



Test Monitoring Center

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L-37 Information Letter 05-2
Sequence Number 34
May 4, 2005

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-37 Mailing List

SUBJECT: 1. Updated Test Precision
2. Rounding Test Results Using ASTM E 29

1. At the April 6, 2005 L-37 Surveillance Panel meeting, the panel approved a motion to update the reference oil test precision data. A revised Table 1 of Test Method D6121 is attached.

2. At the April 6, 2005 L-37 Surveillance Panel meeting, the panel approved a motion to use ASTM E 29 for all test result rounding. A revised Section 2.1 and a new Section 12.9 of Test Method D6121 are attached.

These changes are effective the date of this information letter.

Donald T. Bartlett
Chairman
L-37 Surveillance Panel

John L. Zalar
Administrator
ASTM Test Monitoring Center

Attachment

c: ftp://ftp.astmtmc.cmu.edu/docs/gear/l-37/procedure_and_ils/il05-2.pdf

Distribution: Electronic Mail

2.1 *ASTM Standards*.³

D 235 Specification for Mineral Spirits (Petroleum Spirits) (Hydrocarbon Dry Cleaning Solvent)

E 29 Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications

12.9 Round test results according to Practice E 29.

TABLE 1 Reference Oil Test Precision Data—Transformed Units

NOTE—These statistics are based on the L-37 Standard version test results obtained on Test Monitoring Center Reference Oils 151-2, 151-3, 152, and 153 as of March 29, 2005. There are no statistics for the Canadian version test at this time.

Where:

$S_{i.p.}$	=	intermediate precision standard deviation,
i.p.	=	intermediate precision,
S_R	=	reproducibility standard deviation, and
R	=	reproducibility.

Hardware Type	Variable	$S_{i.p.}$	i.p. ^B	S_R	R ^B
Lubrited	Pinion ridging ^A , $-\ln(10.5 - \text{merit})$	0.2612	0.7314	0.2719	0.7613
	Pinion rippling ^A , $-\ln(10.5 - \text{merit})$	0.2341	0.6555	0.2341	0.6555
	Pinion wear, merit	0.548	1.534	0.589	1.649
	Pinion pitting/spalling ^A , $-\ln(10.5 - \text{merit})$	0.4038	1.1306	0.4095	1.1466
Non-lubrited	Pinion ridging ^A , $-\ln(10.5 - \text{merit})$	0.5323	1.4904	0.5323	1.4904
	Pinion rippling ^A , $-\ln(10.5 - \text{merit})$	0.3480	0.9744	0.3480	0.9744
	Pinion wear, merit	0.694	1.943	0.694	1.943
	Pinion pitting/spalling ^A , $-\ln(10.5 - \text{merit})$	0.4603	1.2888	0.4603	1.2888

^A This parameter is transformed using a natural log. When comparing two test results on this parameter, first apply this transformation to each test result. Compare the absolute difference between the transformed results with the appropriate (intermediate precision or reproducibility) precision limit.

^B This value is obtained by multiplying the standard deviation by 2.8.