



Test Monitoring Center

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

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

L-42 Information Letter 09-1
Sequence Number 29
February 23, 2009

ASTM consensus has not been obtained on this information letter. An appropriate ASTM ballot will be issued in order to achieve such consensus.

TO: L-42 Mailing List

SUBJECT: 1. Revisions to Preparation of Apparatus Procedure
2. Revision to Percent Deviation Calculation

1. The L-42 Surveillance Panel approved revisions to the preparation of the apparatus procedure via email ballot on February 6, 2009. Old Sections 8.2.11, 8.2.12, and 8.2.15 have been deleted. Sections 8.2.13 and 8.2.14 have been renumbered to 8.2.14 and 8.2.15, respectively. New Sections 8.2.11, 8.2.12, and 8.2.13 of Test Method D 7452 are attached.

2. At the February 11, 2009 L-42 Surveillance Panel meeting, the panel revised the procedure for calculating percent deviation. A revised Annex A5.5.2 of Test Method D 7452 is attached.

These changes are effective 30 days after the date of this information letter.

Cory Koglin
Chairman
L-42 Surveillance Panel

John L. Zalar
Administrator
ASTM Test Monitoring Center

Attachment

c: ftp://ftp.astmtmc.cmu.edu/docs/gear/l-42/procedure_and_ils/il09-1.pdf

Distribution: Electronic Mail

Delete Old 8.2.11

New 8.2.11 Install axle shafts in test unit.

Delete Old 8.2.12

New 8.2.12 Lubricate the carrier bearing, pinion bearings, differential gears, and the ring and pinion gears using 3.5 ± 0.1 pt (1655 ± 50 mL) of test lubricant.

New 8.2.13 Install the axle cover plate with gasket. It is not permissible to drain the oil and recharge the test axle once the test oil has been charged to the axle.

Renumber Old 8.2.13 to 8.2.14

Renumber Old 8.2.14 to 8.2.15

Delete Old 8.2.15

A5.5.2 Calculate the percent deviation as follows:

$$\text{percent out} = \sum_{i=1}^n \left(\frac{Mi}{0.5R} \times \frac{Ti}{D} \right) \times 100 \quad (\text{A5.1})$$

where:

- Mi = magnitude of test parameter out from specification limit at occurrence i ,
- R = test parameter specification range,
- Ti = length of time the test parameter was outside of specification range at occurrence i , (Ti is assumed to be no less than the recorded data-acquisition frequency unless supplemental readings are documented.), and
- D = test or test phase duration in same units as Ti .