Sequence VH O&H Meeting
January 13th, 2025 at 3:00 PM EST via MS Teams

Attendees: Mike Deegan, Christian Exposito, Al Lopez, Tony Catanese, Ben Maddock, Joe Anthony, Rob Zdrodowski

Overview:

1. Hardware
2. Operation
3. Fuel
4. Other

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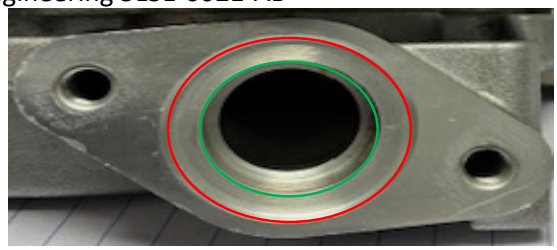
1. **Hardware**

a. Oil Pump part number supersessions
    i. Procedure: 5L3Z-6600-AA (Service), 5L3E-6621-AA (Engineering)
    ii. Ford Parts: 5L3Z-6600-A
        1. Supersession(s): 5L3Z 6600AA; 5L3E-6621-AB; 5L3E6621AB; 5L3Z 6600AA; 5L3Z-6600-AA; 5L3Z6600A; 5L3Z6600AA; M5L3Z6600A

    iii. 5L3Z-6600-A observed to have larger diameter inlet and a bigger gear

b. Ford Engineering 5L3E-6621-AB
    i. 
    ii. Pump inlet O-ring geometry:
        1. OD: 28.25 – 28.75 mm (red)
        2. ID: 20.72 – 20.85 mm (green)

c. Lab G working with Lab B to meet a short term need on oil pumps
d. Ford to identify if this is a dealer issue or larger issue
    i. Depending on the outcome, labs will need to identify if these pumps are acceptable or if we'll need to bench flow oil pumps like in the Seq VE

2. **Operation**
    a. ON HOLD - Tightened piston to bore clearance
        - Current: 0.020 to 0.046 mm
        - Proposed 0.030 to 0.038mm, average of all eight cylinders

    b. Updated report form is available on TMC
        i. www.astmtmc.org - /ftp/datadict/vh/beta/current/

3. **Fuel**
    a. M-000054-3 additional runs (*as of 1/13/26*)
        Lab A: One additional result expected
            200603: AES 1.75 σ mild

        Lab B: One additional data point just reported but not yet on TMC
            198394: AES 1.09 σ mild, APV -4.1 severe
            198391: AES -0.7 severe, APV -1.98 severe
            Result #3

        Lab D: One queued up to start next week
            193863:

        Lab G: No more expected until March
            201949: AES 0.7193 σ mild
            199199: AES 1 σ mild

    b. 13 tests approved M-000054-3
        i. Six additional data points now available (n=19)
        ii. Labs agreed early February would be a good time to review data for a potential ICF

    c. Fuel Properties
        i. Topics
            1. Oxidation Stability
                a. D525 clips at 1440 minutes, is there a better method?
            2. Upper distillation curve
                a. Should we pursue improved resolution on the heavier end of the distillation curve? Supplemental to D86
            3. Ethanol handling
                a. Splash addition when transferring to truck for shipment
                b. Max batch size?
                c. Shelf life?
                d. Shipment variations?
                    i. 10.2 vs 9.8% on delivery, what do we expect labs to do?
                e. Ethanol sensor differences
        ii. Labs were agreeable to pursuing resolution on the three topics. Survey will be shared among the group prior to pursuing fuel supplier input

Historical Logbook

Date	Topic	Description	Comments
2/12/24	-	O&H formed.	
2/29/24	Hardware	Cam cap anaerobic sealant	IL24-1
3/5/24	Hardware	Cam bearings resolved with King Bearing supply to TEI.	Incl. SwRI bearing analysis
3/12/24	Fuel	N-000010-1+ CofA data integrity review.	Included lab samples to Saybolt
3/26/24	Fuel	Quarterly samples now from test cell	
4/9/24	Hardware	Piston oil hole size differences by piston size not statistically significant to APV	
4/16/24	Operation	Build Workshop conducted	IL24-3 and IL24-4
5/21/24	Fuel	AO content depletion in transit	
5/21/24	Operation	Honing data analysis uninterpretable due to measurement differences	This will be revisited after 2025 fuel approval matrix
6/4/24	Hardware	OHT3G-096-1 brushes explained	IIIG efforts
7/9/24	Operation	OSCR raters group imprecision reviewed	
8/27/24	Hardware	FCS order placed on pistons and rings	
8/27/24	Operation	N-10-1 approval vs PM statistical analysis	
1/7/25	Fuel	RVP adjustments vs fuel dilution	
4/29/25	Operation	Blowby Cart Questions - 5/16” orifice	Equation difference, ~0.1 L/min
8/19/25	Hardware	2024 FCS order has completed	
9/16/25	Operation	Engine Swap experiment Lab A & G	Fuel dilution moves with build
10/28/25	Fuel	M-000054-3 fuel batch approved.	
12/17/25	Operation	Updated report form to capture piston dia.	Version: 20251222