# Mack Surveillance Panel

**Thursday November 29, 2012**
**10:30 a.m. – 11:30 a.m. Eastern Time**
**Dial-in number:**
**877-344-4239**
**Passcode:**
**595244#**

# Mack Surveillance Panel Meeting Notes

The teleconference convened at 10:30 a.m. Eastern time, with Mark Cooper as Surveillance Panel Chair.

**Membership / Attendance** **Mark Cooper**

Jim Rutherford, Mark Cooper, Mike Alessi, Greg Shank, Ken Goshorn, Jim Gutzwiller, Jeff Clark, Sean Moyer, Bob Campbell, Jim Moritz, Zack Bishop, Jim Matasic, John Alborn, Addison Schweitzer, and Scott Richards.

**T-11 Reference Test Length/Issues with Tests not Hitting 15 cSts** **Group**

Preliminary inspection of the recent industry required reference of the Mack T-11 on the old hardware (SSWN) with new reference oil 822 revealed mild results at three of the four industry test labs. Upon review, Scott Richards stated that SwRI hit ~13.68 cSts, Jim Matasic at Lubrizol hit ~13 cSts, Bob Campbell of Afton hit ~12.46 cSts, while Jim Moritz at IAR did in fact achieve greater than 15 cSts. IAR experienced a 46 cSts delta viscosity increase at EOT, while the three remaining test labs failed to see greater than a 15 cSts delta viscosity increase. Further analysis revealed that oil consumption at SwRI was ~24.7 g/hr, Lubrizol was ~22 g/hr, Afton was ~53 g/hr, and IAR was ~31 g/hr. Engine life was disclosed and SwRI had a new engine build, Lubrizol had a used engine build, Afton had a used engine build, and IAR had a new engine build. Lastly, Scott Richards questioned the industry test lab uncorrected MRV results displaying that SwRI had ~11700 cP, Lubrizol ~12500 cP, Afton had ~16031 cP, and IAR had ~13300 cP.

Bob Campbell questioned if IAR utilized the correct reference oil (822) during the industry required reference. Scott Richards pointed out that there was a significant difference in Ca, Mo and KV when comparing the fresh oil sample analysis to SwRI's chemical analysis data. SwRI ICP metal analysis provided 2060 ppm of Ca in the fresh oil sample versus IAR with 2345 ppm of Ca. Furthermore, the fresh oil KV analysis at SwRI was 14.78 cSts on TMC 822 versus 15.25 cSts on TMC 820-3. Scott Richards posed the question if IAR was positive that PC9HS fuel was utilized on this test. The group confirmed that all test labs used PC9HS fuel to perform the industry required reference test.

There was a proposal to increase the Mack T-11 test duration, but there was an expressed concern by the group that the oil would shear due to oil consumption and the absence of oil additions. The proposal went further to suggest that reference test duration be extended to get 15 cSts delta viscosity increase while keeping candidate tests at 252 hours. Bob Campbell questioned if there has ever been severity adjustments at 15 cSts to clarify the need for data at 15 cSts. The

industry responded that there was a need for data due to existing SA's at 15 cSts. Bob Campbell questioned TMC as to if any old reference oil 820-3 remained. TMC answered that they had no old reference oil on inventory and that three industry test labs had a sample.

TMC mentioned that the earliest that all data would be available would be later during the week. The industry test labs agreed that there was a need to understand the differences with the results obtained by IAR.

**Action Item:**

TMC was asked to provide the Mack Surveillance Panel with the timing changes with respect to test hours for the recent Mack T-11 industry required reference tests.

**Action Item:**

Jeff Clark, of TMC, agreed to approach Frank Farber about obtaining additional data from the oil supplier that can be shared with the Mack Surveillance Panel about the replacement reference oil (822) that was presented at the Mack Surveillance Panel meeting on 5/2/2012.

**Action Item:**

Addison Schweitzer was to take as an action item to send the presentation for the replacement reference oil (822) that was presented at the Mack Surveillance Panel meeting on 5/2/2012 with the meeting minutes.

**T-11 Reference Interval** **Group**

Bob Campbell suggested that reference interval extensions be given due to the fact that stands would be going out of reference, and industry testing on the Mack T-11 would be placed on hold awaiting a solution to the current reference issue. Jeff Clark stressed that subcommittee B limits reference interval extensions to one full calibration period. Zack Bishop interjected that only two SSWN engine rebuild kits remained at TEI, but that sixteen sets of S rings remained.

**Motion**

Bob Campbell initiated a motion to extend the reference period on the Mack T-11 by one full reference calibration period starting 11/29/2012.

Jim Matasic seconded the motion

Vote

All For
None Opposed
2 Waives

**Old Business / New Business** **Mark Cooper**

The results of the Mack T-12 reference on TUXO hardware was discussed and will be addressed further in the next scheduled Mack Surveillance Panel Meeting. In summary, the Mack merit results on five Mack T-12 industry required references had results ranging from -3596 to 628.2. Thus far, three Mack merit results were negative while the other positive result was only 63. This presented an obvious issue to the Panel since there is no pattern in the data so far. The

liner hardness was examined by TEI to date: Batch R ~ 48 HRC, Batch S ~ 48 HRC, and Batch T ~42-43 HRC. The Panel agreed to combine all of the data from the five tests on TUXO hardware for the Mack T-12 for comparison in the next meeting.

**Action Item:**

TMC was to take as an action item to compile the Total Mack Merits as well as Mack Merits by parameter for the five recent Mack T-12 industry required references on TUXO hardware.

**Action Item:**

Greg Shank established January 9th and 10th as dates for a face to face meeting for NCDT, Mack T-13 Taskforce, and Mack Surveillance Panel Meetings.

**Next Meeting** **Mark Cooper**

The next proposed Mack Surveillance Panel Meeting was decided to be held on December 6th 2012 at 10:30 a.m. Eastern Time.

Meeting Adjourned at 11:45 a.m. Eastern time.