

**HEAVY-DUTY ENGINE OIL CLASSIFICATION PANEL
OF
ASTM D02.B0.02
November 2, 2000
Holiday Inn – O’Hare International Hotel, Rosemont, IL**

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ACTION ITEMS

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|-----------|---|------------------------|
| 1. | Address recommendation for standardized EGR cooler cleaning. | 1Q Task Force |
| 2. | Acquire new 1M-PC cylinder liner source. | Caterpillar |
| 3. | Resolve potential lab to lab variation in crosshead wear. | M-11 Task Force |
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MEETING MINUTES

- 1.0 Call to Order
 - 1.1 Chairman Jim McGeehan called the meeting to order at 8:57 a.m. on November 2, 2000, in the Holiday Inn O’Hare-International Hotel of Rosemont, Illinois. There were 12 members or representatives and approximately 22 guests in attendance. The attendance list is shown as Attachment 2.
- 2.0 Agenda
 - 2.1 The agenda for the meeting (Attachment 1) was reviewed. Danny Larkin requested time to talk about the “35” viscosity grade and Chris May requested an earlier time slot if possible because of his flight schedule.
- 3.0 Meeting Minutes
 - 3.1 The minutes of the September 20, 2000, meeting were approved as posted on the TMC website.
 - 3.2 Several people experienced problems in trying to open, read or print the last minutes, probably because of the large file size. To help reduce future file sizes, the attendance list will no longer be scanned in but will be copied in electronically and annotated to indicate who was in attendance. Also, attachments will be presented as separate files so no one file will be very large.
- 4.0 Membership
 - 4.1 There were no membership changes.

5.0 CAT 1Q

- 5.1 Dave Nycz presented a review of the 1Q status (Attachment 3) and noted that the discrimination oil they had evaluated in the test was an ACEA E4 level, 10W-40 oil, with 1.8 to 1.9% ash. He also indicated that Caterpillar's desire for PC-9 oils performance in this test would average WDQ of 300, TLC of 25 and TGC of 30. Dave concluded with a recommendation that the 1Q is ready for matrix testing. Tom Boschert moved that the 1Q is ready to start matrix testing. The motion was seconded and passed, 11 for, 0 against, 1 abstain.
- 5.2 Discussion arose regarding EGR cooler fouling and cleaning. Some labs seem to be unable to operate much more than 100 hours before exceeding the exhaust backpressure limit and having to clean their EGR coolers. Other labs can complete the entire test with no need to stop and clean. In the interest of a more standardized procedure for all locations, Pat Fetterman moved and Aimin Huang seconded that the HDEOCP recommend that the 1Q Task Force incorporate two scheduled EGR cleanings into the test procedure. The motion passed via a voice vote with no dissent. Dave will contact Jim McGeehan after the Task Force addresses this issue and Jim will poll the HDEOCP members electronically.

6.0 CAT 1M-PC

- 6.1 Dave Nycz reported CAT had found another 30 to 40 cylinder liners for the 1M-PC and will use them to supply those labs which have exhausted their own inventory. CAT is looking for another supplier to make the liners and Dave felt that process could take six months.

7.0 MACK T-10

- 7.1 Greg Shank presented a T-10 update (Attachment 4) and said the T-10 is ready to start matrix testing as soon as the oils are available.....thought to be November 13th.

8.0 Cummins M-11 EGR

- 8.1 Shawn Whitacre presented the Task Force report (Attachment 5) and a recommendation that the test is ready for matrix testing.
- 8.2 Lew Williams made a presentation (Attachment 6) expressing Lubrizol's concern with lab to lab variability and their feeling that the test is not ready to start the matrix yet. Since the data they base this on is convoluted, they indicated they plan to conduct tests in each of the independent labs and the Lubrizol lab using the identical oil. They want to postpone start of the M-11 matrix tests until after these tests complete. After much discussion, Lew moved to have a face to face M-11 EGR Task Force meeting / lab visitation in San Antonio to review the issue of lab to lab variation in crosshead wear. All stakeholders to provide data to the Task Force 3 days prior to the meeting, which is scheduled to be held on November 9, 2000. If the Task Force, after this meeting, agrees to support their current recommendation, then the matrix goes ahead as planned. All M-11 EGR labs are to conduct an operations review. Tom Boschert seconded this motion which passed with 7 for, 0 against and 5 abstains.
- 8.3 Tom Boschert moved that pending review by the M-11 EGR Task force, the HDEOCP agrees the test is ready for matrix testing. Lew Williams seconded the motion which passed with 12 for, 0 against, 0 abstain.

9.0 LOTRUO

- 9.1 Chris May reported on the used oil low temperature rheology work (Attachment 7) and indicated they now have nine samples ranging from 5 to 9% soot, available for round robin evaluations. They hope to have evaluations from 12 labs completed and analyzed by year end. They would welcome additional 1 gallon samples of appropriately sooted oils to use in evaluating alternate test methods.

10.0 Matrix Affairs

- 10.1 John Zalar reported the TMC had received 7 of the 9 matrix oils and the remaining two (C & H) are supposedly in transit. Six of the oils will be at the labs by November 13th.
- 10.2 Dick Clark reported that eight of nine signatures for the Memorandum of Agreement (MOA) had been obtained and he was expecting the ninth that day (since obtained).
- 10.3 Don Marn reported on the matrix designs (Attachment 8). Brent Shoffner expressed concerns that they felt the 'preferred' oils should be run first on all stands, at all the labs, just to provide a check that everyone is on the same playing field. The statisticians seem to feel that this interferes with 'randomness', but several others feel it is a prudent idea.

11.0 Volatility

- 11.1 Cliff Venier reported for the Oil Volatility Task Force (Attachment 9) and recommended that all PC-9 viscosity grades be limited to 15% evaporation loss via the NOACK method (D5800). The motion was seconded and passed with 11 for, 0 against and 1 abstain.

12.0 Elastomer Task Force

- 12.1 Tom Boschert presented the Elastomer Task Force report (Attachment 10). He plans to hold a teleconference with the group after a ballot of the method closes. It looks like the proposed process can be part of D-4485 with a comparative limit.

13.0 PC-9 Timeline

- 13.1 Brent Shoffner presented the timeline update (Attachment 11) which still shows July, 2002, as the earliest API license date.

14.0 3E – 3F Comparisons

- 14.1 Brent Shoffner presented 3E / 3F data (Attachment 12) on oxidation and felt there may be a relationship between the two tests, but not necessarily a strong correlation.
- 14.2 Bill Nahumck presented an analysis of 3E / 3F data along with some possible equivalency limits using the 3F, based on one oil. (Attachment 13)

15.0 "35" Viscosity Grade

- 15.1 Danny Larkin reported that the proposed "35" viscosity grade to allow designation of pseudo 30 grade oils with HTHS of 3.3 or higher, was not acceptable to the SAE Engine Oil Viscosity Task Force at this time. That position may change, but Danny raised the question of could it be included in D-4485. He wants this brought forward as a December meeting agenda item.

16.0 Adjournment

- 16.1 The meeting was adjourned at 12:54 p.m. on November 2, 2000. The next meeting is scheduled for 1:00 p.m. on December 5, 2000 at the Opryland Hotel in Nashville, TN.

Submitted by:

Jim Wells
Secretary to the HDEOCP