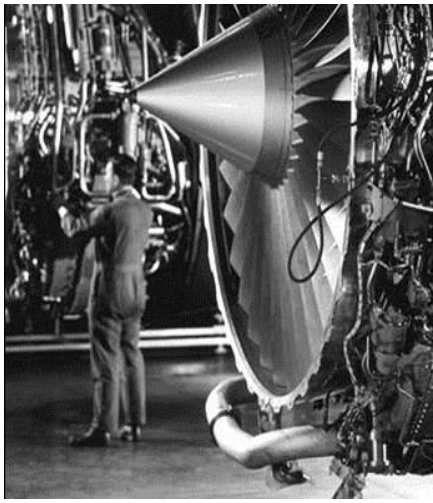
AEROSPACE (USA)

COMPONENT MANUFACTURING

Castrol Hysol® MB 50

ANNUAL SAVINGS: $65,325



THE SITUATION

A cutoff saw, used in turbine blade manufacturing, was contributing to high tooling costs at an aerospace manufacturer.

The tooling vendor had tested other wheel designs to improve tool life, with no success.

Cutting wheels were returned to the tooling vendor for recoating after use. Lead time for procurement of replacement wheels was eight weeks.

BEFORE

- High cutting wheel usage
- High coolant usage
- High downtime for wheel replacement and lost production

AFTER

- Reduced cutting wheel usage by 55%
- Reduced monthly coolant usage by 30%

THE SOLUTION

Castrol aligned resources with the tooling vendor to share technologies and collaborate in the development of a Six Sigma Black Belt project focused on tool life improvement on the cutoff saw.

Semi-synthetic coolant technology offers extended sump life, bacteria control, and maintenance benefits comparable to synthetic fluids, with added lubrication for reduced tool wear.

RECOMMENDATIONS

Recommended replacing the synthetic oil coolant technology with semi-synthetic coolant, Castrol Hysol MB 50.

Hysol MB 50 was selected for trial at the customer site to evaluate the impact of an increased lubricant package on cutting wheel life.

CONCLUSION

Productivity: Reducing cutting wheel wear leads to fewer tooling changes on the cutoff saw. By switching to Castrol Hysol MB 50, a minimum of 129 man hours and machine hours were added to the usefulness of the cutoff saw.

Inventory Control: By changing to Castrol Hysol MB 50, the customer improved tool life and reduced the amount of time associated with the recoating and replacement of cutting wheels. Additionally, the customer minimized the potential for stock run out on a cutting tool with an extended lead time.