

**Report of Meeting**  
**L-37-1 Surveillance Panel Conference Call**  
**May 13, 2020**

**Attendees:**

SwRI -	<b>Warden,</b>
Lubrizol -	Venhoff, <b>Slocum</b> , Drjla
Afton -	<b>Sangpeal</b> , Horvath, Bell
Intertek -	<b>Smith</b> , Lange
TMC -	<b>Beck</b> , Clark
ExxonMobil -	<b>Banas</b> , Kanga
BASF -	
Dana -	<b>Zyski</b>
Meritor -	<b>LaBond</b> , Carter
Army -	<b>Comfort</b> , Sattler
AAM -	<b>Muransky</b>
Linamar -	<b>Cabaj</b>

Voting Members in **BOLD**

The meeting was called to order at 15:40 pm EST.

**1.0 Membership Review**

**No changes**

**2.0 Meeting minutes Approval**

- February 19th, 2020 (LRI# 196)

**Motion #1 → A. Zyski 1<sup>st</sup> /2<sup>nd</sup> W. Venhoff to approve the meeting minutes from the February 19<sup>th</sup>, 2020 (LRI# 196), Motion passed unanimously, 11-0-0 (Yes-No-Abstain).**

**3.0 New Gleason Batch Data**

Data looks favorable. TMC put together NL targets including the 4 runs per lab. Email vote in progress and 2019/2020 Gleason NonLubrited batch may be approved by 5/20/2020

Was discussed that subsequent delivered could possibly use to reference stand to see if any anomalies rise from batch to batch.

**4.0 Strange Axle Implementation**

All In favor of using Strange Axle. R. Slocum to draft D8165 procedural changes to include Strange Axle.

Comments: Most labs no issues. LZ have seen evidence of spool side bearings possibly spinning. LZ presses and pulls bearings. Intertek mentioned they heat bearings for installation. Will need to keep an eye on it.

## 5.0 New Business

T. Muransky brought up good point of looking into having some sort of specs around the Lubrifying process. Currently Gleason uses Custom Coating LLC. Mike Dennis provided an email from 2014 when I enquired about the process prior to this LRI Meeting. R. Slocum will reach out to Gleason again to see if we can get any additional specifics from Custom Coating LLC. Below from 2014 email to L371 task force from Bill Kearney/ Cory Koglin

Jan 24, 2014

For Custom Coatings: Ron Meyer, General Mgr

: Denny Davis, Quality and EPA Coordinator

For Afton: Koglin, Kearney

### Company background

- They have been in business for over 25 years.
- Regularly do small volume work for Dana.
- Are approved to do lubrifying for other suppliers/OEMs.
- They use Henkel chemicals and follow Henkel's lubrifying Technical Bulletin (but use a tighter range than recommended by Henkel.)

### QA Procedures

- Rings and pinions will be controlled by weight of coating.
- Rather than weighing each piece they suggested that panels be used to measure coating weight. One panel in the beginning of a run, one in the middle and one at the end. (They use two panels in case one is discarded.)
- They were very proud of their small grain size—creates uniform depth and no gaps—leads to excellent break in characteristics.
- We can add SEM type photographs as a QA parameter for a price.
- They stated their process and baths were in control, but were very protective of their methods. They promised to try and answer any questions from the Thurs meeting.
- They have ISO 9001 and several Military related certifications.
- In the last 6 years they have had 0 PPM—0 lubrified warranty defects per millions units.

### Logistics

- They do not supply any packing materials—they will use whatever the green gears come in. However, there could be increased costs if the packing materials are labor intensive.
- They do not have contracts with trucking companies. They use the preferred carrier of the customer.

### MISC

- They were agreeable to a visit from a small number of the Task Force, but will want to protect their expertise from certain companies.
- We were not given a tour—they had a new customer in the plant.
- Cory left them an "RFQ" for the initial pilot batch of 400 gears. (They sent us a quote on Monday--\$10.40/set of ring and pinion.)
- Our ongoing order of 500-1000 pieces per year will be an easy order to fulfill.

## 6.0 Adjourn

Meeting Adjourned at 16:45 pm EST

**Motion #2 → D. Smith 1<sup>st</sup> /2<sup>nd</sup> M. Cabaj to adjourn. Motion passed unanimously, 11-0-0 (Yes-No-Abstain).**

Respectfully submitted,

Robert Slocum

L-37-1 Surveillance Panel Chairman

Presenters (7)

Don Guest				
Don Guest				
Drlja, Kristijan				
Dylan Beck Guest				
Matt Sangpeal Guest				
Slocum, Robert				
Venhoff, Wes				

Attendees (26)

+1 (210) 413-3602 Guest				
+1 (210) 690-1958 Guest				
+1 (210) 846-7210 Guest				
+1 (330) 618-5606 Guest				
+1 (724) 355-1854 Guest				
+1 (804) 788-5000 Guest				
+1 (905) 567-8166 Guest				
+1 (908) 335-3780 Guest				
Allen C. Guest				
Anthony Lange - Intertek				
Becky Grinfield Guest				
Cabaj Guest				
Dale Smith - External Net...				
Dan Horvath Guest				
Dave Dragert Guest				
Drlja, Kristijan Guest				
intertek Guest				
Jason Carter - Meritor, Inc.				
Jeff Clark Guest				
Jessica LaBond Guest				
Mike Lopez Intert... Guest				
Rebecca Warden-... Guest				
Slocum, Robert Guest				
Troy Muransky - AAM				
Uy, Dairene GSUS... Guest				
Zyski, Amy Guest				



