



Test Monitoring Center

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L-37 Information Letter 03-3
Sequence Number 28
April 21, 2003

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-37 Mailing List

SUBJECT:

1. Deletion of Catastrophic Distress Levels For Wear, Rippling, and Ridging
2. Non-interpretable Tests
3. Tooth Breakage
4. Rating Corrosion On Ring and Pinion

1. At the April 8, 2003 L-37 Surveillance Panel meeting, the panel approved a motion to delete catastrophic distress levels (0, 1, and 2) for wear, rippling and ridging. Revised Table A9.1 of Test Method D6121 is attached.

2. At the April 8, 2003 L-37 Surveillance Panel meeting, the panel approved a motion that any non-reference oil test that has not been run in a calibrated test stand and/or not conducted on approved hardware be considered non-interpretable. The cover page of the test report shall indicate that the test is non-interpretable and has not been conducted in a valid manner in accordance with the test procedure. Attached is new Section 12.6.

3. At the April 8, 2003 L-37 Surveillance Panel meeting, the panel approved a motion stating that any reference or non-reference oil test that has one or more broken pinion or ring gear teeth shall be considered a non-interpretable test. Any tooth breakage shall be noted in the comment section of the test report. Attached is new Section 12.7.

3. At the April 8, 2003 L-37 Surveillance Panel meeting, the panel approved a motion to add wording to Test Method D 6121 regarding the rating and reporting of corrosion on the ring and pinion. Attached is new Section 12.8.

These changes are effective the date of this information letter.

Donald T. Bartlett
Chairman
L-37 Surveillance Panel

John L. Zalar
Administrator
ASTM Test Monitoring Center

Attachment

c: ftp://ftp.astmtmc.cmu.edu/docs/gear/l-37/procedure_and_ils/il03-3.pdf

Distribution: Electronic Mail

Insert the following note after Section 12.2.3.2 and before Section 12.2.3.3.

Note 2—If non-reference oil test results are to be used as candidate oil test results against a specification, report the non-reference oil test results on the same standardized report form set and data dictionary as used for reference oil test results.

12.6 Consider as non-interpretable any non-reference oil test that has not been run in a calibrated test stand or not conducted on approved hardware, or both. Indicate on the cover page of the test report that the test is non-interpretable and that it has not been conducted in a valid manner in accordance with the test method.

12.7 Consider as non-interpretable any reference or non-reference oil test that has one or more broken pinion or ring gear teeth. Note any tooth breakage in the comment section of the test report.

12.8 Rate only the corrosion on the contact surface of the drive side of any pinion or ring gear tooth. Enter the corrosion rating in the rating section of the rating form. Note any corrosion on the pinion and ring in a non-contact surface area in the comment section of the rating form.

(Revises Test Method D 6121-02 as amended by Information Letters 02-1 through 03-2)

Table A9.1 Gear Rating Guidelines

| Use For All Distress Except Pitting/Spalling | | |
|---|--|-------------------------------------|
| Numerical Value | Level of Distress | |
| 10.0 | None | |
| 9.0 | Trace | |
| 8.0 | Trace-Light | |
| 7.0 | Light | |
| 6.0 | Light-Medium | |
| 5.0 | Medium | |
| 4.0 | Medium-Heavy | |
| 3.0 | Heavy | |
| Use For Pitting/Spalling Distress Only | | |
| Numerical Value | Level of Distress | Corresponding CRC 21 Spalling Scale |
| 10.0 | None | |
| 9.9 | Trace Pitting - Pit size up to 0.24 mm diameter | |
| 9.8 | Trace-Light Pitting | |
| 9.7 | Light Pitting - Pit size 0.50 mm diameter | |
| 9.6 | Light-Medium Pitting | |
| 9.5 | Medium Pitting - Pit size 0.74 mm diameter | |
| 9.4 | Medium-Heavy Pitting | |
| 9.3 | Heavy Pitting - Pit size 0.98 mm diameter | |
| 9.0 | Trace Spalling | 1 mm ² |
| 8.0 | Trace-Light Spalling | 4 mm ² |
| 7.0 | Light Spalling | 9 mm ² |
| 6.0 | Light-Medium Spalling | 16 mm ² |
| 5.0 | Medium Spalling | 25 mm ² |
| 4.0 | Medium-Heavy Spalling | 36 mm ² |
| 3.0 | Heavy Spalling | 49 mm ² |
| 2.0 | Heavy to Catastrophic (up to 50% of gear tooth contact area and for pitting/spalling, greater than a 3.0 on the spalling template) | |
| 1.0 | Heavy to Catastrophic (greater than 50% and less than 100% of the gear tooth contact area not ratable) | |
| 0.0 | Catastrophic (100% of the gear tooth contact area not ratable) | |
| Spalling in the range from 9.0 to 3.0 references CRC Manual 21 Spalling Template. Any tooth breakage will be noted in the comment section of the final test report. | | |