

# Caterpillar Surveillance Panel

## Conference Call 07/21/2015 1:00PM CST

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### Attendance:

Jim Gutzwiller  
Martin Thompson  
Jim McCord  
Mark Cooper  
Gary Hammer  
Hind Abi-Akar  
Bob Salguero  
Bob Campbell  
Michael Conrad  
Jim Moritz  
Elisa Santos  
Sean Moyer  
Andrew Stevens  
Kevin O'Malley  
Pat Fetterman  
Adam Roig

### Agenda Items:

Update on 1P reference tests running with the "NEW" liners

C13 Stand Calibration

C13 Supplemental Parts Measurements

CAT O&H Sub-group report/findings:

- 1Y540 - Oil Pump
- 1Y540 - Water Pump
- 1Y540 - Coolant Heat Exchanger
- 1Y3700 - Timing Sensor
- COAT - Oil Pan Seal

CATC13 Supplemental Measurements

### Old Business:

### Discussion Items:

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### 1P cylinder liner prove out

Elisa Santos presented **\*\*FILE NAME\*\***

Presentation summary: Differences among liners (1Y3805, 1Y3997, 1Y3997NEW) are not statistically significant. No evidence to contradict similarities.

SwRI will complete their reference August 1<sup>st</sup>. It was reiterated that three tests were proposed to be enough if there was no significant difference and correction factors would not be changed.

It was commented that the part number does not make the new batch unique and that adding something in addition to a date code would be preferable. CAT commented that it is a significant undertaking to change the part number if there is no part design change. CAT will investigate an option for a unique identifier between old and new parts.

This liner is used for the 1R test as well. Would this

Motion: Jim Moritz Seconded: Bob Campbell  
The new liners are acceptable for use on the 1P.  
Opposed: 0 Waves: TMC Motion Carries

Motion: Jim Moritz Seconded: Andrew Stevens  
Calibration periods will be extended by the period between the reference completion and when the new liners are available to the industry. When the labs receive the new liners it will be declared to the TMC.  
Opposed: 0 Waves: TMC Motion Carries

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## C13 Stand Calibration

Bob Campbell commented that during development the intent was for the C13 to be handled the same as the T12. A New lab would need to reference twice to be charted and considered as an existing lab. After that point, a single reference test is needed for any existing stands and for new test stands.

The procedure does not define "New Test Lab" like the T-12 Procedure. Instead it refers to the LTMS document for reference acceptance criteria.

The LTMS Document makes a distinction between "First test stand in a laboratory" and "All subsequent new test stands". But there is no clear definition of "New test Lab"

## Discussed Document Excerpts

### CAT C13 LTMS REquirements

#### B. Acceptance Criteria

##### 1. New Test Stand

###### a. First Test Stand in a Laboratory

A minimum of two (2) operationally valid calibration tests with no stand Shewhart severity alarms, must be conducted on any approved reference oil.

###### b. All Subsequent New Test Stands in a Laboratory

One operationally valid test with no stand Shewhart severity alarms must be conducted on any approved reference oil.

### C13 Test Procedure

9.2 New Test Stand—A new test stand is one that has never been calibrated or has not completed an acceptable reference oil test within 24 months of the end of test (EOT) date of the last acceptable reference oil test. Perform a calibration (9.2.1) to introduce a new test stand.  
9.2.1 New Test Stand Calibration—Calibrate the new test stand in accordance with the LTMS.<sup>5</sup>

#### Mack T-12 Procedure Definitions of new labs and new stands.

##### 11.4 New Laboratories and New Test Stands:

11.4.1 A new lab is any lab that has never previously calibrated a test stand under this test method.

11.4.2 A new stand is a test cell and support hardware which has never previously been calibrated under this test method.

Motion: Martin Thompson Seconded: Bob Campbell

Replace C13 Procedure (D7549) section 9.2 with section 11.4 through 11.4.2 from the MACK T12 Procedure (D7422)

Opposed: 0 Waves: 0 Motion Carries

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#### CAT O&H Sub- Group Report/findings:

Hind Reported \*\*SCOTE parts update 7-21-15\*\*

##### **1Y0633 Design (1K-1N Water pump Pulley)**

Cat has completed and will provide the drawings needed for labs to fabricate their own Pulley.

##### **1Y0667 Oil pump**

This component will remain available but should be ordered at one time by the labs since they are made to order.

##### **1P/1R crankshaft Assembly**

CAT is requesting any serviceable crankshafts to determine if re-work is possible.

With the print it may be possible to perform rework at local machine shops to build-up and re-grind crankshafts.

##### **Cooling System Procedure Propose changes**

Hind presented a document from Adam Roig \*\*1K-1N Cooling system procedure proposed changes\*\*

This document proposes to allow the use of replacement coolant system components that meet all specified mechanical attributes.