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Committee D02 on PETROLEUM PRODUCTS AND LUBRICANTS

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November 16th, 2020

Reply to:
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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:

November 10, 2020 L-42 Surveillance Panel Meeting (Virtual Meeting – Microsoft Teams)

Please direct any corrections or comments to my attention.

Very Respectfully,

Matt Sangpeal, Chairman
L-42 Surveillance Panel

L-42 Surveillance Panel Meeting Minutes

Virtual Meeting – Microsoft Teams

November 10, 2020

Attendees: voting members in **bold**

R. Banas (Exxon Mobil)

S. Bealko (LZ)

D. Beck (TMC)

D. Bell (Afton)

J. Carter (Meritor)

B. Cereghino (IPAC)

K. Drlja (LZ)

T. Friesen (IPAC)

A. Goyal (BASF)

P. Kanga (Exxon Mobil)

J. LaBond (Meritor)

A. Lange (Intertek)

D. Moser (BASF)

T. Muransky (AAM)

D. Rabinowitz (Chrysan)

M. Sangpeal (Afton/C)

E. Sattler (US Army)

R. Slocum (LZ)

D. Smith (Intertek)

D. Uy (Shell)

W. Venhoff (LZ)

R. Warden (SwRI)

A. Zyski (Dana)

Call to Order

Review of Agenda

The meeting agenda is attached.

Review of Membership

No membership changes were needed.

Approval of Meeting Minutes

Meeting minutes for approval:

- “20200812_SP” → August 12, 2020 – Virtual Surveillance Panel Meeting – Microsoft Teams

A motion was made to approve these meeting minutes as presented.

Motion: J. LaBond

Second: W. Venhoff

All in favor, no objections, no abstentions.

L-42-1 Development

M. Sangpeal reviewed what was discussed during the previous SP meeting. R. Warden updated the group on SwRI’s development progress. SwRI has rebuilt their stand and they have proven L-37-1 performance. They plan to verify L-42 performance next (specifically the shock profiles). They will use their shakedown axle for this initial work. Progress will be reported in the February 2021 SP meeting. SwRI is not ready to accept donated hardware at this time.

New Hardware Order

M. Sangpeal reviewed the status of Afton's L-42 hardware order. He also shared that the Colfor Manufacturing Plant in Malvern, OH, experienced a major fire in September. The forging press that produces the pinion blanks was heavily damaged. The press dies and raw material were undamaged. Afton will wait until the press is repaired to reduce manufacturing variation. The order is delayed until at least February 2021.

None of the other three labs are ready to place a new hardware order anytime soon.

L-42 Spring Plates

M. Sangpeal shared information regarding ordering new spring plates for the L-42 test stand. Afton recently had two spring plates fail. 3D Design and Manufacturing in Powhatan, VA supplied the new plates (see attached presentation for contact info). The springs are stamped with material and hardness info for audit traceability.

New/Open Issues

No new issues.

Adjournment

A motion was made to adjourn.

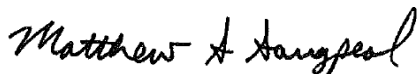
Motion: R. Slocum

Second: A. Comfort

All in favor, no objections, no abstentions.

Meeting adjourned.

Respectfully submitted,



Matt Sangpeal

L-42 Surveillance Panel Chairman





L-42 Surveillance Panel Meeting

ASTM D7452

Virtual Meeting
November 10, 2020
2:30 pm - 3:00 pm EST

Passion for Solutions™

Agenda

-  **Call to Order**
-  **Agenda**
-  **Membership Review & Update**
-  **Approval of Meeting Minutes**
 -  20200812 SP Meeting
-  **L-42-1 Development**
 -  Testing development
 -  Hardware donation
-  **2020 Hardware Order Update**
-  **Spring Plates**
-  **New Issues**
-  **Adjournment**

