



5404 Bandera Road
San Antonio, Texas 78238

Telephone: +1 (210) 684-2310
Facsimile: +1 (210) 684-6074
www.intertek.com

Meeting Minutes: Surveillance Panel Meeting August 12, 2015, 9:00am – 10:00 am EST

See attendance sheet for member attendance

- The L33 committee membership was reviewed.
- Meeting minutes from Surveillance Panel meeting in August 12, 2015 were reviewed. Motion was made by Thomas Gottwald to approve. Motion was seconded by Rebecca Warden. Motion carried unanimously.
- Data was presented for matrix testing completed to date.
- Labs have received approximately 100 of the 695 ordered, distributed evenly.
- Initial hardware findings include:
 - Rebecca Warden explained that SwRI has been noticing side bearing imperfections during tear-down of the axle. Labs are to monitor side bearing issues and report back to SP.
 - Drain plugs still include the magnets. All labs have been instructed to remove the magnet prior to running the test.
 - Axle breaking torque and turning torque not to specification. AAM was contacted and has made adjustments to assembly process remaining axles will be delivered with test specified break and turn.
- Rating templates are needed for the differential gear and side gear surface areas (1% and 5%). Angela Trader to work with TMC to generate drawings.
- Angela Trader obtained axle cover surface area measurements from AAM to use in determining 1% and 5% of cover surface areas for the raters.
- There was a lot of discussion regarding ways to adjust the test severity by either using % or the actual size of allowable rust (i.e. 1 mm²). Raters were asked to report both the number of rust spots and size of the rust spots.
- L33-2 procedure draft was submitted to the facilitator on June 19, 2015. Facilitator's feedback included:
 - New procedure requires unique name.
 - Group determined that they prefer "Standard Test Method for Evaluation of Moisture Corrosion Resistance of Automotive Gear Lubricants in a Hypoid Axle."
 - Main edits are sections 6.2.5, 8.1, 9.2.1, 9.2.2, and 11.1.5
 - Major change is US to SI units
 - Other edits are minor wordsmithing
- Motion was made to adjourn the meeting by Matt Umerley and seconded by Thomas Gottwald. Motion carried unanimously.

Respectfully,

L-33-2 Surveillance Panel Meeting

PRI Headquarters
Warrendale, PA
August 12, 2015
9:00am – 10:00am



Agenda



Valued Quality. Delivered.

- Call to Order
- Membership Review
- Approval of Meeting Minutes
- L33-2
 - Matrix Test Results
 - AAM Hardware Update
 - Procedure Updates
- New/Open Issues
- Adjournment

Membership Review



Valued Quality. Delivered.

Voting Members:

- Tom Bryson – Mack
- Allen Comfort – US Army
- John Dharte – AAM
- Thomas Gottwald – Afton
- Rob Banas – ExxonMobil
- Donna Mosher - Eaton
- Bruce McGlone – Meritor
- Scott Parke – TMC
- Angela Trader - Intertek
- Matt Umerly – Lubrizol
- Chintan Ved – Ford
- Rebecca Warden – SwRI
- Jack Zakarain – Chevron
- Khaled Zreik – GM

Any changes?

➤ SP Meeting Minutes

- Conference Call 08July2014
 - (20140708 Conference Call.pdf)
- SP Meeting 13AUG2014
 - (20140813sp.pdf)
- Conference Call 04SEPT2014
 - (21040904 Conference Call.pdf)
- SP Meeting 12NOV2014
 - (20141112sp.pdf)
- SP Meeting 18FEB2015
 - (20150218sp.pdf)

Pilot Batch Test Results



Valued Quality. Delivered.

TMC Oil Code	Rating Location										Final Rust	
	1	2	3	4	5	6	7	8	9	10		
155-1	10	10	9	10	10	9	10	10	10	10	10	9.8
155-1	10	8	8	10	10	10	10	10	10	10	10	9.4
155-1	10	10	8	10	10	10	10	10	10	10	10	9.8
123-2	8	8	8	8	8	8	9	10	8	8	8	8.2
123-2	10	8	8	8	8	8	8	8	8	8	8	8.2
123-2	8	8	8	8	8	8	9	9	8	8	8	8.3

Current v01.1 Targets

155-1 Mean: 9.580 Std. Dev.: 0.250

123-2 Mean: 8.740 Std. Dev.: 0.260

Matrix Test Results



Valued Quality. Delivered.

