

## **Mack T-13 Teleconference**

**Monday February 18, 2013**  
**2:00 p.m. – 3:00 p.m. Eastern Time**

**Dial-in number:**

**888-272-5498**

**Access Code:**

**4069278**

### **Mack T-13 Teleconference Meeting Notes**

The conference meeting convened at 2:00 p.m. Eastern time with Mike Alessi as the Mack T-13 Taskforce Chair.

#### **Membership / Attendance**

**Riccardo Conti**

Mike Alessi, Riccardo Conti, Greg Shank, Kevin Hendershot, Allison Athey, Bob Salgueiro, Jim Gutzwiller, Elisa Santos, Bob Campbell, Jim Matasic, Jim Moritz, Mark Cooper, Jim Rutherford, Scott Richards, Addison Schweitzer, Zack Bishop, Mark Sutherland, and Sean Moyer.

#### **Review of Test Six EOT**

**Industry**

The meeting began with Mike Alessi reviewing a spreadsheet file entitled TF Update Feb 18 that was distributed prior to the conference call. This file contained a Test 2, 5, and 6 comparison with supporting plots which were all performed utilizing TMC reference oil 821. Test Six was analyzed and discussed by the industry. Mike Alessi established that Test 6 showed good repeatability from an oxidation standpoint according to the plots. Bob Campbell pointed out that the increase in lead was substantial (from 16 ppm to 100 ppm between 180 and 192 hours followed by 20 ppm rate increase after that). Bob stated that this behavior was suspicious and did not make sense. Scott Richards acknowledged that this oil was not necessarily a reference oil for the Mack T-13 going forward and that although this oil did break, conclusions should not be drawn until the Test 7 is completed to show discrimination. The chemical analysis was performed by the following: ExxonMobil performed the ICP wear metal and the KV analysis while SwRI performed the oxidation and nitration chemical analysis. Nitration Peak at the conclusion of Test Six was 39.6.

#### **Action Item:**

Greg Shank requested that Mike Alessi include nitration plots in the spreadsheet file presented (TF Update Feb 18) and re-submit it to the taskforce panel.

Mike Alessi included the plots that Scott Richards assembled for the teleconference showing that the rod bearing weight loss was relatively close between Test 5 and 6. Test 5 did have an outlier rod bearing that was shown by the error bars in the spreadsheet update whereas Test 6 did not have an outlier rod bearing. The plots generated by Scott Richards are shown in the tabs of the file contain error bars at one standard deviation. Bob Campbell posed the question to Greg Shank if the edge loading of the connecting rod bearings was typically seen at Mack. Greg agreed to present this question internally this week and get back to the Mack T-13 Taskforce Panel.

### **Review of Test Seven Abort and the Start Date of the Next Test**

**Riccardo Conti**

Riccardo Conti discovered that the cylinder 4 exhaust roller had failed damaging the exhaust cam lobe causing Test number 7 to be aborted at ~4 hours. Riccardo mentioned that an engine was currently in the process of re-build and that the plan was to repeat the test utilizing identical operational conditions as used in Test 6. The next oil planned for testing is an XW-30, low HTHS, with better oxidation performance according to Greg Shank. Jim Matasic questioned Greg on what the plan on test duration would be for the next test. Greg Shank's initial thoughts were for a 200 hour test. Jim Moritz suggested starting the test with a greater initial test charge. Riccardo Conti described the oil level in the pan is ~ 1 quart below the low mark. This suggestion was merely brought up to the Taskforce to ensure that this was not forgotten in the event that the test is proven too severe. Riccardo stated that the engine break-in would run on Friday and the test would start this weekend.

Bob Campbell demanded that all industry test labs should communicate with the engine the same way. If we are going forward with the CAN version of communication, it needs to be universal across all test labs according to Bob.

### **Industry Stand Installation Progress**

**Industry**

Scott established that the second engine had elevated exhaust temperatures, a lower AFR, a lower EGR rate. Although the engine harness received from ExxonMobil did correct the misfire issue, SwRI was unable to match ExxonMobil currently. Riccardo Conti stated that the engine harness requires DP sensor for the EGR reading. Scott agreed to locate the required sensor and make another attempt to match ExxonMobil's power curve.

Jim Moritz of Intertek has established communication, ran the engine, and are confident that they can run test conditions due to achieving the torque level required at 84% throttle. Intertek is ready for a rebuild kit, Allison Athey was awaiting a few engine hardware components but stressed that the rebuild kit would be shipped out today.

#### **Action Item:**

Riccardo Conti was to take as an action item to provide the Mack T-13 Taskforce with a photograph of the adapter plate used to mount the engine block to the stand.

### **Schedule for Next Meeting**

**Riccardo Conti**

The next proposed Mack T-13 Taskforce Meeting is to be determined.

Meeting Adjourned at 3:00 p.m. Eastern Time.