ASTM Update
to the
LRI Gear Oil Review Committee

November 13, 2008

Status of the ASTM D 7038 (L-33-1) Test

- Test availability and operation
  - Test stands available at multiple labs

- Test continues to be in an alarm status for severity (severe) and precision
  - Seeing slight increase in level of rust with good reference oil
    - Will increase use of new/replacement oil to help determine if this is an oil-related issue
  - Not of sufficient magnitude to inhibit use of test

- Hardware
  - Adequate supplies of hardware available

Status of the ASTM D 6121 (L-37) Test

- **Test availability and operation**
  - Test stands available at multiple labs
  - No known test stand-related problems
  - Test severity (with approved hardware) at historic levels

- **Hardware**
  - Lubrited hardware continues to be in short supply
  - Testing on new batch of hardware (V1L500/xxx) revealed tendency to produce (very) severe results on oils with known good performance in the field
    - Unable to address via use of correction factors, modified build (contact pattern), shortened test length, or reduced load/stress
    - This batch of hardware has been rejected
  - Manufacture of a new batch of hardware is in progress
    - Expect delivery in the middle of CY 2009

Status of the ASTM D 7452 (L-42) Test

- Test availability and operation
  - Test stands available at multiple labs
  - No known test stand-related problems
  - Test severity at historic levels

- Hardware
  - Adequate supplies of hardware available
  - Manufacture of a new batch of hardware is in progress
    - Expect delivery later this year

- General
  - Rater calibration process (RCMS) will become effective on January 1, 2009

Status of the ASTM D 5704 (L-60-1) Test

- **Test availability and operation**
  - Test stands available at multiple labs
  - No known test stand-related problems

- **Test continues to be in a slight severity trend (severe) for Carbon/Varnish. May also be seeing the beginning of a slight severity trend (severe) for Sludge**
  - Neither of sufficient magnitude to inhibit use of test

- **Hardware**
  - Adequate supplies of hardware available

- **General**
  - Rick Graziano has replaced Chris Schenkenberger as Chairman of the Surveillance Panel

Status of the ASTM D 5579 (Cyclic Durability) Test

- Test availability and operation
  - Routinely have one calibrated test stand available at each of two independent labs
    - Additional, non-calibrated test stands also available
  - Currently have only one calibrated test stand available within the industry
    - Test stand at one laboratory encountering difficulty calibrating
    - Obtaining severe results on the good reference oil
    - Both test labs and the Test Monitoring Center are working together to identify and address the cause of the problem
      - Exchanging test hardware, comparing stand operation, etc.

- Hardware
  - Adequate supplies of hardware available

Status of the ASTM D 5662 (Oil Seal Compatibility) Test

- Test availability and operation
  - Baths available at two labs
  - No known "stand" (bath) related problems
  - Test severity at historic levels

- Hardware
  - Availability of elastomers has been an occasional problem
    - Surveillance Panel working with the Central Parts Distributor to address the problem
    - Work to determine if the shelf life of the elastomer can be extended is underway

Status of the Storage Solubility and Compatibility (SS&C) Test

- Surveillance Panel has been formed to oversee test

- ASTM Test Monitoring Center (TMC) has assumed responsibility for maintaining and distributing reference oils

- Future activities include
  - Determine if there is a need to update the selection of reference oils
  - Write the test procedure in the form of an ASTM Standard

Future Activities

- Work Group has been formed within SAE to better define the need for a standardized test to evaluate the efficiency of axle lubricants
  - Group met on July 24 and September 25
  - Will survey industry to identify possible test methods, possible reference oils, etc.
  - May hand test development/refinement over to ASTM, or may form a consortium to finalize the test procedure