# Mack T-8

## **SPECIFICATIONS**

This test is part of specifications MACK EO-L, EO-L Plus, EO-M, EO-M Plus, API CG-4 and CH-4, DHD-1.

## OBJECTIVE

This objective of this test is to evaluate the soot handling capability of engine crankcase oil with regard to viscosity

#### FIELD SERVICE SIMULATED

Field service simulated is heavy-duty, stop-and-go operation, and high-soot loading.

#### **TEST FIXTURE**

The test engine is a Mack E7-350, fixed time, in-line six cylinder configuration IIGBA77623, direct injection, four-stroke, turbocharged, intercooled, compression ignition engine. The bore and stroke are  $4-7/8 \times 6-1/2$  inches. The engine is rated at 350 bhp @ 1800 rpm.

## **TEST PARAMETERS**

Each test is 250 or 300 long hours under constant rated speed and load conditions with controlled water out, fuel, intake air and intake manifold temperatures. Exhaust back pressure and inlet air restriction levels are also controlled. Between tests, the engine is flushed for 2 hours with a standard flash oil.

## **TEST PARTS EVALUATED**

Oil filter plugging is evaluated.

### USED LUBRICANT ANALYSIS

Oil samples are taken every 25 hours and analyzed for kinematic viscosity at 100°C.

#### PASS/FAIL CRITERIA

Pass/fail critieria include: maximum viscosity increase at 3.8% soot-11.5, 12.5 & 13.0 cSt for 1,2,3 tests; oil filter plugging <138 kPa; and relative viscosity of 2.1 for the T-8E @ 4.8% soot. Oil consumption 0.304 gr/Kwhr., max.





