A Program of ASTM International

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L-33-1 Information Letter 18-2
Sequence Number 22
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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. Editorial changes made to Sections 6.2.6 & 6.2.7
2. Editorial changes made to Section 14.1.3 & Table 2

When Information Letter 17-1 was released it mistakenly indicated 6°C instead of 0.6°C for the bulk oil temperature tolerance in Section 6.2.7. In addition, Section 6.2.6 has a similar mistake. Both sections have been corrected and are attached. Section 14.1.3 and Table 2 have been included to indicate that "i.p." needs to be lowercase and italicized.

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

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Chairman
L-33-1 Surveillance Panel

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Attachment

cc: http://www.astmtmc.cmu.edu/ftp/docs/gear/l331/procedure_and_ils/il18-2.pdf

Distribution: Email

(Revises Test Method D 7038-18 as amended by Information Letter 17-1)

Replace section 6.2.6 with the following:

6.2.6 *Temperature Control System, Motoring Phase*—During the motoring phase, the bulk oil temperature is sensed by a resistance temperature device (RTD) or thermocouple (J or K type). The controller switches on a pair of 250 W lamps or cooling fan, or both, that are directed toward the differential as needed to control bulk oil temperature at 180 °F ± 1 °F (82 °C ± 0.6 °C). A household-type electric fan having 12.0 in. (310 mm) diameter blades has been shown to provide acceptable cooling capability. Fig. A5.3 shows an example of the location of the heat lamp pair and the cooling fan. Fig. A5.4 shows the location of the temperature sensor in the differential housing.

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 ± 0.6°C). Fig. A5.5 shows details of the impeller. Fig. A5.6 shows construction and electrical details of this box.

14.1.3 *Intermediate Precision Limit* (*i.p.*) — The difference between two results obtained under intermediate precision conditions that would in the long run, in the normal and correct conduct of the test method, exceed the values shown in Table 2 in one case in twenty.

Replace Table 2 with the following:

TABLE 2 Test Precision

	Intermediate Precision		Reproducibility	
Variable, merits	$S_{i.p.}$[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

[A] S = standard deviations.

[B] This value is obtained by multiplying the standard deviation by 2.8.

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

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