

DD13 Conference Call, June 2<sup>nd</sup> 2016

## Agenda

1. Proposed Reference Data – SwRi
2. Reference Testing EOT discussion
3. Discussion Over Fuel Specifications
4. Fuel Flow and coolant flow time response
5. Oil availability update

### 1) Operational Data from SwRi

SW4 Oil X – Test run in their matrix test stand as a makeup for the last matrix test that triggered a severity alarm. This test showed 95.5% scuffing at 40 hours in cylinder #4 with hours to scuff assigned to it at 31 hours.

SW 94 Oil C – Test was stopped at 40 hours. Cylinder #3 showed 57% scuffing with an hours to scuff calculation of 31 hours.

SW 98 Oil C – Test was stopped at 36 hours. Cylinder #3 showed 100% scuffing. This test was also assigned an hours to scuff of 31.

### Operational data discussions

Sw94c showed lower crankcase pressures than the other tests displayed in stage 1. This could have been a potential sensor offset.

The Coolant Jacket Pressure Deltas are different from lab to lab but are consistent test to test within any given lab.

Task Force was in agreement that the data presented showed similar performance as the matrix data.

Daimler did mention that they were willing to accept any reference test data that was run in parallel with the precision matrix as long as the test was run to the same procedure.

Jose at Southwest Research made the following motion that was seconded by Mark Cooper.

Jose's motion – *I motion that additional tests submitted on non-matrix test stands, which were run during the precision matrix and oils were sourced in the same manner as the precision matrix and met all criteria as the precision matrix, which are considered to be operationally valid by the panel, be eligible for LTMS calibration review effective at EOT date of the test.*

The results from the voter were as follows

In favor – Infineum, Lubrizol, Oronite, Intertek, Southwest Research, TEI and Daimler

Opposed – None

Waive – TMC

Not Present – Afton

## **2) Reference Testing EOT Discussion**

Concerns were aired from multiple parties when allowing a lab to terminate a reference test early. This would have the potential to allow a lab to terminate a reference test if an undesirable result was generated. This could potentially affect and severity adjustments later in testing even though they are currently not being utilized.

Southwest Research is drafting a proposal to change the procedure to allow for a lab to terminate a reference test early. This will be discussed during the June 10<sup>th</sup> conference call.

At the moment any reference tests ran will either end at the 2 kPa crankcase pressure limit or 200 hours whichever comes first.

## **3) Discussions Over Fuel Specifications**

This topic has been discussed in other panels due to ASTMs preference for no single sources.

The Task Force needs to develop an acceptable fuel specification for the DD13 scuffing test.

## **4) Oil Update / Hardware update**

TMC received the oil last week form the supplier, some QC needs to be performed before the oil can be shipped out for the upcoming reference tests.

The small batch of pistons is currently in customs and should arrive soon to TEI.

### **Items to be discussed during the next call.**

- **SwRi's proposal for referencing**
- **Fuel specifications**
- **Fuel Flow and coolant flow rise times**