LSPI CONFERENCE CALL, 8 AUG 19

ATTENDANCE:

SwRI	Khaled Rais, Christine Eickstead
Intertek	Al Lopez, Jason Soto
Lubrizol	George Szappanos
Infineum	Andy Ritchie, Doyle Boese
APL	Christian, Tim
TMC	Rich Grundza
Ford	Ron Romano
Afton	Matthew Shue

DISCUSSION:

➔ **New Piston Batch – dimensions and test results**

- SwRI's and IAR's first runs with new pistons are very severe.
  - Could this be a break-in issue? No, the last iterations of each test were also severe.
- Lubrizol and IAR both experiencing tight fits with new pistons. SwRI's first engine build did not have this problem.
  - The group reviewed the piston-to-bore clearance data from SwRI's build. Comfortably within limits. Piston measurements of 28 pistons at SwRI did show larger average skirt diameters than the BB pistons though.
- Ron: pistons meet print requirements, cannot send them back
- Jason: ultrasonic can remove some of the coating
  - Would this be repeatable?
- George: can we open the cylinders? Use Ra numbers to maintain surface finish requirements?
  - Could potentially effect LSPI response
- Piston crowns very different – can we ball peen the horseshoe area to reduce the severity of the edge?
- George will try honing cylinders and report results to group.
- George will send metrology data they have collected on the piston crowns.
- Jason will measure the compression ratio and report results to group.
- Labs will run new pistons with 224 next and report results to Rich.
  - SwRI can run this right away.
  - IAR will need ~ a week, will need to reinstall engine (only one reference test required for this engine as before).

➔ **LSPI Calculations Round Robin**

- SwRI – results match previous results
- Lubrizol – one fewer invalid cycle
  - Khaled: this could be the result of the number of decimal places used (rounded vs. truncated).
- Labs will send "reports" of their calculations to Rich who will post them.
- Khaled will schedule a meeting for next Thursday for just the labs to discuss the calculation results.

➔ **Valve Cover Modifications**

- George shared photos of Lubrizol's work on this including chamfered holes on the plates and tapered guides that can be attached to the top of the tubes, will write up instructions. SwRI will get the print and/or program.
- Add this to the procedure as recommended but optional?

➔ **LSPI Calculations – Flow Chart from George**

- Should we include this flow chart in the procedure? The group agreed it is helpful.
- Rich: can issue as an Information Letter. Will discuss at next meeting.