



Address 100 Barr Harbor Drive
PO Box C700
W. Conshohocken, PA
19428-2959 | USA

Phone 610.832.9500
Fax 610.832.9666
Web www.astm.org

Committee D02 on PETROLEUM PRODUCTS AND LUBRICANTS

Chairman: KENNETH O. HENDERSON, Cannon Instrument Co., 2139 High Tech Road, State College, PA 16803, (814) 353-8000, Fax: (814) 353-8007, e-mail: kenohenderson@worldnet.att.net
First Vice-Chairman: BEN R. BONAZZA, TI Group Automotive Systems, Caro Research Center, 326 Green Street, Caro, MI, 48723 (989) 673-8181 ext. 227, Fax: (989) 673-3241, e-mail: bbonazza@us.tiauto.com
Second Vice-Chairman: JANET L. LANE, ExxonMobil Research & Engrg., 600 Billingsport Rd, Paulsboro, NJ 08066-0480 (856) 224-3302, Fax: (856) 224-3616, e-mail: janet.l.lane@exxonmobil.com
First Secretary: RALPH A. CHERRILLO, Shell Global Solutions (US) Inc., Westhollow Tech Ctr., 3333 Highway 6 South, Houston, TX 77082 (281) 544-8789, Fax: (281) 544-8150, e-mail: ralph.cherrillo@shell.com
Second Secretary: MICHAEL A. COLLIER, Petroleum Analyzer Co. LP, PO Box 206, Wilmington, IL 60481, (815) 458-0216, Fax: (815) 458-0217, e-mail: macvarlen@aol.com
Staff Manager: DAVID R. BRADLEY, (610) 832-9681, Fax: (610) 832-9668, e-mail: dbradley@astm.org

Aug. 12th, 2013

Reply to:
Thomas Gottwald
Afton Chemical Corporation
500 Spring St.
Richmond, VA 23219
(804) 788-5230
(804) 788-6239 [FAX]
thomas.gottwald@aftonchemical.com

ASTM D02.B0.03 L-42 Surveillance Panel
Members and Guests:

Attached for your review and comment are the unconfirmed minutes of the:

May 15th, 2013 Surveillance Panel Meeting (PRI – Warrendale, PA)

Please direct any corrections or comments to my attention.

Very Respectfully,

Thomas Gottwald, Chairman
L-42 Surveillance Panel

L-42 Surveillance Panel Meeting Minutes

PRI

Warrendale, PA

May 15, 2013

Attendees: voting members in **bold**

B. Koehler (SwRI)	A. Athey (Volvo)	R. Banas (XOM)	P. Kanga (XOM)
D. Smith (Intertek)	J. Gropp (LZ)	M. Umerly (LZ)	T. Boschert (Afton)
S. Parke (TMC)	K. Hobson (Afton)	B. Bubonic (LZ)	M. Jackson (SwRI)
T. Gottwald (Afton/C)	L. Hamilton (LZ)	K. Zreik (GM)	K. Purnell (PRI)
J. Dharte (AAM)	A. Trader (Intertek)	C. Prengaman (LZ)	D. Mosher (Eaton)
	B. Kearney (Afton)	T. Barrera (Intertek)	A. Suresh (BASF)

Call to Order

The meeting PowerPoint presentation is attached.

Review of Membership

The sign-in sheet is attached and up-to-date.

Review of Agenda

The meeting agenda is attached (slide 2 of attached PowerPoint presentation).

Approval of Meeting Minutes

Meeting minutes from the Feb. 6, 2013 L-42 Surveillance Panel meeting, held at PRI in Warrendale, PA.

MOTION to approve the meeting minutes as presented.

Motion passed unanimously (verbal).

Hardware Update

Latest batch of hardware is now in use (ring/pinion numbers C1L680-P8T025A).

Labs are observing slight damages, in the form of crown chips and impact depressions, to drive side of pinion and rings. It was determined that these damages were made during factory assembly at the supplier.

The Surveillance Panel [SP] determined that these damages have no effect on the test results. The SP has asked the TMC to publish a memo documenting this (attached).

Reference Oil 116-1 Replacement

The TMC advised the SP on the following inventory of Oil 116-1:

- 32 - ½ gal cans @ TMC
- 42 - ½ gal cans @ labs

The TMC presented a spreadsheet showing data for the proposed 116-1 replacement, known as Oil 1-B (attached). It was noted that Oil 1-B is slightly mild. The SP asked for reference information to be added to the spreadsheet to determine whether correction factors or acceptance bands/targets should be used. There was a preference from the SP to stay away from acceptance bands.

