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**Committee D02 on PETROLEUM PRODUCTS AND LUBRICANTS**

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**October 26, 2007**

Reply to:

Donald T. Bartlett

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ASTM D02.B0.03 L-37 Surveillance Panel

Members and Guests:

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

- o **October 25, 2007 L-37 Surveillance Panel Teleconference Meeting**

Please direct any corrections or comments to my attention.

Sincerely,

Donald T. Bartlett, Chairman

L-37 Surveillance Panel

Attachments

**Report of Meeting**  
**L-37 Surveillance Panel Teleconference**  
**October 25, 2007, 10:00 a.m. EDT**

**I. Attendees:**

ASTM TMC:	Don Lind	Afton Corp:	Cory Koglin
Lubrizol Corp:	Don Bartlett	Lubrizol Corp:	Jerry Gropp
Dana Corp:	Greg Fett	SwRI:	Brian Koehler
PARC:	Dale Smith	Dana Corp:	Kenny Miller
Afton:	Sam Higuchi	Dana Corp:	Joe Guzikowski
Infineum:	Sal Rea	Dana Corp:	Mark Kelly
Dana Corp:	Steve Bird	D.A. Stuart	Paula Vettel
Dana Corp:	Marko Ojanen		

**Note:** We had 8 voting members present.

**II. Agenda and Summary of Panel Discussion, Consensus Actions, and Motions:**

1) **Minutes of the October 18, 2007 panel teleconference meeting:** Motion # 1: Mr. Smith, second by Mr. Koglin moving to approve the minutes as written with no corrections. The vote was unanimous, 8-0-0.

2) **2006 Lubrited Gear Batch B6L566/P4L816 Discussion and Resolution**

- The Chairman quickly reviewed the actions by the Hardware TF and Panel to the point of today's discussion and decisions. He again commended the Task Force, Panel and Dana for their diligence these past 8 weeks to get us to this decision point.
- Summary of discussion, actions, and decisions is as follows.
  - Dana agreed and will provide new ring and pinions and rebuild/retrofit of all of the remaining axles from this batch at no cost to the labs. There would be a 22-week lead-time to order the steel and a month for production.
  - The actual retrofit process will take 6-8 months and be performed as a bench build at the Dana Maumee facility. Dana will use 2-3 technicians to build the axles on days to the ASTM/Dana specification. In general, they can retrofit approximately 34 axles per week.
  - Dana indicated that the bench build of the axles would be consistent and as good as the normal in-line build process.
  - Koehler - had a logistical question - who will be responsible for paying all of the shipping costs? Dana, the labs, or shared?
  - Action Item #1 - Ojanen - Dana to provide the labs an answer with respect to who would be responsible for the shipping costs by midweek of October 29th.
  - Gropp - Another logistical question - Since the retrofit will take 6-8 months, the labs and Dana must develop a mutually agreed upon plan that will provide each of the 4 labs an equally metered flow of hardware so that all labs can meet their customer needs.

- Action Item #2 - Bartlett** - To co-ordinate a plan with the labs and Dana to move hardware to address Mr. Gropp's concern.
- **Fett & Miller** - The 'alternate' lubrifying process will be used for all lubrified hardware. The HTF needs to make visits to the Ft. Wayne & Maumee facilities at the appropriate times in the hardware production and retrofit assembly. Miller has been tracking and documenting process improvement needs and lessons learned from our discovery.
  - **Bartlett** - Indicated again that the initial two-year order placed in May of 2006 and all of the testing work to date has left one or more labs with a shortage of needed axles. We will need to order some new axles as well.
  - **Action Item # 3 - Ojanen** - Indicated that Dana can build new axles at a reduce cost should a lab decided not to retrofit the equal amount. For simplicity and clarity, Mr. Ojanen was asked to provide the labs with an official quote for axles by Monday, October 29<sup>th</sup>. The quote break out would be as follows:
    - Cost and timing to order **new non-lubrified** axles.
    - With respect to ordering '**alternate**' lubrified axles:
      - Cost and timing for discounting new axles if a lab chooses to not retrofit the B6L566 hardware.
      - Cost and timing for all new axles.
      - Dana must insure that they purchase **one heat** of steel for all ring and pinions being ordered.
    - With respect to ordering some quantity of new axles to supplement the axles used/lost in the retrofit, the following summarizes the labs comments:
      - **Afton** yes
      - **LZ** yes
      - **SwRI** No
      - **Parc** No
  - There was much discussion if the lubrified retrofit and the new lubrified axle build would be considered the same gear batch code. The general consensus was yes, since the same heat of steel is being used, same production process, same lubrifying process, etc. The only difference would be: one being an in-line build and one being a bench build. Some other comments offered were:
    - **Koehler**, the fraction of a new batch would need a minimum of new reference oils run on them.
    - **Koglin**, 44-test on the retrofit and some small amount of runs on the new axles would be OK.
    - **Smith**, a certain percentage of new axle assemblies could be included as part of the retrofit matrix and then be rolled into the 44 test matrix. We should act as if there is no separation.
  - **Lind** - Since the non- lubrified, new axle assemblies, and the retrofit axles will all use the same heat of steel and have the same identification, we need to insure that the retrofit axles are identified differently.

