

## IIH Task Force Conference Call February 10 2015

### Attendees:

Chrysler: Jeff Betz

Intertek: Adison Schweitzer, Charlie Leverett

Lubrizol: George Szappanos

Afton: Ed Altman, Raymond

SwRI: Karin Haumann, Sid Clark, Pat Lang

Ashland: Amol Savant

Oronite: Kaustav Sinha

IMTS: Dave Passmore

OHT: Jason Bowden, Matt Bowden

TMC: Rich Grundza

Karin opened the call explaining the primary purpose of this call is to review and work through the Pre-Matrix Check List, indicating Chrysler's desire is to start the Precision Matrix March 1<sup>st</sup>.

Jason Bowden reviewed the current status of OHT Hardware providing approximate lead times for pistons and rings in large batch quantities for Matrix Testing.

- Pistons are expected the end of March
- Piston Rings are expected to have a 10 week lead time and expected end of April
- OHT currently has ~ 60 sets of Pistons and Rings in inventory

### TMC:

Rich Grundza indicated the Test Monitoring Center has pre-positioned the Matrix Oils for delivery by the end of the week. Rich indicated the Data Dictionary is in place and the Beta version is still out but could be used.

Reference Oils: Group agreed to keep 4 Gallon CMIR containers

- 434-2
- 436
- 438-1

### Engine Ordering Instructions through Chrysler Dealers:

- Labs should send an email to Jeff Betz when ordering engines indicating the Dealer Name and Code to expedite delivery through Chrysler directed by Jeff.
- Jeff is meeting with MOPAR and the Storage and Distribution Network to build and store 125 engines for the Matrix and first reference period.

Karin discussed the Matrix plans:

- 28 Tests
- 4 tests/stand

The group discussed the use of batch materials for the matrix and through the first reference period. Concerns were expressed about starting the matrix with existing materials (prove-out) pistons and rings currently at OHT and switching to a new batch of pistons and rings shortly after matrix completion. Karin reminded everyone that these materials are manufactured to the same print specifications and provided by the same supplier.

Rich Grundza reminded everyone that the industry currently handles this through the LTMS and it can handle batch lot or test variables within the system. Although we won't have the data for the LTMS until completion of the Matrix, it will be available for introduction of any batch changes if necessary.

Afton questioned the positioning of the thermocouple in the main oil gallery below the oil cooler assembly. The group discussed oil sump temperatures compared to oil gallery control set points for REO2 tests with thermocouple placements in the main oil gallery.

Afton expressed concern that minor variations in thermocouple positioning could have an effect on test results. Afton also commented their last test was ~ 50kpa lower on main oil gallery pressure. The group discussed Ed's concerns and Karin reviewed SwRI oil temperatures with the thermocouple positioned lower in the main oil gallery as outlined in the Assembly Manual Section 4 Sheet 1a.

The group discussed possible mixing differences between oil cooler adaptor by-pass mechanisms and Ed suggested pooling all the data on tests performed with the control thermocouple positioned in the main oil gallery below the oil cooler adaptor.

Pat Lang commented, suggesting the group stick with the current plans as discussed to locate the control thermocouple using the IMTS Fixture Tooling and everyone keep working forward.

Ed suggested we keep the location but also keep the option of changing the temperature set point if the data indicates the need.

Amol commented the intent is not to re-develop the test but to remember the temperature set point was decided based on one test and the delta might be different between other labs.

Karin reminded everyone that SwRI and IAR data on tests run with the main oil gallery thermocouple do not justify changing the temperature set point.

Karin also commented that we cannot change the oil temperature control set point going into the Matrix. The data shows four (4) out of Five (5) tests are similar.

Kaustav commented we don't see the difference in five tests run with the thermocouple positioned in the main oil gallery below the oil cooler and Oronite sees no reason to change going into the Matrix.

Amol commented suggesting, if we don't focus on the technicalities now it may be of a concern after the matrix if there is too much variability.

Kaustav agreed indicating that can happen with any test.

Charlie asked Ed if he had any explanation for the lower oil consumption on his latest test?

Discussion continued focused on other topics:

- Lubrizol will send pistons to Ashland for round robin rating
- The group discussed honing and Karin and Sid indicated they had just finished updating the honing section of the Assembly Manual and would post to the TMC ASAP.
- The group questioned oil pressure activation of the piston cooling jets and possible concerns when running 0W-16 Oils. Karin reminded everyone that SwRI had run a version of a 0W-16 reference oil during development.
- Charlie reminded everyone that the Tech 1 reference Oil is a 0W-16 viscosity.
- Karin reminded the group that the Chrysler was not scheduled a Tech 1 in the ILSAC Oil Assignments.
- Karin will review the oil pressure on the REO3 0W-16 test.

The group discussed visitation dates for Ashland lab inspections.

Jason asked direction on moving forward:

Karin responded indicating we were waiting on IMTS tooling and the Rating Round Robin and possible Rater Conference Call. Karin also commented the Test Sponsor wants to use the existing prove-out material (60 test kits) at OHT to start the Precision Matrix.

Addison recommended we use a standardized beaker for the oil charge and Jason said OHT would work on supplying the same type beaker as used for the IIIG's.

Jason asked what the drop dead date for engine production was and the secretary did not record any further conversations during the call.

This is a compilation from notes recorded during the call, with comments from member participants during the Draft Review. Certain subjects may not necessarily be in exact order; however, they are believed to represent an accurate account of the call. If anyone feels changes or additional content may be necessary, please contact Sid Clark @ 586-873-1255 or [Sidney.Clark@swri.org](mailto:Sidney.Clark@swri.org)

Thanks, Sid