

**Sequence VH O&H Meeting**  
**August 27<sup>th</sup>, 2024 at 3PM EST via MS Teams**

**Attendees:**

Tony Catanese, Dan Engstrom, Rich Grundza, Al Lopez, Ben Maddock, Joseph Anthony, Mike Deegan

**Overview:**

1. Organized Build Workshop Actions
2. Fuel
3. Hardware
4. Operation

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**Notes:**

**1. Build Workshop Actions**

- Labs are prepared to measure surface finish with the Mitutoyo components as previously described
  - o One caveat, don't require a specified cable from Mitutoyo to PC
  - o SwRI acknowledged a reading 1 to 1.5  $\mu\text{m Ra}$  rougher measurement with the new hardware bringing their readings closer to the middle
  
- Labs agreed on a location to monitor fuel temperature
  - o Within 600mm of the factory connection to the fuel rail
  - o Report T Fuel Rail on Form 6 as a Non-controlled parameter
  
- Editorial: Form 6 to show stage 2 and 3 coolant flow targets, 118 and 28, respectively

E-ballot to follow these minutes.

**2. Fuel**

- No actionable progress from this group.
- A request was made for the Fuels Task Force group to continue to explore better methods or tests to help track the perceived severity drift that's attributed to fuel degradation

**3. Hardware**

- FCS Order through TEI
  - o Order was placed with TEI. Still waiting for quotes

Available Pistons	Available Kits	Lubrizol	Intertek	SWRI	Afton	Valvoline
272	34	0	17	16	1	0
272	34	0	17	16	1	0
272	34	0	17	16	1	0
400	50	0	26	23	1	0

- Ben to follow-up with TEI on quotes.
- Camshafts
  - Original manufactured by Romeo Engines who are no longer in business
  - Mike has submitted requests for quotes to OHT & IMTS
    - IMTS has committed to produced two sets of cams for proveout
  - SwRI interested in purchasing 40 of each cam
- Cam bearing failure at Intertek
  - Upon closer inspection, the lab is unable to identify a root cause
  - No indication of batch change
  - Suspected debris or blockage of the oil passage

#### 4. Operation

- OSCR
  - Rating Group
    - Met virtually on 8/13 and agreed that all raters are defining debris and clogging identically. All state if any one side of a mesh square is visible, it's not considered clogged.
    - Round Robin is setup to virtually rate 20 different screens across all raters and discuss results
  - Doesn't address the variability within the same lab, stand and reference oil (ex: 1011)
- Operational Data Study: N-10-1 approval matrix vs PM
  - Todd Dvorak provided a 356 slide presentation
    - [astmtmc.org/ftp/refdata/gas/VH/data/Precision matrix op data/VH Operational Data review of Fuel matrix Data.pdf](http://astmtmc.org/ftp/refdata/gas/VH/data/Precision%20matrix%20op%20data/VH%20Operational%20Data%20review%20of%20Fuel%20matrix%20Data.pdf)
  - Amanda Stone provided a review of N-10-1 operational data only
  - The O&H agreed that our request for analysis should be modified to:
    - Identify any differences in ramp strategy within a lab from PM to N-10-1 matrix
    - Analyze fuel rail temperature and identify if there's correlation to test severity
      - If so, what temperature could be suggested as a controlled setpoint?
    - Evaluate 1009 op data against 931. While not identical oils, they're close enough for this analysis
    - Do any of the unreported values correlate to severity?