

**HEAVY-DUTY ENGINE OIL CLASSIFICATION PANEL
OF
ASTM D02.B0.02
October 16, 2001
Hyatt Regency O'Hare Hotel, Rosemont, IL**

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ACTION ITEMS

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| 1. Draft "B" ballot to ASTM. | Tom Franklin |
| 2. Letter to API LC on backward compatibility. | Jim McGeehan |
| 3. Establish 75 hour "T-10" test to produce MRV samples. | T-10 Task Force |
| 4. Issue Research Reports. | T-10, M-11 & 1R Task Forces |
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MINUTES

- 1.0 Call to Order
 - 1.1 The meeting was called to order by Chairman Jim McGeehan at 7:31 a.m. on October 16, 2001, in the Hyatt Regency O'Hare Hotel of Rosemont, IL. There were 13 members present or represented and approximately 15 guests present. The attendance list is shown as Attachment 2.
- 2.0 Agenda
 - 2.1 The published agenda (Attachment 1) was reviewed. Tom Boschert asked for time to update the group on 'elastomer' changes and Lew Williams asked for time to review backward compatibility.
- 3.0 Previous Meeting Minutes
 - 3.1 The minutes of the September 26, 2001 meeting were approved as posted on the TMC website. It was noted that paragraph 8.12 had been revised to appropriately reflect the position of ExxonMobil on M-11 EGR and T-10 top ring weight loss.
- 4.0 "B" Ballot Preparation

- 4.1 In addition to those organizations listed in paragraph 11.1 of the 9/26/01 minutes, ExxonMobil, RohMax and Pennzoil-Quaker State agreed to help provide funding for Tom Franklin's work in preparing the "B" ballot of revisions to D4485 to include the CI-4 category.
 - 4.2 The draft ballot will need to be at ASTM headquarters by October 22 for them to issue the ballot in time to close before the December meetings in Miami.
- 5.0 Chairman's Comments
- 5.1 Chairman McGeehan took this opportunity to express thanks and appreciation to the many task forces and their leaders who have worked so diligently to bring all the new tests and procedures to this point of acceptance.
- 6.0 Membership
- 6.1 There were no changes in membership.
- 7.0 Exit Ballot 3 Review (See Attachment 3 for ballot summary)
- 7.1 High Temperature, High Shear
 - 7.11 Infineum negative on the proposed HTHS limit and would never move to affirmative, but they will abstain to allow the category to proceed.
 - 7.2 Used Oil Viscometrics
 - 7.21 Lubrizol negative on used oil viscometrics designation for "all" viscosity grades. They would switch to affirmative if it were limited to 15W-40 and lighter viscosity grades.
 - 7.22 Valvoline negative on used oil viscometrics designation for all viscosity grades. They would switch to affirmative if the "all viscosity grades" was dropped and "each viscosity grade tested" was inserted in the exit ballot wording.
 - 7.23 Dave Stehouwer moved and Lew Williams seconded inserting in the exit ballot limit wording, that the limit would apply to 0W, 5W, 10W and 15W viscosity grades. The motion passed via voice vote with none against and no abstentions. Lubrizol and Valvoline negatives now change to affirmative.
 - 7.3 CAT 1R