- Action Item # 4 - Dana & Bartlett - identify 'some' process that will clearly distinguish the retrofit axles accordingly.
- The 2007/2008 order of Lubrited and Non-Lubrited Hardware Gear Batch: All agreed that hardware is to be manufactured from the same heat of steel. Hardware approval Matrix for the 2007/008 Hardware Gear Batch approval will be as follows:
  - Non-lubrited hardware - conduct the standard 44-test matrix.
  - Lubrited hardware: Motion # 2: by Gropp, second by Koehler:
    - What ever the bulk of the hardware build is (retrofit or all new assembly builds); the labs will conduct the standard 44-test matrix.
    - For the smaller subset of lubrited hardware builds, each lab who orders a portion of this smaller subset will conduct 6 more tests as follows.
      - 1 Standard test on TMC 127
      - 1 Standard test on TMC 151
      - 1 Standard test on TMC 152
      - 1 Standard test on TMC 153
      - 1 Canadian test on TMC 152
      - 1 Canadian test on TMC 153
    - It was further stipulated that: If only one-lab orders the smaller subset of hardware, this lab must run the above six test in duplicate.
    - The motion passed, 5-0-2.

The final expectations are:

- Action Item # 5 and final expectations - Dana & Labs
  - Ojanen to provide the labs an official quote by Monday, October 29<sup>th</sup>.  
*Note, quotes are attached as they were received at time of writing these minutes.*
  - Labs to provide Dana and TMC their hard numbers of hardware needs, non-lubrited and lubrited by Friday, November 2<sup>nd</sup>.
  - Chairman to hold a surveillance panel on November 7<sup>th</sup>.
  - At that meeting, TMC to review the hardware numbers and information for discussion, i.e.:
    - Total number of axles being retrofit.
    - Total number of non-lubrited and lubrited new complete axle assemblies ordered.
    - The number of labs that are ordering the retrofit and all new axle assemblies.
    - All of this information will allow the panel to identify the testing to be conducted by each laboratory accordingly.
  - Labs are to tender binding PO's to Dana by Friday, November 16, 2007.

The meeting was adjourned at 11:54

Respectfully submitted:

  
Donald T. Bartlett

L-37 Surveillance Panel Chairman



**OFF-HIGHWAY SYSTEMS**  
1293 Glenway Drive, Statesville, NC 28625

PHONE 704-878-5746  
FAX 704-878-5633

<b>QUOTATION</b>		<b>QUOTE DATE</b>	<b>QUOTE NUMBER</b>	<b>VERSION</b>
		26-Oct-07		
<b>CLASS A QUOTATION</b> <b>ATTENTION : ASTM Laboratory</b> <b>REFERENCE : L37 replacement axles</b>		<b>CUSTOMER ADDRESS</b>		
		<b>INVOICE ADDRESS</b>		<b>SHIP TO ADDRESS</b>
		ASTM Purchase Order Specific		ASTM Purchase Order Specific
<b>SHIPPED VIA</b>	<b>PAYMENT TERMS</b>		<b>SHIPPING TERMS</b>	
To Be Advised	Net 30 Days		FOB: Lugoff, SC	
<b>DELIVERY TERMS</b>		<b>WARRANTY</b>		
120 Days after order confirmation		12 Months - 2,000 Hours		
<b>QTY</b>	<b>PART NUMBER</b>	<b>DESCRIPTION</b>	<b>UNIT PRICE</b>	<b>CURRENCY</b>
953	060AA100-4	Model 60 Drive Axle - With Lubrited ring and pinion set - Shot peened gears before lapping - Ratio 1 : 5.86 - Spicer 1310 Series end yoke - Without axle shafts - Standard differential	705.00 Net Each	US\$
QUOTATION VALID ONLY TO REPLACE REJECTED AXLES				

