



Test Monitoring Center

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Sequence VID Information Letter 10-2
Sequence Number 4
May 21, 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: Sequence VI Mailing List

SUBJECT: 1) Change in Coolant Flow Pressure Transducer Part Number
2) Use of Small (<35 L/s) Fans to Cool Knock and O₂ Sensors
3) Add Manifold Absolute Pressure (MAP) to Break-in Traces
4) Update Load Cell Supplier Information in Appendix X1

The following changes to Test Method D7589 were approved during the May 13, 2010 Sequence VI Surveillance Panel Meeting.

- 1) The model number for the coolant flow pressure transducer required in Section 6.5.9 has changed. The Rosemont transducer, model number 1151 is now identified with model number 3051. Section 6.5.9 has been revised to include this model number.
- 2) Because of close proximity to the exhaust manifold, both the harnesses for the knock sensor and O₂ sensors suffer from severe heat degradation. In order to alleviate this condition, the panel agreed to allow the use of small fans (<35 L/s) to direct cooling air to these components. Section 6.3 has been revised to allow the use of these small fans, but still prohibit the use of fans to blow cooling air directly to the engine.
- 3) The panel also added MAP to the break in traces produced at hours 1, 75 and 149. Section 11.5.5 has been revised to include MAP on the traces.
- 4) The supplier of the load cell has been purchased and the source information contained in Appendix X1.5 has been updated to reflect new supplier information.

The attached changes to Test Method D 7589 are effective May 13, 2010.

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Engine Oil Test Development and Support
GM Powertrain Materials Engineering

Frank M. Farber
Administrator
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Attachment

c: ftp://ftp.astmtmc.cmu.edu/docs/gas/sequencevi/procedure_and_ils/vid/il10-2.pdf

Distribution: Email

(Revises Test Method D7589, as amended by Information Letters 09-2 and 10-1)

6.3 *Laboratory Ambient Conditions*—Do not permit air from fans or ventilation systems to blow directly on the engine. Small (<35 L/s) fans may be used to direct air towards the knock sensor and oxygen sensors. The ambient laboratory atmosphere shall be relatively free of dirt, dust, or other contaminants as required by good laboratory standards and practices.

6.5.9 Use a Viatran model 274/374, Validyne model DP15 or P55, or Rosemount models 1151 or 3051 differential pressure transducer for reading the coolant flow rate at the orifice plate (FE-103 in Figs. A2.1-A2.3) (see X1.11).

11.5.5 Provide ramp traces to the TMC for review prior to the assignment of the initial reference oil at (1, 75 and 149) h. When it is necessary to extend break-in beyond 150 h, provide a ramp trace taken prior to termination of break-in by 1 h. Record speed, MAP and load at a minimum of 1 s intervals.

X1.5 Dynamometer Load Cell:

The recommended load cell is a Lebow Sensotec Model 3397 which may be ordered from:

Honeywell
2080 Arlingate Lane
Columbus, OH 43228-4112
Telephone: (800) 867-3888