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Committee D02 on PETROLEUM PRODUCTS AND LUBRICANTS

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February 4th, 2019

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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 7, 2018 Surveillance Panel Meeting (Automation Alley – Troy, MI)

Please direct any corrections or comments to my attention.

Very Respectfully,

Eric Donovan, Chairman
L-42 Surveillance Panel

L-42 Surveillance Panel Meeting Minutes

Automation Alley – Troy, MI

November 7, 2018

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

R. Banas (Exxon)	K. Drlja (LZ)	E. Sattler (Army)
D. Beck (TMC)	H. Gao (Shell)	D. Smith (Intertek)
D. Bell (Afton)	*T. Joy (BASF)	R. Slocum (LZ)
A. Comfort (Army)	B. Kearney (Afton)	M. Stevens (SwRI)
J. Clark (TMC)	A. Rice (Afton)	W. Venhoff (LZ)
J. Dharte (AAM)	B. Rock (Afton)	R. Warden (SwRI)
*E. Donovan (Afton/C)	J. Rucker (Meritor)	

Call to Order

Review of Agenda

The meeting agenda is attached.

Review of Membership

J. Dharte announced he will be retiring and will have a replacement by the February 2019 meeting.

Approval of Meeting Minutes

Meeting minutes for approval:

- "20180808_SP" → August 8, 2018 – Warrendale, PA

Motion to approve by J. Dhart, second by W. Venhoff to approve meeting minutes as presented.

Unanimous approval, no abstentions.

L-42-1 Development

E. Donovan stated that Afton has not been able to perform more development due to rig availability. Once the test rig becomes available for more development, Afton will continue and share progress with the panel.

Drive-by-wire throttle

R. Slocum stated he will bring an update to the February 2019 meeting on trying to use a control card using the current Corvette throttle body.

TMC 113 Dropout / New Discrimination Oil Development

A drum of oil was sent to the TMC for distribution to the labs. D. Beck to let E. Donovan know when the oil is received, processed, and ready to shipment to the labs for acceptance testing. The SP will discuss acceptance testing at the February 2019 meeting.

Spray Nozzle Angle Tolerance

The updated drawing has been sent to the TMC. The procedure is in the process of being updated.

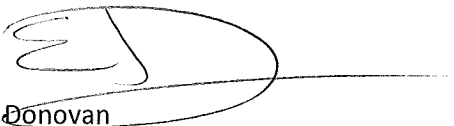
New/Open Issues

No new issues were discussed.

Adjournment

Motion by M. Stevens, second by J. Dharte. All in favor, meeting adjourned.

Respectfully submitted,

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

Eric Donovan

L-42 Surveillance Panel Chairman



L-42 Surveillance Panel Meeting

Automation Alley

Troy, MI

November 7, 2018











10:30 am - 11:00 am EST

Passion for Solutions™

Agenda

- ▲ Call to Order
- ▲ Agenda
- ▲ Membership Review & Update
- ▲ Approval of Meeting Minutes
- ▲ L-42-1 Development
- ▲ Drive-by-wire throttle update
- ▲ New/Open Issues
 - ▲ TMC 113 dropout / New discrimination oil development
 - ▲ Spray nozzle angle tolerance
- ▲ Adjournment

L-42 SP Voting Members

-  Rob Banas – ExxonMobil
-  Allen Comfort – US Army
-  John Dharte – AAM
-  Eric Donovan – Afton Chemical (Chair)
-  Arjun Goyal – BASF
-  Dylan Beck – TMC
-  Jule Rucker – Meritor
-  Dale Smith – Intertek
-  Robert Slocum – Lubrizol
-  Mary Stevens – SwRI

Approval of Meeting Minutes

SP Meeting Minutes

- ▲ “20180808_SP” → August 8, 2018 – Warrendale, PA

L-42-1 Development

Summary

- ▶ Electric T-rig (input and outputs)
- ▶ Dana 44 mounted without springs

Goal is to have the rig follow L-42 setpoints first then use mathematical model for setpoints

Development to date

- ▶ Data from L-42 run was used to create 100 Hz setpoints for initial L-42-1 testing
- ▶ Initial testing shows good progress, fine tuning still needed to hit exact setpoints consistently

On hold at Afton for the near future due to rig availability

Drive-by-wire throttle

- ▶ During the August 2017 meeting, the panel discussed options of a drive-by-wire throttle body to replace the current, old design using the Jordan.
- ▶ Is it possible to use a mid-2000s Corvette or Chevy truck throttle body?
- ▶ Updates from Lubrizol and Afton?

