



Test Monitoring Center

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Sequence VG Information Letter 03-2
Sequence No. 16

April 10, 2003

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 VG Mailing List

SUBJECT: 1. Correction to Table 6 and Sections 12.1.1.3 and 12.1.1.6
2. Correction to Section 7.10.4.1(I)

At the March 19, 2003 meeting of the Sequence VG Surveillance Panel, the panel agreed to address discrepancies in the following sections of Test Method D6593.

1. Table 6 references exhaust gas values for Stages 2 and 3 during engine break-in. However, exhaust gas analysis parameters were replaced by Lambda measurements with the issuance of Information Letter 02-2. Table 6 has been revised to show target Lambda values and Sections 12.1.1.3 and 12.1.1.6 have also been revised to remove the various exhaust gas parameters and replace them with the appropriate references to Lambda.
2. During the same meeting, the panel was advised that Section 7.10.4.1(I) incorrectly references Fig. A3.13. The correct reference is Annex A12.

Revised Table 6 and Sections 7.10.4.1(I), 12.1.1.3 and 12.1.1.6 are attached and are effective the date of this information letter.

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Attachment

c: ftp://ftp.astmtmc.cmu.edu/docs/gas/sequencevg/procedure_and_ils/vgil03-2-16.pdf

Distribution: Email

(Revises Test Method D6593-02, as amended by Information Letters 02-1, 02-2, 02-3, 02-4, 02-5, and 03-1)

7.10.4.1 Fuel Rail Injectors

(J) The fuel injectors may be used for multiple tests providing they meet the requirements delineated in Annex A12. Fuel injectors that have caused misfires in previous tests should be cleaned before reuse. Commercial injector cleaning fluids and flow benches are available from various manufacturers. *Do not use injector-cleaning fluids while operating the engine.*

TABLE 6 Sequence VG Break-in Schedule

Condition	Oil Leveling	Step		
		1	2	3
Duration, min	2, min	5	40	45
Total time, h:min		0:05	0:45	1:30
Engine Speed, r/min	1500±25	700±15	2900±5	700±15
Engine load, kW		1.30±0.2	Record	1.30±0.2
Manifold abs press, kPaA	37.6		66±0.2	Record
Engine oil in, °C	80±2		100±0.2	45±1
Engine coolant out, °C	90±2		85±0.2	45±1
RAC coolant in, °C			85±0.2	29±1
Lambda			1.0	0.75
Exhaust back pressure, kPaA				
Speed, load and MAP ramps				
Oil leveling – 20s ramp from idle				
Step 1 to 2 - 60s ramp				
Step 2 to 3 - 15s ramp				

12.1.1.3 The break-in allows an opportunity to check EEC system operation, blowby levels, Lambda for Stage II and III, check for leaks in the various systems and purge air from the cooling systems. Specifications concerning the break-in procedure are shown in Table 6. The engine start-up and shutdown procedures are detailed in 12.2.1 and 12.2.2 respectively.

12.1.1.6 During Step 3 (see Table 6) check the operation of the idle load control system and EEC system operation. Allow oil and coolant temperatures to reach 45 ± 0.5 °C. Lambda values should approximate the values listed in Table 6. If not, check the idle load circuit and the EEC system operation with a STAR tester.