TMC Oil Code	Rating Location										Final Rust	Comments
	1	2	3	4	5	6	7	8	9	10		
155-1	9	10	9	8	10	9	10	10	10	10	9.4	
155-1	10	8	8	10	10	9	10	10	10	10	9.3	
123-2	8	9	8	8	8	8	10	8	8	8	8.3	Motoring temp issue
123-2	8	5	5	8	8	8	8	8	9	8	7.2	Shut down during warmup but valid
123-2	5	8	8	8	8	8	8	9	8	8	7.8	

Current v01.1 Targets

155-1 Mean: 9.580 Std. Dev.: 0.250

123-2 Mean: 8.740 Std. Dev.: 0.260

- Labs have received ~100 axles each to date (of 695 axles ordered in total)
- Initial hardware findings:
 - Drain plugs still include magnets
 - Break and turn not to final test spec for first ~150 axles shipped (AAM corrected build targets for remainder)
 - Match number is 12 characters long (AAMXXXXXXXXXX)
 - Can eliminate AAM portion but field will have to be lengthened

- Rating templates for AAM axle will need updating:
 - Differential Case Pinion Thrust Surface
 - Side Gear Thrust Surface and Hub
 - Differential Case Side Gear Thrust Surface
- Where applicable, machined surfaces define the rated areas

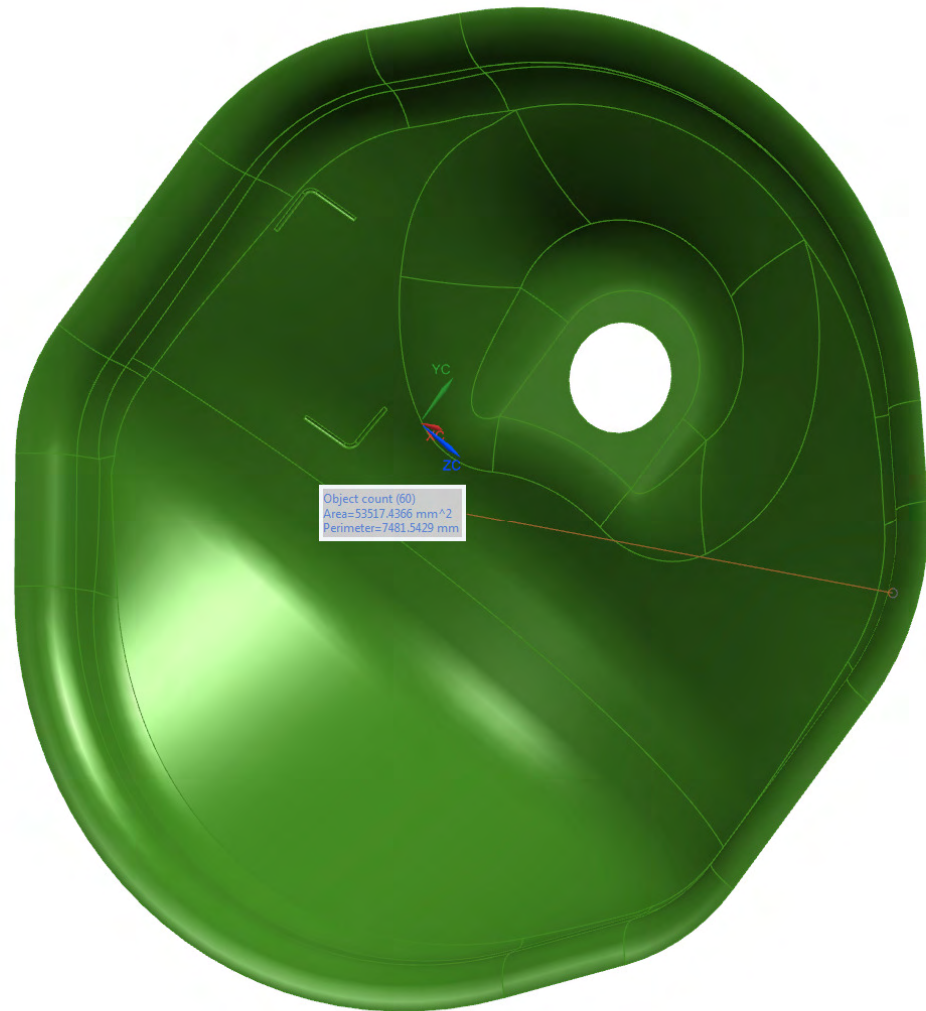
Cover Plate Surface Area

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Axle cover surface area =
53,517.4 mm²

Drain Plug area (19mm
dia) = 283.5 mm²



L-33-2 Procedure



Valued Quality. Delivered.

