



Test Monitoring Center

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

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

Sequence IIIH Information Letter 18-4
Sequence Number 9
October 15, 2018

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 Surveillance Panel

SUBJECT: 1. Updated Table 2
2. Reference to DACA II Document in QI Calculations
3. Clarifications to Section X2.4.3.1

During a recent conference call, the Sequence III Surveillance Panel approved the following changes, which have been highlighted in red.

1. The part number for the test engine has changed. Table 2 has been modified to reflect the updated part number.
2. The test method did not identify Bad Quality Data (BQD) and how to address the occurrence(s) of BQD in the Quality Index calculation. Section 10.4.8 has been added to refer to the DACA II document when suspected BQD is encountered. Table 5 was also added to provide over under ranges for calculating Quality Index.
3. Section X2.4.3.1 was added to the Test Method through Information Letter 18-002. While balloting the information letter, it was identified that the dilution wording was not in accordance with ASTM Form and Style requirements. In addition, it was further noted that the dilution rate was also not properly reported. The dilution rate has been corrected to show the correct rates in accordance with the ASTM Form and Style Manual.

Test Method D8111-18 has been revised to incorporate these changes and are effective with the issuance of this letter. The text of the revisions is shown in the attachment.

James Ryan
Head of Materials, Fasteners & Engrg Standards.
FCA US LLC

Frank M. Farber
Director
ASTM Test Monitoring Center

Attachment

c: http://www.astmtmc.cmu.edu/ftp/docs/gas/ChryslerIIIH/procedure_and_ils/il18-4_IIIH.pdf

Distribution: Email

(Revises D8111-18 as amended by Information Letters 18-1, 18-2, and 18-3)

TABLE 2 Engine-Build Parts List

Part Name	Quantity per Test	Part Number	Required Supplier ^A
Test engine, 2014 3.6L Pentastar RT	1	682524464AG	Mopar
Cylinder head – Left ^B (MS Seed/MC Core)	1	LH451AO-MSD	International Machine Tool & Service (IMTS)
Cylinder head – Right ^B (MS Seed/MC Core)	1	RH516AO-MS	International Machine Tool & Service (IMTS)
Piston, special test	6	OHT3H-070-1	OH Technologies, Inc.
Head gasket, right	1	05184456AH	Chrysler Dealer
Head gasket, left	1	05184455AI	Chrysler Dealer
Head bolts	8	06509564AA	Chrysler Dealer
Rod bolts	12	06509128AA	Chrysler Dealer
Exhaust flange gasket (cylinder head to exhaust)	2	68093232AA	Chrysler Dealer
Piston ring pack:	1		OH Technologies, Inc.
Ring, special test, UCR (0.025 mm gap, 96.040 mm bore)		3H96040-TOP	OH Technologies, Inc.
Ring, special test, LCR (0.035 mm gap, 96.040 mm bore)		3H96040-SECOND	OH Technologies, Inc.
Expander, Seq. IIIH		3H96040-EXP	OH Technologies, Inc.
Rail, Seq. IIIH		3H96040-RAIL	OH Technologies, Inc.
Pin, wrist, piston	6	OHT3H-071-1	OH Technologies, Inc.
Clip, piston, wrist pin	12	OHT3H-072-1	OH Technologies, Inc.
Phaser, intake (fixed at 100°, less rotor holes)	2	OHT3H-001-1	OH Technologies, Inc.
Phaser, exhaust (fixed at 112°, less rotor holes)	2	OHT3H-002-1	OH Technologies, Inc.
Oil pan ^C	1	OHT3H-304-2	OH Technologies, Inc.

^A Contact information for the suppliers is given in Appendix X3.

^B All cylinder head purchases require a core exchange from each test engine.

^C Oil pan and plug may be used for multiple tests. Replace at the discretion of the laboratory either upon failure of pressure check or visual inspection.

10.4.8 Calculate Quality Index (QI) for all control parameters in accordance with the DACA II report. Account for missing or bad quality data in accordance with the DACA II report. Use the values listed in Table 5 for over/under range values where appropriate.

TABLE 5
U and L Constants and Over and Under-Range Values

Parameter	U	L	Over-Range	Under-Range
Coolant flow	168.57	171.43	244.3	91.7
Coolant out temperature	115.46	114.54	138.9	91.1
Exhaust backpressure	4.58	4.42	8.7	0.3
Dew point	18.1	14.1	120.0	0
Intake air pressure	0.07	0.03	1.1	-1.0
Intake air temperature	35.37	34.63	54.2	15.8
Oil block temperature	115.46	114.54	172.8	129.2
Speed	3905	3895	4160	3640
Torque	250.98	249.02	300.9	199.1
Fuel temperature	31	29	82	0

Relabel existing Tables 5 through 7 as Tables 6 through 8, respectively.

X2.4.3.1 Run all samples, initial and end-of-test, sequentially, in duplicate, using the same calibration (that is, as close in time as practical). Background correction, internal standard, and peristaltic pump are required. Use sample dilutions of **at least 19+1 mass/mass (that is 19 parts solvent by mass to one part solute test oil by mass)**. Once a dilution is established, use it for all samples from a test.