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ASTM Mack Surveillance Panel Members,

Please find attached the unconfirmed minutes of the Mack Surveillance Panel meeting held on June 26, 2000 in Seattle, Washington. Please let me know if you have any questions about the minutes.

Best Regards,

Wim van Dam.

UNCONFIRMED MINUTES OF THE ASTM MACK SURVEILLANCE PANEL MEETING SEATTLE, WA JUNE 26, 2000

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1. Call to Order / Membership

1.1. The Mack surveillance panel was called to order at 1:00 PM on June 26, 2000. The agenda is shown as attachment 1. The attendance list is shown as attachment 2. No changes in membership were reported.

2. Approval of Minutes from the previous meetings

2.1. The minutes of the meeting in December 1999 in Reno and the minutes of a teleconference in April 2000 were approved without further comments.

3. Scope and Objectives (Charlie Passut, attachment 3)

- 3.1. The chairman presented the scope and objectives for the Mack surveillance panel, see attachment 3. There was some discussion about the fact that the scope statement still includes the Mack T-6 and T-7 tests, while these two tests are no longer monitored by the TMC. Neither test has an official ASTM D-number. If the tests are removed from the scope and objectives, ASTM D-4485 will have to be modified to reflect that the tests are no longer available. Alternatives for the two tests are available: the Mack T-9 with less severe limits and the Mack T-8A respectively.
- 3.2. Following up on a decision taken at the last meeting, a second objective has been added. The objective is to support the development of a low temperature viscosity measurement for soot laden oils, handled by the LOTRUO task force.

4. TMC Report (Jeff Clark, attachment 4)

- 4.1. Jeff Clark gave his report over the April 2000 reporting period. 17 Mack T-8 / T-8E tests have been run. One of these failed statistically on viscosity increase at 3.8% soot and relative viscosity at 4.8% soot. Five tests were aborted and the remaining 10 tests were all accepted.
- 4.2. During the April 2000 reporting period, 5 Mack T-9 reference tests have been run. All 5 were accepted for calibration.

- 4.3. The most recent T-9 reference test tripped the industry warning limit for Pb-Increase in the severe direction. No action was taken because the warning was caused by only one test.
- 4.4. Semi-annually soot and viscosity measurement Round Robins are to be held in June and December. Due to the lower referencing frequency there is no used oil sample available. The number of laboratories involved in this exercise has decreased and fewer measurement problems were reported.
- 4.5. The liners that are circulating in the industry for the 2000 liner wear Round Robin are being measured by the first participating laboratory.
- 4.6. Jeff Clark also reported on the progress of the Fuels Task Force. A conference call was held on June 23. The task force identified the need for establishing a protocol for acceptance of a new (batch of) reference fuel. A statistician will be asked to support the task force. The primary goal of the task force is to generate data necessary for justifying the change from LSRD-4 to PC-9 fuel in the T-8 and T-9 tests. Don Burnett, Phillips, indicated that he is willing to sponsor engine testing to generate data. Several questions came up in a discussion on the topic of reference fuels. Haltermann was asked how much longer they are willing to supply LSRD-4 and they indicated that the supply of this fuel would not be terminated. The task force was asked to include an evaluation of regular pump fuel for the T-8A and T-9 tests run for CF-4. Another suggestion that was made for the task force was to consider using RD-9 fuel for the T-8 and T-9 tests. RD-9 was rejected for the PC-9 matrix but was cheaper than LSRD-4, and probably more similar to LSRD-4 than the PC-9 fuel. The task force is planning to have a recommendation for the surveillance panel by September 7.
- 4.6. A motion to accept Jeff Clark's TMC report was accepted by the panel.

5. RSI Report

5.1. Charlie Passut presented the RSI report showing the precision estimates for the T-8 / T-8E / T-9 tests based on replicate data (Attachment 5). The number of operationally valid, interpretable tests has increased slightly over the October 1999 through March 2000 reporting period.

6. Low Oil Temperature Rheology of Used Oils (LOTRUO)

6.1. The task force working on improvement of the measurement of low temperature viscosity of soot containing oils has requested the help of the surveillance panel. They expressed a need for 1 gallon used oil samples from Mack T-8E engine tests.

7. Report to Subcommittee B.02

7.2. The status of the Mack Surveillance Panel, shown as Attachment 6, will be presented to Subcommittee B.02 by the chairman. The report gives an overview of meetings and information letters. The Panel will request an action from B.02 to declare the Mack T-6 and T-7 engine tests obsolete.

8. CPD Report

- 8.1. Gary Tietze gave a short overview of the parts supply situation for the Mack T-8 and T-9. The report is shown as Attachment 7.
- 8.2.TEI is out of cylinder kits. TEI asked Mack to supply the individual parts that go in a kit as soon as they become available so that the screening of these parts can be started. Most of the screening work is done on the liners and the piston rings.
- 8.3. Pistons and liners will be shipped to the laboratories separately. This will increase the shipping volume but save some work and reduce the possibility of damaging the parts.
- 8.4. A motion to accept the CPD report was accepted by the panel.

9. Liner Change

9.1. Greg Shank informed the panel about a cylinder liner change for the Mack T-10 test. The new liner no longer has the O-ring groove at the top of the liner. This change has already been accepted for the T-8 test and Mack proposes to make the same change for the T-9 test. A motion to accept the new liners for the T-9 test passed unanimously.

10. T-9 Oxidation Measurement

- 10.1. The new World Wide Heavy Duty specification (WWHD-1) has been presented at the SAE/CEC meeting in June 2000 in Paris. This specification has the Sequence IIIF in it. ACEA has asked if the Mack T-9 could be used instead of the IIIF.
- 10.2. Work is currently done to evaluate oxidation of used oil from the Mack T-10 test. Members of the surveillance panel were requested to also submit Mack T-9 used oils to see if reliable oxidation measurements, using the area instead of peak height, could be done. Mack expressed an interest in seeing data comparing area and height measurements.

11. Next Meeting

- 11.1 The next meeting will be held on September 7, 2000 in Richmond, VA
- 11.2. A motion to adjourn the meeting was accepted.