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**Subject:** Mack Surveillance Panel Meeting Minutes - Monday, May 20, 2019  
**Date:** Monday, May 27, 2019 23:59:58  
**Attachments:** [190516 Mack SP Meeting Agenda \(May 20, 2019 meeting\).docx](#)  
[Alternative Parts List Proposal.xlsx](#)  
[Mack SP Scope and Objectives \(updated May 20 2019\).docx](#)  
[T13 Reference Comparison - New Liners and Con Rod Bearings.pdf](#)  
[T-13 severity.pptx](#)  
[Volvo-Mack CPD Report T8-T11-T12-T13 5-20-2019.pptx](#)  
[SwRI T-13 reference test oxidation new rod bearings and liners .pptx](#)

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Everyone,

The following are the unconfirmed minutes of the Mack Surveillance Panel Meeting held on Monday, May 20, 2019. The meeting was held in person at Volvo Group Truck Technology in Hagerstown, Maryland. A WebEx connection was provided for remote attendees. Please feel free to let me know if there are any changes or revisions needed. Members should check for any follow-ups or actions and anyone no longer wishing to receive a copy of the minutes, just please let me know. Thank you.

**Participants:**

Afton – Christian Porter, Bob Campbell  
CP Chem – Jon VanScoyoc  
ExxonMobil – Cliff Salvesen  
Haltermann – Prasad Tumati  
Infineum – Bob Salgueiro (Secretary), David Brass  
Intertek – Jim Moritz, Juan Veja, Garrett White  
Lubrizol – Nick Ariemma  
Oronite – Mark Cooper (Chairman)  
SwRI – Jose Starling, Bob Warden  
TEI – Derek Grosch, Mark Sutherland  
TMC – Sean Moyer, Jeff Clark  
Volvo – Patrick Holmes

**Mack Surveillance Panel Meeting**

The Mack Surveillance Panel meeting was called to order just after 9:04 AM Eastern, by Mark Cooper, Chairman of the Mack Surveillance Panel.

**Agenda Topics in Bold Below, with discussion notes and actions following:**

- **Membership & Attendance**

- Participants were recorded above.
  - No changes in membership.
- **Mack Surveillance Panel Scope & Objectives Review**
    - The Surveillance Panel reviewed the Panel Scope and Objectives statement. It was suggested that if the group is not going to develop the T-11 as replacement of T-8 then remove it from Scope & Objectives. T-8 blocks are available. Injection pump parts are also still available. Mack T-8 does not seem to be hard to support. The Surveillance Panel agreed to remove the objective of trying to develop a replacement for the T-8 with the T-11. Mark, as panel chair revised the Scope and Objectives (attached).
- **A few moments to remember Greg Shank**
    - Personal stories about Greg were shared. Greg started working in the lubricants at Mack around 1990. Four tests the Mack Surveillance Panel support are tests in which he was an integral part of the development. Greg leaves behind a great legacy and will be missed by many.
- **Mack T-8 LTMS**
    - A ballot was sent out but there was a typo noticed that the critical and non-critical parameters were reversed. It was believed that an earlier copy may have gotten out but the final one that was implemented is the correct one. It was noted that a better process is needed for tracking over e-mail voting.
- **Fuel Aromatics Measurement- Using ASTM D5186 in place of ASTM D1319 for Fuel Spec and Fuel Batch Approval**
    - The Technical Guidance Committee (TGC) Fuels Taskforce has been working on this. Mack Surveillance Panel needs to approve D5186 as replacement for D1319. This means, removing the reporting requirement for olefins and saturates for HD fuels as no method currently exists to measure them. Jon had pointed out in a previous meeting that CP Chem will likely develop a method going forward.
    - **Bob Campbell, motioned, and Mark Sutherland seconded to remove test fuel specifications from Mack/Volvo test methods and Adopt TGC fuel specification as it resides on TMC website. The motion was passed unanimously.**
- **CPD Update**
    - **Mack T-11/T-12** – TEI will order enough parts to last till 2026 per input from the Surveillance Panel.
      - TEI are unable to order main bearings, con rod bearings and 2<sup>nd</sup> rings in batches going forward but enough quantity will be ordered till 2026. Bearings are a critical parameter, TEI will review the date codes and see how many batches they receive. TEI will contact Federal Mogul directly to see if they could help us out minimizing the number of batches. TEI has about 2 years of main and rod bearings left currently. If the bearings are from many different batches it will not be possible to reference them all.
      - **Piston Crowns** - 500 new crowns delivered and so far 100% acceptance rate.
      - **Piston Top Rings** - will arrive in 14 weeks (one batch to last till 2026). Current batch will last

about 2 years.