- Draft of procedure submitted to facilitator June 19, 2015 (mistakenly started with 2013 version of procedure)
- Facilitator indicates a unique title is required and suggests: “Standard Test Method for Evaluation of Moisture Corrosion Resistance of Automotive Gear Lubricants by the L-33-2 Procedure.”
- Most edits are minor (units, etc.)
- Significant edits are to sections 6.2.5, 8.1, 9.2.1, 9.2.2, and 11.1.5.
- Will hold a conference call to go over the procedure in detail in coming weeks

New/Open Issues



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Any new business?




Intertek

Thank You!

ASTM D 7038 L-33-1 SURVEILLANCE PANEL PARTICIPANTS LIST
August 13, 2015

Initials	Name	Voting Y/N/V	Company Name Company Address	Phone / Fax / E-Mail
	<i>Greg Shank</i> Athey, Alison	NV	Mack Volvo 13302 Pennsylvania Ave. Hagerstown, MD 21740	Phone: 301-573-5684 Fax: E-mail: allison.athey@volvo.com <i>Remove</i>
	Barrera, Tony	NV	Intertek Automotive Research 5404 Bandera Road San Antonio, TX 78238	Phone: Fax: E-mail: tony.barrera@intertek.com
<i>pp</i>	Banas, Rob	V	ExxonMobil 114 Arcadia Park Dr. Canton, GA 30114	Phone: 678-493-3930 Fax: E-mail: rob.a.banas@exxonmobil.com
<i>DRB</i>	Bell, Don	NV	Afton Chemical Corp 500 Spring Street Richmond, Virginia 23219	Phone: 804-788-6332 Fax: 804-788-6243 E-mail: don.bell@aftonchemical.com
	Bryson, Tom	V	Mack Trucks 13302 Pennsylvania Avenue Hagerstown, Maryland 21740	Phone: 301-790-5454 Fax: 301-790-6744 E-mail: tomas.bryson@volvo.com
	Boschert, Tom	NV	Afton Chemical Corp 500 Spring Street Richmond, Virginia 23219	Phone: 804-788-5202 Fax: E-mail: tom.boshert@aftonchemical.com
	Bubonic, Brad	NV	The Lubrizol Corporation 29400 Lakeland Boulevard Wickliffe, Ohio 44092	Phone: 440-347-5325 Fax: E-mail: @lubrizol.com




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August 13, 2015

Initials	Name	Voting Y/NV	Company Name Company Address	Phone / Fax / E-Mail
	Clark, Jeff	NV	TMC 6555 Penn Avenue Pittsburgh, PA 15206	Phone: 412-365-1032 Fax: E-mail: jac@astmtmc.cmu.edu
	Comfort, Allen	V	US Army TACOM Mail Stop 110 6501 E. 11 Mile Road Warren, MI 48397-5000 AMSTA-TR-D / 210	Phone: 586-282-4225 Fax: 586-282-4244 E-mail: allen.s.comfort@us.army.mil
	Dwornick, Bridget (Brosnan)	NV	US Army TACOM Mail Stop 110 6501 E. 11 Mile Road Warren, MI 48397-5000 RDTA-DP/210	Phone: 586-282-4221 Fax: 586-574-4224 E-mail: bridget.dwornick@us.army.mil
	Dharte, John	V	AAM 1 Dauch Drive Detroit, Michigan 48211	Phone: 313-758-4687 Fax: 313-758-4237 E-mail: Dhartej@aam.com
	Foecking, Brain	NV	The Lubrizol Corporation 29400 Lakeland Boulevard Wickliffe, Ohio 44092	Phone: (440) 347-2130 Fax: E-mail: bjf@lubrizol.com
	Gottwald, Thomas	V	Afton Chemical Corp 500 Spring Street Richmond, Virginia 23219	Phone: 804-788-5230 Fax: E-mail: thomas.gottwald@aftonchemical.com
	Gropp, Jerry	NV	The Lubrizol Corporation 29400 Lakeland Boulevard Wickliffe, Ohio 44092	Phone: 440-347-1223 Fax: 440-347-1555 E-mail: jg@lubrizol.com

