

ADOPTION NOTICE

SAE-J1559, "MEASUREMENT OF SOLAR HEATING EFFECT", was adopted on 24-JUL-85 for use by the Department of Defense (DoD). Proposed changes by DoD activities must be submitted to the DoD Adopting Activity: Commander, Naval Sea Systems Command, SEA 03R42, 2531 Jefferson Davis Highway, Arlington, VA 22242-5160. Copies of this document may be purchased from the Society of Automotive Engineers 400 Commonwealth Drive Warrendale, Pennsylvania, United States, 15096-0001. <http://www.sae.org/>

Custodians:

Army - CR4
Navy - SH

Adopting Activity:

Navy - SH

AREA SESS

DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.

Submitted for recognition as an American National Standard

MEASUREMENT OF SOLAR HEATING EFFECT

Foreword—This Document has not changed other than to put it into the new SAE Technical Standards Board Format.

1. **Scope**—This SAE Recommended Practice is applicable to off-road, self-propelled work machines from Section 1 to 5 of SAE J1116 when equipped with an operator enclosure system.

1.1 **Purpose**—This document provides a procedure for applying a simulated solar load while performing A/C tests in the laboratory and determining the radiant heat energy affecting an operator enclosure system by an artificial light source or a natural solar load.

2. References

2.1 **Applicable Publications**—The following publications form a part of this specification to the extent specified herein. Unless otherwise specified, the latest issue of SAE Publications shall apply.

2.1.1 SAE PUBLICATIONS—Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

SAE J1116—Categories of Off-Road Self-Propelled Work Machines

SAE J1503—Performance Test for Air-Conditioned, Heated, and Ventilated Off-Road Self-Propelled Work Machines

3. Test Procedure

3.1 General Procedure

3.1.1 The intended result of this procedure is to record the radiant energy affecting an operator enclosure during tests of the air-conditioning system.

3.1.2 This procedure is recommended for use with the test procedure of SAE J1503.

3.2 Procedure for Measuring the Radiant Energy of a Solar Load

3.2.1 An appropriate measuring device, with an accuracy of $\pm 3\%$ of the observed values, such as a Pyranometer shall be placed in the same general area as the enclosure under test. Readings shall be made at 10 min intervals during the test period. These readings shall be averaged and recorded as part of the reported results.

SAE Technical Standards Board Rules provide that: "This report is published by SAE to advance the state of technical and engineering sciences. The use of this report is entirely voluntary, and its applicability and suitability for any particular use, including any patent infringement arising therefrom, is the sole responsibility of the user."

SAE reviews each technical report at least every five years at which time it may be reaffirmed, revised, or cancelled. SAE invites your written comments and suggestions.

QUESTIONS REGARDING THIS DOCUMENT: (724) 772-8512 FAX: (724) 776-0243
TO PLACE A DOCUMENT ORDER; (724) 776-4970 FAX: (724) 776-0790
SAE WEB ADDRESS <http://www.sae.org>