L-42 SP Voting Members

| | |
|---|------------------------|
|  Rob Banas: | ExxonMobil |
|  Dylan Beck: | TMC |
|  Mike Cabaj: | Linamar |
|  Allen Comfort: | US Army |
|  Arjun Goyal: | BASF |
|  Troy Muransky: | AAM |
|  Jessica LaBond: | Meritor |
|  Matt Sangpeal: | Afton Chemical (Chair) |
|  Robert Slocum: | Lubrizol |
|  Anthony Lange: | Intertek |
|  R. Warden: | SwRI |
|  Amy Zyski: | Dana |

Approval of Meeting Minutes

SP Meeting Minutes

- ▲ “20200812_SP” → August 12, 2020 – Virtual Surveillance Panel Meeting – Microsoft Teams

L-42-1 Development

From last meeting (8/12/2020):

- ▲ Past development efforts were reviewed
- ▲ Agreed to keep using Dana 44 axle for electric stand development
- ▲ SwRI has a test rig with electric input motor, eddy current absorbers, and L-42 spring plates
- ▲ SwRI will donate rig time and investigate impact of each phase of the L-42 test on scoring
- ▲ Hardware is required for this work, need donations from other labs

New Testing Developments?

L-42-1 Development – Hardware Donation

- ▲ **Surplus hardware available to donate to development effort**
 - ▲ Afton: Several C1L680, P8T025A
 - ▲ Intertek: 2 axles, batch unknown
 - ▲ LZ: ?
- ▲ **Quantities donated by each lab should be equal (if possible)**
- ▲ **Is SwRI ready to accept axles?**

L-42 2020 Hardware Order Update

- ▲ **Colfor Manufacturing in Malvern, OH had a major fire in Sept.**
 - ▲ Colfor manufactures the pinion forgings for the L-42 axle builds
- ▲ **Raw material for pinions was not on-site at time of fire**
- ▲ **Forging press heavily damaged**
 - ▲ Forging press dies stored elsewhere, undamaged
- ▲ **Plan to wait for press to be repaired to reduce potential variation in manufacturing**
- ▲ **Pilot batch delayed until ~February, 2021**

L-42 2020 Hardware Order Update

Do any of the other three labs need hardware soon?

- ▲ Given current delays
- ▲ Contact Bernie May at Dana if interested

L-42 Spring Plates

▲ Afton has contracted a machine shop near Richmond, VA to produce spring plates

- ▲ SAE 1074/1075 steel, HRC 42-46
- ▲ Traceable material and heat treat

▲ Enough left-over material to make 2 additional sets

- ▲ \$338.88 per spring

▲ 3D Design and Manufacturing

- ▲ 2620 Farmington Lane, Powhatan, VA 23139
- ▲ 804-214-3229



New Issues



Thanks!



Passion for Solutions™

**L-42 Surveillance Panel Membership/Attendance
Virtual Meeting, Microsoft Teams
November 10, 2020**

| Present = P Accept = A Tent. = T Decline = D | Name | Voting Non-Voting | Company Name Company Address | Contact information | |
|---|----------------|----------------------|--|---------------------|--|
| | Aguirre, Nancy | NV | Intertek Automotive Research | Phone: | |
| | | | 5404 Bandera Rd. San Antonio, TX 78238 | E-mail: | nancy.aguirre@intertek.com |
| P | Banas, Rob | V | ExxonMobil Fuels, Lubricants & Specialties | Phone: | 678-493-3930 |
| | | | 114 Arcadia Park Dr. Canton, GA 30114 | E-mail: | rob.a.banas@exxonmobil.com |
| | Barrera, Tony | NV | Intertek Automotive Research | Phone: | 210-523-4653 |
| | | | 5404 Bandera Rd. San Antonio, TX 78238 | E-mail: | tony.barrera@intertek.com |
| P | Beck, Dylan | V | ASTM Test Monitoring Center | Phone: | 724-355-1854 |
| | | | 6555 Penn Ave Pittsburg, PA 15206 | E-mail: | djb@astmtmc.cmu.edu |
| P | Bell, Don | NV | Afton Chemical | Phone: | 804-788-6332 |
| | | | 500 Spring St. Richmond, VA 23219 | E-mail: | don.bell@aftonchemical.com |

