

Mack T13 Task Force Conference Call 8/4/14 – Pre-matrix Discussion

Elisa Santos	Jim Rutherford	Luis Garcia	Allison Athey
Mark Sutherland	Chris Castanian	Mike Alessi	Greg Shank
Jim Gutzwiller	Bob Salguero	Kevin O'malley	Mark Cooper
Jim Matasic	Pat Fetterman	Jim Moritz	Sean Moyer
Bob Warden	Bob Campbell	Jim McCord	Riccardo Conti

Agenda

1. Schedule next Face to Face Meeting (Shank)
2. Lab Updates
 - a. Automated Engine Data Acquisition through Vision (Conti)
 - b. Engine Block Part Numbers (Warden)
 - c. Expansion of throttle range which resulted in locked timing in ECM (Warden)
 - d. Crankcase pressure spec (Warden)
3. Possible Pass/Fail Parameters

Agenda was rearranged a bit to accommodate a later phone call that a few individuals had to leave for. Pass/Fail parameters were selected as the topic of choice first over Vision data logging.

Pass/Fail Parameter Discussion:

- Greg wanted to ensure that during the matrix testing and prototype testing that is going on we are not eliminating any possible data. Wants to ensure we're getting everything so that we can look at everything at the end if its even remotely possible for being pass/fail. Even if a given client does not want a particular piece of data, Greg may.
 - TRWL
 - EOT Pb
 - Oxidation Peak/Area
 - Nitration
 - Liner Wear
 - Bearing Weight Loss (Main and Rod)
 - Viscosity (100/40C)
 - Oil Consumption
 - Cut out first hour after add
 - Report the whole thing as 12-hour intervals, even early in the test
 - Bob C asks why we don't use a 24hr system before we go to 12-hr intervals. Bob is going to write up a procedure and send to the group for discussion.

- Mark Cooper asked if we were looking at a Merit System, Greg responded that
- Bob Campbell: the only thing we dropped was PDSC, everything else we should be doing.
- Sean Moyer: All of the matrix tests are going to be reported, we will have to ensure fields are in the data dictionary for the report forms. He has not received anything recently for the report forms from the labs. Some items (i.e. TGA@100 hrs) are easy to remove, but others may require task force input. New forms have gone out for editorial changes, but the dictionary has been stable for the past few months.

Vision Data Logging

- Riccardo has been working with Volvo over the last few weeks to get data from Vision synced with the operational data. They are close to getting everything working. This will allow for engine data and operational data together to in the Matrix testing.
- The synchronized data logging is primarily for the matrix, after the matrix its more lab choice if its continued to be used or not.
- Riccardo will ask John to send out the dbc file for the parameters
- Mark Cooper: Will Volvo be able to provide expected ranges and comments on what differences might mean in terms of test severity?
- Sean Moyer has put together a list of parameters, would Volvo be able to look at this and determine if things are within the expected repeatability?

Block Part Numbers

- SwRI had a variety of block numbers on engines, all on same supersede list in IMPACT
- Volvo engineer confirmed all were external boss changes, no impact for oil testing, Task force accepted this recommendation.
- Table below from IMPACT, comments from Mark Hinderleider at Volvo:
 - “As far as oil tests are concerned they are interchangeable. The changes were external bosses. There has been no real change to the structure or flow circuits.”

P/N		Comment
20582248	cylinder block	2006 vintage
• 20993042	cylinder block	2007 vintage, replaced by 21048297
• 21048297	cylinder block	Eu5 block, replaced by 21310867
• 21718835	cylinder block	Early Eu6, replaced by 21310867
• 21979498	cylinder block	Early Eu6, service block version
• 22056231	cylinder block	Full Eu6, service block version.

Crank Case Pressure

- Some discussion on setting a range, or target for the CCP parameter
- We're not sure exactly what impact this will have on the function of the OMS unit, but see the value move around a bit as it is. Bob Campbell had tried restricting, running free, and placing a scavenge on a separator unit, no speed impact.
- Mike to put together some slides and send to the labs, will discuss either at next face-to-face or at 8/20 conference call.

Other Operational Items

- May need to check into part numbers for the oil pumps, some variety in the oil pressures seen through industry data files.

Injection Timing

- Riccardo was going back to check with Kevin at Volvo on the throttle position at which the timing fixes, it may be 80 or 75%

Matrix Readiness Comments

- Jim R. points out that the MOA states lab inspection report requirements prior to starting.
 - It was unknown who the report should be filed with
- A written procedure may be required by the most current MOA
 - Sean has been working on it, but it is not completed
 - Jim Moritz notes that the tables of test conditions and the revision documents should be a close document
- Riccardo: is there a set of kits set aside for the matrix by TEI, or are they just sending out normal build kits.
 - Greg: TEI and Volvo are working out the details on this
- Bob Campbell: Have we made progress on rings or main bearings?
 - Mark S: Rings now are coming out of Volvo stock.
 - Greg: Doesn't think we can get large batches at this point

Next Face-to-Face:

- Matrix test oils should be at the labs by the end of the month. Greg would like to meet
- There are a number of T12 issues that are pressing which need to be addressed sooner rather than later
- Sean: anticipate getting the matrix oils as soon as next week to TMC
- Current Plan: **Sept. 3rd and 4th at PTC** to accommodate birthdays and vacation schedules.
 - A time for the meetings will be set later between the two days.
 - Tentative: Afternoon on the 3rd through mid-afternoon on the 4th.

T12 Data call and T13 discussion on CCP (possibly)

- Conference call coming up to discuss hardware; **10:30 am EST 8/20/14**
- Odd liner wear results on T12
- T13 CCP data