

Optigear 1100 Success in Extrusion Gearboxes

Plastic Extrusion

Reduction and Distribution Gearboxes

Castrol Optigear® 1100/220 gear oil*

SAVINGS: \$49,560 over 3 years

THE SITUATION

A competitor's gear oil was used to lubricate all Extrusion Area gearboxes.

- 12 to 15 reduction and distribution gearboxes were rebuilt each year.
- \$15,000 spend per year to purchase bearings for gearbox repair.
- Labor of 8 to 10 hours for 2 people to rebuild a gearbox.
- 192 hours of lost production time due to gearbox failures.
- Gearbox failure caused \$2,000 per hour of lost production.

BEFORE

Three (3) year cost calculation:

Total oil capacity – 800 gal.
Quantity of gearboxes - 80
Lubricant cost – \$19,200
Labour cost – \$36,960
Parts cost – \$15,000

Total cost of maintenance - \$71,160

AFTER

Three (3) year cost calculation after changeover to Optigear 1100/220:

Total oil capacity – 800 gal.
Quantity of gearboxes - 80
Lubricant cost – \$16,000
Labour cost – \$5,600
Parts cost – \$0

Total cost of maintenance - \$21,600

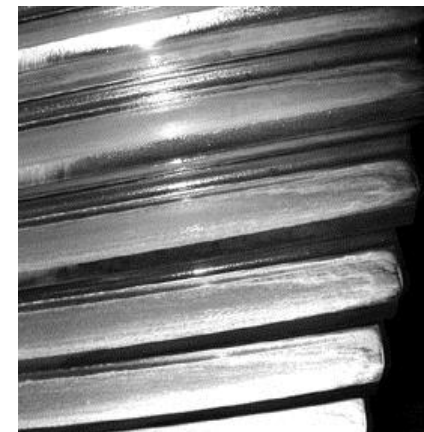
THE SOLUTION

The OEM recommendation was to change the oil every 6 months due to rapid oxidation and degradation of the competitor's oil when subjected to the high process temperatures.

Due to the lack of maintenance manpower, the oil was actually changed every 12 months.

The main problem was frequent gearbox failures due to the inability of the oil to maintain performance between annual oil changes.

After thorough investigation of the situation and the working conditions of the gearboxes, Castrol Optigear 1100/220 gear oil was recommended.



Optigear 1100/220 gear oil has proven to be the right product for the right application, eliminating gearbox failures and annual oil changes.

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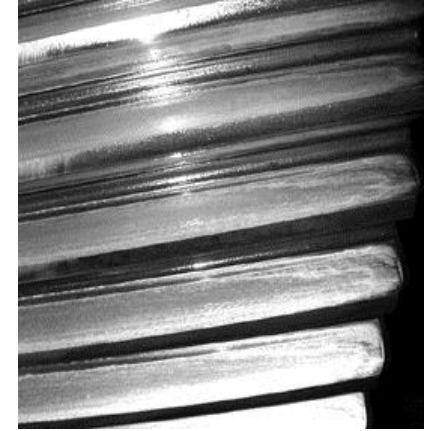
RECOMMENDATIONS

Optigear 1100/220 gear oil's high oxidation resistance and wear protection properties have extended oil life up to 6 times and significantly extended gearbox service life in the very harsh working conditions of the extrusion gearboxes.

Optigear 1100 high performance gear oil is recommended for critical gearboxes in the most demanding applications providing long oil service life and superior protection of equipment.

CONCLUSION

- No lubrication related gearbox failures for 3 years since the conversion.
- No oil changes for 3 years based on oil analysis.
- Use of Optigear 1100 has greatly increased the service life of the oil and equipment.
- **Total savings per 3 years - \$49,560**
- **No lost production time per 3 years**
– over 500 hours or \$1.1M in savings



OTHER POTENTIAL APPLICATIONS

The customer was looking for significant reduction of gearbox failures and elimination of downtime. Optigear 1100 gear oil has delivered the desired benefits at the right cost.

Other potential applications include but are not limited to: gearboxes at steel mills, cement plants, mining draglines and other critical and heavily loaded gear units.

Customer
return on
investment
with Castrol
is 3X!