- **Liners** – 3000 ordered to last till 2026. They are being shipped as they are made. RpK is a different (batch V it was 17.0 New batch is 12.2). **TEI will send the measurement data to Elisa Santos to look for any statistically significant differences between the liner batches based on available measurements from TEI.** Batch V liners remaining are 277. The new liners look visually OK but have a few black dots which may be machining fluid from the manufacturing process. TEI haven't tried cleaning them with solvents yet. TEI will measure a trace across the stain to see if there's any difference.
- **Piston skirts** require a 2000 minimum order quantity. Ten out of ten new piston skirts were out of spec being too large. TEI have a jig set to the max spec limits and all these pistons were very tight. The skirts were sent back to FM and they are checking them now. TEI have zero piston skirt inventory. **Christian motioned, seconded by Juan, to reuse piston skirts until they are available again, and the motion was passed unanimously. The labs should comment in the test report that the skirts are "reused".**
- **Covert rods** are also out at TEI. TEI is working with local Mack dealer which was able to place an order for 160 rods.
- **Federal Mogul is now TENNECO** - FM was recently bought by TENNECO the company name will change.
- **Small Turbos** are still readily available now, TEI will check on their continued availability. If the Mack SP wants TEI to hold an inventory of any parts the SP just needs to instruct them.
- **Volvo T-13** – Liners 1,100 left, all other parts are PNB (Parts non-batched) with no issues expected.
- **Quarterly Parts and Ref Oil Inventories Review Meeting Proposal**
  - As these tests are mature, continued parts supply are critical. Bob C. suggested we may need a higher level meeting across all Surveillance Panels, quarterly about parts inventories. Jeff suggested including the reference oil inventories as part of the quarterly meeting. This way we can coordinate better new parts batches as well as reference oils. June 10<sup>th</sup> was suggested as a potential first meeting date.
- **Real Time Model of Test Life**
  - In the Passenger Car Testing area a model was put together, representing parts inventories and run rates to establish how long parts would last for a given test. TMC worked with TEI and Afton (Corey Coglin) to try developing a model for the Mack tests, labs will provide input on run rates and efficiencies and Angela Willis will try to put together a model. Many of the HD tests are still part of older but licensable API Categories. The objective is to bring to light the finite lives of these tests and get people motivated to begin the process on how to address these tests going away.
- **Proposal to separate Part number table from test procedures into a separate table on TMC website**
  - Doing this could allow for part number tracking and super seceding in a central location. Also eliminates information letter for changes to procedures just for part number changes. The Surveillance Panel would still need to agree to any changes to the list. TMC will make an example and send it around the Surveillance Panel for comment, where the part number table

in the procedure is amended to note that current part numbers will be stored separately on TMC website.

- **T-13 Reference Testing on New Configuration (New Connecting Rod Bearings & New Liners)**
  - Bob Warden reviewed the results of SwRI's T-13 reference tests. New bearings seems to be performing in a similar manner in terms of oxidation. SwRI ran rougher bearings, IAR had run smoother bearings, SwRI noted that after turning over a few times, the bearings appeared to smooth out. The agreement was that if the results were within acceptance limits the labs would be calibrated.
  - Garrett shared the results from Intertek. They also noted milder results but within acceptability limits with the latest reference test for oxidation and KV40. Iron was in the middle of the population of results. The used liners look similar to previous batches. The con rod bearings visual inspection looked ok.
  - Mark noted that based on industry reference oil plots there appears to be a cyclic trend in severity. We are in an alarm status for KV40. There appears a pattern of drifting mild and then returning back to target. Humidity control was implemented in June 2016. The Mack Surveillance Panel requested that next time Lubrizol runs a reference that they use the new rod bearings. Jim Moritz suggested that since the whole plot is above zero, maybe a correction factor should be considered. No one could recall why the early test results from the matrix weren't centered around zero. Sean will check the chart to make sure the data is being reported correctly as the target might not be in transformed units while the results might be.
  
- **Alternative Fuel Supplier Interest from Haltermann Solutions**
  - Haltermann is interested in being considered as an alternative fuel supplier for PC-9HS, PC-10 fuels. The Surveillance Panel needs to decide first if we want a second supplier and if so, what criteria will be to qualify a new fuel supplier. Given the impact of fuel on test cost, it makes sense to consider. PC-9HS is a very particular fuel, so need to make sure it's feasible to have an alternative. There appeared to be no objection to proceeding with working on the criteria to qualify a second supplier. Haltermann claimed that batch size was not a constraint. CP Chem currently make about 500K gal batches. Each panel will have to make an independent assessment because the importance of fuel will dependent on each test type with in a Surveillance Panel. Bob Campbell will lead a small task force to develop the criteria and seek input from other Surveillance Panel Chairs on if they might want to consider developing the criteria together to speed up the process and prevent unnecessary recycle.
  
- **Old Business**
  - None.
  
- **New Business**
  - None.
  
- **Next Meeting:** Will be called when needed.

The Mack Surveillance Panel adjourned at 11:40AM.

Respectfully submitted,

**Bob Salgueiro**

Mack Surveillance Panel Secretary



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