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L-60-1 Information Letter 05-2
Sequence Number 30
April 21, 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-60-1 Mailing List

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

1. At the April 6, 2005 L-60-1 Surveillance Panel meeting, the panel approved a motion to update the reference oil test precision data. A revised Table 2 of Test Method D5704 is attached. This change is effective the date of this information letter

2. At the April 6, 2005 L-60-1 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 14.6 of Test Method D5704 are attached. This change is effective with the next reference oil test on each stand on or after the date of this information letter.

Chris Schenkenberger
Chairman
L-60-1 Surveillance Panel

John L. Zalar
Administrator
ASTM Test Monitoring Center

Attachment

c: ftp://ftp.astmtmc.cmu.edu/docs/gears/l601/procedure_and_ils/il05-2.pdf

Distribution: Email

2.1 *ASTM Standards:*[1]
B 224 Classification of Coppers
D 235 Specification for Mineral Spirits (Petroleum Spirits) (Hydrocarbon Dry Cleaning Solvent)
D 445 Test Method for Kinematic Viscosity of Transparent and Opaque Liquids (the Calculation of Dynamic Viscosity)
D 664 Test Method for Acid Number of Petroleum Products by Potentiometric Titration
D 893 Test Method for Insolubles in Used Lubricating Oils
E 29 Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications
E 527 Practice for Numbering Metals and Alloys (UNS)

TABLE 2 Reference Oil Test Precision Data—Transformed Units

NOTE—These statistics are based on results obtained on Test Monitoring Center Reference Oil 151-2 as of March 29, 2005.

where:

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

Variable	$S_{i.p.}$	i.p.[B]	S_R	R[B]
Viscosity increase[A], ln (% increase)	0.08	0.22	0.09	0.25
Pentane insolubles[A], ln (% weight)	0.20	0.56	0.21	0.59
Toluene insolubles[A], ln (% weight)	0.34	0.95	0.37	1.04
Average sludge[A], -ln (10-merit)	0.16	0.45	0.18	0.50
Average carbon varnish[A], ln (merit/(10-merit)	0.44	1.23	0.45	1.26

[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

14.6 Round test results according to Practice E 29.