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|---|------------------|----------------------|---|---------------------|--|
| | Cabaj, Mike | V | Linamar | Phone: | 313-820-0119 |
| | | | 32233 W. 8 Mile Road Livonia, MI 48152 | E-mail: | michael.cabaj@linamar.com |
| | Camposo, Lucas | NV | Evonik | Phone: | 215-706-5809 |
| | | | 723 Electronic Dr Horsham, PA 19044 | E-mail: | lucas.camposo@evonik.com |
| | Clark, Jeff | NV | ASTM Test Monitoring Center | Phone: | 412-365-1032 |
| | | | 6555 Penn Ave Pittsburg, PA 15206 | E-mail: | jac@astmtmc.cmu.edu |
| P | Comfort, Allen | V | US Army CCDC | Phone: | 586-282-4225 |
| | | | | E-mail: | allen.s.comfort.civ@mail.mil |
| P | Drlja, Kristijan | NV | The Lubrizol Corporation | Phone: | 440-391-6374 |
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| | Farber, Frank | NV | TMC | Phone: | 412-365-1030 |
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| | Foecking, Brian | NV | The Lubrizol Corporation | Phone: | 440-347-2130 |
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| P | Friesen, Terry | NV | IPAC Inc. | Phone: | 925-556-5530 |
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| P | Goyal, Arjun | V | BASF | Phone: | 914-785-2083 |
| | | | 500 White Plains Rd Tarrytown, NY 10591 | E-mail: | arjun.goyal@basf.com |
| | Horvath, Dan | NV | Afton Chemical | Phone: | 248-514-2551 |
| | | | 2000 Town Center, Suite 1160 Southfield, MI 48075 | E-mail: | dan.horvath@aftonchemical.com |

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| | Jackson, Matt | NV | Southwest Research Institute | Phone: | 210-522-6981 |
| | | | | E-mail: | matt.jackson@swri.org |
| | Joy, Tisha | NV | BASF | Phone: | 914-785-2206 |
| | | | | E-mail: | tisha.joy@basf.com |
| P | Kanga, Percy | NV | ExxonMobil Research & Engineering | Phone: | 908-335-3780 |
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| P | LaBond, Jessica | V | Meritor | Phone: | 248-872-3055 |
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| P | Lange, Anthony | V | Intertek Automotive Research | Phone: | 210-634-1103 |
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| | Morris, Jeanelle | NV | Navistar 2701 Navistar Dr Lisle, IL 60532 | Phone: | 331-332-1661 |
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| P | Muransky, Troy | V | AAM 1840 Holbrook Detroit, MI | Phone: | 734-564-8406 |
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| | Schwenk, Daniel | NV | Afton Chemical | Phone: | 804-788-6326 |
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| P | Zyski, Amy | V | Dana Incorporated | Phone: | 419-887-3432 |
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| | | | | E-mail: | Jason.Carter@meritor.com |
| P | Bealko, Steven | NV | The Lubrizol Corporation | Phone: | |
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|---|---|---------------------------------------|---|----------------------------|--|
| <p style="text-align: center;">P</p> | <p style="text-align: center;">Rabinowitz, Daniel</p> | <p style="text-align: center;">NV</p> | Chrysan | Phone: | |
| | | | | E-mail: | |
| <p style="text-align: center;">P</p> | <p style="text-align: center;">Uy, Dairene</p> | <p style="text-align: center;">NV</p> | Shell | Phone: | |
| | | | | E-mail: | |
| <p style="text-align: center;">P</p> | <p style="text-align: center;">Cereghino, Brian</p> | <p style="text-align: center;">NV</p> | IPAC Inc. | Phone: | |
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