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Fuels and Lubricants Research Division

Sequence VIII Engine Test

(ASTM D6709)

Specifications

- API SJ/SL/SM/SN/SP
- LSAC GF-5/GF-6

Objective

- Evaluate the performance of a lubricant in preventing copper/lead/tin bearing corrosion and measure viscous shear stability under high-temperature operating conditions using unleaded gasoline.

Field Service Simulated

- High-temperature, corrosive service
- Copper/lead/tin bearings
- Field service correlation not established

Test Fixture

- .7 L carbureted, single-cylinder, spark ignition, CLR lubricant test engine operated with an external lubricant heater circuit.

Test Parameters

- The test duration is 40 hours.
- The engine runs continuously at 3150 rpm for 40 hours using unleaded gasoline. Lubricant temperature is raised to 143°C using an external lubricant heater.
- Lubricant samples are taken and additions are measured at 10, 20 and 30 hours.

Test Parts Evaluation

- The connecting rod bearing weight loss is measured.

Used Lubricant Analysis

- Viscosity @ 40°C & 100°C (ASTM D445)
- Stripped Viscosity (ASTM D445)

Pass/Fail Criteria

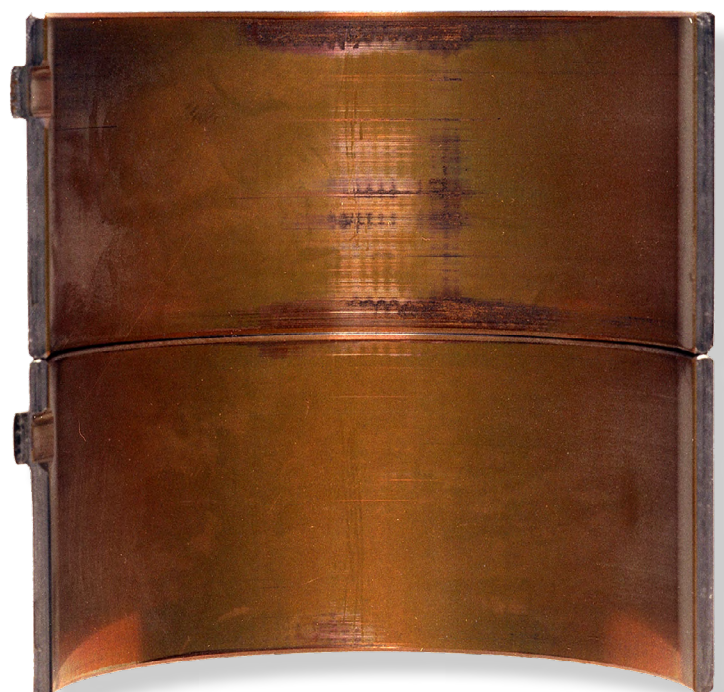
- 26 mg weight loss maximum; stripped viscosity must stay in grade.

PASS

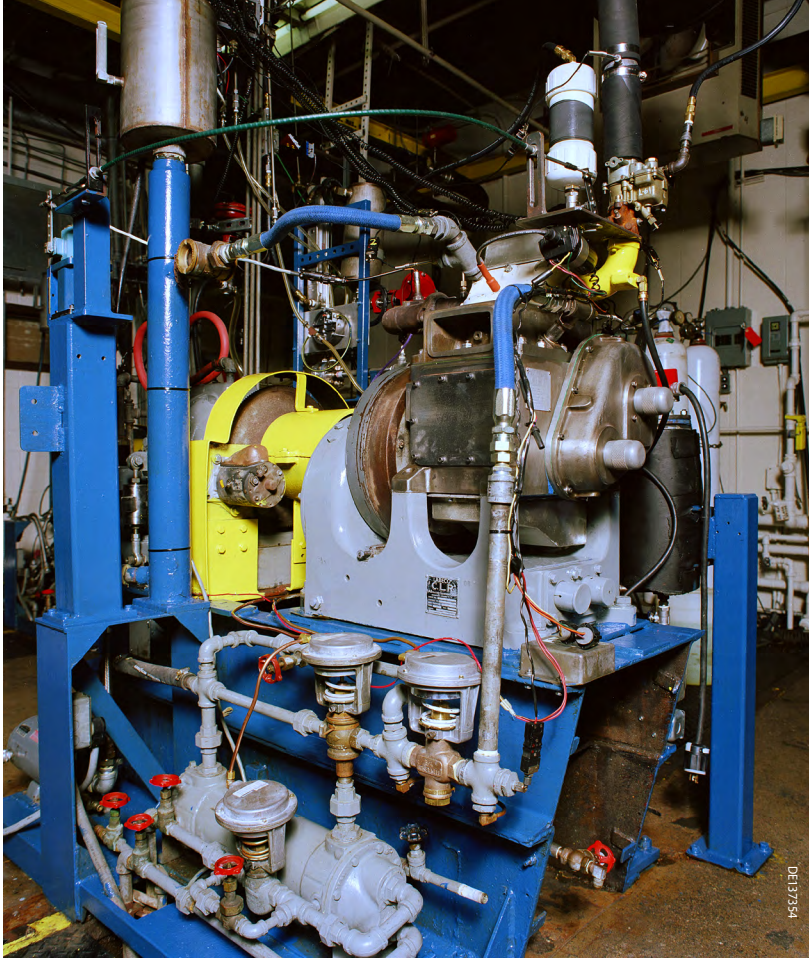


D0061421

FAIL



D0061421



We welcome your inquiries.
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