TMC 113 Dropout / New Discrimination Oil Development

From the August 2017 meeting:

- ▲ Additive dropout was found in latest QC testing
- ▲ Gear oil drums are mixed prior to shipment. Homogenization may be limiting the impact that this has on the performance of the oil.

From November 2017 meeting:

- ▲ Not possible to make new drum of TMC 113
 - 52 USG remaining – 104 tests worth
- ▲ Afton and Lubrizol to research possible new discrimination oils

From May 2018 meeting:

- ▲ Lubrizol has direction towards potential new discrimination oil
- ▲ The SP clarified that the new oil needs to consistently have double the scoring of the current passing oil

From August 2018 meeting:

- ▲ Lubrizol to blend 55 USG drum and send to TMC
- ▲ Each lab will run this oil on a currently referenced test stand and report results

Spray Nozzle Angle Tolerance

- It has been noted that the L-42 spray nozzle diagram lacks a tolerance like the L-37 diagram
- Updated drawing has been sent to the TMC. The procedure is being updated.

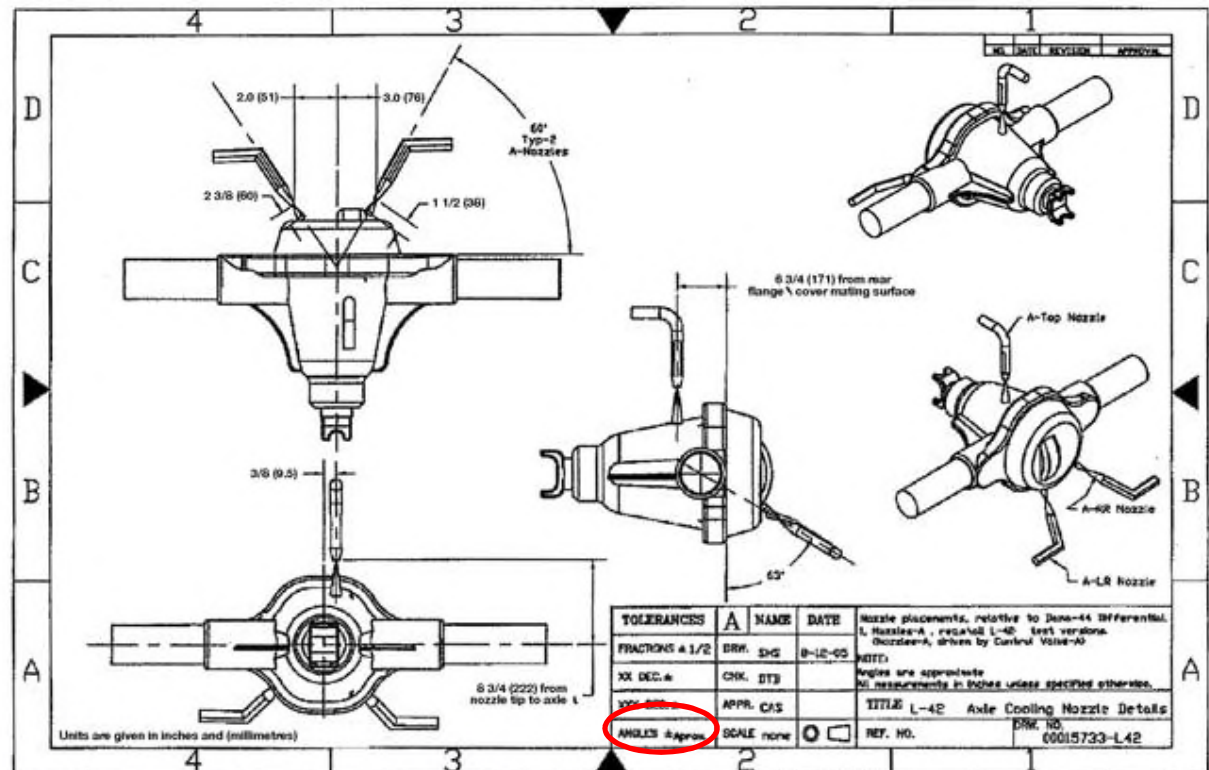


FIG. A6.3 Drive Shaft Torque Meter Assembly

New/Open Issues

Thanks!



Passion for Solutions™

**L-42 Surveillance Panel Membership/Attendance
Automation Alley - Troy, MI
November 7, 2018**

Initials	Name	Voting Non-Voting	Company Name Company Address	Contact information	
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ROCK, BRYAN

AFTON