



Test Monitoring Center

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

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

Sequence VID Information Letter 12-3
Sequence Number 11
October 10, 2012

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

TO: Sequence VI Mailing List

SUBJECT: 1. Changes to Coolant Flow Calibration Procedure
2. Additional AFR Device
3. Removal of Requirement to Use the Same Type Valve in the Oil Heat/Cool System

During the September 26, 2012 Sequence VI Surveillance Panel Meeting, the panel approved the following changes to Test Method D7589.

1. The Panel approved a modification to the engine coolant flow calibration. Water is now specified as the calibration media. The flow measurement device used for calibration of the stand instrumentation is to be calibrated with a device traceable to NIST. This change to Section 10.2.5 may be used for any engine coolant flow calibration conducted on or after September 26, 2012, but shall be implemented for any engine coolant calibrations conducted on or after January 1, 2013.
2. The panel approved the removal of the AFR measurement range from Section 6.10.1 and to add another AFR analyzer ECM AFM1000 as a suitable device to Section 6.10.1.1 and Appendix X1.25. This change is effective September 26, 2012.
3. The panel agreed to remove the requirement to use only one type of Burkert control valve in a stand. Section 6.6.5.3 (5) has been removed. This change is effective September 26, 2012.

Bruce Matthews
Engine Oil Test Development and Support
GM Powertrain Materials Engineering

Frank M. Farber
Director
ASTM Test Monitoring Center

Attachment

c: ftp://ftp.astmtmc.cmu.edu/docs/gas/sequencevi/vid/procedure_and_ils/il12-3.pdf

Distribution: Email

(Revises Test Method D7589-12, as amended by Information Letters 12-1 and 12-2)

6.6.5.3

(5) Deleted.

6.10.1 The AFR analyzer shall meet the following specifications:

Accuracy	± 0.1 AFR when 14.7 AFR with H/C = 1.85, O/C = 0.000
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6.10.1.1 Temperature of exhaust gas used by sensor: (-7 to 900) °C. Horiba model MEXA 700 and ECM AFM1000 analyzers have been found suitable for this application (see X1.25).

10.2.5 *Coolant Flow Measurement System* – Calibrate the flow measurement device as installed in the system at the test stand, every 6 months. Calibrate the stand flow measurement device with a suitable flow measurement device using 100 % water as the calibration media. Calibrate the flow measurement device used for calibration of the stand flow measurement device every 12 months using 100 % water as the calibration media and traceable to NIST.

X1.25 AFR Analyzer:

The recommended AFR analyzers are a Horiba MEXA 700 Or an ECM AFM1000 that can be ordered respectively from:

Horiba Instruments, Inc.
17671 Armstrong
Irvine Industrial Complex
Irvine, CA 92623
Telephone: (714) 250-4811

Or

Engine Control and Monitoring (ECM)
Los Altos, CA
Telephone: (408) 734-3433