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**Committee D02 on PETROLEUM PRODUCTS AND LUBRICANTS**

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February 22<sup>th</sup>, 2016

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

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

**February 10<sup>th</sup>, 2016 Surveillance Panel Meeting (PRI – Warrendale, PA)**

Please direct any corrections or comments to my attention.

Very Respectfully,

Eric Donovan, Chairman  
L-42 Surveillance Panel

## L-42 Surveillance Panel Meeting Minutes

PRI – Warrendale, PA

February 10, 2016

**Attendees:** voting members in **bold**, \* indicates called in via teleconference

|                             |                              |                            |
|-----------------------------|------------------------------|----------------------------|
| <b>R. Banas (XOM)</b>       | B. Foecking (LZ)             | <b>D. Smith (Intertek)</b> |
| D. Bell (Afton)             | *T. Gottwald (Afton)         | <b>M. Umerley (LZ)</b>     |
| B. Bubonic (LZ)             | P. Kanga (XOM)               | <b>R. Warden (SwRI)</b>    |
| <b>J. Dharte (AAM)</b>      | B. Kearney (Afton)           | W. Venhoff (LZ)            |
| <b>E. Donovan (Afton/C)</b> | *J. Milner (Tianhe Chemical) |                            |
| *K. Duho (Valvoline)        | <b>S. Parke (TMC)</b>        |                            |

### Call to Order

#### Review of Agenda

The meeting agenda is attached.

#### Review of Membership

Jerry Gropp has retired from Lubrizol. Wes Venhoff has been added to the distribution list in replacement of Jerry.

#### Approval of Meeting Minutes

Meeting minutes for approval:

- "20151104\_SP" → November 4, 2015 – Troy, MI

Motion by R. Warden, second by J. Dharte to approve meeting minutes as presented. Unanimous approval, no abstentions.

#### L-42-1 Development Update

E. Donovan described Afton attempts to run the L-42 test on an all-electric T rig. The test utilized an L-42 Dana 44 mounted without springs and used actual L-42 data as setpoints. The goal is to tune the rig so it runs the test mimicking a regular L-42 and then run portions of Shock 2 to determine the origin of scoring. The first shakedown tests showed promise but more drive tuning is needed to achieve the desired system response.

#### L-42-1 Task Force

E. Donovan to set up L-42-1 Task Force meeting at a later date to continue discussions of test development.

**New/Open Issues**

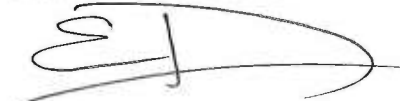
R. Warden raised concerns over hardware cost; desire to search for a new hardware option while developing L-42-1 electric test before the current batch of hardware runs out. Discussion was held about banjo style axles such as Nissan or Toyota Tacoma axles with a removable center section allowing the housing to remain in the stand. Possibly use an AAM axle of similar dimensions if available.

M. Umerley discussed that Lubrizol performed an internal audit of their L-42 test stand and discovered no documentation/markings on their springs to document that they are of the SAE 1074 RC42-46 material per D7452-14 Fig. A2.8. Searching suppliers local to Lubrizol discovered that SAE 1074 is difficult to obtain to make new springs. M. Umerley to research and share information with the panel.

**Adjournment**

Motion by R. Warden, second by D. Smith. All in favor.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Eric Donovan', written over a horizontal line.

Eric Donovan

L-42 Surveillance Panel Chairman



## L-42 Surveillance Panel Meeting

PRI Headquarters  
Warrendale, PA  
February 10, 2016  
10:00am-11:00am

Passion for Solutions™

# Agenda

- 📌 Call to Order
- 📌 Agenda
- 📌 Membership Review & Update
- 📌 Approval of Meeting Minutes
- 📌 L-42-1 Development
- 📌 L-42-1 Task Force
- 📌 New/Open Issues
- 📌 Adjournment

