



Test Monitoring Center

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L-33-1 Information Letter 20-3
Sequence Number 26
November 4, 2020
Corrected November 11, 2020

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-33-1 Surveillance Panel
SUBJECT: Revision to the Test Procedure to Add T1XX Hardware

The L-33-1 Surveillance Panel approved AAM T1XX hardware for test use on October 8th, 2020. Several changes to the test procedure are necessary to incorporate this new hardware, and future AAM hardware. The panel approved these changes with an email vote that concluded on October 27th, 2020.

Sections 6.2, 6.2.5, 8.1, 9, 11.1.5, and 12.4.2 of the Test Method D7038 have been rewritten accordingly. These revisions are attached.

Anthony Lange
Chairman
L-33-1 Surveillance Panel

Frank Farber
Director
ASTM Test Monitoring Center

Attachment

cc: http://www.astmtmc.cmu.edu/ftp/docs/gear/l331/procedure_and_ils/il20-3.pdf

Distribution: Email

(Revises Test Method D 7038-20)

6.2 *Test Unit*—This procedure uses a hypoid differential assembly (without axle tubes) made by American Axle & Manufacturing (AAM). The model designations ~~is~~ **are** K2XX, Part No. P40128429A, 3:42 ratio, standard 8.6 in. (218.4 mm) **and T1XX, Part No P40211874A Rev A, 3:42 ratio, standard 8.6 in. (218.4mm)**. This is an open differential with uncoated ring and pinion.^{8,9} Until December 31, 2018, a Dana Model 30 V01.1 may also be used

6.2.5 *Housing Axle Tube Opening Seals*—Since the differential is tested without axle shafts or axle tubes, use a stainless steel plumbing test plug for a 2.9 in. to 3.1 in. (74 mm to 79 mm) pipe diameter to seal the housing openings. McMasterCarr p/n 2908K28 or 2908K29^{12,9} with the outer washer and seal ring cut to 2.9 in. to 3.1 in. (74 mm to 79 mm) has been found acceptable for this purpose. Install a pair of seals in the axle housing openings before installing carrier/case into the axle housing. When using Dana Model 30 hardware rather than the AAM ~~K2XX~~ hardware see Fig. A5.2 for an example of construction dimensions for fabricating a pair of suitable seals.

8.1 Use 1.0 gal (3.7 L) of fluid for each test. The housing capacity is 91 oz (2.7 L); the remaining oil is used for coating the test parts during assembly. When using Dana model 30 hardware rather than the AAM ~~K2XX~~ hardware the housing capacity is 40 oz (1.2 L).

9. Preparation of American Axle ~~K2XX~~ Hardware

11.1.5 Using a syringe, add **2.3 oz ± 0.02 oz (67.5 mL ± 0.6 mL)** of specified test water to the test unit through the full port valve within 5 min after starting the drive motor. If using Dana Model 30 hardware rather than the AAM ~~K2XX~~ hardware add **1.00 oz ± 0.02 oz (29.6 mL ± 0.6 mL)** instead. Connect the pressure relief system.

12.4.2 On and after January 2, 2020: to maintain comparable test severity to the Dana Model 30 hardware, **add a +1 correction** ~~is to be added~~ to the rated values for areas #2 and #3 when using AAM ~~K2XX~~ hardware. The application of these +1 values does not permit a rated value to exceed a value of 10.