

**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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|---|-----------------------------|
| <b>1. Get 1R matrix started.</b>                                  | <b>Nearly Everybody</b>     |
| <b>2. Resolve filter pleat collapse effect on filter delta P.</b> | <b>M-11 EGR Task Force</b>  |
| <b>3. HTHS proposed limit.</b>                                    | <b>EMA</b>                  |
| <b>4. Review N, K, P deposit data.</b>                            | <b>Alternate Test TF</b>    |
| <b>5. Seal compatibility recommendation.</b>                      | <b>Elastomer Task Force</b> |
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**MINUTES**

- 1.0 Call to Order
  - 1.1 Chairman Jim McGeehan called the meeting to order at 8:31 a.m. in the Kitty Hawk room of the Holiday Inn – O’Hare International Hotel of Rosemont, Illinois, on May 25, 2001. There were 13 members present or represented and approximately 17 guests present. The attendance list is shown as Attachment 2.
- 2.0 Agenda
  - 2.1 The announced agenda (Attachment 1) was reviewed and additions made for Pat Fetterman on HTHS, Tom Boschert on Seals and Ted Selby on the Scanning Brookfield.
- 3.0 Previous Meeting Minutes
  - 3.1 The minutes of the May 10, 2001 meeting in Orlando were approved as distributed.
- 4.0 Membership
  - 4.1 Chairman McGeehan reviewed the panel membership (Attachment 3).
  - 4.2 Mesfin Belay of Detroit Diesel will replace Dan Larkin as a member.
- 5.0 PC-9 Matrix Update
  - 5.1 John Zalar presented an update on the status of the PC-9 matrix (Attachment 4).

## 6.0 Mack T-10

6.1 Greg Shank reviewed the T-10 status (Attachment 5). He then asked the panel if a test development task force could decide on the validity of a development (matrix) test. Considerable discussion ensued. Normally, the test laboratory decides on the validity of a test. Ralph Cherrillo made a motion to empower a task force to make test validity decisions for matrix tests in the event such a question arose, with the understanding this authority could be revoked by the HDEOCP in the future. Bill Kleiser seconded the motion. The motion passed 13 for, 0 against, 0 abstain.

6.2 Greg also presented data on T-10 deposits and IR oxidation (Attachment 6).

## 7.0 Oxidation

7.1 Joe Franklin presented an update on T-10 oxidation analysis by FTIR (Attachment 8). He indicated that method 5 gives a separation range of approximately 2.5 while method 2 gives a range of approximately 2.0 for the matrix oils. His analysis indicates no correlation with soot level.

## 8.0 Cummins M-11 EGR

8.1 Dave Stehouwer reported on the M-11 EGR status and results (Attachment 8). He noted the Task Force decision to allow oil filter replacement in order to complete matrix tests and indicated Cummins would consider a filter with a delta pressure increase from new of 20 psi, as being plugged.

8.2 Dave also presented the available piston deposit data from M-11 EGR matrix tests (Attachment 9).

## 9.0 Caterpillar 1Q

9.1 Dwayne Tharp reported on the 1Q status (Attachment 10) and noted there definitely was a problem with the test.

9.2 Bill Kleiser reported for the Alternative Test Task Force (Attachment 11). They recommended the 1Q matrix be stopped and the remainder of the time and funding available be used to conduct 1R tests. They also requested that RSI and TMC provide piston deposit data for all oils with 1N/1P or 1K/1P results. If the 1R were to stumble also, this data could establish whether any correlation exists between the aluminum piston deposits of the 1K/1N and the steel piston deposits of the 1P. They also recommended adoption of the 1P BOI guidelines for the 1R, until such time that sufficient 1R data is accumulated which indicates the guidelines should change. Bill Kleiser moved and Pat Fetterman seconded that the panel accept the recommendations of the Task Force. The motion passed with 13 for, 0 against, 0 abstain.

9.3 Bill Kleiser moved and Steve Kennedy seconded that the scope and objectives of the Task Force be clarified to encompass other problems (besides piston deposits) for alternate tests. The motion passed with 13 for, 0 against, 0 abstain.

9.4 The Alternative Test Task Force plans to meet again on June 18<sup>th</sup> in San Diego, to review the N/K/P data.

## 10.0 High Temperature, High Shear

- 10.1 Pat Fetterman presented Infineum concerns with a previously proposed HTHS limit (Attachment 12). He cited concerns with any arbitrary physical or chemical limits and with the adverse effect on fuel economy of higher viscosity. He also pointed out that the lower limit for KV100 for 10W-30 oils will give a HTHS value of 3.0 cP in a low VI, group 1 base stock. Thus, a HTHS value above 3.0 will raise the minimum viscosity for an oil or restrict the choice of base stocks.
- 10.2 Greg Shank presented a response for EMA (Attachment 13), supporting a HTHS limit of 3.0 for "sheared" new oil. He said they would have a firm proposed limit for the San Diego meeting.

## 11.0 Other Topics

- 11.1 John Zalar reported that the Sequence 3F Surveillance Panel is already working on recording viscosity increase at 60 hours. They do need more definitive input from the HDEOCP though. Lots of discussion on 60 hour versus 80 hour requirements for heavy duty oils. Lew Williams moved and Pat Fetterman seconded that Seq. 3F candidate oils be run as long as needed by the test sponsor (either 60 or 80 hours). Reference test length would remain 80 hours. The motion passed with 13 for, 0 against, 0 abstain.
- 11.2 Tom Boschert gave an Elastomer Task Force report (Attachment 14) and indicated he has round robin data from 4 labs with a fifth due soon. The procedure is posted on the TMC website and he plans to present the procedure and data to committee D11 for them to ballot the procedure. He plans to have a recommendation for the next HDEOCP meeting.
- 11.3 Ted Selby made a presentation (Attachment 15) with regard to the extended range Scanning Brookfield technique. He feels it could provide additional useful information in regard to low temperature pumpability of used oils.
- 11.4 Greg Shank requested that "exit" ballots be used for those tests which already have limits proposed for PC-9.
- 11.5 Jim McGeehan reminded everyone that the panel meeting in San Diego will start on Tuesday (6/19/01) morning and could go all day.
- 11.6 Steve Kennedy to write a letter requesting an amendment to the MOA to accommodate the 1R.

## 12.0 Adjournment

- 12.1 The meeting was adjourned at 11:48 a.m.

Submitted by:

Jim Wells  
Secretary to the HDEOCP