Chrysler IIIH Task Force
Conference Call Minutes
October 16, 2014

Attendees
Chrysler: Haiying Tang

SwRI: Karin Haumann, Pat Lang, Cole Hudson

Intertek: Addison Schweitzer, Charlie Leverett

Lubrizol: George Szappanos

Afton: Ed Altman, Dave Glaenzer, Ed Altman, Brent Calcut, Bob Campbell

Ashland: Amol Savant

Oronite: Jerry Wang, Kaustav Sinha

Shell: Jeff Hsu

OHT: Jason Bowden

TMC: Jeff Clark

Haltermann: Tracy King

Karin opened the meeting with a review of the new action items. OHT requested the labs send back their modified water pumps for further modification. Labs will report back to the group as to what size hose is being used for the oil cooler coolant. Addison and Ed reported using a #8 AN and Lubrizol reported using a #10 AN. Addison reported his oil sample line lengths at 17.5 " and 22 " for IAR's two stands. They are using a #4 AN line. The other labs will report their minimum line length requirements so this can be standardized appropriately.

George gave an update on the status of Lubrizol's matrix stand. He just finished a test. The stand is near completion per the procedure. He is running the exhaust back pressure valve wide open resulting in an exhaust back pressure of ~3.5 kPa. He is having a new muffler installed, and estimates it will be completed in 3-4 weeks. Air inlet pressure is still low, and he is adding a booster blower to solve this problem. This should be completed prior to the next test start. He will run his prove-out tests after the TMC lab visit and the exhaust modifications are complete. Honing has been started, but there are no numbers yet.

Ed Altman stated he was starting his engine this week. Shakedown is starting now. He has verified the coolant system is running fine. Prove-out testing should begin in 3-4 weeks.

Intertek reported they are verifying their controls and starting the shakedown of their second stand next week.

OHT gave an update on the parts they are providing. A small quantity of rings was shipped to SwRI on October 6. The fixed phasers are now in stock. Jason expects the oil pans to be available by next week. Modification of water pumps in underway. Labs can ship back their original pumps for this modification. Charlie asked if we have determined how many runs we will be able to get on a set of fixed phasers. Karin replied that this will have to be something the group monitors together to determine a reasonable change interval for the procedure. Charlie also stated he preferred to use the stock rings that are being cut by the labs for consistency throughout the prove-out testing. There was much discussion about this that led to the consensus that using the OHT rings now would actually minimize variability. Additionally, using the OHT rings now will allow for the group to evaluate any unexpected performance issues. A matrix run of rings will be ordered after the prove-out testing is complete.

Addison reported the results of their first REO2 prove-out run to be 121.6% viscosity increase and 3.63 merits for WPD. As planned, IAR measured the amount of oil collected from the blowby condensation to be about 201 g or ~ 242 mL. The consensus within the group was that this was an acceptably small amount that should not influence the test results. George reported that in his last test he had collected < 200 mL of liquid oil from the blowby system. He commented that leaving long lines does a good job of collecting oil droplets. Ed Altman had suggested we either vent the crankcase gas from a different area of the valve cover or explore the option of installing a baffle in the right valve cover to reduce the amount of oil that percolates into the Tygon hose. George mentioned that plugging the left valve cover and allowing all of the crankcase gasses to vent out of the right side valve cover increased the crankcase pressure by ~ 0.1 kPa. This item was left open to allow the labs time to experiment with the best solution.

Addison asked about reporting of production parts. Karin stated that the report forms include a place for the engine serial number, ring and piston batch codes and cylinder head serial numbers. Charlie commented on a part number change for the main bearings. Karin will clarify with Jeff Betz about what the potential reasons are for incrementing a part number. It was mentioned that Chrysler has very detailed data regarding all of the engine parts during the build, and that that data would be very helpful. Karin mentioned that such data may not be made available to us, but will inquire with Chrysler.

Brent Calcut presented data on RE 1010 in the IIIH. He mentioned there was discussion at the AOAP meeting in Octover about reference oils, and 1010 was suggested rather than 438. He continued to present data on RO 1010 with reference to performance in the IIIG and GMOD. Jerry asked for a complete used oil analysis to establish the volatility effect of this oil in the IIIH. Brent made a comment that the Surveillance Panel would need to decide what is needed to tie back the IIIH to the IIIF/G.

Amol asked for documentation of the changes to the procedure that were discussed in previous meetings. Karin stated all changes had been documented in the previous meeting minutes, and said she would send out the TMC link to those minutes.

Action Items:

1) Karin will get clarification from Chrysler as to what level of detailed information associated with the engine serial number (specific build data) will be available to the group .
2) OHT will send fixed phasers to Lubrizol and Afton.
3) Labs will do some experimenting with valve cover ventilation to reduce oil loss.

4) Labs will report their oil sample line lengths so they can be standardized in the procedure.

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

Thanks, Sid