100 YEARS



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## Committee D02 on PETROLEUM PRODUCTS AND LUBRICANTS

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August 9, 2009

TO: Mack HTCT (D5579) S. P. Membership and Mailing List

Assistant Secretary:

SUBJECT: Mack HTCT SP Meeting Minutes, May 13th, 2009, TACOM, Warren, MI

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### Call to order:

Brian Koehler, the chairman of the Mack High Temperature Cyclic Test ASTM Surveillance Panel called the meeting to order at 10:00 a.m. on May 13th, 2009 at the TACOM facility in Warren, MI.

## **Chairman's Comments:**

The chairman handed out copies of a proposed agenda. See attachment 1.

## **Review/ Revise Membership:**

The chairman passed around a Membership/Visitor sign up list, see attachment 2.

### **Motion/ Action Item Recorder:**

Galen Greene of Lubrizol volunteered to take notes during the meeting. (Thank you again Galen).

## Approval of minutes from the last meeting:

Minutes from the February 11, 2009 and May 13, 2009 meetings were posted to the TMC web location during the week of August 10<sup>th</sup>, 2009. The minutes will be considered approved if no corrections or comments are received within 14 days of postings.

## **Industry Severity Review:**

Dale Smith, of Intertek, gave an update on the lab E severity issue.

Main shaft was found to be worn and was replaced. Shift time is now near historical levels but cycle count at failure is still low at about 47,000 cycles. Will consult two previous operators to see if there is a build technique problem. Lind stated that he cannot see any procedural deviations. Lind suggests a lab visitation group to see if lab differences can be seen. There was a discussion about possibly having two different acceptance bands, one for each lab. The TMC did not support this concept. Koehler suggested that the lab talk to Mr. Tom Bryson at Volvo to see if he had any suggestions. It was discussed that SwRI could be asked to host an Intertek mechanic or that SwRI could build and ship a complete transmission to Intertek. SwRI commented that they do not have a second referenced transmission to make available. Intertek will continue to examine their build and parts looking for a fix. SwRI agreed to share buildup and special measurements with Intertek.

## New Fail Oil Blend usage:

TMC reported that oil 150-2 (fail oil) was getting in low supply. 154 has been blended as a replacement. Change is base stock only. One test on the new blend shows that it fails near historic mean for the discrimination oil. One fail oil per year is run at each lab. 150-2 oil's mean is 24,271 cycles and the band does not intersect with the category reference oil. A motion was made by Lind, seconded by Smith: Bring in TMC 154 to replace 150-2 using 150-2 acceptance bands. Each lab will be given this oil when the next fail oil is needed. Motion passed: 5 for, 0 against, 2 abstained.

## Speed Limit Correction for Shift Time in Standard:

A typo was found for the speed trigger level listed in section 3.2.5. The "1" was left off in front of the "700" now listed. Speed should be listed as "1700". Both labs agreed that their practices were correct. Lind stated that an info letter would have to be issued to correct the standard. A motion was made by Smith and seconded by Lind: issue information letter to correct speed from 700 to 1700 in section 3.2.5 effective today. Motion passed, 8 for, 0 against, 0 abstained

## Six Month Industry Report:

There were no comments from Mr. Lind. The report is posted to the TMC's web location.

## **Old Business:**

There was no old business to be discussed.

## **New Business:**

There was no new business to be discussed.

## **Next Meeting:**

The next meeting will be at the call of the chairman.

## **Adjournment:**

Meeting was completed at 11:00am. Motion for adjournment was made by Lind and seconded by Graziano.

