



Test Monitoring Center

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

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

Sequence IIIF Information Letter 14-2
Sequence No. 39
June 5, 2014

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: Use of Ultrasonic Parts Cleaner

During the May 20, 2014 Sequence III Surveillance Panel Conference call, the panel agreed to allow the use of an ultrasonic parts cleaner. This cleaner may be used for non-reference testing on or after May 20, 2014, provided that the laboratory has conducted a successful reference oil test. Sections 7.5.4 and 9.5.3.1 of Test Method D 6984 have been updated accordingly and a new footnote 18 has been added and are attached.

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

Frank M. Farber
Director
ASTM Test Monitoring Center

Attachments

c: ftp://ftp.astmtmc.cmu.edu/docs/gas/sequenceiii/procedure_and_ils/IIIF/IL14-2.pdf

Distribution: Electronic Mail

Modifies Test Method D6984-13, as amended by Information Letter 13-3 and 14-1

7.5.4 Use NAT-50 or PDN-50 soap^{10,17} in automatic parts washers to clean Sequence IIIG engine parts or solution 7 and solution B^{10,18} if using the ultrasonic cleaner. See 9.5

9.5.3.1 Clean the block in a heated bath, a temperature controlled automated parts washer or ultrasonic cleaner before and after honing. Follow these suggested guidelines to ensure there is no rusting of the engine block after this process:

If Using a Heated Bath or an Automated Parts Washer

- (1) Use only NAT-50 or PDN-50 soap at a concentration of 7.3 kg of soap per 380 L of water. Change the soap and water solution at least after every 25 h of use.
- (2) Control the soap-and-water temperature at (60 ± 10) °C.
- (3) Use only fresh tap water in the bath.
- (4) Prior to installing the engine in the parts washer, ensure that all coolant passages are blocked off to prevent cleaning solutions from entering the passages.
- (5) Run the block to run through the cleaning cycle for a period of (30 to 40) min.
- (6) After the cycle is complete, immediately remove the block from the washer and spray it down with degreasing solvent.
- (7) Wipe cylinder bores out with a lint free towel.
- (8) Spray engine block with a 50:50 mixture of build-up oil and degreasing solvent.
- (9) Do not remove the paint dot from the crankcase area of the block.
- (10) Allow the block to cool to room temperature before honing the block.

If Using the Ultrasonic Cleaner Parts Washer

- (1a) Based on bath volume, use solution 7 at a ratio of 132.5 ml (4.48 oz) per 3.785 L (1 gallon) of water **plus** solution B at a ratio of 11 ml (0.38 oz) per 3.785 L (1 gallon) of water.
- (2a) Use only fresh tap water in the bath.
- (3a) Control the solution-in-water temperature to (65 ± 5) °C.
- (4a) Prior to installing the engine in the ultrasound cleaner, ensure that all coolant passages are blocked off to prevent cleaning solutions from entering the passages.
- (5a) Run the block through the cleaning cycle for a period of 60 min.
- (6a) After the cycle is complete, immediately remove the block from the washer and thoroughly spray down the block with hot water.
- (7a) Replace the mixture of the two solutions-in-water with a new mixture at least after every 25 h of use.
- (8a) Spray engine block with a 50:50 mixture of build-up oil and degreasing solvent.
- (9a) Do not remove the paint dot from the crankcase area of the block.
- (10a) Allow the block to cool to room temperature before honing the block.

¹⁸ The sole source of supply of the product known to the committee at this time is Purvis Industries, 10500 North Stemmons Freeway, Dallas, TX 75220.

Renumber existing Footnotes 18 through 31 as 19 through 32