



Test Monitoring Center

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L-33-1 Information Letter 17-1
Sequence Number 20
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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:

1. Clarification on storage box fan motor requirements
2. Guidance on installing blast nozzle correctly
3. Editorial correction of typo in Section 8.1
4. Revised precision statement for AAM hardware

During a May 3, 2017 meeting, the L-33-1 Surveillance Panel approved the changes cataloged above. The precision statement for the test is also being updated in recognition of the introduction of the American Axle K2XX test hardware.

The text of the revisions is shown in the attachment. The changes are effective immediately.

Angela Trader
Chairman
L-33-1 Surveillance Panel

Frank Farber
Director
ASTM Test Monitoring Center

Attachment

cc: http://www.astmtmc.cmu.edu/docs/gear/1331/procedure_and_ils/il17-1.pdf

Distribution: Email

Replace section 6.2.7 with the following:

6.2.7 Storage Box and Temperature Control System, Storage Phase— During the storage phase of the test, a double-walled aluminum or stainless steel box covers the differential housing assembly. An RTD or thermocouple (J or K type) in conjunction with the controller regulates heat input from four strip heaters giving a total output of 1700 Btu/h (500 W). A small electric motor turns a fabricated impeller at (1700 +/- 100) r/min to provide air circulation within the box. Dayton part number 3M562 available from Grainger has been found suitable for this purpose.¹² Control the bulk oil temperature at 125 +/- 1°F (52 °C 6 +/- °C). Fig. A5.5 shows details of the impeller. Fig. A5.6 shows construction and electrical details of this box.

Replace section 6.2.9.3 with the following:

6.2.9.3 *Blasting Gun Setup:*

- (1) Grainger Econo-Line 12 ft³/min Gun Assembly, Grainger Item No. 3JT01.¹²,⁷
- (2) Grainger Econo-Line tungsten carbide Nozzle Tip 1/4 in. I.D. Item No. 3JT08.¹²,⁷ Take care to install this nozzle with the *smaller opening facing out*. The nozzle's shape makes it possible for it to be installed incorrectly. Change the nozzle after fifteen L-33-1 units are blasted.
- (3) Grainger Econo-Line Air Jet 12 ft³/min, Grainger Item No. 3JT04.¹²,⁷

Replace section 8.1 with the following (corrects typo: "assembly" vs "disassembly"):

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).

Replace Table 2 with the following:

TABLE 2 Test Precision

Variable, merits	Intermediate Precision		Reproducibility	
	$S_{I.P.}^A$	$i.p.^B$	S_R^A	R^B
Rust (Dana) ^C	0.25	0.70	0.25	0.70
Rust (AAM) ^D	0.19	0.52	0.19	0.52

^AS = standard deviations.

^BThis value is obtained by multiplying the standard deviation by 2.8.

^CThese statistics are based on results obtained on TMC Reference Oil 151-3 from June 24, 2002 to Oct. 1, 2003 using Dana hardware.

^DThese statistics are based on results obtained on TMC Reference Oil 155-1 from June 15, 2015 to May 2, 2017 using AAM hardware.