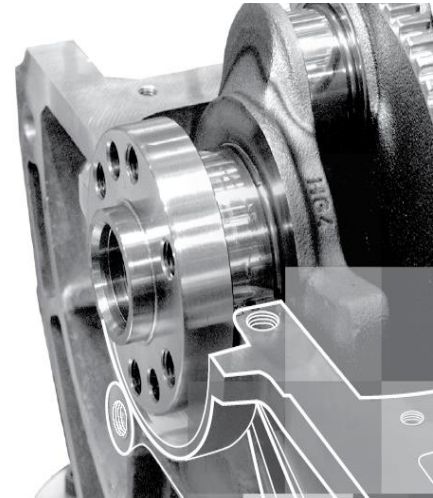


AUTOMOTIVE (USA) ENGINES

Castrol Hysol® MB 50

ANNUAL SAVINGS: \$5,896



THE SITUATION

A major automotive customer was using a conventional soluble oil product for machining operations. Due to use of untreated make-up water and residual zinc stearate from a forming operation, the sumps were building hardness very quickly, contributing to emulsion instability.

In addition, large amounts of tramp oil were being introduced into the coolant. The sumps started foaming heavily, and were overflowing onto the floor causing safety and housekeeping issues. A defoamer was being added, but provided only minimal relief.

BEFORE CASTROL

- Defoamer usage – 8 pails
- System dump and recharges – 4 per year
- High maintenance cost

AFTER CASTROL

- Defoamer usage eliminated
- System dump and recharges cut in half
- Reduced maintenance cost
- Improved safety

THE SOLUTION

- Castrol Hysol MB 50 proved to be the most stable. The coolant remained unaffected by the hardness as it built to 40 gpg. In addition, no defoamer was needed. Tool life remained consistent with previously obtained results. Machine cleanliness was better than with the previous product, and Castrol Hysol MB 50 required 20% less make-up.
- The safety hazard of slippery floors from foam-overs was eliminated.
- The need for defoamer was eliminated.
- System cleanouts were reduced from four times per year to two times per year.

- **High-performance product**
- **Improved system performance**

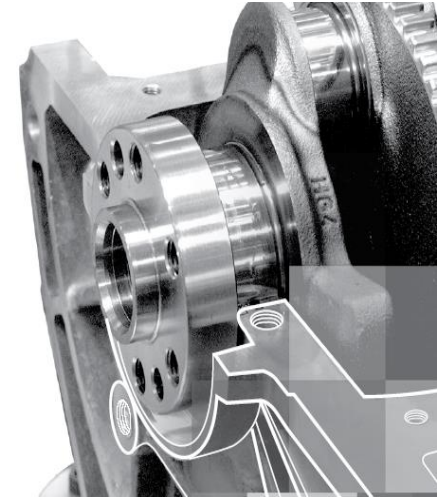
RECOMMENDATIONS

The customer ran a trial to evaluate Castrol Hysol MB-50, and a competitive product. Two machines were charged with Castrol Hysol MB-50 and two with the competitive product. All were charged to 7% concentration.

The trial ran for ten weeks with coolant samples being submitted weekly for analysis. The primary areas being evaluated were stability, pH, component depletion and bacteria. Foaming, tool life and machine cleanliness were also documented.

CONCLUSION

- Castrol Hysol MB 50 had higher operator acceptance—with no foam, less maintenance and fewer dumps and recharges.
- The reduced foam improved overall safety—with less chance of slipping.
- This resulted in an overall lower bottom line of \$5,896.



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