MOTION for TMC to run stats on all available data on Oil 1-B to compare 1-B to Oil 116-1 (reporting lab, reference results, and axle batch) and to determine the offset.

Motion passed unanimously (verbal).

MOTION for the TMC to purchase 10 drums of Oil 1-B and to have the TMC issue a coded TMC oil number.

Motion passed unanimously (verbal).

L-42-1 Volunteers & Next Steps

The Chair called for volunteers for the L-42-1 Task Force [TF], yielding the following group:

- A. Trader (Intertek)
- B. Koehler (SwRI)
- M. Umerley, C. Prengaman, J. Gropp (LZ)
- T. Gottwald, M. Keisler (Afton)
- H. Chambers (Linamar)
- C. Ved (Ford)
- J. Dharte (AAM)
- S. Parke (TMC)

Chair directed TF to start brainstorming and will compile feedback. Will hold a meeting/call at a later time, when ASTM load isn't as strenuous on group (L-37, L-37-1, L-33-1, L-42 replacement fluids, etc.)

New/Open Issues

No new/open issues.

Adjournment

Motion to adjourn.

Motion passed unanimously (verbal).

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'T. Gottwald', written in a cursive style.

Thomas Gottwald

L-42 Surveillance Panel Chairman

L-42 Surveillance Panel Meeting Agenda
May 15, 2013
9-10 am
Warrendale, PA

1. Call to Order
2. Membership/Agenda Review
3. Approval of meeting minutes
4. Notes on condition of latest batch hardware
5. Reference oil 116-1 replacement (TMC)
6. L-42-1 TF Volunteers & Next Steps
7. New/Open Issues
8. Adjournment

Call in information: 866-772-2823 Passcode: 5480208



L-42 Surveillance Panel Meeting

PRI

Warrendale, PA

May 15, 2013

9am-10am

Passion for Solutions™

Agenda

- ▲ Call to Order
- ▲ Membership/Agenda Review
- ▲ Approval of Meeting Minutes
- ▲ Hardware Update: Latest batch notes
- ▲ Reference oil 116-1 replacement (TMC)
- ▲ L-42-1 TF Volunteers & Next Steps
- ▲ New/Open Issues
- ▲ Adjournment

Approval of Meeting Minutes

SP Meeting Minutes

▲ Feb 6, 2013 – Troy, MI

Hardware Update

 Latest batch is now in use

 Labs are observing slight damages made during axle assembly

- ▲ Crown chips
- ▲ Impact depressions (dings)

Hardware Update - Chips



Hardware Update – Impact Depressions (Dings)



Reference Oil 116-1 Replacement

 **Data for Submitted Oil was reviewed in Nov 2012 SP meeting and Feb 2013 SP meeting**

 **Correction Factors vs. Acceptance Bands**

Next Generation L-42 [L-42-1]

 **Volunteers for Task Force**

 **Next step**

New/Open Issues

 Anything?

Thanks!

L42 Data for Demo Oil 1-B's performance additive


Scoring must be less than the passing reference oil

Viscosity Grade	80W-90	85W-140	80W-90	80W-90	80W-90	80W-90	80W-90	80W-90	80W-90	80W-90
Coating	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Test Type	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
% Scoring Coast Side of Pinion	14	11	22	15	22	17	13	17	20	18
% Scoring Coast Side of Ring	8	5	13	6	12	8	7	12	10	11
% Scoring Coast Side of Pinion (Ref. Oil)	22	25	25	25	26	25	25	22	23	23
% Scoring Coast Side of Ring (Ref. Oil)	11	15	20	14	15	15	15	15	13	13

Viscosity Grade	80W-90	80W-90	80W-90	80W-90	80W-90	80W-90	80W-90	80W-90	80W-90	80W-90
Coating	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Test Type	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
% Scoring Coast Side of Pinion	16	13	15	21	18	21	20	10	15	16
% Scoring Coast Side of Ring	9	9	12	12	13	12	14	6	12	12
% Scoring Coast Side of Pinion (Ref. Oil)	23	23	22	25	25	25	22	22	22	22
% Scoring Coast Side of Ring (Ref. Oil)	13	13	15	15	15	15	16	15	15	15

Viscosity Grade	80W-90	80W-90
Coating	Green	Green
Test Type	Standard	Standard
% Scoring Coast Side of Pinion	9	12
% Scoring Coast Side of Ring	5	6
% Scoring Coast Side of Pinion (Ref. Oil)	22	21
% Scoring Coast Side of Ring (Ref. Oil)	15	15