**CUSTOMER REQUIREMENTS:**

- > All axles must be assembled in one continuous lot from one line set up
- > All assembly components must be single sourced
- > Axles must be packed per attached
- > Axles must be shipped in skip lots per attached

Prices valid to 31 Dec 08.

Notification will be provided 30 days prior to shipment should increased metal surcharge warrant adjustment.

The terms set forth on the face and reverse side hereof are conditions applying to our acceptance of your order. If our terms and conditions as shown hereon contradict with those of the Buyer, our terms and conditions shall prevail, even if Buyer terms and conditions should expressly decline priority of Sellers terms and conditions. Should this quotation be in disagreement with your understanding please fax immediately. Buyer expressly agrees to accept Seller's terms and conditions appearing on the reverse side hereof.

Any change to the above description can or may change the price as well as the lead-time

\_\_\_\_\_  
Buyer's signature of acceptance

Please fax signed quote to 704-878-5633

Gary L. Schmalbach

Sales Operations Manager

#2



**OFF-HIGHWAY SYSTEMS**  
1293 Glenway Drive, Statesville, NC 28625

PHONE 704-878-5746  
FAX 704-878-5633

<b>QUOTATION</b>	QUOTE DATE	QUOTE NUMBER	VERSION
	26-Oct-07		

<b>CLASS A QUOTATION</b> ATTENTION : ASTM Laboratory REFERENCE : L37 Test Axles	<b>CUSTOMER ADDRESS</b>	
	<b>INVOICE ADDRESS</b>	<b>SHIP TO ADDRESS</b>
	ASTM Purchase Order Specific	ASTM Purchase Order Specific

<b>SHIPPED VIA</b>	<b>PAYMENT TERMS</b>	<b>SHIPPING TERMS</b>
To Be Advised	Net 30 Days	FOB: Lugoff, SC
<b>DELIVERY TERMS</b>		<b>WARRANTY</b>
120 Days after order confirmation		12 Months - 2,000 Hours

QTY	PART NUMBER	DESCRIPTION	UNIT PRICE	CURRENCY
All	060AA100-4	Model 60 Drive Axle - With Lubrited ring and pinion set - Shot peened gears before lapping - Ratio 1 : 5.86 - Spicer 1310 Series end yoke - Without axle shafts - Standard differential	1,005.00 Net Each	US\$
All	060AA100-2	Model 60 Drive Axle - Shot peened gears before lapping - Ratio 1 : 5.86 - Spicer 1310 Series end yoke - Without axle shafts - Standard differential	992.00 Net Each	US\$

**CUSTOMER REQUIREMENTS:**

- > All axles must be assembled in one continuous lot from one line set up
- > All assembly components must be single sourced
- > Axles must be packed per attached
- > Axles must be shipped in skip lots per attached

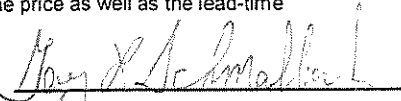
**Prices valid to 31 Dec 08.**

**Notification will be provided 30 days prior to shipment should increased metal surcharge warrant adjustment.**

The terms set forth on the face and reverse side hereof are conditions applying to our acceptance of your order. If our terms and conditions as shown hereon contradict with those of the Buyer, our terms and conditions shall prevail, even if Buyer terms and conditions should expressly decline priority of Sellers terms and conditions. Should this quotation be in disagreement with your understanding please fax immediately. Buyer expressly agrees to accept Seller's terms and conditions appearing on the reverse side hereof.

Any change to the above description can or may change the price as well as the lead-time

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Buyer's signature of acceptance  
Please fax signed quote to 704-878-5633

  
\_\_\_\_\_  
Gary L. Schmalbach  
Sales Operations Manager