

**Sequence VIE/F Engine Rebuild Task Force
Call Agenda
September 29 @ 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 9/15/2016.

ftp://ftp.astmtmc.cmu.edu/docs/gas/sequencevi/minutes/VIE_FEngine%20RebuildTaskForce20160915.pdf

Adrian, Jason, Unanimous

3.0 Action Item Review

- 3.1 Adrian will develop a timeline for completing the scope of this TF – **Completed/can change based on Stats input on prove out recommendation.**
- 3.2 Adrian to contact stats group about prove out test design – **After consulting with our Statistician Martin Chadwick I propose to table the request to the stats group until we have an LTMS (~the week of 25 July) for the VIE. There are two main reasons for this, one to have a better idea what oils and order to use for the short blocks and second to not overload the stats group even more than what they are now.**
- 3.3 Scott will send quotes for more kits/pricing (he will have a meeting this morning to receive approvals). **In progress**
- 3.5 Adrian will verify the head rebuild parts list by disassembling and checking head components. **In progress**
- 3.6 OHT will research the part number for OHT6D-042-1 - **Completed**

4.0 Old Business

4.1 Need to write up storage procedure for labs to follow.

Will need a temperature control environment. Adrian will research temperature range.

4.2 Review fixed phasors reuse, inspection procedure.

4.3 Should rework/repairs be allowed, follow up after rebuild workshop.

5.0 New Business

5.1 Injectors PN Issue

5.1.1 Service documents call out 12609418 injector for both 2008 SRX and 2012 Malibu. The part number history shows a change in 2006, before the test release. Based on this it appears the injector is the same.

Is there injector's flow data from labs from injectors used in the VIE PM and from previous engines (VID)?

4 labs responded to the questions of whether they used the injectors that came with the engine or reused injectors. 3 of the labs use the new injectors that come with the new engines. The injectors a removed and flow tested before use.

Should the procedure be changed to eliminate the OHT PN requirement?

The injector manufacturer has confirmed to OHT that the OHT6D-042-1 injectors are the correct injectors for the 2008 HFV6 3.6L engines. They are in the process of trying to confirm the correct original GM service part number from 2008. Both OHT injectors and the injectors that come with the engine have PN 92068193 molded on the injector.

Refer to PPT Presentation for more information and motion.

Motion:

The Sequence VIE/F Engine Rebuild Task force recommends to the Sequence VI Surveillance panel that: The Sequence VIE procedure be modified to allow either GM Fuel Injector PN 92068193 or OHT Fuel Injectors PN OHT6D-042-1.

Motion: Adrian Alfonso, Second: Jerome Brys Unanimous.

5.2 What level of teardown and rebuild will the heads undergo?

Will table this conversation until next meeting. There is a possibility the manufacturer might have another run for new heads.

5.3 CCA is requesting used heads be returned to the dealership under the core program. Any HFV6 heads around now should be banked. CCA purchased these heads to fill the reman program and if we throw them away that does not help us for future purchases or CCA customers drive their cars.

A meeting was going to be held to determine how the used heads are to be handled. Was this completed?

Yes completed. Dan volunteered to contact dealership (Ancira) and research what would it take to generate paperwork to return the used heads as cores, what Scott would need to provide, etc.

6.0 Review of action items.

1. Rich will survey labs to confirm whether labs are using the coils that come with the engine or reusing VID engine coils. Also, to confirm what coils were used for the VIE matrix.
2. Adrian will research storage temperature range for short block engine kits.
3. Dan will contact GM to research what would it take to generate paperwork to return the used heads as cores, what Scott would need to provide, etc.

7.0 Schedule for next conference call.

TBD

Sequence VI Fuel Injectors

- **Current draft of VIE Procedure require the use of fuel injectors OHT6D-042-1 (See Below).**

6.14.2.2 Fuel Injectors, Purchase from the CPD, OHT6D-042-1.

Also listed in:

9.4.12.1 Fuel Injectors—Use fuel injectors, OHT6D-042-1. Refer to Annex A12 for injector flow specifications. Verification of each injector is required prior to use.

TABLE A7.1 Other Specified Engine Parts

TABLE A7.2 Sequence VID/VIE Parts List

- **Some labs have been using injectors that came with the new engines, not the OHT6D-042-1.**

➤ VID and VIE Injector's flow data

Lab	VID Injector Flow mL	VIE Injector Flow mL	Comments
1	206	203 – 208	Injectors that came with engine
2	216 - 220	219-222	Injectors that came with engine
3	218 -222	217 – 220	Injectors that came with engine
4	218 – 222	224-226	Injectors OHT6D-042-1
5	230-234	230 – 236	Injectors OHT6D-042-1

- **Some labs completed VIE PM with injectors that came with new engines.**
- **Injector's check by procedure specifies:**
 - A12.2.6 The set of injectors for an engine shall have a flow rate within of each other of 5 mL. Discard any injector that does not flow within this range.*
- **OHT6D-042-1 Injectors and Injectors that came with the engine have part numbers 92068193 (GM PN) molded on one side and 0280156300 (manufacturer PN) on the other side.**
- **Motion:**
 - **The Sequence VIE/F Engine Rebuild Task force recommends to the Sequence VI Surveillance panel that:
The Sequence VIE procedure be modified to allow either GM Fuel Injector PN 92068193 or OHT Fuel Injectors PN OHT6D-042-1.**