D02.B0.03

# L-37-1 Surveillance Panel Meeting

05/13/2020

3:45 pm – 5:00 pm

Robert Slocum

## Agenda

- Call to Order/Agenda review
- Membership review
- Meeting Minute Approvals
  - February 19, 2020 (LRI# 196)
- New Gleason Batch Data
- Strange Axles implementation
- New business
- Adjournment



# Membership Review

Rob Banas	ExxonMobil
Allen Comfort	US Army
Troy Muransky	AAM
Matt Sangpeal	Afton
Arjun Goyal	BASF
Amy Zyski	Dana
Dylan Beck	TMC
Jessica LaBond	Meritor
Anthony Lange	Intertek
Robert Slocum	Lubrizol
Rebecca Warden	SwRI
Kaled Zreik	GM
Mike Cabaj	Linamar

**Total Voting Members = 13**



# Meeting Minutes Approval

- February 19, 2020 (LRI# 196)

# New Gleason Batch Data

- Batch Approval or additional data pts?
- Subsequent batches testing??

LTMSL	IND	BATC	PINBA	RINGBA		WEAR	RIDG	RIPP	SPIT	SPECI	WEARR	RIDGR	RIPPR	SPITR
A	155-1	01-2020	2883886	2883888	STANDARD	7	9	8	9.9	01-2020	8	9	9	9.9
A	152-2	01-2020	2883886	2883888	STANDARD	7	9	7	9.9	01-2020	8	9	9	9.9
A	134-1	01-2020	2883886	2883888	STANDARD	5	3	8	9.3	01-2020	5	5	8	9.5
B	152-2	12-2019	2883842	2883845	STANDARD	8	9	9	9.9	12-2019	9	10	10	9.9
A	152-2	01-2020	2883886	2883888	CANADIAN	7	8	8	9.9	01-2020	7	8	9	9.9
B	134-1	12-2019	2883842	2883845	STANDARD	5	5	9	4	12-2019	7	5	10	8
B	152-2	12-2019	2883842	2883845	CANADIAN	8	9	8	9.9	12-2019	9	9	10	9.9
B	155-1	12-2019	2883842	2883845	STANDARD	8	9	8	9.9	12-2019	9	10	10	9.9
D	155-1	12-2019	2883847	2883849	STANDARD	7	9	9	9.9	12-2019	9	9	10	9.9
D	152-2	12-2019	2883847	2883849	STANDARD	7	9	8	9.9	12-2019	9	9	10	9.9
D	152-2	12-2019	2883847	2883849	CANADIAN	7	8	8	9.9	12-2019	8	8	9	9.9
D	134-1	12-2019	2883847	2883849	STANDARD	6	4	8	9.9	12-2019	6	4	9	9.9
G	134-1	01-2020	2883892	2883894	STANDARD	6	4	8	9.9	01-2020	6	6	8	9.9
G	155-1	01-2020	2883892	2883894	STANDARD	7	9	7	9.9	01-2020	8	10	9	9.9



# New Gleason Batch Data

Undefined distress present in both

Standard 152-2					
	Original Ring Rating		Original Pinion Rating		
Wear	8.00000		7.00000		
Rippling	9.00000		5.00000		
Ridging	9.00000		9.00000		
Pitting/Spalling	9.90000		9.90000		
Scoring	10.00000		10.00000		
Original Individual Tooth Ratings					
	1	2	3	4	5
Pitting/Spalling	9.90000	9.90000	9.90000	9.90000	9.90000
Remarks					
01-2020-101					
Pinion : Undefined distress.					
Canadian 152-2					
	Original Ring Rating		Original Pinion Rating		
Wear	7.00000		7.00000		
Rippling	9.00000		9.00000		
Ridging	9.00000		8.00000		
Pitting/Spalling	9.90000		9.90000		
Scoring	10.00000		10.00000		
Original Individual Tooth Ratings					
	1	2	3	4	5
Pitting/Spalling	9.90000	9.90000	9.90000	9.90000	9.90000
Remarks					
Chips on Pinion Land.					
Unidentified Distress.					
01-2020-102					

## New Gleason Batch Data

- Batch Approval or additional data pts?
- Subsequent batches testing??

# Strange Axle implementation

- Able to use either Dana/Strange housings?
- Able to use either Spool / Open Diff??
- Strange Hardware labeling convention
  - Current Labeling

8.2.1.1 Do not use Dana Model 60 Axle housings for more than 4 tests.

8.2.1.2 When rebuilding an axle assembly, use the format **LAB-CXXXX-NN** to create a serial number, where:

LAB designates the assembly as being lab-built;

C is the one-character TMC coded lab designation;

XXXX is a unique 4-digit identifier for the housing;

NN is a 2-digit count of the number of rebuilds on the housing.

(1) Permanently mark the serial number into the axle tube at a location near the housing vent.

(2) Revise the 2-digit rebuild count number each time the assembly is rebuilt.



# New Business

- ?



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L-37-1 Surveillance Panel Meeting

Adjourn