



Test Monitoring Center

6555 Penn Avenue
Pittsburgh, PA 15206-4489
(412) 365-1000

L-42 Information Letter 02-1
Sequence Number 14
March 5, 2002

ASTM consensus has not been obtained on this information letter. An appropriate ASTM ballot will be issued in order to achieve such consensus.

TO: L-42 Mailing List

SUBJECT: 1. Replacement of CRC Manual 17 with CRC Manual 21
2. Removal of Report Forms and Data Dictionary

1. At the February 5, 2002 L-42 Surveillance Panel meeting, the panel approved a motion to adopt CRC Manual 21 as a replacement for Manual 17. Section 5.7.1 of the L-42 procedure has been revised. Note 9 has been deleted and Note 10 has been renumbered to Note 9. The effective date is February 11, 2002.

2. The L-42 Test Report Forms and Data Dictionary have been removed from the L-42 procedure. The TMC will continue to maintain and revise the L-42 Test Report Forms and Data Dictionary, as in the past. The revised report forms and data dictionary can be downloaded from the ASTM Test Monitoring Center Web Page at <http://tmc.astm.cmri.cmu.edu/> or can be obtained in hardcopy format from the TMC. Section 7.2 and Annex A2 of the L-42 procedure have been revised. The effective date is April 1, 2002.

Replacement pages for STP512A are attached.

Kevin Layton
Chairman
L-42 Surveillance Panel

John L. Zalar
Administrator
ASTM Test Monitoring Center

Attachment

c: ftp://tmc.astm.cmri.cmu.edu/docs/gears/l42/procedure_and_ils/il02-1.pdf

Distribution: Email

5.7 *Disassemble Test* Unit -- Rate (numerically) the surface distress.

5.7.1 *Rating* – At completion of the test, the pinion and ring gear are removed from the unit and rated on both drive and coast sides for percent of the contact area exhibiting scoring in accordance with CRC Manual 21. The percent scoring for the non-reference oil is compared to the percent scoring for the three most recent acceptable reference tests.

5.7.1.1 For a test rating to be valid, the gears shall be rated by an individual who has participated in a ASTM gear-rater calibration workshop within the previous twelve months.

Note 9 – Training for those rating gear sets for the gear distress levels may be obtained from Coordinating Research Council (CRC) 219 Perimeter Center Parkway, Atlanta, GA 30346.

6. STAND CALIBRATION

6.1 Each test stand must conduct a calibration sequence every 3 months or at the completion of 15 non-reference oil tests. Each calibration sequence will consist of 3 operationally valid and statistically acceptable calibration tests on reference oil 114 (or subsequent reblends). Each operationally valid test will be considered statistically acceptable if the end of test pinion coast side scoring meets the Shewhart limits as published by the Test Monitoring Center. Specific Shewhart limits are defined for each gear batch and reference oil combination. Any operationally valid calibration test in the calibration sequence with a end of test pinion coast side scoring value exceeding the Shewhart limits must be repeated until acceptable pinion scoring results are achieved. Every 6 months from the completion of the last test in the calibration sequence or after 4 calibration sequences, each test stand will be required to perform a discrimination test on reference oil 112 (or subsequent reblends). The end of test pinion coast side scoring value of the discrimination test must be a minimum of twice the average value of the 3 acceptable tests on reference oil 114 (or subsequent reblends) for the test to be considered acceptable. If a second discrimination test is needed, this discrimination test if acceptable, will count as 1 of the 15 non-reference oil tests. In the event that both discrimination oil tests do not meet the above requirements a complete new calibration sequence must be performed followed by the discrimination requirements as outlined above. For all reference oil tests, the end of test coast side pinion scoring shall be equal to or greater than the end of test ring coast side scoring for the test to be acceptable.

7. TEST REPORTING

- 7.1 When reporting reference oil test results to the TMC transmit by facsimile the complete report form package (Annex A2) and any other supporting information to the ASTM TMC within five days of test completion. A copy of the final test report shall be mailed within 30 days of test completion to the ASTM Test Monitoring Center, 6555 Penn Avenue, Pittsburgh, PA 15206-4489. Electronic transfer of test results (see Section 7.4) to the ASTM TMC is also permitted for approved laboratories.
- 7.2 For reference oil tests, the standardized report form set and data dictionary for reporting the test results and for summarizing the operational data are required. The report forms and data dictionary are available on the ASTM Test Monitoring Center Web Page at <http://tmc.astm.cmri.cmu.edu/> or can be obtained in hardcopy format from the TMC. The final test report will include a completed report form package and one 8 x 10 black and white photo of the ring and pinion coast sides labeled or identified by oil and run number.
- 7.3 Deviations from Test Operational Limits – Report all deviations from specified test operational limits on Form 4 (Annex A2) under Other Comments.
- 7.4 Electronic Transmission of Test Results – Electronic transfer of reference and non-reference oil test report data can be done utilizing the ASTM Data Communications Committee Test Report Transmission Model (see Section 2 - Flat File Transmission Format) available from the ASTM TMC.

8. PRECISION AND BIAS

- 8.1 The precision and bias of this test have not yet been formally established.

9. INSTRUMENT CALIBRATION

- 9.1 A complete system calibration to include thermocouples, speed pick-ups and the in-line torque meter is to be performed every three (3) months or sixty (60) tests whichever comes first.
- 9.2 The in-line torque meter must have an electronic shunt calibration performed prior to each reference test.

A2. L-42 TEST REPORT FORMS and DATA DICTIONARY

The required report forms and data dictionary are available on the ASTM Test Monitoring Center Web Page at <http://tmc.astm.cmri.cmu.edu/> or can be obtained in hardcopy format from the TMC.

Form 0	Test Report Cover
Form 1	Test Result Summary Page
Form 2	Operational Summary Sheet
Form 3	Measurements Summary Sheet
Form 4	Downtime and Comments Sheet