

Oil Seal Compatibility Test (OSCT) Surveillance Panel Meeting Minutes

November 16, 2016

Don Bell

Webex attendees:

B. Grinfield (SWRI) S. Parke (TMC) J. Milner (Tiahne) W. Venhoff (Lz)
V. Marsic (Lz) V. Donndelinger (Lz) A. Trader (Intertek) M. Lopez (Intertek)
K. Guitterez (Intertek) D. Bell (Afton)

An OSCT Surveillance Panel webex meeting was called to order by D. Bell at 10:04 am on 11/16/2016.

The Panel reviewed six different topics regarding lab-to-lab differences for conducting ASTM D5662 that the TMC noted during visits to each of the three labs.

1. Washer Size for Specimen Separation:

- a. Labs were using different washer sizes for specimen separation with one lab using ½ inch washers and another lab using #6 and #8 washers. ASTM D5662 section 8.4 requires the washer thickness to be 1.4 to 2.0 mm, but no other dimensions are noted. The Panel thought it was best to decide upon a standard washer size so that each lab has the same amount of specimen exposure to the test oil.
- b. A motion made by D. Bell and 2nd by B. Grinfield was unanimously approved with 5 votes to require ASTM D5662 be conducted using a 316 stainless steel M6 washer meeting DIN 125 specification. This washer has an acceptable thickness of 1.4 to 1.8 mm.
- c. For reference, McMaster-Carr sells a package of 100 of these washers (part # 90965A170) for \$6.86.

2. Size of Hanger Hole:

- a. Labs are using different size hole punches and D5662 does not specify the size of the hole in specimens.
- b. A concern is that a different size hole may present differing amounts of specimen to interact with the test oil.
- c. A motion made by M. Lopez and 2nd by B. Grinfield was unanimously approved with 5 votes to require that the hanger hole size not exceed 3.25 mm diameter for ASTM D5662.

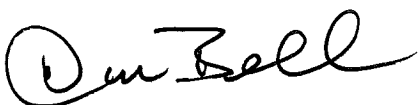
3. Specimen Marking:

- a. TMC noted that one lab nicks off corners of the specimen for differentiation while another writes on them with a paint stick.
- b. A concern is that there is no limit to the amount of specimen cut from the corner and that the paint may alter the specimen's ability to interact with the test oil and should not be allowed, thus we need to put a limit on the corner cutting and not permit the paint to be used.

- c. A motion made by D. Bell and 2nd by B. Grinfield was unanimously approved with 5 votes to require that the specimens for ASTM D5662 be cut on the corner for marking, but the hypotenuse is not to exceed 4 mm.
4. Location of Hardness Measurement:
 - a. The TMC noted a lab-to-lab and tech-to-tech variation in hardness indenter location on the specimen.
 - b. ASTM D2240 specifies that the measurement must be taken at least 12 mm from any specimen edge.
 - c. A motion made by D. Bell and 2nd by B. Grinfield was unanimously approved with 5 votes to require that the location for hardness measurement for ASTM D5662 be taken at least 10 mm from any specimen edge.
 5. Timing of Post-Test Measurement:
 - a. D5662 section 8.5 requires that the specimens cool for no longer than 30 minutes, while section 8.6 requires the measurements be completed within 2 hours of removal from the test oil.
 - b. The wording of these sections caused some confusion as to when the measurement could be made.
 - c. A motion made by D. Bell and 2nd by B. Grinfield was unanimously approved with 5 votes to require ASTM D5662 section 8.5 to be slightly revised to allow specimens to cool for no longer than 30 minutes **before beginning measurements**.
 6. Calculation of Post-Test Averages and Standard Deviations in Tables at Bottom of Forms 1, 2, & 3
 - a. One of the labs calculates the averages of all 12 specimen pairs, while another is taking the average of the averages as shown in the same table, so confusion regarding reporting of results and the report form were discussed.
 - b. It was noted that essentially the same average was obtained whether the average is from the 12 measurements or the average of the four averages from the three specimens from each tube, but all thought it was best to revise the OSCT report form to ensure all labs are calculated the average in the same manner.
 - c. A motion made by W. Venhoff and 2nd by M. Lopez was unanimously approved with 5 votes to have the TMC alter the OSCT report forms so that all 12 post-test measurements are recorded.

A motion made by D. Bell and 2nd by B. Grinfield to adjourn the meeting at 10:54 am on 11/16/2016 was unanimously approved with 5 votes.

Respectfully Submitted,



Don Bell