

ASTM Update  
to the  
LRI Gear Oil Review Committee

August 9, 2007

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

- Test availability and operation
  - Test stands available at multiple labs
- Test has triggered industry alarms for severity (severe) and precision
  - Appears to be primarily related to one laboratory
  - ASTM Test Monitoring Center working with the Surveillance Panel and the testing laboratory to address
  - Not of sufficient magnitude to inhibit use of test
- Hardware
  - Adequate supplies of hardware available

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

- Test availability and operation
  - Test stands available at multiple labs
  - No known test stand-related problems
  - Test severity at historic levels
- Hardware
  - Lubrited hardware is in short supply
  - Evaluation of new batch (B6L566/P4L816) has completed
    - Hardware severe on several parameters
    - Unable to address with correction factors, exclusion zone, etc. without compromising integrity of test
    - Surveillance Panel working to address problem. Possible options include:
      - Slight modification of test procedure
      - Reject batch and order replacement hardware

## Status of 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
    - New batch approved in May, 2007
- General
  - Test procedure in the final stages of being written as an ASTM Standard Test Method
    - Hope to ballot within ASTM later this year
  - Implementation of a Rater Calibration process is in progress
    - Expect to be in place later this year

## Status of 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
  - Not of sufficient magnitude to inhibit use of test
  - Activity to improve test stand standardization may address
- Hardware
  - Adequate supplies of hardware available

## Status of ASTM D 5579 (Cyclic Durability) Test

- Test availability and operation
  - One calibrated test stand available at each of two independent labs
    - Additional, non-calibrated test stands also available
  - No known test stand-related problems
- Test continues to be in a slight severity trend (severe)
  - Not of sufficient magnitude to inhibit use of test
  - May be related to move to newer hardware
  - Reference oil test targets were recently updated to reflect use of newer hardware - May address severity question
- Hardware
  - Adequate supplies of hardware available

## Status of 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
  - Adequate supplies of all elastomers available
  - Recently-implemented process to evaluate and approve new batches of elastomers working well
- General
  - Surveillance Panel surveying Original Equipment Manufacturers and seal manufacturers as to the relationship/relevance of currently-used elastomers to typical commercial materials
    - Will update as/if necessary

## Status Storage Solubility and Compatibility (SS&C) Test

- Surveillance Panel formed to oversee test
- Issues to be addressed include:
  - Need to identify new distributor of reference oils
    - ASTM Test Monitoring Center has accepted responsibility
  - Will write test procedure in the form of an ASTM Standard Test Method
    - Work in progress
  - Will implement system to monitor quality/consistency of reference oils
  - Will evaluate need to update reference oils
    - Base oils and/or performance additives
  - Etc.