March 14, 2001

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ASTM Mack T-10 task Force members and guests,

Here are the unconfirmed minutes of the December 4, 2000 meeting of the Mack T-10 Task Force in Nashville, TN. Please contact me regarding any questions or corrections to these minutes.

Regards,

Pat Fetterman

UNCONFIRMED MINUTES OF THE ASTM MACK T-10 TASK FORCE MEETING NASHVILLE, TN DECEMBER 4,2000

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1. Call to Order / Membership

The meeting was called to order at 2:55 pm, by the Chairman, Wim Van Dam. He reviewed the agenda which is shown as attachment 1 in hard copy (electronic copy not available).

Pat Fetterman circulated a membership/attendance list and asked that any corrections or membership changes be noted. The corrected membership and attendance lists are shown in attachment 2.

Bob Campbell reported that he would like to add a review of the ACC test development template for the T-10 to the agenda. This was inserted under Scope and Objectives as a sub-topic.

2. Approval of Minutes from previous meeting

The minutes of the August 3, 2000 meeting were approved without change.

3. Update on Teleconferences (Mark Stevens, no handout)

Mark reported on two teleconference topics:

- 1) Injector pressure is to be increased by using a new injector nozzle. Greg Shank reported that all labs should have the correct new nozzles.
- 2) A CO2 sensor is to be added downstream of the O2 sensor and rotated 90 deg. from the O2 sensor. Jim Collum had agreed to circulate installation drawings, and he reported that had been done.

Jeff Clark reported that all labs currently running matrix tests have completed and returned their check lists, but one lab which is not yet running has not returned their list.

4. Scope and Objectives (Wim Van Dam, paper copy only)

Wim reviewed the Scope and Objectives list shown as attachment 3 in hard copy only. He noted that we are currently involved in item six, Monitor PC-9 Precision/ BOI matrix execution.

4.1 Review ACC Checklist (Bob Campbell)

Bob reviewed the ACC test development check list after describing the A, B, C, D rating system for each parameter. He asked for group consensus regarding each rated parameter. The revised checklist is shown in attachment 4. Wim asked if we need to hold a T-10 workshop, and after a short discussion the group indicated support for a workshop to be held in the first quarter of 2001.

5. Report of the Chemical Subgroup (Mark Stevens reporting for Joe Franklin, no handout)

Mark reported that the group had looked at 5 potential analysis methods with 9 oils in 4 labs. Looking at the methods, 1 and 2 give identical results, and methods 3,4, and 5 give similar results. The data need to be evaluated more carefully within the group.

Jeff Clark stated he had issued a note to the labs asking that they save as much as possible of each 25 hr. sample for future analysis.

Wim Van Dam indicated that he would talk with Joe Franklin and ask that all sample analysis be completed by the next Task Force meeting. He also asked the labs to hold all samples until the Task Force decides where to send them.

Greg Shank pointed out that all of this work to decide on the correct analysis method(s) needs to be completed before the Matrix analysis can be completed.

Jeff Clark again reminded all labs to hold on to all critical parts and used oil samples from all Matrix runs.

6. Report of the Operations and Hardware Subgroup (Jeff Clark reporting for Jim Collum, no handout)

Jeff reiterated the need to add a CO2 sensor downstream of and rotated 90 deg. from the existing O2 sensor.

There was a discussion regarding calibration gasses which concluded with a recommendation to use the same gasses as the M11-EGR test, and Jeff indicated that he would advise the labs to that effect. There was a question if the calibration gasses might need to change with the new CO2 sensor, and Jeff indicated that he would address that on a lab to lab basis if it was required.

Gary Tietze gave reports on the TEI EGR System and other Mack test Hardware. His reports are shown in attachments 5, 6, and 7.Gary was asked about the possibility of dropping the modified intake venturi from all Matrix tests, but looking at again in the future as a potential test improvement. Consensus was that the Matrix hardware should be the same as the final test.

Greg Shank reported that the new high pressure injector nozzles had been added to the parts list. He also noted that all of the Matrix oils had been received by the TMC and distributed to the test labs.

The labs were instructed to report all aborted tests to the TMC ASAP and then move to the next test oil. The TMC will replace the used oil and reschedule the run. The only exception this guideline are runs involving the featured oil at two labs which will need to re-run on the featured oil to complete the early test data set.

Greg suggested that all Matrix test operational data files must be submitted to either Frank Farber or Jeff Clark at the TMC within one week of EOT. This lead to an animated discussion which culminated with Greg making a motion to require operational data to be submitted to the TMC within one week of EOT. The motion passed without dissent.

7. Old Business, Experience with Oil Consumption Measurements (Wim Van Dam, no handout)

Wim asked the group about the effectiveness of the previously agreed dropping of the level of the oil pickup on the oil pan. There were no reports of any problems from the group.

Jeff Clark asked that humidity should be part of the operational data report, and that it be reported via the dewpoint of the inlet air.

8. New Business (Greg Shank, no handout)

Greg reported on the revised Matrix design to run the featured oil first on all stands. He also reported that 3 tests are running in 2 labs, and 4 more tests in 3 labs should start by December 11th. All 7 tests should finish by December 31, and we should consider a mid-January Task Force meeting to review the data.

There was a discussion regarding whether the Matrix should be delayed until the Task Force met and reviewed the early data, or if a teleconference could suffice. Greg suggested that, prior to any second run, the data should be reviewed by the TMC to get a "warm and fuzzy" that it is O.K. to proceed with the remaining Matrix tests. This was supported by group consensus, and Greg agreed to make this recommendation to the HDEOCP.

9. Next Meeting (Wim Van Dam)

There being no further business to conduct, Wim indicated that he would consider both a full Task Force meeting for the week of January 15th, and a possible teleconference on Friday, January 5th. N.B. neither of these meetings were actually called, but a teleconference was held on Monday, February 12, 2001 and reported electronically.