- 7.31 Lubrizol negative on final oil consumption. Mark Rees presented slides showing oil consumption for two tests on the same oil (Attachment 4). The consumption for one test essentially decreased for the entire test. The other went down and then back up toward the end. They propose a limit of FOC / IOC = 1.4 or less. This was arrived at from the matrix data mean plus 2 standard deviations for FOC. They feel the proposed exit ballot limit is set in the noise of the test.
 - 7.32 Ethyl abstain, but on FOC they propose using the last 3 or 4 oil consumption readings to establish FOC instead of just the last two readings. Tom Boschert showed a slide (Attachment 5) with matrix data which they feel reinforces Lubrizol's position. Tom also asked for clarification on how multiple tests are handled with tiered limits. The arithmetic average for each pass / fail parameter would be compared to the appropriate tiered limit.
 - 7.33 Pennzoil-Quaker State feels that oils that start with low oil consumption should not be penalized, which a ratio would do.
 - 7.34 After some discussion, CAT / EMA agreed a delta of 1.8 g/h for final oil consumption would be acceptable. So, Lew Williams moved that FOC = IOC + 1.8 g/h. Dwayne Tharp seconded the motion which passed via voice vote with none against and no abstentions. This cleared the exit ballot negatives.
- 7.4 Mack T-10
- 7.41 Infineum negative on the delta 250-300 lead limit of 10. They feel it should be 15.
 - 7.42 Jim Rutherford presented a "merit" system proposal for the T-10, which would add some flexibility to coping with five pass / fail parameters (Attachment 6).
 - 7.43 John Zalar presented updated T-10 (and other) tiered limits (Attachment 7).
 - 7.44 Greg Shank made a presentation on the merit system (Attachment 8) and then moved acceptance of the proposed "Mack T-10 Merit System" to evaluate oils against the API CI-4 performance category. A minimum merit total of 1000 would be required. Bill Kleiser seconded the motion. Lubrizol expressed the opinion that they feel the proposed system is more restrictive on multiple tests than the proposed tiered limits. The motion passed with 12 for, 0 against and 1 abstain. The Valvoline exit ballot abstain and the Infineum negative change to affirmative with adoption of this merit system.
- 7.5 Cummins M-11 EGR
- 7.51 Ethyl expressed concern about test filter variability.

- 7.52 Dave Stehouwer reported on available test filter data (Attachment 9) and indicated tests were still underway. Dust capacity and pleat count have yet to be determined, but pressure drop variability does not seem to be as large as anticipated.
- 7.53 The research report is nearly complete, but it probably will not issue in time to obtain a number for this ballot.

7.6 Elastomer Compatibility

- 7.61 Tom Boschert reported on the Elastomer Surveillance Panel activities (Attachment 10) and noted that since they had formed a surveillance panel, they would bring the procedure to standard under D02 instead of D11.
- 7.62 Tom Boschert moved and Lew Williams seconded that the proposed new elastomer limits, which were circulated, be adopted for CI-4. The motion passed via voice vote with none against and no abstentions.
- 7.63 Tom Boschert moved and Pat Fetterman seconded that the proposed statistical method for the elastomer test be accepted as circulated. The motion passed via voice vote with none against and no abstentions.

7.7 CAT 1K / 1N

- 7.71 Dwayne Tharp reported that CAT would prefer the 1N test as the primary aluminum piston deposit test in the CI-4 category, with the 1K as an acceptable alternative, but for a limited period of time. Infineum objected strongly to this change and indicated they would vote negative if the ballot proceeded with the change. Dwayne agreed they could stay with the exit ballot wording.

7.8 Sequence III-F Oxidation

- 7.81 Oronite have concerns that insufficient III-F hardware will soon create an availability problem for this test. Assurances were given by GM that hardware availability would not be a problem.

8.0 Backward Compatibility

- 8.0 Mark Rees reviewed the tabled proposal on backward compatibility from the last meeting (Attachment 11). During the discussion, Tom Boschert proposed adopting the current wording in D4485 (X2.8.3), by changing CH-4 oils to CI-4 oils and inserting CH-4 between API and CG-4. Not quite sure what happened to the original motion, but Boschert's proposal passed via voice vote with none against and no abstentions. There is still concern that should be addressed, about the permissibility of using

passes in CI-4 tests to allow claims of CH-4 quality, until CI-4 can be licensed.

- 8.1 Jim McGeehan is to send a letter to the API Lubes Committee, enumerating the above action, in time for their Nov. 6th meeting.

9.0 Next Meeting

- 9.1 The next meeting of the HDEOCP is now scheduled for December 4, 2001, at the Fontainebleau Hotel in Miami.

10.0 Adjournment

- 10.1 The meeting was adjourned at 11:03 a.m. on October 16, 2001.

Submitted by:

Jim Wells
Secretary to the HDEOCP