

All Surveillance Panel Members,

We will have a SCOTE Surveillance Panel conference call Thursday December 16, 2011 starting at 9:00 AM Central Time/10:00 AM Eastern Time to address CAT 1P reference test results as well as the path forward.

## **AGENDA**

**Review CAT 1-P reference test results from the four tests run with the "NEW" batch of cylinder liners. (Deposits and oil consumption)**

**Stand extension payback.**

**How to move the CAT-1R test to the "NEW" batch of liners**

**Hardware**

**Update from Caterpillar when the next batch of liners (1Y3997) will be available.**

**Any other issues with hardware availability**

**Any new business (any of the Caterpillar engine oil tests)**

**Any old business (any of the Caterpillar engine oil tests)**

Reservations-Plus Toll Free Dial-In Number (US and Canada): (877) 334-2341

Conference Code: 7328113

### **Attendance:**

Bob Campbell, Bradley Carter, Jim Moritz, Jim Gutzwiller, Addison Schweitzer, Jim McCord, Mark Sutherland, Zach Bishop, Jason Bowden, Andrew Stevens, Hind Abi-Akar, Doyle Bates, Matthew Bowden, Rich Grundza, Jade Katinas, and Chris Castanien

The main purpose of the call was to update and discuss the results of the CAT-1P reference test results as well as the current parts availability for the CAT 1P/1R test.

### **CAT Panel:**

Chairman: Jim Gutzwiller

Secretary: Addison Schweitzer

### **Results of CAT-1P Reference:**

The results of the CAT-1P reference test results were discussed initially. The results were as follows: total weighted demerits (WDP) were on target, top groove carbon (TGC) was on target, top land carbon (TLC) was mild on two of the results as compared to the remaining labs. Oil consumption (OC) was trending more on the severe end. The trend on oil consumption proved to be representative of the numbers seen in 1999, representing little difference from historical performance. In summary, all 4 tests references were acceptable, and candidate runs are a go.

**Discussion Point: Can the labs run either liner (NEW/OLD)?**

The data from the CAT-1P reference suggests yes. Both liners (NEW and OLD) utilize the same part number (1Y3997); however there are tighter tolerances on the surface finish on the NEW batch of liners. CAT mentioned the NEW liners were being manufactured to the same print. The bottom edge of new liners are stamped with 243 00 XX, whereas the previous liners were serial numbered on the side of the liner.

**Action Items:** Jade at Caterpillar is to follow up on the meaning behind the numbering on NEW batch of liners. During the meeting it was agreed that the Julian Day was spelled out in the numbering. Jade was asked to clarify if the batch code or serial number were specifically represented in the number on the NEW liner. It was also asked that photographs of NEW and OLD liners be circulated to confirm the numbering on standardized testing forms.

**Motion:** A motion was set forth to deem the OLD liner set equivalent to the NEW liner batch from the results of the CAT-1P reference. Once Jade from CAT confirms the numbering on the NEW liners, we can verify this motion to standardize reports for tracing OLD versus NEW liner usage in standardized testing. Bob Campbell made the motion, Mark Sutherland seconded the motion. It will be noted that there were no negatives stated in the conference. TEI chose to wave.

**Stand Extension Payback:**

Depending on the length of the reference period, the option is given to split over multiple periods. The labs are forced to keep the stand calibrated during the two periods.

**Discussion Point: Can the labs make a payment over two stands?**

The payments are separated per stand (to be verified by Jeff Clark). Suggestion by Rich Grundza is to pay by stand. This topic is to be determined between the labs and TMC.

**Action Item:** Corrections are to be sent adjusting the calibration periods to ½ of those previously sent.

**CAT-1R Path Forward: Are the NEW/OLD liners considered to be equivalent between CAT-1P and CAT-1R?**

There is only one CAT-1R stand in the industry. The suggestion was to finish out the reference period on the OLD liner, and proceed with referencing the CAT-1R stand once the reference period has expired. Jim Moritz at Intertek agreed to trade OLD liners for NEW liners in order to give SwRI the

capability to continue runs on the CAT-1R until the end of the reference. The NEW liners are to be utilized in referencing the CAT-1R once the reference period is terminated.

**Motion:** Jim Gutzwiller initiated a motion that all future CAT-1R references should be on the NEW batch of liners. It will be noted that none opposed against this motion and TEI waved. Thus, the motion carried.

## **Hardware**

### **CAT-1P/1R**

Caterpillar mentioned that forty liners would be available as of next week; the liner batch following those are to be prepared next month. Hind-Abi-Akar at CAT agreed that the NEW liners should have production available for 5 years. It was mentioned that a few of the NEW liners were delivered with surface rust. CAT admitted that these liners were handled more than previously due to the new manufacturing process.

**Action Items:** Logistics at CAT needs to verify that the undesirable liners are not re-circulated to the labs. Quite a few old liners are needed to be replaced due to bad Rp values. Hind Abi-Akar is to e-mail logistical process that is to be carried out with regards to liner undesirables. The laboratories are asked to advise on any problems with the liners as they arise to expedite the process of replacement/ improving the manufacturing process.

### **C-13**

SwRI noted that C-13 Clearances between valve stems and guides are becoming larger generating a concern that this is driving oil consumption. The valve guides are being measured between the middle/upper end, and the valve guides are being measured to the middle/lower end. This creates a possible clearance issue that could in fact drive oil consumption.

**Action Item:** Hind to look into the valve stems/guides in the manufacturing process.

SwRI also suggested that the pre-cooler (high hour part) between turbochargers on the C-13 has been noticed recently to be leaking after quite a few tests.

**Action:** Jim McCord was to send out the part number.

### **Caterpillar Hardware Forecasting:**

#### **Discussion Point: PC-11 Hardware Forecast to 2020?**

Currently, CAT states that there are no problems foreseen to arise with respect to hardware.

#### **Discussion Point: Shortened C-13 Development?**

Hind Abi-Akar at CAT suggests an early January continuing brainstorming session between current C-13 project engineers. Hind is open to any ideas to shorten to 300-350 hours.

**New Business:**

Caterpillar EOAT is a strong contender for PC-11 category according to Hind Abi-Akar. Jim McCord agreed that the C-13 EOAT should be ready for reference style runs next week. Early next year is suggested to take place to discuss the progression of this test development.

**Action:** Decision to be made pertaining to the possibility of including the C-13 EOAT on the CAT Surveillance Panel.

**Meeting adjourned at 10:25 AM CT**