

Sequence L38 Test

(ASTM D 5119)

SPECIFICATIONS

API categories CF-4, CF, CF-2, CG-4, SH, SJ, SL, ILSAC GF-1 & GF-2. Military Specifications MIL-L-46152E, MIL-L-2104F, MIL-L-21260D, MIL-L-46167B. (Some of the above are now obsolete.)

OBJECTIVE

To evaluate a lubricant's performance in combating copper/lead/tin bearing corrosion and to measure viscous shear stability using leaded fuel.

FIELD SERVICE SIMULATED

High temperature, corrosive service. Copper/lead/tin bearings. Field service correlation has not been established.

TEST FIXTURE

A 42.5 C.I.D. carbureted, single cylinder, spark ignition, CLR oil test engine operated with an external oil heater circuit.

TEST PARAMETERS

The engine runs 40 hours at 35.5 BMEP using a leaded ISO-octane fuel. The engine is shut-down each 10 hours for an oil level check. Test speed is 3150 rpm, and the oil temperature is raised to 290°F (143°C) using an external oil heater circuit.

TEST PARTS EVALUATION

Engine is inspected for sludge and varnish deposits, and the connecting rod bearing weight loss is measured.

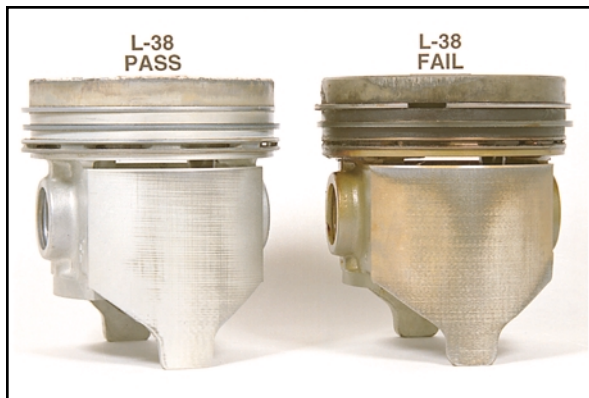
USED LUBRICANT ANALYSIS

- Kinematic viscosity
- Neutralization number
- Multigrade oils require a 10-hour stripped viscosity

PASS/FAIL CRITERIA

40 Mg weight loss max, stripped viscosity must stay in grade.

PARAMETER	PASS LIMIT
Bearing weight loss, mg max	40
Stripped viscosity, cSt	stay in grade



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