Submitted by:

Brian Koehler

Mack HTCT Surveillance Panel Chairman

Prian Follow

Southwest Research Institute

6220 Culebra Road

San Antonio, TX 78238-5166

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Attachments

# Mack HTCD Surveillance Panel Meeting Warren, MI May 13th, 2009 10:00 am

## **AGENDA**

Call	to	Order
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Chairman's Comments, Brian Koehler, SwRI

Review/ Revise Membership

Motion/ Action Item Recorder

Report on Stand/ Lab which has been severe

New reference Oil Blend Usage (TMC 154 to replace 150-2, fail oil)

Discuss corrections to Standard section 3.2.5 (speed error)

Industry 6 month report by TMC

**Old Business** 

**New Business** 

Summary of Action Items

Summary of Motions Passed

Next Meeting

Adjournment

# CYCLIC DURABILITY SURVEILLANCE PANEL

Meeting Date: 5-/3-0

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Fax	440-347-2878	804-788-6243	301-790-6744	586-574-4244	248- <del>293-8945</del> 299-65 <u>8</u> I	703-669-9917				440-347-1555		210-731-5699	210-680-1777	804-788-6358	804-788-6358
lelephone	440-347-2388	804-788-6332	301-790-5454	586-574-4225	248-299-6478	703-669-9916		440-347-2058	440-347-2394	440-347-1223	510-242-2740	210-731-5609	210-522-3588	804-788-5303	804-788-5363
company name & Address	The Lubrizol Corporation 29400 Lakeland Blvd. Wickliffe, OH 44092	Afton Chemical Corporation 500 Spring Street Richmond, VA 23218	Mack Trucks, Inc. 13302 Pennsylvania Avenue Hagerstown, MD 21740	USArmy TACOM 6501 E.II Mile Warren, MI 48307	AAM 2965 Technology Dr. Rochester Hills, MI 48309	ExxonMobil 18486 Lanier Island Sq. Leesburg, VA 20176	ExxenMobil Research & Engineering 600 BillingsportRoad Pagisborio, NJ 08066	The Lubrizol Corporation 29400 Lakeland Blvd. Wickliffe, OH 44092	The Lubrizol Corporation 29400 Lakeland Blvd. Wickliffe, OH 44092	The Lubrizol Corporation 29400 Lakeland Blvd. Wickliffe, OH 44092	Chevron Global Lubricants	Chevron Oronite Company 4502 Centerview Drive, Suite 210 San Antonio, TX 78228	Southwest Research Institute 6220 Culebra Road San Antonio, TX 78238-5166	Afton Chemical Corporation 500 Spring Street Richmond, VA 23218	Afton Chemical Corporation 500 Spring Street
voung status	Non-Voting	Non-Voting	Voting	Vor voring	Not In C	Non-Voting	NowVeting	Non-Voting	Non-Voting	Voting	Voting	Non-Voting	Voting	Voting	Non-Voting
Name	Bartlett, Don	Bell, Don	Bryson, Tom	Comfort, Allen	Dharte, John	Eliot, Steve	Goyal/Arijum	Graziano, Rick	Greene, Galen	Gropp, Jerry	Haire, Mike	Huron, John	Koehler, Brian	Koglin, Cory	Layton, Kevin
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# CYCLIC DURABILITY SURVEILLANCE PANEL

Meeting Date:

