# Sequence VIE/F Engine Rebuild Task Force Call Agenda March 3rd @ 8:00 AM CST

Call-in number: (800)391-9177

Conference Code: 4875645502

#### Scope:

The ASTM Sequence VI Surveillance Panel requested a Task Force be formed to explore the possibility of extending the life of the Sequence VIE specially built General Motors (GM) 3.6 L (LY7) engine. New engines will be built from new GM assembled short blocks and other new and used individual components.

#### **Objective:**

The Task Force will:

- Review GM's proposal of building new VIE engines from new GM assembled short blocks and new GM individual components.
- Determine total quantity of engines needed.
- Determine parts availability and acquisition for new engine build. Coordinate with OHT and GM.
- Determine which used parts from used VIE engines will be needed for new engine builds.
- Determine availability of these used parts and develop inspection and selection criteria.
- Inspect and select used parts for use in new engine builds (each lab will be responsible for this task).
- Develop and implement a standardized build procedure (engine assembly manual).
- Determine stand availability for testing lab built engines.
- Develop a test plan to prove out lab built engines.
- Report results, conclusions and recommendations to Sequence VI SP.

The agenda for this meeting is shown below, if you have any additions please send them to me and Cc this distribution.

#### 1.0 Roll Call

Do we have any membership changes or additions?

#### 2.0 Approval of Minutes from meeting 2/18/2015.

ftp://ftp.astmtmc.cmu.edu/docs/gas/sequencevi/minutes/VIE\_FEngine%20RebuildTaskForce20160218.pdf Motion to approve: Adrian A., 2<sup>nd</sup> Nathan M.

#### 3.0 Action Item Review

- 3.1 Email TF proposed date for engines build workshop Completed
- 3.2 Revise and email draft of cleaning procedure Completed
- 3.3 CP Chem analysis In progress
- 3.4 Follow up with labs about submitting Kits orders In progress

#### 4.0 Old Business

- 4.1 Need to write up storage procedure for labs to follow (include cleaning procedure to remove RP).
- 4.2 Coordination of engine build workshop early 2016.
- 4.3 Review fixed phasors reuse, inspection procedure.
- 4.4 Should rework/repairs be allowed, follow up after rebuild workshop.

#### 5.0 New Business

5.1 Confirmation of engines build workshop on 3/31/2016.
GM and SWRI coordinating to have hardware available for workshop
Dan to prepare draft rebuild manual for review
5.2 Cleaning Procedure review and discussion.
Review at workshop
5.3 CP Chem analysis.
TMC to review data received from GM
5.4 Kits orders status update.

Numbers confirmed, still waiting for orders from labs. GM moving forward with ordering process (no extra engines will be ordered)

#### 6.0 Review of action items.

#### 7.0 Schedule for next conference call.

#### Next call 3/24

Adrian Alfonso	Intertek	Attend
Bill Buscher	Intertek	
Charlie Leveret	Intertek	
Martin Chadwick	Intertek	
Jason Bowden	ОНТ	
Matthew Bowden	ОНТ	
Dan Worcester	SWRI	Attend
Khalid	SWRI	
Caleb	SWRI	
Timothy Cushing	GM	
Scott Stap	GM	Attend
Walt Lerche	GM	
Gordon Farnsworth	Infineum	Attend
Andrew Ritchie	Infineum	
Mike McMillan	Infineum	Attend
Mark Mosher	ExxonMobil	
Cliff Salvesen	ExxonMobil	Attend
Valerie Lieu	Chevron	
Kaustav Sinha	Chevron	
Amol Savant	Ashland	Attend
Dave Caproni	Ashland	
Dave Glaenzer	Afton	Attend
Terry Hoffman	Afton	
Todd Dvorak	Afton	
Jerry Brys	Lubrizol	

Nathan Moles	Lubrizol	Attend
Satoshi Hirano	Toyota	
Teri Kowalski	Toyota	
Jim Linden	Toyota	
Mark Adams	Tribology Testing	
Rich Grundza	ТМС	Attend

# **Cleaning Procedure**

# Removal of Corrosion Preventative Compound (CPC) from Engine Heads and Short Block

## Background:

The cleaning procedure applies to the following components of the KIT:

Quantity	Part Number	Description
1	12641093	HEAD ASM-CYL (W/ VLV)(LH,LY7)
1	12635560	HEAD ASM-CYL (W/ VLV)(RH, LY7)
1	19206165	BLOCK, SHORT HFV6

The parts listed above will be received with a CPC applied by the OEM to prevent corrosion of the parts. The CPC shall be removed from the parts prior to assembly of the engine. Once the parts have been cleaned it is recommended to assemble the engine and store in humidity and temperature controlled environment until is needed for installation on a stand. The engine shall not be assembled if rust is present.

### Procedure:

Cleaning procedure for the Head assemblies (PNs: 12641093, 12635560):

- 1. Remove parts from package.
- 2. Spray parts with degreasing solvent, soak for 15-30 minutes and repeat spray with degreasing solvent. Repeat this process as necessary until CPC is removed from the parts. Two iterations of the process have been found to be sufficient.
- 3. Spray parts with 50/50 degreasing solvent and EF411 followed by air dry using clean dry compressed shop air to remove excess 50/50.
- 4. Assemble engine per build manual. The engine shall not be assembled if rust is present.

Cleaning procedure for the short block (PN: 19206165):

- 1. Remove parts from package
- 2. Position the block such that the cylinder bores are facing downwards. Positioning the short block will reduce the potential for dissolved CPC penetrating the short block.
- 3. Complete step 2-4 from "Cleaning procedure for the Head assemblies".