

## December 9<sup>th</sup>, 2008

### L42 Hardware TF conference call

#### Attendees:

C. Koglin  
C. Barker  
D. Bartlett  
M. Bassett  
L. Papedemos  
D. Lind  
R. Graziano  
K. Miller  
G. Greene

#### SWRI Data Review

Review of data from SWRI (included at the end of notes, also on TMC website)

Comments: This batch did not have drive side scoring like the previous batch

**Action Item:** TMC to add contact patterns and axle code to data on website

Questions: Would you increase shock 2 scoring based on lower scoring value results?

Chris at SWRI said yes

Chris has not changed settings on stand, but believes humidity may have an effect on some results. Temperature does not seem to have an effect. Section 13-5

TMC said consistency is the best he's seen at SWRI. Labs should pattern their test after SWRI's.

Lubrizol is please with the data, would like turn switch to start process of manufacturing parts.

Don Lind echoes the same

Chris at SWRI agrees.

Cory agrees with the other labs

Labs asked Dana how they intend to duplicate these 4 gear sets.

Lou: Have the hardened lapped gear set from fire distortion check. This piece would be used to compare with the batch lot pieces once they are manufactured. Dana also has the safeguards in place for no tempering or lubrizing.

Kenny: We have everything we need to make the same parts.

#### Hardware Timing

Fort Wayne plant will be shutdown week of December 22<sup>nd</sup> and December 29<sup>th</sup>. Fort Wayne possibly will be shutdown the week of January 5<sup>th</sup>.

All agree manufacturing of pinions/rings should be after 1<sup>st</sup> of the year. Tentative date for the rings/pinions to be ready for Lugoff is the end of January.

**Action Item:** Request for Chairman to send minutes and data out to panel in order for Panel to review for conference call.

**Action item:** Chairman to look for minutes regarding axle tube change/angle change on 2006 hardware.

### **Axle Tubes**

Email comments from Brian Koehler on axle mounting.

One observation: Both axles had their axle tubes and spring pads installed in such a way that the pinion yokes point significantly upward when used with our current L-42 axle mounting adaptors. We shimmed the adaptors to bring the pinion down level for the test but this should be investigated before assembling the remaining axles. See photo prior to shimming. I seem to remember something about a prior batch that was off and required adaptors to be adjusted. Have we simply returned back to the old spec? Regardless, I think we were to make these just like the last batch. Photo included at the end of the notes.

Derek Ottley's response to Brian's email

With regard to spring seat angles being off, what is the required pinion angle? Your email implies that it might be 90° from vertical but our drawing callout is 4°20' CCW (left hand) for the spring seat from horizontal and not 0°. If 90° is indeed required we can make the necessary adjustments for the production run and have the associated drawings changed. I just need verification of the significance of the relation of the tube flange holes to the spring seats. Rotating the tube to achieve the desired spring seat angle will also affect the orientation of the flange holes. Does this pose a problem? Please let me know what lab requirement is so we can take get this resolved. The other labs can chime in to ensure they are not adversely affected by any proposed changes. I've attached a side view of our drawing showing the tube angle requirements.

Question: Do the tubes come with spring pads already welded? Kenny's assumption is yes, based on the drawing and derek's response to Brian's question.

Labs to measure their angled plate used for mounting axle into test stand.

### **Drawing updates:**

EC (engineering change) 08.0182.00.S1. The workorder is still in drafting. Kenny would like to review the drawings before the Task force reviews.

**Action Item:** Kenny to inquire about status of drawing changes (Kenny sent email asking status during conference call)

## Pilot Build, Axle Batch P8L119: Test Results

Axle Code	Oil Code	Shock 1 Avg TQ (lbf-ft)	Shock 2 Avg TQ (lbf-ft)	Coast Side Scoring		Drive Side Scoring		Notes
				Ring	Pinion	Ring	Pinion	
KUSA 15001	CMIR-67978	-85.6	-290.3	10%	14%	0%	0%	No Scoring after conditioning or Shock 1
KUSA 14998	CMIR-67979	-95.8	-276.5	6%	11%	0%	0%	No Scoring after conditioning or Shock 1
KUSA 15000	CMIR-67980	-94.8	-298.5	10%	15%	0%	0%	No Scoring after conditioning or Shock 1
KUSA 15002	CMIR-58157	-94.9	-292.0	65%	64%	0%	0%	70% Scoring on ring coast side after Shock 1; 11% Polishing on pinion coast side at final rating

Ref. Limits, Batch P4L806, 116 ref. oil	Hi	-80.5	-270.6	15%	22%	0%	0%
	Low	-108.8	-330.7				
	Avg	-94.7	-300.7				