Initials	Name	Voting Status	Company Name & Address	Telephone	Fax	Email
DWR	pLind, Don	Voting	ASTM Test Monitoring Center 6555 Penn Avenue Pittsburgh, PA 15206	412-365-1034	412-365-1047	dml@astmtmc.cmu.edu
	Marougy, Thelma	Voting	Eaton Corporation 26201 Northwestern Highway Southfield, MI 48037	248-354-6985	248-354-2739	thelmaemarougy@eaton.com
	McGlone, Bruce	Voting	ArvinMeritor 2135 West Maple Troy, MI 48084	248-435-9929	248-435-1411	mcglonbf@meritorauto.com
	Messmann, Grant	Voting	Spiser Off-Highway Dana Corrogation P.O. Box 2424 Soft Wayne, IN 18801			
	Prengaman, Chris	Non-Voting	The Lubrizol Corporation—29400 Lakeland Blue. Wickliffe, OH 44092	440 347 4225	440-347-2878	crescalubrized com
	Schenkenberger, Chris	Non-Voting	The Lubrizol Corporation 29400 Lakeland Blvd. Wiekhing, OH 44092	440-347-2927	440-347-2878	_csc@lubrizol.com
CAN THE STATE OF T	Smith, Dale	Voting	PARC Technical Services, Inc. 100 William Pitt Way Pittsburgh, PA 15238	412-423-1120 X403	412-826-5444	dale.smith@intertek.com
7	Vettel, Paula	Voting	D.A. Stuart Company 4580-Wedver Parkway Warcenville, IL 60555	630-383 8859	630-393-857-	pvettel@dasterre.net
	Whitton Claire	Mon Voting	Afton Chemical Corporation 500 Spring Street P.O. Box 7138 Bichmond, VA 23218-2159	804-788-5052	8047768-6243	claire. whiten@aftonchemical.com
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586-514-4221 586-574-4244 bridget brosnan@vs.anmy.m. AMSTRD-TAR D/210 6501 E ELEVEN MILE RD WARREN, MI 48307



# Test Monitoring Center

Carnegie Mellon University 6555 Penn Avenue, Pittsburgh, PA 15206, USA http://astmtmc.cmu.edu 412-365-1000

MEMORANDUM:

09-009

DATE:

April 7, 2009

TO:

Brian Koehler, Chairman, High Temperature Cyclic Durability Test

Surveillance Panel

FROM:

Donald Lind

SUBJECT:

High Temperature Cyclic Durability Reference Test Status from October 1,

2008 through March 31, 2009

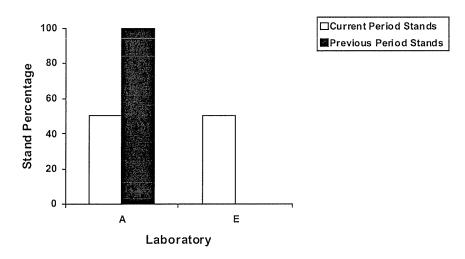
The following is a summary of High Temperature Cyclic Durability reference oil tests that were reported to the Test Monitoring Center during the period October 1, 2008 through March 31, 2009.

## **Lab/Stand Distribution**

	Reporting Data	Calibrated as of 3/31/09
Laboratories	2	1
Stands	2	1

The following chart shows the laboratory/stand distribution:

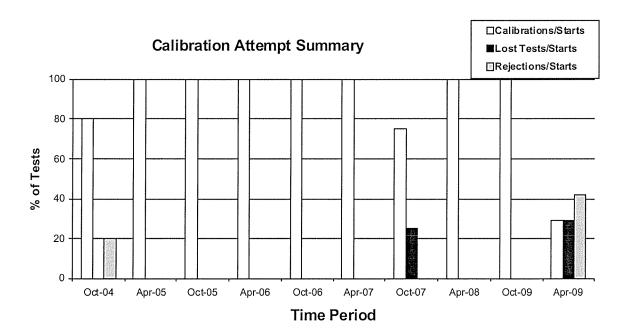
## Laboratory/Stand Distribution



The following summarizes the status of the reference oil tests reported to the TMC:

	TMC Validity Codes	No. of Tests
Operationally and Statistically Acceptable	AC	2
Statistically Unacceptable	ОС	3
Operationally Invalid, Laboratory Determination	LC	2
Total		7

Calibrations per start, lost tests per start and rejections per start rates are summarized below:



The calibration per start rate has decreased when compared to the previous period. The lost test per start and rejected test per start rates have increased when compared to the previous report period.

## Severity and Precision

Figure 1 is the industry control chart. Figure 2 is the industry control chart of the last 20 test results. There were five EWMA severity alarms and no precisions alarms triggered this report period. The severity alarms were triggered by three test results of -3.0 or greater from lab E as shown in Figure 3. The average  $\Delta$ /s for this report period is -2.09 severe.