## L-42 SP Voting Members

- ▲ Rob Banas - ExxonMobil
- ▲ Allen Comfort – US Army
- ▲ John Dharte – AAM
- ▲ Eric Donovan – Afton Chemical (Chair)
- ▲ Bruce McGlone – Meritor
- ▲ Scott Parke – TMC
- ▲ Dale Smith – Intertek
- ▲ Matt Umerley– Lubrizol
- ▲ Rebecca Warden – SwRI

# Approval of Meeting Minutes

## SP Meeting Minutes

▲ “20151104\_SP” → Nov 4, 2015 – Troy, MI

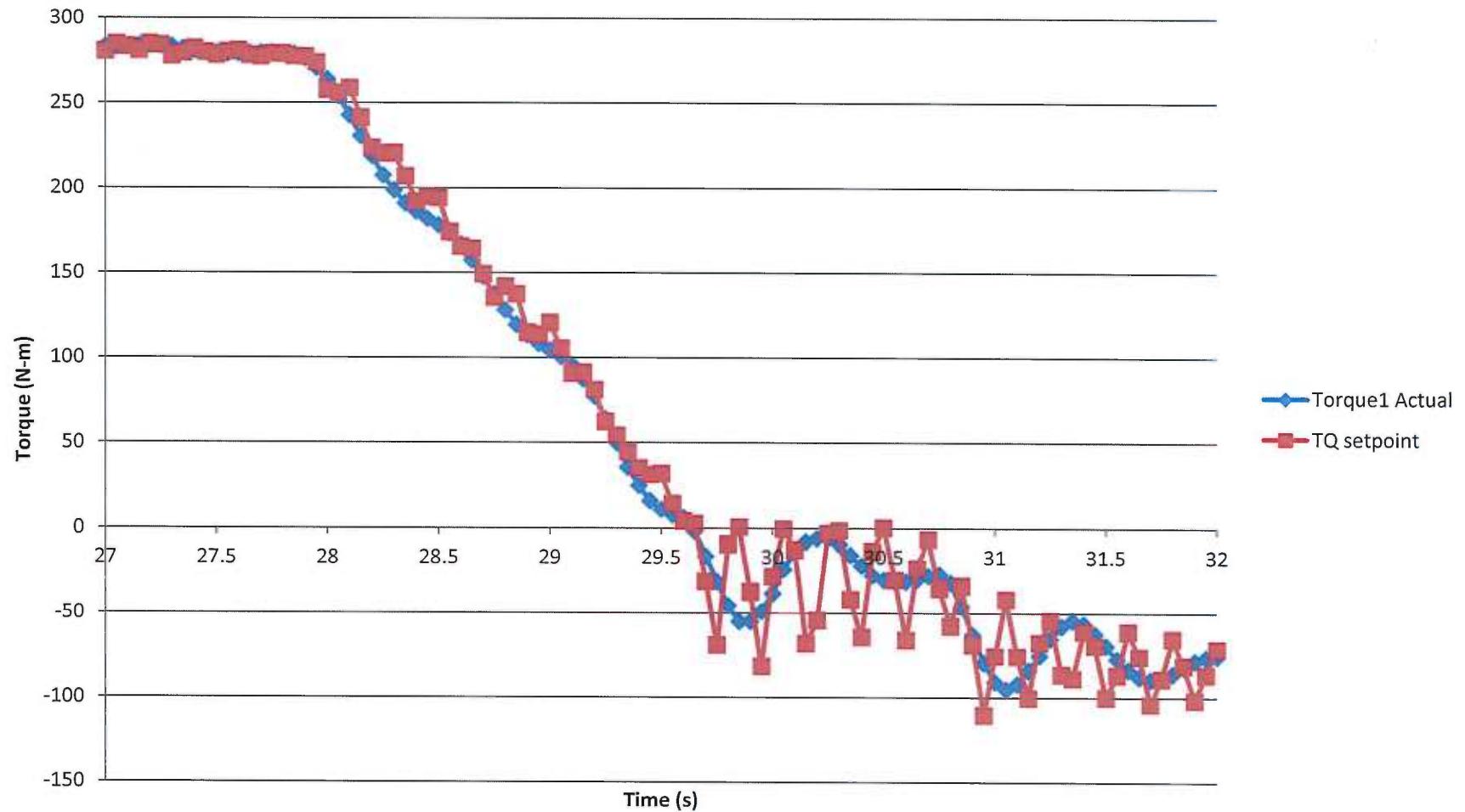
## L-42-1 Development

- 📈 **Electric T-rig (input and outputs)**
- 📈 **Dana 44 mounted without springs**
- 📈 **Data from L-42 run was used to create 20 Hz setpoints for initial L-42-1 testing**
- 📈 **Goal is to have the rig follow L-42 setpoints first then use mathematical model for setpoints**



