

**HEAVY-DUTY ENGINE OIL CLASSIFICATION PANEL
OF
ASTM D02.B0.02
February 22, 2001
Holiday Inn – O’Hare International Hotel, Rosemont, IL**

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ACTION ITEMS

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| 1. Resolve concerns with the 1Q test. | 1Q Task Force |
| 2. Look at 1Q matrix redesign with different featured oil. | Matrix Design TF |
| 3. Confirm M-11 EGR rocker lever hardness readings. | TEI |
| 4. Decide on source of oil samples and test type for low temp. pumpability evaluation of highly sooted used oil. | HDEOCP |
| 5. 3F for 3E in existing “C” categories. | 3F/3E Task Force |
| 6. One gallon samples of all EOT matrix oils to Chris May. | Matrix Labs |
| 7. Save sufficient 75 hr T-10 & 250 hr M-11 EGR oil sample for MRV evaluations. | Matrix Labs |
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MEETING MINUTES

- 1.0 Call to Order
 - 1.1 Chairman Jim McGeehan called the meeting to order at 8:59 a.m. on February 22, 2001, in the Kitty Hawk room of the Holiday Inn – O’Hare International Hotel in Rosemont, IL. There were 12 members or representatives and approximately 18 guests present. The attendance list is shown as Attachment 2.
- 2.0 Agenda
 - 2.1 The previously announced agenda for the meeting (Attachment 1) was reviewed and agreed to as distributed.

3.0 Meeting Minutes

- 3.1 The minutes from the December 5, 2000, meeting in Nashville were approved as posted on the TMC website.

4.0 Membership

- 4.1 Dwayne Tharp of Caterpillar will replace Mike Quinn and Dave Stehouwer of Cummins will replace Shawn Whitacre as members of the panel.

5.0 Mack T-10 Update

- 5.1 Greg Shank reported on T-10 matrix activities (Attachment 3) and indicated the Task Force had reviewed the data available from featured oil "A" and voted to continue the matrix. They are now estimating a mid-June completion date.
- 5.2 Jim McGeehan presented a graphical review of T-10 matrix results to date (Attachment 4).

6.0 Cummins M-11 EGR Update

- 6.1 Dave Stehouwer reported the M-11 EGR Task Force had reviewed available data on featured oil "E" and decided to continue the matrix (Attachment 5). They did make some changes before continuing, which may / may not effect the severity of the test. The rocker levers will now be screened for appropriate hardness of the crosshead wear pad and new cylinder blocks with beefier main bearing caps will be used to help reduce fretting between the caps and the block. They estimate matrix completion by mid-May.
- 6.2 Jim Wells expressed concern that it seemed highly unlikely that the wear pads in one set of rocker levers would all be in spec. on hardness when those in the other three sets varied widely – especially since the wear pads were probably all heat treated together before being assembled into the rocker levers. TEI will conduct further investigations into the hardness measurements of the assembled pads.
- 6.3 Jim McGeehan presented a graphical review of M-11 EGR results to date (Attachment 6).

7.0 CAT 1Q Update

- 7.1 Dave Nycz reported for the 1Q Task Force (Attachment 7) and indicated the 1Q matrix work was on hold until at least March 12, 2001, due to erratic results with oil "J". Four tests out of eight on that oil had aborted

with high oil consumption or scuffing. If investigation of the hardware and operating conditions does not reveal any discrepancies, CAT seems to be leaning toward declaring oil "J" to have inadequate deposit control. They may then ask that the matrix be redesigned with a different "featured" oil and possibly fewer total tests.

- 7.2 There was sentiment expressed that the Matrix Design Task Force needs to be involved if the 1Q matrix is redesigned and the criteria and data for selecting another "featured" oil should be made public.
- 7.3 Chairman McGeehan emphasized that the HDEOCP should agree with whatever changes are proposed by the Task Force, before the 1Q matrix continues.

8.0 Matrix Completion Timing

- 8.1 Greg Shank raised the question of what impact does the current situation have on completion of PC-9 matrix activities and potential API licensing date.
- 8.2 John Zalar presented (Attachment 8) a timeline showing the 1Q starting again on March 6 and licensing allowed by November, 2002.

9.0 Oxidation

- 9.1 Joe Franklin reported on the Integrated IR Task Force progress (Attachment 9). They have selected two integrated area under the curve methods to use for evaluating matrix oils.
- 9.2 Greg Shank presented data on two CH-4 "plus" oils run in extended length Sequence III F tests and asked that use of the III F test be kept in mind for PC-9 oxidation protection, just in case (Attachment 10).
- 9.3 Jim McGeehan reviewed the PC-9 oxidation protection scene (Attachment 11) and proposes that the Seq. III F test be used for bulk oil oxidation instead of integrated IR from the T-10. He plans to pursue this proposal at the next meeting with reinforcements.

10.0 Low Temperature Pumpability

- 10.1 Steve Kennedy presented the LOTRUO report for Chris May (Attachment 12) and asked that all the matrix labs be reminded to send their EOT one gallon samples to Chris.
- 10.2 Jim McGeehan put the T-10 and M-11 EGR soot accumulation slides back up and drew attention to the tight grouping at 75 hours for the T-10. Steve

Kennedy recommended using the 75 hr T-10 samples for evaluating used oil pumpability. Greg Shank felt both the 75 hr T-10 and the 250 hr M-11 EGR samples should be evaluated during the matrix. Thus, all matrix labs should try to retain enough of those two oil samples to allow MRV's to be run.

11.0 Elastomers

11.1 Charlie Passut presented the Elastomer Task Force report for Tom Boschert (Attachment 13).

12.0 Other PC-9 Tests

12.1 Greg Shank presented the EMA position for other tests to be included in PC-9. They seek no change in the CH-4 limits for the RFWT, the EOAT, the CBT and Shear and they would keep 1N limits at CG-4 levels. They seek volatility limits of 15% by Noack for all viscosity grades and a 3.3 cP minimum HTHS for Xw-30 vis. grade oils. For the T-8E, soot levels / windows would remain the same as for CH-4, but they are still evaluating kinematic versus MRV for viscosity measurement, along with possible limit changes.

13.0 Replacement Tests

13.1 Jim McGeehan reported for the Seq. III E / III F and L-38 / Seq. VIII Task Force. The group has not generated a position on the III E / III F yet – waiting on a couple more pieces of data.

13.2 They did make a recommendation with regard to using the Sequence VIII as an alternative to the L-38 for older active “C” categories (Attachment 14). Pat Fetterman moved to accept the recommendation and Ralph Cherrillo seconded the motion, which passed with 11 for, 0 against and 0 abstain. It will be incorporated in the next ballot for revision to D-4485.

14.0 Next Meeting

14.1 After much discussion, the next meeting will be held at the call of the chairman...probably on March 15th in Chicago or March 29th in Baltimore.

15.0 Adjournment

15.1 The meeting was adjourned at 12:16 p.m..

Submitted by:

Jim Wells
Secretary to the HDEOCP