Test Monitoring Center
6555 Penn Avenue
Pittsburgh, PA 15206-4489
(412) 365-1000

Sequence IIIF Information Letter 01-2
Sequence No. 5
September 18, 2001

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 IIIF Mailing List

SUBJECT: New ACLW Parameter
Valve Train Lubrication During Engine Assembly

This Information Letter implements action items approved by the Sequence IIIF Surveillance Panel during the September 6, 2001 conference call. This Information Letter addresses specific parts and procedures pertaining to quality, consistency, performance, and accountability of test parts as part of the ongoing effort by the panel to ensure continual process improvement of the Sequence IIIF test. Updated sections of the Sequence IIIF Test Procedure Draft are attached.

New ACLW Parameter

On September 6, 2001, the Sequence IIIF Surveillance Panel approved a motion to create a new parameter for Camshaft-plus-lifter wear called Screened Average Cam-plus-Lifter Wear (SACLW). This parameter will replace the current ACLW result and is calculated by eliminating the positions with the highest and lowest cam-plus-lifter wear results and then calculating an average based on the remaining 10 positions. This change is required for all tests completing on or after September 8, 2001. A new Section 13.11.11 is attached. A revised data dictionary and standard report form set reflecting these changes has been created and is available from the TMC.

Valve Train Lubrication During Engine Assembly

On September 6, 2001, the Sequence IIIF Surveillance Panel approved a motion to require the use of test oil, rather than build-up oil, for initial lubrication of the valve lifter feet during engine assembly. This change is required for all tests starting on or after September 8, 2001. A revised Section 10.28.2 is attached.

Sidney L. Clark
Senior Contact Engineer
GM Powertrain Materials Engineering

John L. Zalar
Administrator
ASTM Test Monitoring Center

Attachment

c: ftp://tmc.astm.cmri.cmu.edu/docs/gas/sequenceiii/procedure_and_ils/IL01-2.pdf

10.28.2 Install the test lifters in the test engine, coating each lifter foot with test oil before installation into the lifter bore. Rotate the engine crankshaft slowly for 720° while insuring that the lifters follow the cam lobe profile. Remove each lifter and once again coat the lifter foot with test oil. Reinstall the lifter into the engine block with the ground flat on the lifter body facing inboard toward the center of the engine. See the Sequence IIIF Engine Assembly Manual section 6 sheet 1.

13.11.11 Calculate the Screened Average Cam-plus-lifter Wear by determining which positions in the engine have the maximum and minimum cam-plus-lifter wear results. Exclude these two positions from the calculation and then calculate the Screened Average Cam-plus-Lifter Wear based on the remaining 10 positions in the engine. Record these results on Forms 4 and 7 in the standard report form set (see Annex A6).