

**Cummins Surveillance Panel Teleconference
September 14, 2020 2:00 – 3:30 EDT**

Attendance:

Sean Moyer - TMC
Jim Matasic - Lubrizol
Bob Campbell, Abaigh Ritzenthaler, Todd Dvorak - Afton
Jose Starling, Travis Kostan - SwRI
Andrew Smith, Martin Chadwick - Intertek
Mark Cooper, Jo Martinez - Chevron Oronite
Dan Lanctot - TEI
Phil Shelton - Cummins
Elisa Santos, David Brass, Charlie Leverett, Jim Gutzwiller - Infineum
Prasad Tumati - Haltermann Solutions
Jon VanScoyoc – CP Chem
Steve Jetter – ExxonMobil

Agenda:

1) ISB Tappet Wear Correction Factor and Reference Oil Target Review

Meeting Minutes:

1) ISB Tappet Wear Correction Factor and Reference Oil Target Review

Andrew reviewed the available options for the ISB correction factor. The options include:

- 1) Do nothing
- 2) Get direction from the SP on an alternate approach
- 3) Use the proposed CFs and targets from the stats group

Andrew then opened the floor for comments or suggestions. Jose indicated that SwRI is considering both options but is leaning towards using one of the proposals from the stats group. Martin Chadwick asked if the TMC had implemented the previously approved changes to the camshaft wear correction factors and targets. Sean answered that yes that change had already been implemented and that some data had already started to be resubmitted. Martin pointed out that in that case, we are not holding anything up but that the lab that had already submitted data may need to resubmit again, depending on which direction the SP chooses to go. David Brass asked if there was any 'D' crossheads still available. Jim Matasic commented that Lubrizol is still running on the KD cam-tappet combination and that he would check the crossheads. Martin remarked that this analysis did not treat the crossheads separately. Andrew asked if there was any additional information that the panel would want from the statisticians group. The panel moved back to reconsidering the 3 available options.

David pointed out that the tappet data is exactly on target and that even though we updated the camshaft targets and correction factors does not necessarily mean we need to do the same

for tappets. Todd remarked that he believes it would be a systemic change that either the targets and correction factors are adopted together or they are not. Elisa said that she does not believe given the data that we have that we need to update the targets just because we did it for the camshaft.

Martin brought up that when we say, "do nothing" we are not really doing nothing. We would be saying that the correction factors we currently have are adequately capturing the hardware effect on the test and that revising the correction factor and oil targets is making a change to the way we have corrected up to this point. Updating the correction factor and oil targets would in effect be clarifying that we believe the oil blend has more impact than we previously thought.

There was discussion about the upcoming parts batches and potential for new oil re-blends convoluting the data even further. A new parts batch is coming soon but the reference oil should be stable for the next few years barring a marked increase in testing.

Jose asked for a hardware update from Dan. Dan said that there is about 15 kits in stock at TEI depending on the cam reject rate but 15 is a good estimate.

Meeting adjourned at 2:47 EDT.