

## L-42 Hardware Task Force Meeting Minutes

Teleconference

April 25, 2014

### **Attendees:**

B. Koehler (SwRI)	J. Chalkley (Afton)	M. Umerly (LZ)	A. Valencia (Dana)
S. Parke (TMC)	J. Gropp (LZ)	C. Prengaman (LZ)	T. Deany (Dana)
T. Gottwald (Afton/C)	L. Hamilton (LZ)	G. Schmalbach (Dana)	G. Waxemberg (Dana)
	D. Smith (Intertek)		

### **Purpose of Call**

To introduce the labs to the Dana Lugoff team; to hold discussions with Dana management about recent build inquiries and concerns.

### **Order History and Call Discussion**

A call from Dana Off Highway to the Chair, on April 24, indicated:

- Dana management determined production of Model 44 axles for ASTM use would be 'disruptive to the business' and the Dana did not want to lose money during another build.
- In order to finish compiling a proposed plan moving forward, Dana wished to charge the ASTM group a fee of \$25,000.00.
- Dana also indicated that a dedicated assembly line would be created for this order.

Following the sales call, a Task Force meeting was held on April 25, which included representatives from the four participating labs and the TMC. The call also included the following Dana Off Highway representatives: Gary Schmalbach (Senior Account Manager), Antonio Valencia (Sr. Director of Operations), Tim Deany (Lugoff Plant Manager), Gabriel Waxemberg (Manufacturing Engineering Manager).

The ASTM group explained the purpose of this hardware and testing to the Dana team, outlining LRI and lubricant quality/qualification.

During this call, Dana expressed interest in changing the ASTM order process. Dana desired to manage this as a project, not simply a unit sale, and to treat this project like a new product launch. As a project, the labs would pay the \$25,000 fee to finish compiling a project plan. Upon agreement on the plan, the labs would be charged a set project management fee and the labs would also cover all remaining material/build costs (which SHOULD NOT be on in the magnitude of millions). The intent of this would be to keep costs down for both Dana and ASTM.

Dana intends to supply a proposed plan to ASTM within 2 weeks.

As part of this plan, Dana would have a dedicated program manager in place. It is possible that a temporary production line will be set up to produce this order, due to its size and to reduce interruptions on Lugoff's primary production line. This line will have a dedicated production team, but may include new personnel (training required).

The ASTM group asked where the issues were with this build (which part of the process?). Gear production, production line vs. dedicated line, and order size (largest single issue) were determined to be the areas of concern. Discussion followed. The production line can produce 200-240 axles per week. It could be possible to produce the gears out of one heat, as a single batch, then to hold final assembly as it could be scheduled on a production line (to possibly avoid setting up the temporary line – cost reduction).

The ASTM group outlined problems/areas of concern from previous batch experience including: housing misalignment, wrong pinions used on pilot batch, losses due to gears being lubrified, impact depressions on gear teeth during assembly.

Dana asked if ASTM needed to validate a prototype batch (pilot batch), indicating that this is normal for Dana production. The group explained that this is how batches had been validated in the past, however more discussion is needed on this issue. In addition, the labs need to come up with a final count for the order size.

In closing, the labs agreed that although this is not an ideal situation they would move forward and will seek authorization to pay ¼ each of the \$25,000 planning fee.

All parties, Dana and the ASTM Task Group, expressed that the call went very well and that immediate action will be needed, on both sides, to keep this project moving.

The labs will hold a call on Monday, April 28, to further discuss what the lab expectations are moving forward.

**Meeting adjourned.**