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Earth-moving machinery — Operator enclosure environment —

Part 3:

iTeh SOperator enclosure pressurization test method (standards.iteh.ai)

Engins de terrassement — Ambiance dans l'enceinte de l'opérateur — <u>ISO 10263-3:1994</u> https://standards.ite.Partie: 3: Méthode d'essai du système de pressurisation de l'enceinte de l'opérateur_{4bb/iso-10263-3-1994}



Foreword

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Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting VIEW a vote.

International Standard ISO 10263-3 was prepared by Technical Committee ISO/TC 127, *Earth-moving machinery*, Subcommittee SC 2, *Safety requirements and human factors*. <u>ISO 10263-3:1994</u>

https://standards.iteh.ai/catalog/standards/sist/467f8900-d702-49d9-8d58-ISO 10263 consists of the following parts, under the general citile Earth: moving machinery — Operator enclosure environment:

- Part 1: General and definitions
- Part 2: Air filter test
- Part 3: Operator enclosure pressurization test method
- Part 4: Operator enclosure ventilation, heating and/or air-conditioning test method
- Part 5: Windscreen defrosting system test method
- Part 6: Determination of effect of solar heating on operator enclosure

Annex A of this part of ISO 10263 is for information only.

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International Organization for Standardization

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Earth-moving machinery — Operator enclosure environment —

Part 3:

Operator enclosure pressurization test method

1 Scope

This part of ISO 10263 specifies a test method which provides uniform measurement of the pressurization **R** inside an operator enclosure of an earth-moving machine fitted with a device to pressurize the enclosure **S**.

2 Definition

The operator enclosure shall be equipped with all applicable equipment, i.e. blowers, filters, duct work, ISO 10263-3:1994 ei/estable/tadard/citetheat.exchangers, etc., if the pressurizer is used to

turer's specification limits.

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For the purposes of this part of ISO 10263,4the4t60iso-10263-3-1994

lowing definition applies.

2.1 pressurization system: Means used to pressurize the operator enclosure, including any components which influence the performance of the system. [ISO 10263-1:1994, definition 3.17]

3 Test equipment

3.1 Manometer, the maximum error of which shall not exceed \pm 10 %, to measure pressurization.

3.2 Voltmeter, the maximum error of which shall not exceed ± 2 %, to monitor voltage in the system during the test.

4 Test conditions

4.1 The pressurizer system shall be completely powered by the standard equipment on the test machine with the engine operating at rated speed. The voltage at blower motor terminals shall be no more than 20 % above the nominal rating of the system (for example 14,4 V for a 12 V system).

NOTE 1 Clean air filters are recommended since the amount of particulate matter in the filters may affect the pressurization.

4.2 All machine accessories pertinent to the oper-

ation of the enclosure, enclosure components and

blowers shall be standard production parts or the equivalent, adjusted within the machine manufac-

4.3 An operator may be present in the enclosure throughout the duration of the test.

5 Test procedure

5.1 Before recording data, operate the pressurization system for 15 min using maximum outside air, on the maximum blower speed setting. Ensure that no automatic pressurization controls are locked out, and that neither the air-conditioning nor the heating systems are in operation, to obtain uniform results.

5.2 Record for information purposes only:

- a) blower voltage;
- b) ambient temperature;
- c) barometric pressure;

- d) wind velocity and direction in relation to the machine centreline.
- **5.3** Record enclosure pressure, in pascals.

NOTE 2 It is recommended to avoid velocity head on the manometer by keeping its outlets away from air streams.

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Annex A

(informative)

Bibliography

[1] ISO 3737:1976, Agricultural tractors and self-propelled machines — Test method for enclosure pressurization systems.

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Descriptors: earth-moving equipment, operating stations, cabs, pressurized cabins, working conditions, pressurizing, tests, performance tests.

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