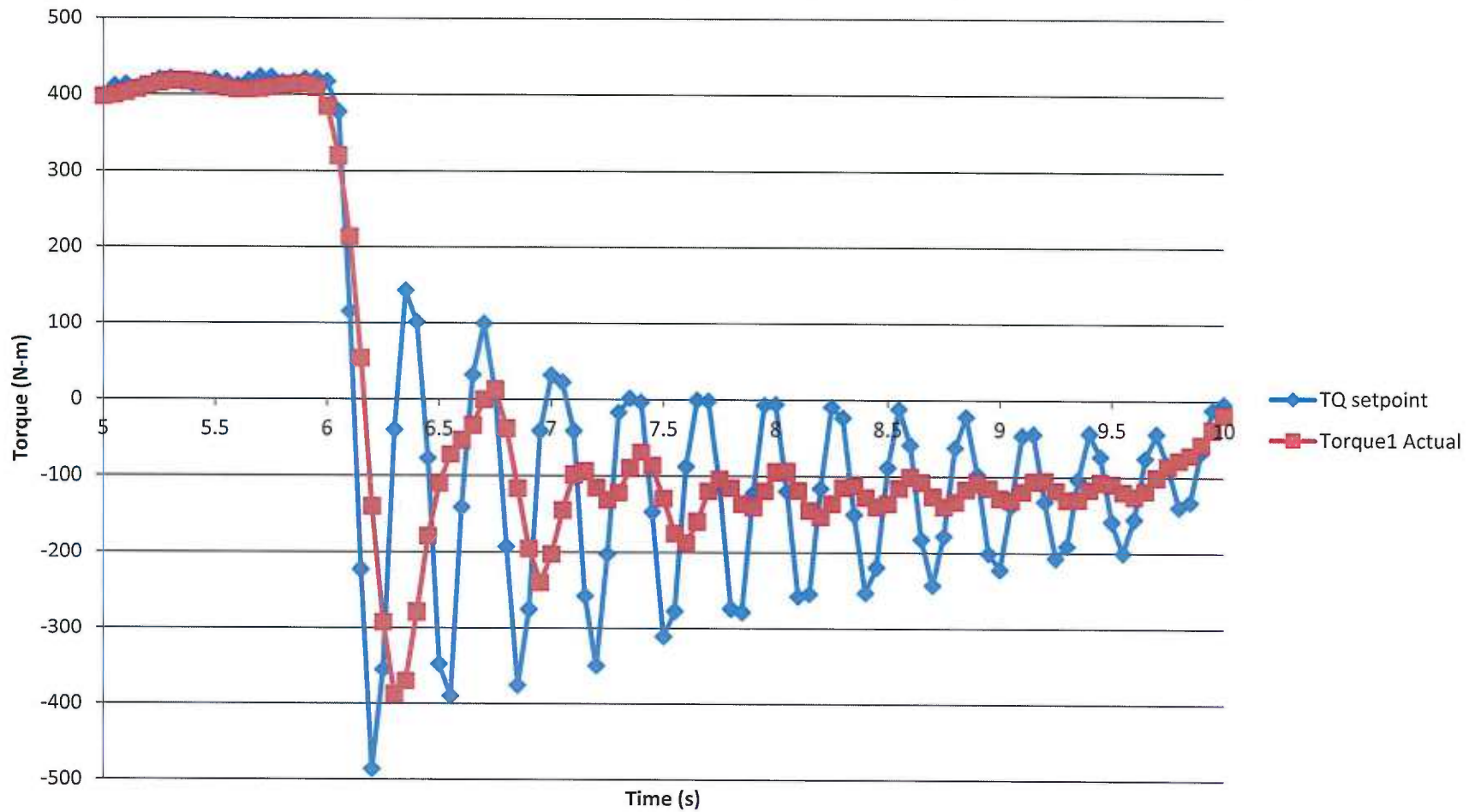
# L-42-1 Development

## L42-1 Shock 1 - Input Torque Comparison



# L-42-1 Development

## L42-1 Shock 2 - Input Torque Comparison



## L-42-1 Task Force

-  Eric Donovan
-  Allen Comfort
-  Matt Umerley
-  Rebecca Warden
-  Angela Trader
-  Dale Smith

# New/Open Issues

Thanks!



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**L-42 Surveillance Panel Membership/Attendance**  
**PRI - Warrendale, PA**  
**Feb 10, 2016**

| Initials    | Name             | Voting<br>Non-Voting | Company Name<br>Company Address  | Contact information |  |
|-------------|------------------|----------------------|--|---------------------|--|
| ✓ <i>RB</i> | Banas, Rob       | V                    | ExxonMobil Fuels, Lubricants & Specialties                               | Phone:              | 678-493-3930   |
|             |                  |                      | 114 Arcadia Park Dr.<br>Canton, GA 30114                                 | E-mail:             | <a href="mailto:rob.a.banas@exxonmobil.com">rob.a.banas@exxonmobil.com</a>         |
|             | Barrera, Tony    | NV                   | Intertek Automotive Research   | Phone:              | 210-523-4653   |
|             |                  |                      | 5404 Bandera Rd.<br>San Antonio, TX 78238                                | E-mail:             | <a href="mailto:tony.barrera@intertek.com">tony.barrera@intertek.com</a>           |
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|             | Chambers, Harold | NV                   | Linamar Driveline Systems  | Phone:              | 248-358-6038   |
|             |                  |                      | Travelers Tower 1<br>26555 Evergreen Rd. Ste 900<br>Southfield, MI 48076 | E-mail:             | <a href="mailto:harold.chambers@linamar.com">harold.chambers@linamar.com</a>       |
