

CAT Aeration Test Task Force meeting Dec 18, 2014

Matrix Data Review

Attendees: Names Highlighted in **Yellow** attended the meeting

Participant	Name	Email	
1	Caroline Laufer Elisa Santos Pat Fetterman James Gutzwiller Bob Salgueiro	caroline.laufer@infineum.com elisa.santos@infineum.com pat.fetterman@infineum.com james.gutzwiller@infineum.com bob.salgueiro@infineum.com	Infineum
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7	Jason Bowden Matt Bowden	jhbowden@ohtech.com	OHT
8 Yes	Mark Jarrett Hind Abi-Akar Hatuey Campbell	jarrett_mark_w@cat.com abi-akar_hind@cat.com	Caterpillar
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20	Greg Shank	greg.shank@volvo.com	Volvo
21	Dan Arcy	Dan.arcy@shell.com	Shell
22	Heather Debaun		Navistar

Testing Updates

Tests reported:

30 tests have been conducted to date. Testing at the three labs is going per schedule.

Testing, including repeats will be done by the end of the month.

Operational parameters for the tests are reported to the TMC.

Caroline Laufer and Elisa Santos shared the analysis of the aeration data of the 30 tests as well as the operational parameters. The data among the labs was compared and discussed.

It is clear that the tests are getting better. The test parameters in general are more tight and repeatable among the three labs.

Martin showed the results of tests conducted to determine the impact of the crankcase pressure and temperature on aeration. The tests showed minimal impact of temperature, but rather significant impact of the pressure. Increasing the pressure by ~2kPa resulted in an increase of ~0.2% aeration.

Other parameters reviewed due to differences among labs and potential impact on the test results are intake manifold pressure, gallery and sump temperatures, oil gallery pressure and crankcase pressure.

Jim Gutzwiller: Could the differences between labs associated to the measurement of oil gallery pressure be associated to the oil filter housing and the pressure regulator springs (2x) used in the installation?

For the oil pressure and flow through the MM, Greg Miranda proposed that ALL LABS are to confirm pressure regulator valve position (at the regulator) in correspondence with percent controller output.

SWRI discussed starting a second test stand. The oils needed to qualify the test were discussed. The selection of the oil will be dependent on the volumes of the oils available and the levels of aeration of the oils. A repeat of one of the Matrix oils versus testing two oils with different levels of aeration were discussed. No final decision was taken. Due to time constraints, this decision needs to be taken rather quickly.

The TF will meet on Friday, Jan 16. Data per the TMC data forms will be available for all the tests.