



## Test Monitoring Center

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

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

C13 Information Letter 24-1  
Sequence No. 14  
April 25, 2024

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

TO: Caterpillar Surveillance Panel

SUBJECT: Addition Top Ring Mass Loss to C13 Procedure

During the April 22<sup>nd</sup>, 2024, Caterpillar Surveillance Panel meeting it was agreed to add top ring mass loss as a report only parameter to the C13 deposit test procedure. To accommodate this change section 8.2.7 has been updated and section 11.8 has been added to the procedure.

A typo was also found in the average top groove carbon outlier screening equation in A13.1.4 and it was agreed to fix the equation.

All these changes are effective with the release of this information letter.

Mark Jarrett  
Caterpillar, Inc.

Jeffrey A. Clark  
Executive Director  
ASTM Test Monitoring Center

Attachment

c: [https://www.astmtmc.org/ftp/docs/diesel/CAT/procedure\\_and\\_ils/c13/il24-01.pdf](https://www.astmtmc.org/ftp/docs/diesel/CAT/procedure_and_ils/c13/il24-01.pdf)

Distribution: Email

**(Revises Test Method D7549-23)**

**8.2.7 New Parts**—The following new parts are included in the Engine Build Parts List. They are not reusable, except as noted in 10.3.3. Clean the parts prior to use. **For piston top rings, clean and measure in accordance with the Mack Test Ring Cleaning and Measuring Procedure available from the TMC website.** For piston second rings and cylinder liners, clean with WD-40 and wipe with a clean rag. After wiping the parts, rinse them with pentane or heptane. Finally, coat the second rings and cylinder liners with build-up oil. During a test, a replacement of any of the new parts listed below will invalidate the test.

**11.8 Average Top Ring Mass Loss** - Calculate the top ring mass loss for each cylinder top ring in accordance with the Mack Test Ring Cleaning and Measuring Procedure and report the data on the appropriate forms.

**A13.1.4** If  $\max |T_{\text{Offset}_{\text{piston}}}| / \text{SDTGCO} \geq 1.887$ , the outlier screened average top groove carbon is identical to the average top groove carbon from A13.1.1.