HEAVY-DUTY ENGINE OIL CLASSIFICATION PANEL

OF ASTM D02.B0.02 September 29, 2004 The DoubleTree Hotel, Rosemont, Illinois

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ACTION ITEMS

1. Present 1P vs. 1K/1N data for next meeting.

2. Recommend T-10 limits for T-9 performance.

All who have data

Mack Surv. Panel & EMA

MINUTES

1.0 Call to Order

1.1 The HDEOCP meeting of September 29, 2004 was called to order by Chairman Jim McGeehan at 8:08 a.m., in the Mr. Lincoln room of the DoubleTree Hotel of Rosemont, Illinois. There were 18 members present or represented and there were approximately 18 guests present. The attendance list is shown as Attachment 2.

- 2.0 Agenda
 - 2.1 The published agenda (Attachment 1) was reviewed and provision made for discussion of the T-9 test.
- 3.0 Previous Minutes
 - 3.1 The minutes of the June 22, 2004 meeting in Salt Lake City were approved as distributed and posted on the TMC web site.

4.0 Membership

- 4.1 There were no membership changes.
- 5.0 PC-10 Timeline
 - 5.1 Bill Runkle reviewed the last NCDT meeting (Attachment 3) and noted he planned to take the PC-10 timeline (Attachment 4) to the API Lubes Committee in November.
 - 5.2 Lew Williams moved and Pat Fetterman seconded a motion that the HDEOCP endorses the proposed timeline, which has provision for about six months of technology demonstration followed by about nine months of product qualification prior to API first license date. This puts the first license date now at the beginning of the fourth quarter of 2006. The motion passed with 16 for, 0 against and 0 abstain.
- 6.0 PC-10 Matrix Design and Funding

- 6.1 Steve Kennedy reported on the matrix design and funding task force activities (Attachment 5). Data on four additive technologies have been submitted to EMA. EMA will select two technologies to use in blending the matrix test oils. The BOI-VGRA task force wants three base oils to be used, but so far, no Group I base oils have been offered. There have been three Group III base oils and one Group II base oil offered for use in the matrix.
- 6.2 A request has been made to have a separate "Memorandum of Agreement" (MOA) for each test type in the matrix so that if something happened to one of the tests (like the 1Q experience), the other tests would not be effected.
- 7.0 PC-10 Test Development
 - 7.1 Mack T-12
 - 7.11 Greg Shank presented a T-12 update (Attachment 6) and indicated Mack may want to try to separate top ring face and side wear. He also said they would be willing to accept T-10 read across guidelines for the T-12. Mack has shipped seven T-12 conversion kits.
 - 7.2 Cummins ISM / ISB
 - 7.21 Dave Stehouwer gave an ISM / ISB update (Attachment 7) and indicated Cummins is concerned about some unexpected viscosity increases they have seen. The panel suggested they make sure the T-8 viscosity procedure is being used since with the soot levels generated by the test, sample history just prior to the viscosity measurement is very important.
 - 7.22 Pat Fetterman expressed concern about using reference oil 830 in setting limits for M-11 EGR replacement.
 - 7.23 Dave stated that Cummins is looking seriously at using a merit system for the ISM.
 - 7.3 Caterpillar C13
 - 7.31 Abdul Cassim reported on C13 development progress (Attachment 8) and indicated they might move away from the no scuffing / no bore polish requirement since they have not seen any problems in that area.
 - 7.32 The CAT Surveillance Panel agreed to move toward use of production 1M-PC liners during its last meeting. Caterpillar (Attachment 9) seeks agreement from the HDEOCP in this regard and Abdul indicated CAT is prepared to continue supplying all the other necessary engine parts for the 1M-PC for the next five years. Abdul moved acceptance of using production cylinder liners for the 1M-PC and Bill Kleiser seconded the motion. The motion passed with 15 for, 0 against, 1 abstain (Abdul).
 - 7.33 With regard to the controversy concerning inclusion of a 1K/1N test as well as a 1P test in the requirements for PC-10, Oronite and Afton agreed to present data at the November panel meeting. Lubrizol and Infineum will consider presenting data. The question is, do oils that pass the 1P always pass the 1K/1N.
 - 7.4 Sequence IIIF or IIIG
 - 7.41 Lew Williams is to ask Bill Nahumck to write a letter to the HDEOCP on hardware availability for the Sequence IIIF.
 - 7.42 Concern with requiring the Sequence IIIG in PC-10 stems from the additional ashless anti-oxidant that would be required and / or more Group II base oil. The additive suppliers were evenly split with half favoring use of the IIIF and half favoring use of the IIIG.

- 7.5 Seals Test
 - 7.51 Jim McGeehan inquired about the incorporation of the Vamac material into the seals compatibility tests. John Zalar indicated Vamac is currently being tested and data is available on the TMC web site. An update from the seals surveillance panel will be requested for the next meeting.
- 7.6 Test Proposed for PC-10
 - 7.61 Jim McGeehan reviewed the list of proposed tests (Attachment 10).

8.0 Mack Surveillance Panel

- 8.1 Greg Shank, standing in for Wim Van Dam, presented the Mack Surveillance Panel report (Attachment 11).
- 8.2 ACEA has requested use of the T-10 test run with ultra low sulfur fuel (ULSD), see Attachment 12. As indicated in the surveillance panel report, the surveillance panel has agreed to this use of calibrated T-10 stands. A TMC Information Letter (IL04-2) (Attachment 13) has been drafted and will be part of the next "B" ballot. Lew Williams requests that it be recorded that the surveillance panel action and subsequent information letter are in no way an ASTM endorsement of this test as fit for purpose.
- 8.3 The T-10 bearing issue has been settled and an Information Letter (IL04-3) distributed. See Attachment 14.
- 8.4 Jim McGeehan reminded everyone that the TMC stopped monitoring the T-9 as of September 1, 2004. IF the T-9 becomes officially "unavailable", then categories CF and CH-4 disappear. So, the Mack Surveillance Panel is hereby asked to establish T-10 limits that would qualify oils at the T-9 performance level. Pat Fetterman suggested that there may be some data from the PC-9 matrix oils giving both T-9 and T-10 performance.

9.0 Next Meeting

9.1 The next meeting is set for November 11, 2004 at the DoubleTree Hotel in Rosemont, IL.

10.0 Adjournment

10.1 This meeting was adjourned at 10:55 a.m. on September 29, 2004.

Submitted by:

Jim Wells Secretary to the HDEOCP