A Program of ASTM International

Test Monitoring Center

203 Armstrong Drive, Freeport, PA 16229, USA

www.astmtmc.org
412-365-1000

T-12 Information Letter 25-1
Sequence No. 24
March 10, 2025

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: Discontinue use of Penncool Coolant and Updated Lead Industry Correction Factors

On January 29, 2025 via teleconference, the Mack Test Surveillance panel voted to discontinue the use of Pencool 3000 coolant additive in the T-12 test and allow only Chevron Delo Extended Life 50/50 Pre-mix coolant. Accordingly, sections 7.3.1 and A2.7 have been revised and are attached.

On the February 19, 2025 teleconference the panel also voted to update the industry correction factors for ΔLead at EOT and ΔLead 250 h to 300 h. Sections 11.6.4.4 and 11.6.5.1 have been revised and are attached.

These changes are effective immediately.

Patrick Holmes
Volvo Group Truck Technology
Powertrain Engineering

Jeffrey A. Clark
Executive Director
ASTM Test Monitoring Center

Attachment
c: https://www.astmtmc.org/ftp/docs/diesel/mack/procedure_and_ils/T-12/il25-1.pdf

Distribution: Email

Ballot proposal for revision of D7422-23

Text added to the standard is shown in red and text deleted is shown in blue and with strikethrough.

Replace section 7.3 with the following:

7.3 *Coolant:*
7.3.1 For the engine coolant, use Chevron Delo Extended Life 50/50 pre-mix coolant. See A2.7 for supplier details.

Replace section A2.7 with the following:

A2.7 Chevron Delo ELC 50/50 pre-mix coolant is a commercially available product and can be obtained from local suppliers.

Revise section 11.6.4.4 as follows and renumber all subsequent equations as needed:

(8) For all tests run on VXYPD, ~~and subsequent hardware combinations~~ VXYPE, VXYPF, and WYZQF hardware combinations with Pencool Coolant, determine the final ΔLead at EOT result by applying the correction factor calculated according to the following equations:

If $OC_{100\text{-}300}$ > 65.0 g/h:

$$\Delta Lead_{Final} = e^{(0.03234(65.0-OC_{100-300})+ln\Delta Lead)} \qquad (12)$$

If $OC_{100\text{-}300}$ ≤ 65.0 g/h:

$$\Delta Lead_{Final} = \Delta Lead \qquad (13)$$

$\Delta Lead_{Final}$ = final $\Delta Lead$ at EOT, ppm,
$\Delta Lead$ = value calculated per Eq 3 (11.6.4.3), ppm, and
$OC_{100\text{-}300}$ = average oil consumption calculated in 11.6.6, g/h.

(9) For all tests run on WXYPF and WYZQF hardware combinations with DELO Coolant, determine the final ΔLead at EOT result by applying the correction factor calculated according to the following equations:

If $OC_{100\text{-}300}$ > 65.0 g/h:

$$\Delta Lead_{FINAL} = e^{(0.03234(65.0-OC_{100-300})+ln\Delta Lead+0.4696)} \qquad (14)$$

If $OC_{100\text{-}300}$ ≤ 65.0 g/h:

$$\Delta Lead_{Final} = e^{(ln\Delta Lead+0.4696)} \qquad (15)$$

$\Delta Lead_{Final}$ = final $\Delta Lead$ at EOT, ppm,
$\Delta Lead$ = value calculated per Eq 3 (11.6.4.3), ppm, and
$OC_{100\text{-}300}$ = average oil consumption calculated in 11.6.6, g/h.

(10~~9~~) Report the data on the appropriate form.

Revise section 11.6.5.1 as follows and renumber all subsequent equations as needed:

(8) For all tests run on VXYPD, ~~and subsequent hardware combinations~~ VXYPE, VXYPF, and WYZQF hardware combinations with Pencool Coolant, determine the final Δ*Lead* (250 to 300) h result by applying the correction factor calculated according to the following equations:

If $OC_{100\text{-}300} > 65.0$ g/h:

$$\Delta Lead(250-300)_{Final} = e^{(0.04089(65.0-\ OC_{100-300})+\ \ln\Delta Lead_{250-300})} \qquad (24\text{~~22~~})$$

If $OC_{100\text{-}300} \leq 65.0$ g/h:

$$\Delta Lead(250-300)_{Final} = \Delta Lead(250-300) \qquad (25\text{~~23~~})$$

$\Delta Lead(250\text{-}300)_{Final}$ = final Δ*Lead* (250 to 300) h, ppm,
$\Delta Lead(250\text{-}300)$ = value calculated per 11.6.5, ppm, and
OC100-300 = average oil consumption calculated from 11.6.6, g/h.

(9) For all tests run on WXYPF and WYZQF hardware combinations with DELO Coolant, determine the final Δ*Lead* (250 to 300) h result by applying the correction factor calculated according to the following equations:

If $OC_{100\text{-}300} > 65.0$ g/h:

$$\Delta Lead(250-300)_{Final} = e^{(0.04089(65.0-\ OC_{100-300})+\ \ln\Delta Lead_{250-300}\ +\ 0.6079)} \qquad (26)$$

If $OC_{100\text{-}300} \leq 65.0$ g/h:

$$\Delta Lead(250-300)_{Final} = e^{(\ln\Delta Lead_{250-300}\ +\ 0.6079)} \qquad (27)$$

$\Delta Lead(250\text{-}300)_{Final}$ = final Δ*Lead* (250 to 300) h, ppm,
$\Delta Lead(250\text{-}300)$ = value calculated per 11.6.5, ppm, and
OC100-300 = average oil consumption calculated from 11.6.6, g/h.

(10~~9~~) Report the data on the appropriate form.