

ASTM Sequence VI Task Force

Conference Call Minutes

September 4, 2014

Attendees

General Motors: Bruce Matthews, Robert Stockwell

ExxonMobil: Mark Mosher

SwRI: Sid Dan Worchester, Guy Stubs

Intertek: Charlie Leverett,

Lubrizol: Nathan Moles

Afton: Dave Glaenzer

Ashland: Tim Caudill, Amol Savant

OHT: Jason Bowden, Matt Bowden

TMC: Rich

Agenda Items for Discussion

- **FM carryover** – *Can this be resolved, we attempted to do this with the additional BL flushes (from data run at the Labs) & time yet recent data from Lubrizol shows it may not work with future friction modifiers?*
Discussion – *Nathan gave a brief summary of the things he has tried, when Charlie ask the group if anyone else has experienced this issue no one commented. See Action item below, Nathan will take the lead on this item.*
- **Engine life and number of engines left** – *We believe we have extended the life with the increase in allowable oil consumption but the recent data from Lubrizol shows the engine has a loss in response at ~1500 hrs, will the VIE engine hour correct resolve this issue?*
Discussion – *The group determined we cannot determine if the loss of response is an issue until we see the Precision Matrix Data.*
- *We need to hold all VIE used engine for a possible rebuild; we need to determine what will be done in a rebuild and how we will proceed.*
Discussion – *All labs agreed to retain used VIE engines in case we determined a rebuild was deemed necessary.*
- *Are service engine available, will they show the same response at the OHT engines, dealer engines used in the past seem to be different?*

Discussion – Bruce Matthews has check on service engines and he stated they had “Hundreds” of these available, the group asks if it was possible to get these that were built in the same time frame (~October 2012) as the OHT VIE engine, Bruce commented he believes it would be possible.

- **Clarification of the break in procedure** – There was some concern that the VIE engine is not stabilized at the completion of the 150 hr. break-in, Afton volunteered to run their next break-in longer (allowable by the VID & VIE procedures), let’s see the outcome once completed. There was also mention of a revised ramp strategy let’s discuss this as possible backup plan pending the Afton Break-in results.

Discussion – Dave gave a summary see it below:

Colleagues

Afton new engine OHT 106 has completed 150 hours of break in program 09/03/2014.

Engine will restart and run an additional 50 hours of break in.

Accelerations from Step A to Step B averaged ~6.4 seconds.

Decelerations from Step B to Step A averaged ~7.7 seconds.

Fresh oil (added @ 400 ml below full):

Hour 27	400 ml
Hour 81	400 ml
Hour 129	400 ml

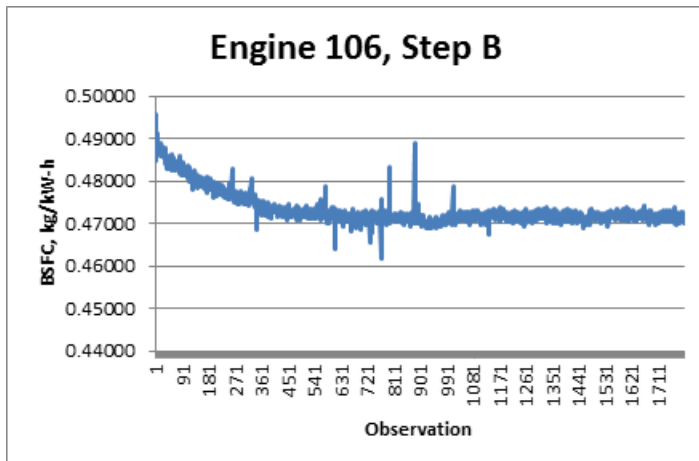
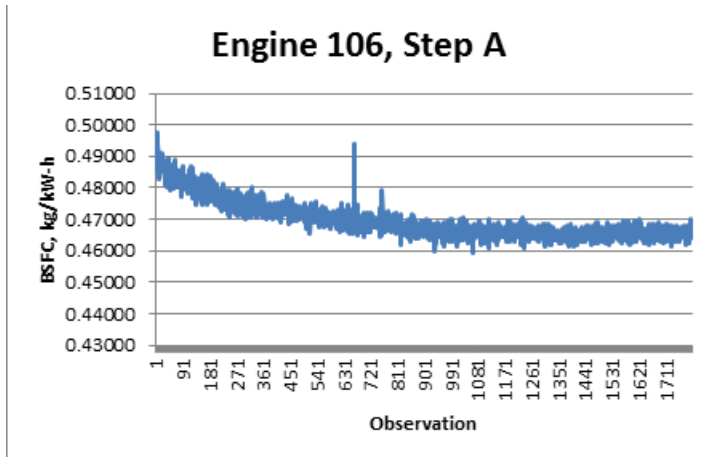
I typically see oil consumption at ~14 to 15 ml per hour.

This break in ran at ~9.3 ml per hour (1200 ml/129 hr).

Transition traces will be provided to the TMC as required by procedure.

An additional trace will be made during the 150 to 200 hour segment.

BSFC Trends



Action Items

- 1.) Nathan will send a summary of experiments he has attempted to remove carryover and Charlie will send to the TF Members.
- 2.) Labs will send a list of possible matrix engines to Charlie, he will summarize and send to the TF.

Next call will be held following the reference oil runs at Afton.