## Information Letters

There was one information letter issued during this report period. Information Letter 09-01, Sequence Number 14 was issued on February 24, 2009. Items changed with this information letter are documented in the HTCT timeline (Table 1).

## TMC Lab Visits

There was one lab visit conducted this report period with no discrepancies to report.

## Reference Oil

The following is a listing of reference oils with the expected number of tests remaining at the Test Monitoring Center and at the testing laboratories. HTCT reference oils are shipped in quantities of 11 gallons per test.

Oil	Volume at TMC	Number of Tests	Number of Tests	Total Number of
	(Gallons)	Remaining at TMC	Remaining at Labs	Tests Remaining
150-2	57	5	3	8
155	**	**	4	**

<sup>\*\* 282</sup> Gallons (Multiple test area usage)

## DML/dml

## Attachments

c: High Temperature Cyclic Durability Test Surveillance Panel Frank M. Farber ftp://ftp.astmtmc.cmu.edu/docs/gear/htct/semiannualreports/htct-04-2009.pdf

Distribution: Email

# <u>Listing of Tables and Figures Included as Part of This Report to the High Temperature Cyclic Durability</u> <u>Test Surveillance Panel</u>

Table 1 is the High Temperature Cyclic Durability Test Industry Timeline.

Figure 1 is the Industry control chart for Cycles to Unsynchronized Shifts.

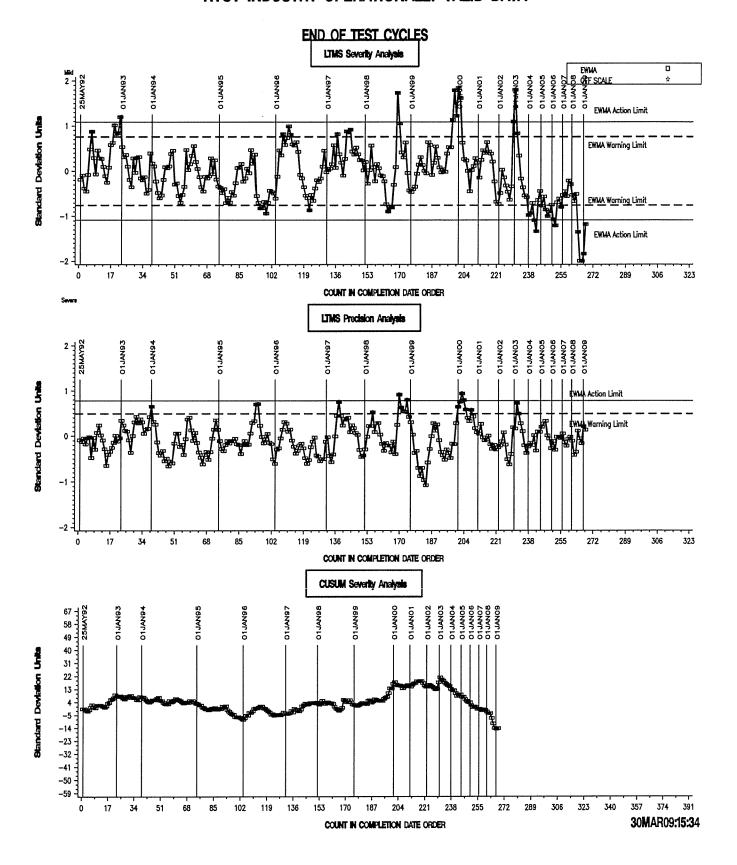
Figure 2 is the Industry control chart of the last 20 results for Cycles to Unsynchronized Shifts.

Figure 3 is the Industry control chart of the last 20 results for Cycles to Unsynchronized Shifts excluding the three severe test results from lab E.