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Initials	Name	Voting V/NV	Company Name Company Address	Phone / Fax / E-Mail
LH	Hamilton, Larry	NV	The Lubrizol Corporation 29400 Lakeland Boulevard Wickliffe, Ohio 44092	Phone: 440-347-2326 Fax: E-mail: larry.hamilton@lubrizol.com
	Higuchi, Sam	NV	Afton Chemical Corp 500 Spring Street Richmond, Virginia 23218	Phone: 804-788-5375 Fax: 804-788- E-mail: samuel.higuchi@aftonchemical.com
	Hobson, Kevin	NV	Afton Chemical Corp 500 Spring Street Richmond, Virginia 23218	Phone: 804-788- Fax: 804-788- E-mail: kevin.hobson@aftonchemical.com
P.P.K.	Kanga, Percy	NV	ExxonMobil Research Engineering Co. 600 Billingsport Road Paulsboro, NJ 08066	Phone: 856-224-2094 Fax: 856-224-3613 E-mail: percy.r.kanga@exxonmobil.com
	Kearney, Bill	NV	Afton Chemical Corp 2000 Tower Center Southfield, MI 48075	Phone: 248-302-8531 Fax: E-mail:
MEM	Keisler, Marc	NV	Afton Chemical Corp 500 Spring Street Richmond, Virginia 23219	Phone: Fax: E-mail: marc.keisler@aftonchemical.com
	Koehler, Brian	NV	Southwest Research Institute P.O. Drawer 28510 San Antonio, Texas 78228	Phone: 210-522-3588 Fax: 210-684-7523 E-mail: bkoehler@swri.edu

ASTM D 7038 L-33-1 SURVEILLANCE PANEL PARTICIPANTS LIST
August 13, 2015

Initials	Name	Voting Y/NV	Company Name Company Address	Phone / Fax / E-Mail
	McGlone, Bruce	V	Meritor 2135 West Maple Troy, Michigan 48084	Phone: 248-435-9929 Fax: 248-435-1411 E-mail: Bruce.McGlone@Meritor.com
	Mosher, Donna	NV	Eaton Corporation 26201 Northwestern Highway Southfield, MI 48037	Phone: Fax: E-mail:
	Muransky, Troy	ALT NV	Meritor 2135 West Maple Troy, Michigan 48084	Phone: Fax: E-mail: troy.muransky@meritor.com
	Prengaman, Chris	NV	The Lubrizol Corporation 29400 Lakeland Boulevard Wickliffe, Ohio 44092	Phone: Fax: E-mail: Christopher.Prengaman@lubrizol.com
	Parke, Scott	V	TMC 6555 Penn Avenue Pittsburgh, PA 15206	Phone: 412-365-1036 Fax: E-mail: sdp@astmtmc.cmu.edu
	Recinos, William	NV	Afton Chemical Corp 500 Spring Street Richmond, Virginia 23218	Phone: 804-788- Fax: 804-788- E-mail: william.recinos@aftonchemical.com
	Smith, Dale	NV	Intertek Automotive Research 5404 Bandera Road San Antonio, TX 78238	Mobil: 412-855-6854 Phone: 210-706-1570 Fax: 210-684-6074 E-mail: dale.smith@intertek.com

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Initials	Name	Voting Y/N/V	Company Name Company Address	Phone / Fax / E-Mail
	Trader, Angela (Chairman)	V	Intertek Automotive Research 5404 Bandera Road San Antonio, Texas 78238	Phone: 210-706-1533 Fax: 210-684-6074 E-mail: angela.trader@intertek.com
MU	Umerley, Matt	V	The Lubrizol Corporation 29400 Lakeland Boulevard Wickliffe, Ohio 44092	Phone: 440-347-4589 Fax: E-mail: Mathew.Umerly@lubrizol.com
	Ved, Chintan	V	Ford Transmission and Driveline 35500 Plymouth Rd L, MI, 48150	Phone: 313-805-9495 Fax: 734-523-3960 E-mail: cved@ford.com
RLW	Warden, Rebecca	V	Southwest Research Institute P.O. Drawer 28510 San Antonio, Texas 78228	Phone: 210-522-6266 Fax: 210-684-7523 E-mail: Rebecca.Warden@swri.edu
	Zakarian, Jack	V	Chevron	Phone: Fax: E-mail: jaza@chevron.com
	Zreik, Khaled	V	General Motors	Phone: 248-977-9214 Fax: E-mail: khaled.zreik@gm.com
	CHRIS LONSWAY	NV	LUBRIZOL 29400 LAKELAND BLVD WICKLIFFE, OHIO 44092	Phone: 440-347-4517 Fax: E-mail: CHRIS.LONSWAY@LUBRIZOL.COM

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Initials	Name	Voting V/NV	Company Name Company Address	Phone / Fax / E-Mail
Juv	ARJUN GOYAL	NV	BASF 500 White Plains Rd Tarrytown, NY 10577	Phone: 914-785-2083 Fax: E-mail: Arjun.Goyal@BASF.com
				Phone: Fax: E-mail:
				Phone: Fax: E-mail:
				Phone: Fax: E-mail:
				Phone: Fax: E-mail:
				Phone: Fax: E-mail:
				Phone: Fax: E-mail:

