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### **Committee D02 on PETROLEUM PRODUCTS AND LUBRICANTS**

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Reply to:

Scott Parke  
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October 23, 2007

To: Single Cylinder Diesel Surveillance Panel

Enclosed are the minutes of the SCOTE Surveillance panel teleconference held August 30, 2007. Please address any corrections during the time allotted for minutes approval at the next meeting.

Scott Parke  
Secretary SCOTE Surveillance Panel

Attachments

cc: <ftp://ftp.astmtmc.cmu.edu/docs/diesel/scote/minutes/TELECONFERENCE%202007-08-30.pdf>

distribution: Email

## TELECONFERENCE MINUTES

### SINGLE CYLINDER DIESEL SURVEILLANCE PANEL

HELD AUGUST 30, 2007

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#### **13:37cdt NEW 1P LINER POROSITY**

Chairman Jim McCord (Southwest Research) called the teleconference to order at 13:37cdt. The participant list is shown as attachment 1.

Two of the three runs that Caterpillar offered to purchase in order to examine the effect of liner porosity have been completed. The third has not yet started. Caterpillar asked that the panel discuss the necessity of running the third. The completed runs ran at Afton and Lubrizol and used liners having a porosity over 100. Both tests had higher than usual oil consumption.

Bob Campbell (Afton) asked Jade Katinas (Caterpillar) to provide an idea of what the distribution of the new liners looked like. Jade said that of the 250 liners in the new batch, 113 had porosity values of 69 or less; 168 had values of 79 or less.

Bob asked if the porosity values could be marked on the liners and thereby included in the test report. Jade replied that there were some practical problems with trying to get the values on the liners. Scott Parke (TMC) was concerned that such marking might lead to parts selection ("cherry-picking"). Bob then asked if Cat would be able to provide porosity values at EOT. Jade countered that Cat would be able to provide TMC with a cross-reference of porosity-to-liner s/n. The panel was comfortable with that.

Scott Parke reminded the panel that there have been problems in the past in getting reliable liner data reported. Data scribed on the liners has not always agreed with that put on the label on the box. This has led to the reported data being unreliable when lab personnel mistakenly (if understandably) record parts info from the box instead of from the liner. Jim Moritz (Intertek) wondered whether better instruction in the procedure might correct this problem but Scott pointed out that the report forms were already quite explicit in their instruction and that the real problem was that the personnel recording the data generally work from lab in-house procedures and rarely even see the printed ASTM procedure. The panel agreed that labs would need to redouble their efforts to get the data accurately reported. Jade agreed to email photos of what the liner info scribed on the liners looked like and said she would try to eliminate box-vs-part labeling discrepancies.

#### **14:12cdt LIMIT ON ALLOWABLE POROSITY**

Jade Katinas explained that the only realistic path forward at this point is to use this batch of liners for testing. The only real remaining question is how many of the liners would be deemed to have "acceptable" porosity. Jade was asked if the liners could be ranked from best to worst and then sent out in that order in the hope that the test might be discontinued before the worst of the liners was reached. She said that it was not really practical to ensure that the liners would remain ordered in that way. Given the numbers that had been discussed so far, Bob Campbell suggested that if an

upper limit of 69 was used that would extend testing a reasonable time into the future. Jim Moritz was willing to raise that limit to 79 to increase the pool of available liners. Jim moved for Cat to adopt 79 as the allowable upper limit on porosity and Bob seconded; the motion was approved unanimously. The liner will be designated 1Y3997.

In order to avoid the possibility that higher porosity liners might find their way back into the system, Jade agreed that Cat would pull all liners with porosity greater than 79 and destroy them. She estimated that it would take about two weeks to implement this plan and resume regular liner distribution. She said that to date 6 liners with porosity below 60 have been distributed to the labs for candidate testing.

Jim Matasic (Lubrizol) asked about the continued acceptability of 1Y3805 liners. The panel replied that until such time as there is evidence that 1Y3805 liners no longer produce test results consistent with the historical performance of the test, they will continue to be acceptable for use.

#### **14:22cdt 1M-PC CYLINDER HEADS**

Jade Katinas reported that there are currently no 1M-PC cylinder heads in stock at Cat. In 2004, Cat informed the Heavy Duty Engine Oil Classification Panel (HDEOCP) that it planned to discontinue support for the 1M-PC test by the end of 2009. This may mean Cat's support could end sooner. Cat will update the HDEOCP of the supply situation.

As a side note, it seems there are also no piston cooling jets available for purchase for the 1M-PC engine.

#### **14:25cdt 1N CYLINDER LINER RUSTING**

Bob Campbell asked if others were receiving 1N liners with rusting. They were. He has pulled his entire stock of 1N liners to check them. Jim Matasic reported that on his order from the 1000-series liners, 6 of the 8 he received were rusted. Bob reported that liners from the 1100-series seem to be alright though they do have an extra groove in the outside diameter. Jade wasn't able to explain why the extra groove is there.

#### **14:31cdt RATING WORKSHOP SPONSORSHIP CHANGE**

Scott Parke updated the group about recent developments regarding rating workshop sponsorship. Historically, the industry body responsible for producing the rating workshops has been the Coordinating Research Council (CRC). CRC has determined that the rating field has now sufficiently matured that it no longer falls into the realm of "research". Consequently, they have decided to discontinue their involvement with rating and transfer all aspect of that responsibility to CRC sustaining member the Society of Automotive Engineers (SAE). SAE plans to hold the first rating workshop under their auspices during the first week of November. Scott Parke will be continuing on as Workshop Coordinator and hopes to make the transition a smooth one.

#### **14:40cdt CALIBRATION PERIOD/CANDIDATE START CHANGE**

The Cat procedures stipulate that candidate tests must *complete* before the expiration of the calibration period. This is not unusual but some of the other tests that the participants deal with require candidate tests simply to *start* before the end of the calibration. During a previous teleconference, some of the participants described confusion at their lab over when they were permitted to start a calibrated candidate test. In an effort to make things consistent for those participants, TMC was asked to change the date reported on the bottom of the Test Confirmation Report (TCR) to reflect the last date that a candidate could start. However, because the dates thus reported now no longer coincided with the procedurally stipulated length of the calibration period, this solution created as many problems as it solved. Therefore, the panel voted to change the

procedure wording for all SCOTE tests to read that candidate tests must *start* before the end of the calibration period.

The meeting was adjourned at 14:48cdt.

## Attendance:

Representative	Organization
Jim Moritz	Intertek
Jim McCord	Southwest Research
Bob Campbell	Afton Chemical
Jim Gutzwiller	Infineum
Jade Katinas	Caterpillar
Hind Abi-Akar	Caterpillar
Kevin Daly	Caterpillar
Bill Larch	Lubrizol
Jim Matasic	Lubrizol
Mark Sutherland	Chevron
Scott Parke	Test Monitoring Center