# Table 1

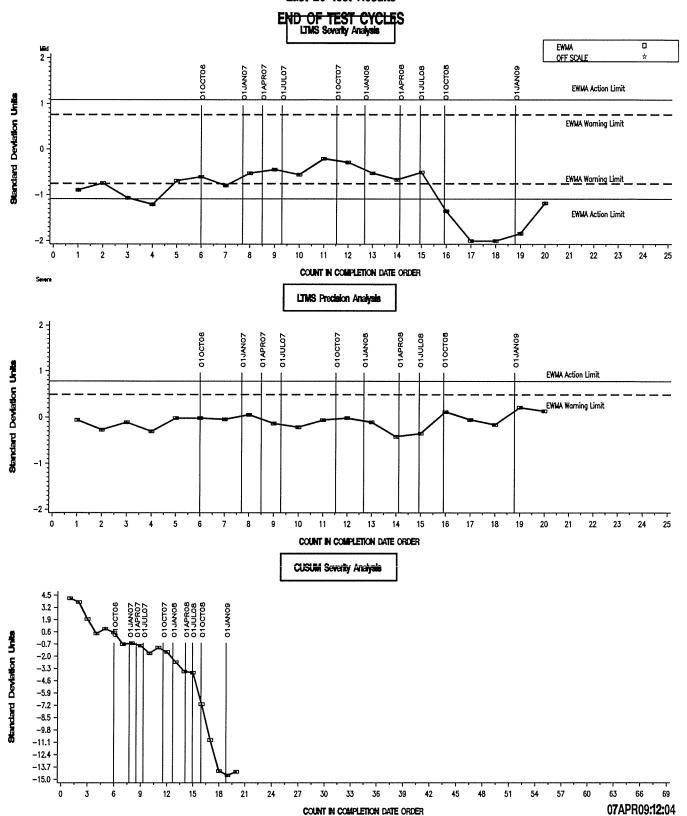
	High Temperature Cyclic Durability Industry Timeline	
Effective Date	Topic	IL#
19960701	Surveillance Panel Approved Acceptance Bands and Targets	
19970324	Forms and Data Dictionary Changes, Version 19970128	97-1
19961210	Change to Allow Replacement of Main Box Shift Rail Cover With Aluminum Plate	97-1
19970918	Replacement of Appendix X1 With Annex A5 (Editorial Changes)	97-2
19971110	Revision to Coast Down Time Measurement	97-3
19980209	Revisions to Shift Time Definition and Inclusion of Shift Time Plot	98-1
19980215	First Test on New Synchronizer Assembly (Part Number 320KB459)	·
19980626	Defined Acceptable Hardware Configurations. Revised Report Forms and Data Dictionary to Document Hardware Configuration Utilized.	98-2
19990413	Clarified the Calibration Period, Allows Non-reference Oil Tests to Start Up to and Including the Last Day of the Calibration Period.	99-1
19990625	Redefined Acceptable Hardware Configurations.	99-2
20000613	Required the Use of Wellman Single Batch Friction Plates for Tests Starting On or After 6/13/00	00-1
20020920	Failing Reference Oil Run Requirement	02-1
20020920	Test Hardware Correction and Revisions	02-1
20030916	Report Forms and Data Dictionary	03-1
20040101	Cleaning Solvent Specification	03-1
20041203	One Quart Test Oil EOT Save Requirement Dropped	04-1
20050221	Revised Solvent Specification	05-1
20050504	Surveillance Panel Use of Donated Reference Oil Test Programs	05-2
20050504	Guidelines for Shortening or Lengthening Reference Oil Calibration Periods	05-2
20050504	Updated Test Precision	05-2
20050504	Rounding Test Results Using ASTM E 29	05-2
20050504	Piston, High Low Range Shift Outside Diameter Specification	05-2
20050504	Test Sponsor Company Name Change	05-2
20090327	Revision to Percent Deviation Calculation	09-1

# HTCT INDUSTRY OPERATIONALLY VALID DATA



# HTCT INDUSTRY OPERATIONALLY VALID DATA

Last 20 Test Results



# HTCT INDUSTRY OPERATIONALLY VALID DATA

Excluding Last Three Severe Test Results From Lab E

