

ASTM Chain Wear Task Force Conference Call

Thursday 2nd March, 2017

Written By: Al Lopez

Attached are the agenda items covered.



CW Teleconference
Agenda 030217.docx

Blowby Stack Review:

- A follow up discussion to a previous team meeting was had to review the blowby stack drawing. Attached is the drawing and the minutes of the Development Team meeting can be found on the TMC website.



Blowby Figures.docx

GF7 Discussion:

- Ron Romano announced that the Chain Wear and LSPI tests will be included in the GF7 specification.
- The group expressed concern on purchasing hardware this far in advance of the new specification. Timing of which would be after 2024. One advantage of preparing to carry these two tests into the next category would be the cost and energy saved in not developing new tests. The disadvantage is properly forecasting test appetite and carrying inventory costs that many years. The last engine purchase we have this year is what prompted the discussion. It was decided to not purchase hardware at this point for GF7. The labs will save engines and look to experiment with rebuilds in the future. Gordon pointed out that our next development of these two tests if it comes to that will not be as intensive since we have already accomplished it in GF6. We are not starting from scratch.

Lab Status:

- Lab A – ready to start the requested additional tests on 1011.
- Lab G – Starting tow 1011 tests on the 3rd.
- Lab D – Completed 2 tests
 - 1011 = .1080% Chain Stretch (Matrix Hardware)
 - 270 = .0915% Chain Stretch (2016 engine/2014 pistons)
- Lab LZ – Aborted a 1011 run due to high oil consumption
 - Alex from LZ showed us a piston from the engine that had a small hole in the casting on the top of the piston crown. Other labs have never seen this type of anomaly. The group felt that the piston should not be re-used. IAR was to send them a replacement.
 - The aborted test was discussed and we pointed out possible reasons for the oil consumption.
 - Failed oil cooler

- High crankcase pressure
- Failed turbo

Hardware Discussion:

- Ron informed the group that KS will be delivering the next batch of 2014 design pistons the second week of March. They are being expedited to the labs.
- Attached is the Ford solicitation spreadsheet that was reviewed. The deadline for this purchase is March 15th.



FCS Quote_2.0L-Oil
Test Labs 020117 wit

- IAR will be reaching minimum quantity on all parts. This allows smaller purchases by other labs to be possible once we combine the order.
- Afton expressed a need to purchase more engines. At the time of the meeting no other lab was planning on an engine purchase. Ford issued a final engine purchase solicitation on short blocks. This order is due on March 20th.
- There is an engineering change to the crank gear; the new part number indicated in the solicitation does not require a diamond crush washer. Jason Soto will be generating a drawing indicating the combination of parts that is currently being used and the next combination that will be introduced when we begin using the hardware from this solicitation.
- Amol asked if dealer engines can be purchased to run tests. Ron replied that they cannot be used for any certification work as there is no batch control of the dealer engines.
- Cylinder heads for LSPI engines will be removed from engines that have been purchased. The labs are to supply these to TEI. Currently we do not require that the same cylinder head be returned in exchange after machining for the transducers. Greg Miranda requested that heads that are supplied to TEI be returned to the same lab. Labs agreed to engrave their heads before shipping.
- A concern was expressed over discussion of LSPI matters during CW meetings. A dysfunction in communication results from this overlap in meetings where not all participants are present for a particular test type. A suggestion was made to increase the invitation list to all members of tests involving the 2.0L Ecoboost engine. What this means is that for meeting schedules of LSPI or Chain wear, both member lists will be invited to the meetings.

Path Forward

- Test labs to order hardware. Some labs are procuring GF6 lifetime buys. At a minimum, all engines must be purchased by the 20th.
- Additional testing is ongoing. Labs A and G are committed to running the tests requested by the Stats group.
- At the completion of the additional testing, data will be re-analyzed and a recommendation made for LTMS.

Next Meeting:

- To be announced.