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T-8 INFORMATION LETTER 03-1
Sequence No. 12

October 24, 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: Mack Mailing List

SUBJECT: Cleaning Solvent

The Mack Surveillance Panel approved the following change to test method D 5967:

At the request of the Technical Guidance Committee, the Mack Surveillance Panel agreed to adopt ASTM D 235 – Type II, Class C as the standardized requirement for cleaning solvent. All sections of the test method that call for "aliphatic naphtha" have been changed to call for "solvent" which meets ASTM D 235 – Type II, Class C. Sections affected are 7.4, 8.1.1 through 8.1.5, 10.13.2, and A5.5. Also, Section 2, Referenced Documents, has been revised by adding D 235 and adding a footnote (new footnote 4). Existing footnotes 4 through 10 have been updated and existing footnotes 10 through 15 have been renumbered as 11 through 16. The use of cleaning solvent that meets these requirements is mandatory as of January 1, 2004.

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Attachment

c: ftp://ftp.astmtmc.cmu.edu/docs/diesel/mack/procedure_and_ils/t8/il03-01.pdf

Distribution: Email

(Revises Test Method D 5967-03)

2. Referenced Documents

2.1 *ASTM Standards:*

D 86 Test Method for Distillation of Petroleum Products[3]

D 93 Test Methods for Flash Point by Pensky-Martens Closed Tester[3]

D 97 Test Method for Pour Point of Petroleum Products[3]

D 129 Test Method for Sulfur in Petroleum Products (General Bomb Method)[3]

D 130 Test Method for Detection of Copper Corrosion from Petroleum Products by the Copper Strip Tarnish Test[3]

D 235 Standard Specification for Mineral Spirits (Petroleum Spirits) (Hydrocarbon Dry Cleaning Solvent)[4]

D 287 Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method)[3]

D 445 Test Method for Kinematic Viscosity of Transparent and Opaque Liquids (the Calculation of Dynamic Viscosity)[3]

D 446 Specifications and Operating Instructions for Glass Capillary Kinematic Viscometers[3]

D 482 Test Method for Ash from Petroleum Products[3]

D 524 Test Method for Ramsbottom Carbon Residue of Petroleum Products[3]

D 613 Test Method for Cetane Number of Diesel Fuel Oil[5]

D 1319 Test Method for Hydrocarbon Types in Liquid Petroleum Products by Fluorescent Indicator Adsorption[3]

D 2500 Test Method for Cloud Point of Petroleum Products[3]

D 2622 Test Method for Sulfur in Petroleum Products by X-Ray Spectrometry[3]

D 2709 Test Method for Water and Sediment in Middle Distillate Fuels by Centrifuge[3]

D 4052 Test Method for Density and Relative Density of Liquids by Digital Density Meter[6]

D 4485 Specification for Performance of Engine Oils[6]

D 4737 Test Method for Calculated Cetane Index by Four Variable Equation[6]

D 5185 Test Method for Determination of Additive Elements, Wear Metals, and Contaminants in Used Lubricating Oils and Determination of Selected Elements in Base Oils by Inductively Coupled Plasma Atomic Emission Spectrometry (ICP-AES)[6]

D 5302 Test Method for Evaluation of Automotive Engine Oils for Inhibition of Deposit Formation and Wear in a Spark-Ignition Internal Composition Engine Fueled with Gasoline and Operated Under Low-Temperature, Light-Duty Conditions[6]

D 6278 Test Method for Shear Stability of Polymer-Containing Fluids Using European Diesel Injector Apparatus[7]

E 29 Practice for Using Significant Digits in Test Data to Determine Conformance With Specifications[8]

E 344 Terminology Relating to Thermometry and Hydromometry[9]

2.2 *SAE Standard:*

SAE J1995 Engine Power Test Code—Spark Ignition and Compression Ignition—Gross Power Rating[10]

[3]*Annual Book of ASTM Standards*, Vol 05.01.

[4]*Annual Book of ASTM Standards,* Vol 06.04.

[5]*Annual Book of ASTM Standards*, Vol 05.04.

[6]*Annual Book of ASTM Standards*, Vol 05.02.

[7]*Annual Book of ASTM Standards*, Vol 05.03.

[8]*Annual Book of ASTM Standards*, Vol 14.02.

[9]*Annual Book of ASTM Standards*, Vol 14.03.

[10]Available from Society of Automotive Engineers, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

Existing footnotes 10 through 15 renumbered as 11 through 16

7.4 *Cleaning Materials*—Use a solvent meeting ASTM D 235, Type II, Class C for cleaning parts. Other materials, such as diesel fuel, may be required by some labs to ensure parts cleanliness. (**Warning—**Use adequate safety precautions with all solvents and cleaners.)

8.1 *Cleaning of Parts*:

8.1.1 *Engine Block*—Thoroughly spray the engine with solvent (see 7.4) to remove any oil remaining from the previous test and air-dry.

8.1.2 *Rocker Covers and Oil Pan*—Remove all sludge, varnish, and oil deposits. Rinse with solvent and air-dry.

8.1.3 *Auxiliary Oil System*—Flush all oil lines, galleries, and external oil reservoirs with solvent to remove any previous test oil and then air-dry.

8.1.4 *Oil Cooler and Oil Filter*—If heavy deposits are present or suspected, flush the oil cooler and filter lines with solvent to remove any previous test oil and then air-dry.

8.1.5 *Cylinder Head*—Clean the cylinder heads using a wire brush to remove deposits and rinse with solvent to remove any sludge and oil, and then air-dry.

10.13.2 *Post Test Solvent Wash*—After the post test flush is performed, wash the top of the cylinder heads (rocker area), rocker arms, and rocker covers with solvent until clean. The oil drain plug should be open for this procedure. Remove the oil pan and wash with solvent until clean. Also wash the external oil rig system and the external oil lines with solvent until clean.

A5.5 Cleaning solvent that meets ASTM D 235, Type II, Class C is available from local petroleum product suppliers.