L-42 Surveillance Panel Membership/Attendance
PRI - Warrendale, PA
May 15, 2013

Initials	Name	Voting Non-Voting	Company Name Company Address	Contact information	
AA	Allison Athey	V	Volvo Powertrain	Phone:	301-573-5684
			13302 Pennsylvania Ave. Hagerstown, MD 21740	E-mail:	allison.athey@volvo.com
	Brian Koehler	V	Southwest Research Institute	Phone:	210-522-3588
			P.O. Drawer 28510 San Antonio, TX 78228-0510	E-mail:	Bkoehler@swri.org
	Dale Smith	V	Intertek Automotive Research	Phone:	412-855-6854
			5404 Bandera Rd. San Antonio, TX 78238	E-mail:	dale.smith@intertek.com
	Scott Parke	V	ASTM Test Monitoring Center	Phone:	412-365-1036
			6555 Penn Ave Pittsburg, PA 15206	E-mail:	sdp@astmtmc.cmu.edu
TG	Thomas Gottwald	V/Chair	Afton Chemical	Phone:	804-788-5230
			500 Spring St. Richmond, VA 23219	E-mail:	thomas.gottwald@aftonchemical.com
WAK	Bill Kearney	NV	Afton Chemical	Phone:	248-350-0640
			2000 Town Center, Suite 1160 Southfield, MI 48075	E-mail:	bill.kearney@aftonchemical.com
	Don Bell	NV	Afton Chemical	Phone:	804-788-6332
			500 Spring St. Richmond, VA 23219	E-mail:	don.bell@aftonchemical.com
	Jeff Clark	NV	ASTM Test Monitoring Center	Phone:	412-365-1032
			6555 Penn Ave Pittsburg, PA 15206	E-mail:	jac@astmtmc.cmu.edu

L-42 Surveillance Panel Membership/Attendance
PRI - Warrendale, PA
May 15, 2013

Initials	Name	Voting Non-Voting	Company Name Company Address	Contact information	
JAG	Jerry Gropp	NV	The Lubrizol Corporation	Phone:	440-347-1223
			29400 Lakeland Boulevard Wickliffe, OH 44092	E-mail:	jerrold.gropp@lubrizol.com
KH	Kevin Hobson	NV	Afton Chemical	Phone:	804-788-5307
			500 Spring St. Richmond, VA 23219	E-mail:	kevin.hobson@aftonchemical.com
K-Z	Khaled Zreik	NV	General Motors	Phone:	248-977-9214
			823 Joslyn Ave Pontiac, MI 48340-2925	E-mail:	khaled.zreik@gm.com
LH	Larry Hamilton	V	The Lubrizol Corporation	Phone:	440-347-2326
			29400 Lakeland Boulevard Wickliffe, OH 44092	E-mail:	larry.hamilton@lubrizol.com
P.R.K.	Percy Kanga	NV	ExxonMobil Research & Engineering	Phone:	856-224-2094
			600 Billingsport Rd. Paulsboro, NJ 08066	E-mail:	percy.r.kanga@exxonmobil.com
BB	Brad Bubonic	NV	The Lubrizol Corporation	Phone:	440-347-5325
			29400 Lakeland Boulevard Wickliffe, OH 44092	E-mail:	brad.bubonic@lubrizol.com
TCS	Tom Boschert	NV	Afton Chemical	Phone:	804-788-5202
			500 Spring St. Richmond, VA 23219	E-mail:	tom.boschert@aftonchemical.com
	Bridget Dwornick	NV	US Army TARDEC	Phone:	586-282-4221
			6501 E. 11 Mile Rd. RDTA-DP MS 110 Warren, MI 48397	E-mail:	bridget.dwornick@us.army.mil

