

October 27, 2005

To: OSCT Surveillance Panel and Task Force

From: Don Bell (Tentative Seal Chairperson)

**Subject: OSCT Task Force Meeting Minutes**

A teleconference was held on October 26, 2005 with the following OSCT task force members to discuss relevant issues and updates regarding the oil seal compatibility test (ASTM D5662).

Attendees:

D. Lind (TMC)

C. Whitton and D. Bell (Afton)

B. Grinfield (SWRI)

D. Korpi Misich and J. Gropp (Lz)

The following are minutes from this meeting:

1. **Nitrile Seal Reference Oil**

- A. TMC is testing reference oil 168 in accordance with ASTM D5662 using nitrile seals as a potential reference oil replacement for the depleted reference oil 162.
- B. TMC will continue to collect nitrile seal test data using reference oil 161-1 and 168 until sufficient data has been collected as per the OSCT Surveillance Panel to approve 168 as a replacement reference oil.
- C. TMC will present current nitrile seal reference oil data to the OSCT Surveillance Panel at the Nov. 2, 2005 ASTM meeting for a vote as to accepting the 168 data and possibly setting acceptance bands for continuing use of 168 as the new nitrile reference oil.
- D. It was suggested that the OSCT panel should consider voting on or at least discussing using only one reference oil, instead of two, and possibly running a reference with each run.

2. **Seal Reference Procedure**

- A. Further discussions need to take place to decide if each lab can use 6 coupons and 6 dumbbells vs a normal of 12 each for referencing new seal material.
- B. Also need to decide if the seal material shelf life should remain at 2 years.

3. **Lab-to-Lab Test Variability**

- A. TMC commented that the SWRI and Lz results of ASTM D5662 appear to be less variable than earlier periods.
- B. TMC noted that both labs are now calibrating the Instron using the same method.
- C. TMC commented that the oil baths show essentially no variation in oil temperature within the baths.
- D. There may still be slight differences between the two labs with respect to one lab including the suspension wire in the weight measurements and the measurement for elongation.

4. **Alternate Seal Material**

At the August ASTM meeting, J. Linden of GM suggested that consideration be given to transitioning to alternate seal materials, such as those tested for DEXRON® IIIH ATF requirements. A question arose as to the relevance of ATF seal material for gear applications. This issue will require further discussions with OEMs and seal manufacturers to identify gear seals, if the task force decided to proceed.

5. **ASTM D5662 Test Conditions**

- A. A few questions arose as to whether the test conditions are appropriate, such as too high a temperature for too short of time, for stressing the seals during testing.
- B. Further discussions will need to take place to decide with this should be pursued.