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

Sequence IIIG Information Letter 08-3
Sequence No. 19
November 24, 2008

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 III Mailing List

SUBJECT: 1. Additional Torque Wrench
2. New Source for Perfect Seal Number 4
3. Editorial Changes

1. At the November 13, 2008 Sequence III Surveillance Panel meeting, the panel approved an additional torque wrench for use in Test Method D 7320. Sections 9.7.4.1 and 9.7.4.2 have been revised accordingly.

2. The source for Perfect Seal Number 4 has changed. Footnote 18 has been revised accordingly.

3. Several incorrect section references were noted in the test method. Section 10.5.2 incorrectly refers to Section 11.4.4 when the correct reference is Section 10.4.4. Both Sections X1.5.2 and X1.5.4 reference an incorrect annex for reporting forms. The correct reference is Annex A5. Sections 10.5.2, X1.5.2 and X1.5.4 have been revised accordingly.

   The attached changes to Test Method D 7320 are effective the date of this information letter.

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

John L. Zalar
Administrator
ASTM Test Monitoring Center

Attachments

c: ftp://ftp.astmtmc.cmu.edu/docs/gas/sequenceiii/procedure_and_ils/IIIG/IL08-3.pdf

Distribution: Electronic Mail

9.7.4.1 *Main Bearing Cap Bolts*—Use new main cap bolts on every test, including tests on new engine blocks, and do not modify the threads of the bolts. Do not use air tools on bolts to seat the main bearing caps in the engine block. Use a speed handle and socket, in a crisscross pattern to draw down and lightly seat the main cap. Apply build-up oil to the threads and to the surfaces of the bolts that contact the main bearing caps. In order to prevent hydraulic lock, do not apply oil to the tapped holes in the cylinder block. Install the bolts finger-tight and tighten them further with the SPS Torque Sensor I[10,19], Ingersoll-Rand ETW-E180[10,20], or Snap-on ATECH3FR250[21] Torque Wrench only, working from the center out in a crisscross pattern. See the Sequence IIIG Engine Assembly Manual for torquing instructions. (See Section 1 Sheet 6 for honing and Section 3 Sheet 6 for final assembly.)

9.7.4.2 *Cylinder Head Bolts*—Install the cylinder head bolts, GM Part No. 25527831 (long) and 25533811 (short), which are of special design for yield applications using the SPS Torque Sensor I, Ingersoll-Rand ETW-E180, or Snap-on ATECH3FR250 Torque Wrench. See the Sequence IIIG Engine Assembly Manual for installation instructions. Replace the bolts after each test. (See Section 1 Sheet 7 for honing and Section 5 Sheet 3 for final assembly.)

[18]The sole source of supply of the product known to the committee at this time is Perfect Seal, 3322 Beekman Street, Cincinnati, OH 45223

[21]Available from local Snap-on dealers; Snap-on is a trademark of Snap-on, Inc., 10801 Corporate Drive, Kenosha, Wisconsin 53141-1430.

Existing footnotes 21 through 25 are renumbered as 22 through 26.

10.5.2 Subsequently, upon receipt of the information detailed in 10.4.4, the TMC will review all reference-oil test results and reports to determine final test acceptability.

X1.5.2 Run the Mini Rotary Viscometer test (Test Method D 4684), MRV-TP1 at new oil viscosity grade using SAE J300 specifications if a passing CCS result is obtained.. If the CCS fails, run the MRV at the same temperature as the CCS (one grade higher based on J300). Report the end-of-test Mini Rotary Viscometer test results along with the test temperature in degrees Celsius along with yield stress as follows: *(1)* If a yield stress greater than 35 Pa is obtained at the designated temperature, report the yield stress in Pa and note the apparent viscosity as not measured (NM). *(2)* If a yield stress exceeding 35 Pa is not obtained at the designated temperature, report the yield stress as “<35” to indicate that the yield stress did not exceed 35 Pa. *(3)* Report the results in the standardized report form set (see Annex A5).

X1.5.4 If the test oil is a straight grade oil, Cold-cranking Simulator and Mini-Rotary Viscometer tests are not required. A notation is required in the Other Comments & Outlier section of Form 13 (see Annex A5) indicating that the CCS and MRV were not run and enter not measured (NM) in the standardized form set (see Annex A5).