L-42 Surveillance Panel Membership/Attendance
PRI - Warrendale, PA
May 15, 2013

Initials	Name	Voting Non-Voting	Company Name Company Address	Contact information	
	Bruce McGlone	V	Meritor	Phone:	248-435-9929
				E-mail:	bruce.mcglone@meritor.com
	Wes Venhoff	NV	The Lubrizol Corporation	Phone:	440-347-4879
			29400 Lakeland Boulevard Wickliffe, OH 44092	E-mail:	wes.venhoff@lubrizol.com
AT	Angela Trader	NV	Intertek Automotive Research	Phone:	210-706-1533
			5404 Bandera Rd. San Antonio, TX 78238	E-mail:	angela.trader@intertek.com
	Troy Muransky	NV (ALT)	Meritor	Phone:	248-435-1409
				E-mail:	troy.muransky@meritor.com
Removed as of 2/11/13	Cheryl O'Brien	NV (ALT)	General Motors	Phone:	248-343-7347
			823 Joslyn Ave Pontiac, MI 48340-2925	E-mail:	cheryl.obrien@gm.com
	Allen Comfort	V	US Army TARDEC	Phone:	586-282-4225
				E-mail:	allen.s.comfort.civ@mail.mil
9/10	John Dharte	V	AAM	Phone:	313-758-4687
			1 Dauch Drive Detroit, MI 48212	E-mail:	dhartej@aam.com
Feb	Rob Banas	NV	ExxonMobil Fuels, Lubricants & Specialties	Phone:	678-493-3930
			114 Arcadia Park Dr. Canton, GA 30114	E-mail:	rob.a.banas@exxonmobil.com

L-42 Surveillance Panel Membership/Attendance
PRI - Warrendale, PA
May 15, 2013

Initials	Name	Voting Non-Voting	Company Name Company Address	Contact information	
MU	Matt Umerley	NV	The Lubrizol Corporation	Phone:	440-347-4589
			29400 Lakeland Boulevard Wickliffe, OH 44092	E-mail:	matthew.umerley@lubrizol.com
	Ryan Thorpe	NV	Southwest Research Institute	Phone:	210-522-6409
				E-mail:	
	Galen Greene	V	BASF	Phone:	973-245-5509
				E-mail:	galen.greene@basf.com
	Harold Chambers	NV	Linamar Driveline Systems	Phone:	248-358-6038
			Travelers Tower 1 26555 Evergreen Rd. Ste 900 Southfield, MI 48076	E-mail:	harold.chambers@linamar.com
	Marc Keisler	NV	Afton Chemical	Phone:	804-788-5617
			500 Spring St. Richmond, VA 23219	E-mail:	marc.keisler@aftonchemical.com
	Cory Koglin	NV	Afton Chemical	Phone:	248-350-0640
			2000 Town Center, Suite 1160 Southfield, MI 48075	E-mail:	cory.koglin@aftonchemical.com
CP	Chris Prengaman	NV	The Lubrizol Corporation	Phone:	440-347-4225
			29400 Lakeland Boulevard Wickliffe, OH 44092	E-mail:	crpr@lubrizol.com
	Thelma Marougy		Eaton	Phone:	
				E-mail:	thelmamarougy@eaton.com

L-42 Surveillance Panel Membership/Attendance
PRI - Warrendale, PA
May 15, 2013

Initials	Name	Voting Non-Voting	Company Name Company Address	Contact information	
/kst	Tony Barrera	NV	Intertek Automotive Research	Phone:	210-523-4653
			5404 Bandera Rd. San Antonio, TX 78238	E-mail:	tony.barrera@intertek.com
M	MATT JACKSON	NV	SWRI	Phone:	210 522 6981
				E-mail:	matt.jackson@swri.org
KAP	Keith Purnell	NV	PRI	Phone:	724 991 5530
				E-mail:	kpurnell@sae.org
DMM	Dennis Meeher	NV	EATON	Phone:	269 342 3039
				E-mail:	dennismeeher@eaton.com
AS	ARUNYA SURESH	NV	BASF	Phone:	914-262-8715
				E-mail:	arunya.suresh@basf.com
				Phone:	
				E-mail:	
				Phone:	
				E-mail:	
				Phone:	
				E-mail:	



Test Monitoring Center


@ Carnegie Mellon University
6555 Penn Avenue, Pittsburgh, PA 15206, USA

<http://astmtmc.cmu.edu>
412-365-1000

MEMORANDUM: 13-038

DATE: May 28, 2013

TO: L-42 Surveillance Panel

FROM: Scott Parke 

SUBJECT: Impact depressions and chips found in pre-test inspection of some C1L680/P8T025A hardware

This memorandum is being sent to publicize and document minor pinion and ring gear defects referred to as “impact depressions” and “chips” described and discussed during the May 15, 2013 L-42 surveillance panel meeting. Please refer to the photograph on the following page.

With the C1L680/P8T025A hardware batch, it has been observed that in some cases, contact appears to have been made between the ring gear and pinion during assembly by the manufacturer. For some pieces, the contact has been sufficient to cause what is being referred to as an “impact depression” on the drive side of one of the pinion teeth and its corresponding ring tooth. Small chips or deformations may also be present on the top land edges of the teeth surrounding the tooth face with the impact depression.

