

**Sequence VIE/F Engine Rebuild Task Force
Call Agenda
January 28th @ 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 1/07/2015.

ftp://ftp.astmtmc.cmu.edu/docs/gas/sequencevi/minutes/VIE_FEngine%20RebuildTaskForce20160107.pdf

Motion Approve: Adrian Alfonso, Rich Grundza 2nd

3.0 Action Item Review

- 3.1 GM to send out quote in January 21 – **Completed today**
- 3.2 GM to take picture of SN to match SN IAR - **GM will get picture of SN**
- 3.3 Adrian to follow up on possible 3rd party storage - **In progress**
- 3.4 IAR and SWRI will build an engine in the next week or two to establish the kit needs. **Completed**

3.5 SWRI engine named "001" Running break-in and will run at least one reference oil. RO selection TBD.
Pulling 30 hour sample to check for rust preventative present in oil.

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.

Should we allow reworks, follow up after rebuild work shop.

5.0 New Business

5.1 Second engine build results:

- The Kit included only one of the short head bolts, need 3 more per kit **GM has added to kit**
 - Timing phasors and oil pressure switch were received and are not used
 - The camshaft position actuators received with the kit are GM PN 12615613, these are for VID, we need GM PN 12626012 instead.
 - **Use VID coolant temp, cam position, knock, and O2 sensors that works with existing wiring harness**
 - We noticed a CP accumulation on top of the pistons, we need to discuss:
 - o Possible implications of the CP filtering into the engine and rings
 - o Cleaning of components (how far do we go, should the block be disassembled and clean?)
 - The heads CP layer seems thicker than the previous heads received at IAR, need to discuss:
 - o Possible implications of the CP filtering into the assembly
 - o Cleaning of components (how far do we go, should the heads be disassembled and clean?)
- SWRI cleaned engine with solvent and allowed to drain out. Wait to see if 30 hr sample contains any RP. RP is being analyzed for comparison.**
- A question that came out during the inspection was:
 - o Can GM build the engines? **No**
 - o If yes; can GM quote a price for the parts plus building the engine

Engines are built by GM reduce variability form cleaning and assembly process at all different labs.

6.0 Review of action items.

7.0 Schedule for next conference call.

2-4-2016

Adrian Alfonso	Intertek	Attend
Bill Buscher	Intertek	Attend
Charlie Leveret	Intertek	Attend
Martin Chadwick	Intertek	
Jason Bowden	OHT	Attend
Matthew Bowden	OHT	Attend
Dan Worcester	SWRI	Attend
Khalid	SWRI	Attend
Caleb	SWRI	
Timothy Cushing	GM	Attend
Scott Stap	GM	
Walt Lerche	GM	
Gordon Farnsworth	Infineum	Attend
Andrew Ritchie	Infineum	
Mike McMillan	Infineum	Attend
Mark Mosher	ExxonMobil	
Cliff Salvesen	ExxonMobil	
Valerie Lieu	Chevron	
Kaustav Sinha	Chevron	
Amol Savant	Ashland	
Dave Caproni	Ashland	Attend
Dave Glaenzer	Afton	Attend
Terry Hoffman	Afton	
Todd Dvorak	Afton	
Michael Conrad	Lubrizol	
Jerry Brys	Lubrizol	Attend
Nathan Moles	Lubrizol	Attend
Satoshi Hirano	Toyota	
Teri Kowalski	Toyota	Attend
Jim Linden	Toyota	Attend
Mark Adams	Tribology Testing	Attend
Rich Grundza	TMC	Attend

INVENTORY OF GM PARTS RECEIVED, 11 Jan 16

<i>GM Part Number</i>	<i>Quantity</i>	<i>Description</i>
12623514	1	tensioner
12623513	1	tensioner
12600462	1	tensioner
12600461	1	tensioner
12597417	1	oil pump tensioner
12645465	1	crankshaft gear
12612839	1	timing gear
12612838	1	timing gear
12615626	1	crank speed sensor
12636736	2	knock sensor
12615371	4	camshaft sensor
12639899	1	coolant sensor
12625923	1	rear water pump gasket
12634318	1	oil filter adapter gasket
12576263	1	exhaust manifold gasket
12576262	1	exhaust manifold gasket
12646464	many	head gasket kit
12589477	1	
12589478	1	
12589479	1	front timing cover gasket kit
12593717	4	
12608750	1	
12622550	1	
11561751	1	oil pan plug
11569873	1	crankshaft bolt
11588255	6	tensioner bolt
11588279	4	bolt
11588252	1	bolt
11518863	6	bolt
11561619	1	bolt, need 3 more
11588279	4	bolt
12633452	2	chain
12633451	1	chain
12570326	4	dowel pin
12672484	1	timing phaser, not used
12672483	1	timing phaser, not used
12621649	1	oil pressure switch, not used