A Program of ASTM International

Test Monitoring Center

Carnegie Mellon University
6555 Penn Avenue, Pittsburgh, PA 15206, USA

http://astmtmc.cmu.edu
412-365-1000

T-12 Information Letter 10-1
Sequence No. 5
March 17, 2010

ASTM consensus has not been obtained on this information letter. An appropriate ASTM ballot will be issued in order to achieve such consensus.

TO: Mack Mailing List

SUBJECT:
1. Oil Inspection – Addition of MRV Measurement at 100 hours
2. Hardcopy Final Report Requirement Change

The Mack Surveillance Panel, approved via email ballots, the following changes to D7422-08:

1. MRV measurement of the 100 hour oil sample was added to the oil inspection schedule. Revised section 10.3 is attached.
2. Test laboratories are no longer required to send hard copies of final test reports to the Test Monitoring Center. Revised section 12.1.2 is attached.

The above items are effective the date of the information letter.

Greg Shank
Manager, Engine Product Development
Volvo

Frank M. Farber
Administrator
ASTM Test Monitoring Center

Attachment

c: ftp://ftp.astmtmc.cmu.edu/docs/diesel/mack/procedure_and_ils/T-12/il10-1.pdf

Distribution: Email

(Revises D 7422-09a)

Add the following to Section 2 Referenced Documents:

D 6896 Test Method for Determination of Yield Stress and Apparent Viscosity of Used Engine Oils at Low Temperature

10.3 *Oil Inspection*— perform all oil analyses listed in Sections 10.3.1 through 10.3.7. Report all results.

10.3.1 *Viscosity* – Analyze oil samples for viscosity at 100 °C (212°F) according to Test Method D 445 or Test Method D 5967, Annex A3. Base the viscosity increase on the minimum viscosity.

10.3.2 *Soot* – Conduct soot analysis according to Test Method D 5967, Annex A4. Conduct the 100 h soot measurement twice and report the average (round the result according to Practice E 29). To maintain accuracy and precision conduct all soot measurements at a TMC-calibrated laboratory.

10.3.3 *Metals* – Determine wear metals content (iron, lead, copper, chromium, aluminum, nickel), additive metals content, silicon and sodium levels according to Test Method D 5185 every 25 h from 0 h to EOT. Conduct EOT lead content measurements at least twice and report the average value. Conduct oil analysis as soon as possible after sampling.

10.3.4 *Base Number* – Determine base number every 25 h, including EOT, according to Test Method D 4739.

10.3.5 *Acid Number* – Determine acid number every 25 h, including EOT, according to Test Method D 664.

10.3.6 *Oxidation* – Determine oxidation using both integrated IR (IR measurement techniques are available from the TMC) and peak height IR every 25 h, including EOT.

10.3.7 *MRV Viscosity* – For the 100 h oil sample, determine MRV viscosity at −20 °C according to Test Method D 6896. As part of the MRV measurement procedure, be sure to prepare the sample in accordance with A4.3, Annex A4 of Test Method D 5967. The maximum reported result is 400 000 cP, and use this value if the results are too viscous to measure.

12.1.2 When reporting reference oil test results, transmit the test data electronically by utilizing the ASTM Data Communications Committee Test Report Transmission Model which is available from the TMC. Transmit the data within five working days of test completion.