# **HEAVY-DUTY ENGINE OIL CLASSIFICATION PANEL**

OF
ASTM D02.B0.02
June 22, 2004
The Grand America Hotel – Salt Lake City, UT

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#### **ACTION ITEMS**

1. Request Sub-committee 3 to review D874 precision. HDEOCP/J. McGeehan

2. Resolve questions on voting weights.

**HDEOCP** 

#### **MINUTES**

- 1.0 Call to Order
  - 1.1 Chairman Jim McGeehan called the June 22, 2004 meeting of the HDEOCP to order at 1:13 p.m. in the Imperial D ballroom of the Grand America Hotel in Salt Lake City, Utah. There were 19 members present or represented and there were approximately 53 guests present. The attendance list is shown as Attachment 2.
- 2.0 Agenda
  - 2.1 The published agenda (Attachment 1) was reviewed and Fred Girshick asked for an early slot to review work his task force had done on 90 cycle shear stability, at the request of the HDEOCP.
- 3.0 Minutes
  - 3.1 The minutes of the May 18, 2004 meeting were approved as distributed and posted on the TMC web site.
- 4.0 Membership
  - 4.1 There were no changes to the membership but Scott Harold of CIBA was recognized as the most recent member. See Attachment 3 for the membership list.
- 5.0 Shear Stability
  - 5.1 Fred Girshick reported on work his Section 7 task group had done to establish a 90 cycle shear stability method. His report is shown as Attachment 4 & 4a, along with Draft 5 of Work Item 2880 (Attachment 5) for the test method. They plan to expedite a ballot for the method in Sections 7 and Sub-Committee B by using preliminary precision estimates obtained during development. The precision estimates will be refined once a proposed round-robin is completed. Fred noted an inconsistency in kinematic viscosity measurements between the five labs participating in the method development work.
- 6.0 Chemical Limits

- 6.1 Rick Finn reported on his task force efforts to reach accord on chemical limits for PC-10 oils, see Attachment 6. The exit ballot on the proposed limits drew seven negatives. Five of those were resolved by the Task Force, but two remained.
- With regard to the DDC negative on the sulfur limit being too high, Pat Fetterman moved and Bill Runkle seconded that we move forward with 0.4% S maximum as a non-critical limit. Discussion focussed on the lack of data indicating sulfur's effect on aftertreatment devices. Rick Finn presented a slide (Attachment 7) on sulfur effects.
- 6.3 The CIBA negative on phosphorus was withdrawn and CAT would change their negative on sulfur and phosphorus being too high if the matrix oils were blended with lower phosphorus. Pat Fetterman moved and Steve Kennedy seconded a motion stating that the matrix oils may be blended at lower SASH, P and S values than the proposed PC-10 limits. The motion passed with 18 for, 0 against and 0 abstain.
- As a carry over from task force discussions the day before, tiered limits for sulfated ash (SASH) were discussed. Jim Rutherford presented information on multiple test acceptance criteria (MTAC) and tiered limits, with some examples. See Attachment 8. Dave Stehouwer moved and Bill Runkle seconded that the tiered limits of 0.98 for one test, 1.0 for two tests and 1.01 for three tests as proposed by Jim Rutherford, be accepted as the limits for SASH. The motion passed with 10 for, 3 against and 5 abstains. Given the underwhelming positive response, discussion continued. Eventually, Pat Fetterman moved and Charlie Passut seconded that for determination of SASH by D874 against the non-critical PC-10 limits, we accept a value of 1.00% maximum for one test, 1.02 for two tests and 1.03 for three tests. These tiered limits are to be reflected in D4485. The motion passed with 18 for, 0 against, 0 abstain. Sub-Committee 3 is to be asked to review the precision of D874.
- Pat Fetterman moved and Steve Herzog seconded that we accept a non-critical phosphorus limit of 0.12 % maximum, by method D4951. The motion passed with 17 for, 0 against and 1 abstain.
- 6.6 Jim McGeehan reviewed a slide (Attachment 9) showing the now adopted chemical limits box for PC-10.

### 7.0 Mack T-12

7.1 Greg Shank reviewed the T-12 development status. See Attachment 10.

#### 8.0 Cummins ISB / ISM

- 8.1 Dave Stehouwer presented updates by Warren Totten on the ISB. See Attachment 11.
- 8.2 Dave also reviewed the ISM situation...see Attachment 12. In a change to the 6.5% soot values shown on slide 9, they now plan to target 6.0% soot for the next phase of tests, using oils 1004, 830 and ISM(A). Greg Shank expressed support for the three oil approach.

### 9.0 Caterpillar C13

- 9.1 Abdul Cassim reviewed the C13 development status (see Attachment 13) and indicated they plan to have inspected parts to the labs by early August.
- 9.2 Tom Franklin reported for the C13 Task Force and indicated a mini-matrix will use closed crankcase ventilation (CCV) and PC-10 fuel (<15 ppm S). They need a high discrimination oil. See Attachment 14.

# 10.0 New Category Development Team

10.1 Bill Runkle, chairman of the NCDT, reported that EMA has not reached a decision yet on the Caterpillar request to include the 1P in PC-10. See Attachment 15. The PC-10

- timeline now shows a "Technology Demonstration" period in 2005 with limit setting and product qualification after that.
- 10.2 Jim McGeehan reviewed the slide (Attachment 16) of PC-10 requirements.
- 10.3 Greg Shank remarked he is looking for HD oil data from the Seq. IIIG.

## 11.0 PC-10 Matrix Design and Funding

11.1 Steve Kennedy presented a report on the matrix design and funding activities (see Attachment 17). Concern arose from the floor that the ISM may need matrix testing and Larry Kuntschick of ILMA expressed concern about the proposed reduced time to qualify oils for license.

# 12.0 Other Business

- 12.1 Jim McGeehan showed his slide on PC-10 progress thus far...Attachment 18.
- The EMA (Greg Shank) questioned the 75% majority to move forward and how much weighting, if any, EMA votes would receive. This item is to be put on the next meeting agenda.
- 12.3 Pat Fetterman requested an endorsement of an aromatics range change for PC-10 fuel. The current range is 28 to 33.5% and the proposed new range is 26 to 31.5%. Pat moved acceptance of this range change and Lew Williams seconded the motion, which passed by unanimous voice vote.
- 12.4 Since time was running late, the 1N liner issue was skipped, with a request that it be presented to "B" the next day. See attachments 19 & 20 for what was to have been presented.
- 12.5 Volunteers for the "PC-10 Fuel Supplier Selection Task Force", solicited by Jim Wells, thus far are: Tom Franklin, Pat Fetterman and Mesfin Belay. Please contact Jim if you are interested in participating.

### 13.0 Next Meeting

13.1 The next meeting is planned for September 29<sup>th</sup> in Chicago, at the Rosemont DoubleTree.

### 14.0 Adjournment

- 14.1 The meeting was adjourned at 4:30 p.m.
- 15.0 Report to "B"
  - 15.1 Jim McGeehan's report to B.02 is shown as Attachment 21.

# Submitted by:

Jim Wells Secretary to the HDEOCP