



Address 100 Barr Harbor Drive
PO Box C700
W. Conshohocken, PA
19428-2959 | USA

Phone 610.832.9500
Fax 610.832.9666
Web www.astm.org

Committee D02 on PETROLEUM PRODUCTS AND LUBRICANTS

Chairman: KENNETH O. HENDERSON, Cannon Instrument Co., 2139 High Tech Road, State College, PA 16803, (814) 353-8000, Fax: (814) 353-8007, e-mail: kenohenderson@worldnet.att.net
First Vice-Chairman: BEN R. BONAZZA, 3457 WOODVALLEY DRIVE, LAPEER, MI 48446 (810) 664-6769 e-mail: bbonazza@charter.net
Second Vice-Chairman: JANET L. LANE, ExxonMobil Research & Engrg., 600 Billingsport Rd, Paulsboro, NJ 08066-0480 (856) 224-3302, Fax: (856) 224-3616, e-mail: janet.l.lane@exxonmobil.com
First Secretary: RALPH A. CHERRILLO, Shell Global Solutions (US) Inc., Westhollow Tech Ctr., 3333 Highway 6 South, Houston, TX 77082 (281) 544-8789, Fax: (281) 544-8150, e-mail: ralph.cherrillo@shell.com
Second Secretary: MICHAEL A. COLLIER, Petroleum Analyzer Co. LP, PO Box 206, Wilmington, IL 60481, (815) 458-0216, Fax: (815) 458-0217, e-mail: Michael.collier@pacpl.com
Staff Manager: DAVID R. BRADLEY, (610) 832-9681, Fax: (610) 832-9668, e-mail: dbradley@astm.org

March 5th, 2014

Reply to:
Chris Prengaman
The Lubrizol Corporation
29400 Lakeland Blvd.
Wickliffe, OH 44092
(440) 347-4225
(440) 347-2377 (FAX)
crpr@lubrizol.com

ASTM D02.B0.03 L-37-1 Next Generation Hardware Task Force
Members and Guests:

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

- **February 25th , 2013 Next Generation Hardware Task Force Meeting; Teleconference.**

Please direct any corrections or comments to my attention.

Sincerely,

Chris Prengaman, Chairman
L-37-1 Hardware Taskforce Chairman

Report of Meeting
L-37-1 Next Generation Hardware Task Force Meeting
Teleconference
February 25th, 2014 Meeting

Attendees:

Voting Members in **BOLD**

Bell, Don – Afton Chemical

Charley, Jay – Afton Chemical

Parke, Scott – ASTM TMC

Meyer, Ron – Custom Coating

Davis, Denny – Custom Coating

Mike – Custom Coating

Guzikowski, Joe - Dana

Dennis, Mike – Gleason

Heim, Scott - Gleason

Smith, Dale – Intertek Automotive Research

Trader, Angela – Intertek Automotive Research

Prengaman, Chris – Lubrizol

Gropp, Jerry – Lubrizol

Hamilton, Larry - Lubrizol

Bubonic, Brad – Lubrizol

Umerley, Matt – Lubrizol

Koehler, Brian – Southwest Research Institute

Warden, Rebecca – Southwest Research Institute

The meeting was called to order at 1300 EST.

1.0 Update & Discussion

Custom Coatings gave a background on their company.

Their current Lubriting process is a “fixed process” that has been established for many years. The process is fully automated using PLC controls. They use Henkel chemistry in their baths.

During the Lubriting process it was recommend we use panels to evaluate the process – at minimum, pre, post and mid process. Approximately 10 gear sets fit in each basket, and the baskets could be run back to back in the process. Henkel evaluates the panels for coating weight, and can SEM to determine crystal grain size.

R. Meyer recommends we use their CPI-CS-104 specification.

Gleason discussed they still need to determine the method of serialization.

M. Dennis shared during the heat treat carburizing process, they are able to fit 45 pieces in the furnace at a time + 5 test pieces. These test pieces are pulled during the process to assist in determining when the parts are finished. A final test piece is evaluated once the parts come out of the furnace.

The group agreed to use the same stock that the parts are made out of for these test pieces in the furnace.

The following items summarize the action items to facilitate moving the quote along.

- All gearsets to be run on single flank tester before leaving Gleason (pre lubrite)
- Post Lubrited Gearsets to be shipped back to Gleason, 2 per 25 sets will be checked on CMM for the first 100 – Data to be discussed to determine if process continues. Post lubrited parts will NOT be checked on the single flank. Dale Smith (Intertek) volunteered one of his pieces to be verified on the single flank.
- Gleason will apply a Rust Preventative to the gearsets (MSDS will be supplied)
- Custom Coatings will apply a Rust Preventative to the gearsets (MSDS will be supplied)
- Gleason will specify Custom Coatings to use their CPI-CS-104 specification (needs verified)
- Custom Coatings will schedule into their production schedule the run of gears to be run in baskets back to back (estimated ~10 pieces in a basket). Coupons will be used Pre,Post and Mid batch and data shared with the group. SEM analysis of grain size is to be performed on coupons. Data will be shared with the group.
- Gleason will serialize ring and pinions. Gleason will verify with Custom Coatings that the markings remain visible post Lubriting.
- Of the first 200 gearsets manufactured – 100 pieces will be sent to Custom Coatings to be lubrited – and distributed evenly to the 4 labs.

5.0 Adjournment

Motion to adjourn .

Respectfully Submitted

Chris Prengaman