As this condition does not affect the coast side of the pinion or ring, it is not considered by the surveillance panel to alter the acceptability of such pieces of hardware for use in testing.

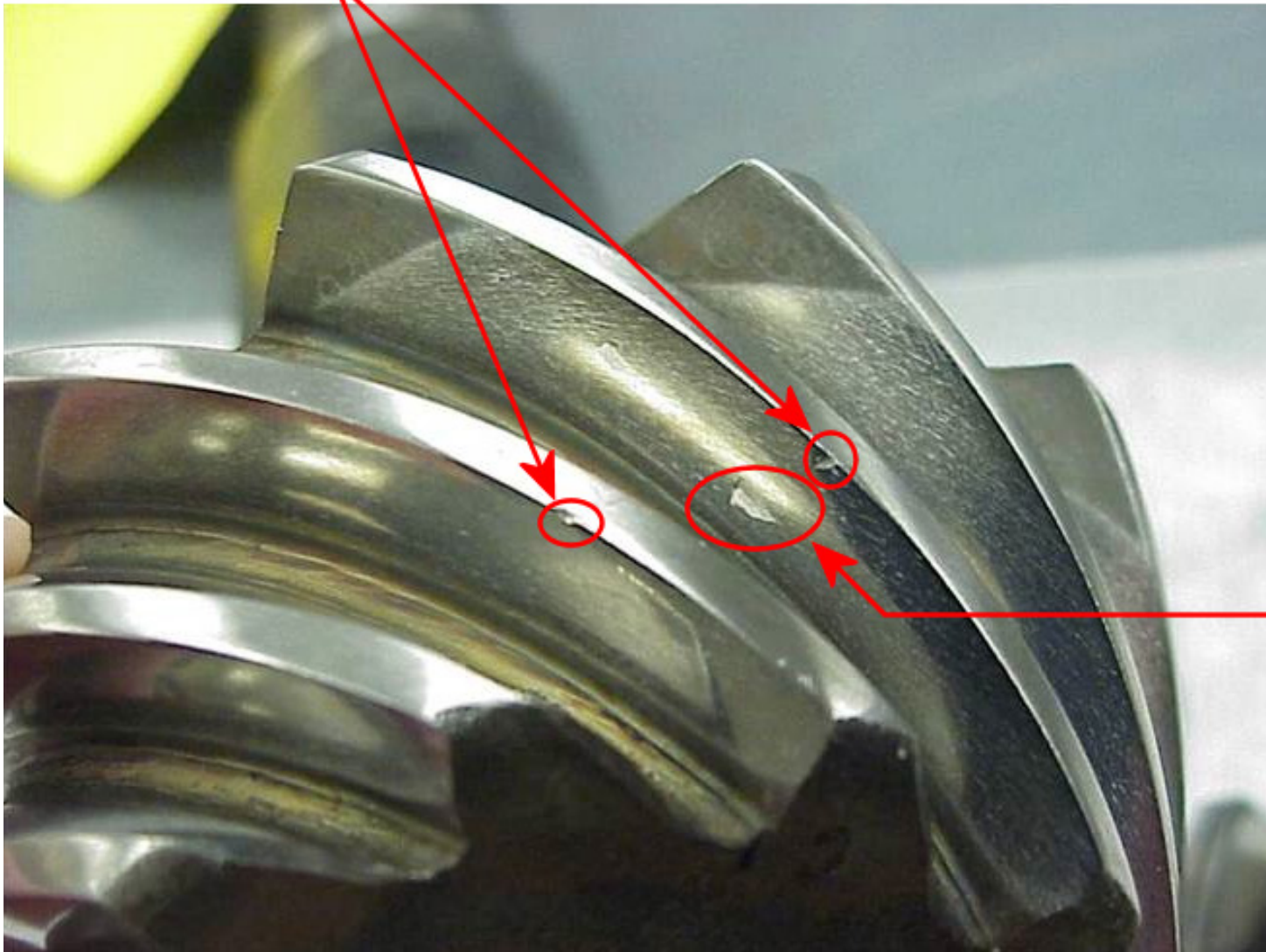
SDP/sdp/mem13-038.sdp.doc

cc: Frank Farber
Jeff Clark
Don Lind

<ftp://ftp.astmtmc.cmu.edu/docs/gear/l42/memos/mem13-038.sdp.pdf>

Distribution: email

**Top land
edge chips**



**Impact
depression**