A Program of ASTM International

Test Monitoring Center

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L-42 Information Letter 15-1
Sequence Number 33
May 1, 2015

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 Surveillance Panel

SUBJECT:
1. Alternate transmission and universal joint part numbers
2. Editorial: Rating manual name, calibration period run number

The transmission recommended in Table 1 of the L-42 test procedure is no longer available. During an April 27, 2015 teleconference, the L-42 Surveillance Panel approved the use of an alternative transmission and necessary accompanying universal joint.

In addition, ASTM has assumed responsibility for rating manual 21 and all industry rating activities formerly the responsibility of CRC. The name of manual 21 has been changed to: ASTM Distress Rating Manual 21 (Formerly CRC Manual 21).

When the number of tests permitted within a calibration period was changed from 15 to 20, the reference to that number in section 9.2 was overlooked.

Revised D7452 text is shown in the attachment.

Jarrod Chalkley
Chairman
L-42 Surveillance Panel

Frank Farber
Director
ASTM Test Monitoring Center

Attachment

cc: ftp://ftp.astmtmc.cmu.edu/docs/gear/l42/procedure_and_ils/il15-1.pdf

Distribution: Email

Replace Table 1 with this revised Table 1:

TABLE 1 Recommended Power Train Replacement Parts List

Parts	Part Number
Ramjet Engine Includes ECM	12495515
Five Speed Transmission	15747134 or 15747232
Bell Housing	15998496
Clutch Assembly	15002591
Throw Out Bearing	15705563
Dip Stick	10190942
Dip Stick Tube	12552920
Flywheel	10105832
Flywheel Bolt (6 req.)	12337973
Pilot Bearing	14061685
Master Cylinder	15727261
Actuating Cylinder	15046288
Pulley, Water Pump	14023155
Pulley, Crankshaft	14023147
Belt	9433720
Starter	10496873
Engine Control Unit	12489488
Throttle Body from 2000 Corvette.	17113669
Throttle Body TPS Connector	12116247
Throttle Body Actuator Motor Connector	12167121
K&N Inlet Air Filter	RD6020

Replace the current text of 6.14.1 with:

6.14.1 *Transmission U-Joint*—(Spicer 5-178X[13] or Neapco 2-1435[14]).

Create new footnote 14 as shown below and renumber subsequent footnotes:

[14] Neapco, LLC., 6735 Haggerty Road, Belleville, MI 48111.

When the stand calibration period was increased from 15 tests to 20 tests, the reference in section 9.2 was overlooked. Replace the current text of 9.2 with:

9.2 *Test Stand Calibration*—Calibration is established upon satisfactory completion of a reference oil test sequence that meets established reference oil targets. Each calibration sequence consists of three operationally valid and statistically acceptable calibration tests. Each operationally valid test is 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. Repeat any operationally valid calibration test in the calibration sequence with an end of test pinion coast side scoring value exceeding the Shewhart limits until acceptable pinion scoring results are achieved. Conduct a discrimination oil test on the test stand every six months from the completion of the last test in the calibration sequence or after four calibration sequences. The end of test pinion coast side scoring value of the discrimination oil test shall be a minimum of twice the average value of the three acceptable reference oil tests for the test to be considered acceptable. The discrimination oil test may be conducted at any time during the calibration sequence. If the discrimination oil test is conducted at the end of the calibration sequence and a second discrimination oil test is needed, this second discrimination oil test if acceptable, will

count as 1 of the 20 non-reference oil tests. Repeat the calibration sequence, consisting of the three reference oil tests and the discrimination oil test, if both discrimination oil tests do not meet the above requirements. 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.

The rating manual name change requires changes to the following sections:

3.1.1 coast side, n—the convex side of the pinion and the concave side of the ring gear which are in contact during deceleration in a forward gear. **ASTM Distress Rating Manual 21 (Formerly CRC Manual 21)**[5]

3.1.2 drive side, n—the concave side of the pinion and the convex side of the ring gear which are in contact during acceleration in a forward gear. **ASTM Distress Rating Manual 21 (Formerly CRC Manual 21)**[5]

3.1.3 scoring, n—on the ring and the pinion gear teeth, the displacement of metal by local momentary welding from the gear tooth, resulting in the development of a matte, or frosted dull surface. **ASTM Distress Rating Manual 21 (Formerly CRC Manual 21)**[5]

Replace the text of Footnote 5 with:

[5] Formerly known as CRC Manual 21. Available from the ASTM website, www.astm.org, (ASTM Stock Number TMCMNL21).

Replace the text of 11.1.1 with:

11.1.1 Rate and report both drive and coast side of pinion and ring gear for percent of total tooth area that exhibits scoring, see ASTM Distress Rating Manual 21 (Formerly CRC Manual 21). Compare the percent scoring for the non-reference oil tests to the percent scoring for the three most recent acceptable reference oil tests.