lubrication of open gears, as opposed to traditional asphaltic types that can provide only intermittent lubrication.

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