



SURFACE VEHICLE RECOMMENDED PRACTICE

J3078™/3

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Off-Road Self-Propelled Work Machines Operator Enclosure Environment Part 3: Operator Enclosure Pressurization System Test Procedure

RATIONALE

There are currently two ISO documents and several J documents covering test procedures relating to operator enclosure environment. The ISO documents are basically several J documents combined into the ISO format. Technical content of all these documents was prepared by SAE HFTC6.

This new document will contain the same technical content as the other documents but can be applied to machines not covered by the ISO documents. Several J documents will be replaced.

Changes to the technical content of this new document will be controlled by SAE HFTC6. Since the format of the new document will be the same as the ISO format, it will be simpler for the SAE liaison group to present any changes to ISO.

This document will replace SAE J1012.

1. SCOPE

SAE J3078/3 establishes a uniform test procedure for evaluating performance of operator enclosure pressurization systems. This standard is applicable to off-road, self-propelled work machine, as defined in SAE J1116, and includes tractors and machinery for agriculture and forestry as defined in ASABE standard ANSI/ASAE S390.

2. REFERENCES

2.1 Applicable Publications

The following publications form a part of the specification to the extent specified herein. Unless otherwise indicated the latest revision of SAE publications shall apply.

2.1.1 SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or +1 724-776-4970 (outside USA), www.sae.org.

SAE J1116	Categories of Off-Road Self-Propelled Work Machines
SAE J3078/1	Off-Road Self-Propelled Work Machines Operator Enclosure Environment, Part 1: Terms and Definitions

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Full document details: SAE J3078_3_202202

For more information on this standard, visit
https://www.sae.org/standards/content/J3078/3_202202/

Documents

Document Sharing Hub

2.1.2 ISO Publications

Copies of these documents are available online at <http://webstore.ansi.org/>.

ISO 10263-3 Earth-Moving Machinery - Operator Enclosure Environment - Part 3: Pressurization Test Method

ISO 14269-5 Agricultural Tractors and Self-Propelled Machines - Test Method for Enclosure Pressurization Systems

2.1.3 ASABE Publications

Available from ASABE, 2950 Niles Road, St. Joseph, MI 49085, Tel 269-429-0300, www.asabe.org.

ANSI/ASAE S390 Tractors and Machinery for Agriculture and Forestry - Basic Types - Vocabulary

3. DEFINITIONS

3.1 PRESSURIZATION

The pressure differential between the static positive pressure inside the operator enclosure and the atmospheric pressure outside of the operator enclosure.

3.2 PRESSURIZATION SYSTEM

Means used to pressurize the operator enclosure including any components which will influence the performance of the system. Blowers, filters, duct work, heat exchangers, etc. will be included if the pressurizer is used to provide air flow to these components.

3.3 HVAC BLOWER

Blower in the HVAC system that provides airflow for the evaporator and heater. This may provide the only means to pressurize the operator enclosure. The blower will always provide the majority of air to the evaporator and heater, even if used in conjunction with a dedicated pressurizer.

3.4 PRESSURIZER OR PRE-CLEANER

Blower that is dedicated to providing fresh airflow to the operator enclosure and thereby pressurizing the operator enclosure. In some instances, the pressurizer will have an integrated feature that is capable of removing particles of debris from the fresh air (pre-cleaner). In either instance, the pressurizer is used in conjunction with the HVAC blower. The pressurizer can be installed such that it runs regardless of whether or not the HVAC blower is running, only when the HVAC blower is on or turned off to reduce the heat load on the system when there is a "max cool" feature available.

3.5 MODE CONTROL

A part of the ventilation system that controls ventilation to areas selected by the operator (for example, defrost mode, panel mode, or foot mode). These modes can also be a combination of two modes. The mode control may be integrated within the HVAC module or be a part of the ventilation ducts.

3.6 BLEND DOOR

A method of controlling the airflow path through the heat exchangers in a HVAC module, where the airflow can either be diverted completely around one coil or partially as selected by the temperature control.

3.7 FRESH AIR FLOW CONTROL

A part of the ventilation system that can be used to reduce the fresh airflow to the pressurization system, thereby reducing the heat load on the evaporator.