

# Optigear Synthetic 800 Excels in Trunnion Bearings

## CEMENT (USA)

### TRUNNION BEARINGS

Castrol Optigear® Synthetic 800/2200\*

**ANNUAL SAVINGS: \$5,545 plus large temp reduction**

#### THE SITUATION

A competitive synthetic polyglycol (PAG) oil was used in the trunnion bearings on kilns where operating temperatures were unusually high.

The competitive oil did meet with some success cooling off the hot trunnions, however, it did not perform well as a lubricant and consistently ran very high tin, copper, and iron content in oil samples, indicating bearing wear.

#### BEFORE

- High priced, synthetic PAG oil from competitor
- High bearing temps
- High wear materials in oil samples

#### AFTER

- Optigear Synthetic 800 at over 40% lower price
- **Bearing temps reduced by 19°F**
- Wear materials greatly lowered

#### THE SOLUTION

- Castrol Engineers were very experienced in the success of Optigear Synthetic 800 in cement mill trunnion bearings.
- A flush & changeover was made “on-the-fly” to the Castrol oil to avoid shutdown of the kiln.
- Temperature reductions were noticeable very quickly, while wear materials were reduced in subsequent oil analysis testing.



- **Lower oil price**
- **Improved oil performance**
- **Lower wear**
- **Reduced temp**

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## RECOMMENDATIONS

Optigear Synthetic 800 has proven to be one of the best available lubricants for trunnion bearings for many years within the Cement and similar industries. This proven performance was quickly realized by this customer with Castrol's support in converting the oil and providing oil analysis before & after the changeover.

## CONCLUSION

The high viscosity and extremely high viscosity index of the Optigear Synthetic 800 provided an improved oil film at high temperature, effectively lowering the temp due to less bearing friction & wear.

**The result was a savings of over \$5,000 in oil costs and better long term reliability of the trunnions.**



## OTHER POTENTIAL APPLICATIONS

Optigear Synthetic 800 is the ideal lubricant for high temperature, heavily loaded bearings and gears. The synthetic base fluid and extremely high viscosity index allows it to maintain exceptional oil film at extreme temps.