|             | Comfort, Allen   | V                    | US Army TARDEC   | Phone:              | 586-282-4225   |
|             |                  |                      |  | E-mail:             | <a href="mailto:allen.s.comfort.civ@mail.mil">allen.s.comfort.civ@mail.mil</a>     |
| ✓ <i>JD</i> | Dharte, John     | V                    | AAM  | Phone:              | 313-758-4687   |
|             |                  |                      | 1 Dauch Drive<br>Detroit, MI 48212                                       | E-mail:             | <a href="mailto:dhartej@aam.com">dhartej@aam.com</a>                               |
| ✓ <i>ED</i> | Donovan, Eric    | V/Chair              | Afton Chemical   | Phone:              | 804-788-5097   |
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PRI - Warrendale, PA  
Feb 10, 2016**

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|            |                   |                      | 6501 E. 11 Mile Rd.<br>RDTA-DP MS 110<br>Warren, MI 48397 | E-mail:             | <a href="mailto:bridget.l.dwornick.civ@mail.mil">bridget.l.dwornick.civ@mail.mil</a>     |
| ✓ BTF      | Foecking, Brian   | NV                   | The Lubrizol Corporation                                  | Phone:              | 440-347-2130   |
|            |                   |                      | 29400 Lakeland Boulevard<br>Wickliffe, OH 44092           | E-mail:             | <a href="mailto:loif@lubrizol.com">loif@lubrizol.com</a>                                 |
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|            | Goyal, Arjun      | NV                   | BASF  | Phone:              | 914-785-2083   |
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**Feb 10, 2016**

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