AS ISO 10263.4:2022
ISO 10263-4:2009

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Earth-moving machinery — Operator enclosure environment

Part 4: Heating, ventilating and air conditioning (HVAC) test method and performance

AS ISO 10263.4:2022

This Australian Standard ® was prepared by ME-063, Earthmoving Equipment. It was approved on behalf of the Council of Standards Australia on 04 February 2022.

This Standard was published on 18 February 2022.

The following are represented on Committee ME-063:

Australasian Institute of Mining & Metallurgy
Australian Industry Group
Better Regulation Division — SafeWork NSW
Construction and Mining Equipment Industry Group
Department of Regional NSW
Engineers Australia
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This Standard was issued in draft form for comment as DR AS ISO 10263.4:2021.

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ISBN 978 1 76113 658 0

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Part 4: Heating, ventilating and air conditioning (HVAC) test method and performance

First published as AS ISO 10263.4:2022.

Preface

This Standard was prepared by the Standards Australia Committee ME-063, Earthmoving Equipment.

The objective of this document is to specify a uniform test method for measuring the contribution to operator environmental temperature provided by a heating, ventilating and air conditioning system operating in a specific ambient environment. The method might not determine the complete climatic environment of the operator since this is also affected by heat load from sources other than those on the machine, for example solar heating. AS ISO 10263.6:2022 is to be used in conjunction with this document to determine more accurately the complete heat loading on the operator enclosure. Minimum performance levels for the machine's operator enclosure heating, ventilating and air conditioning systems are established in this document.

This document is identical with, and has been reproduced from, ISO 10263-4:2009, *Earthmoving machinery — Operator enclosure environment — Part 4: Heating, ventilating and air conditioning (HVAC) test method and performance.*

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The terms "normative" and "informative" are used in Standards to define the application of the appendices or annexes to which they apply. A "normative" appendix or annex is an integral part of a Standard, whereas an "informative" appendix or annex is only for information and guidance.

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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The main task of technical committees is to prepare International Standards. 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 a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 10263-4 was prepared by Technical Committee ISO/TC 127, *Earth-moving machinery*, Subcommittee SC 2, *Safety, ergonomics and general requirements*.

This second edition cancels and replaces the first edition (ISO 10263-4:1994), which has been technically revised.

ISO 10263 consists of the following parts, under the general title *Earth-moving machinery — Operator enclosure environment*:

— *Part 1: Terms and definitions*

— *Part 2: Air filter element test method*

— *Part 3: Pressurization test method*

— *Part 4: Heating, ventilating and air conditioning (HVAC) test method and performance*

— *Part 5: Windscreen defrosting system test method*

— *Part 6: Determination of effect of solar heating*

Australian Standard®

Earth-moving machinery — Operator enclosure environment

Part 4: Heating, ventilating and air conditioning (HVAC) test method and performance

1 Scope

This part of ISO 10263 specifies a uniform test method for measuring the contribution to operator environmental temperature provided by a heating, ventilating and air conditioning system operating in a specific ambient environment. The method might not determine the complete climatic environment of the operator since this is also affected by heat load from sources other than those on the machine, for example solar heating. ISO 10263-6 is to be used in conjunction with this part of ISO 10263 to determine more accurately the complete heat loading on the operator enclosure. Minimum performance levels for the machine's operator enclosure heating, ventilating and air conditioning systems are established in this part of ISO 10263.

NOTE The HVAC is also referred to as the climate control system.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 5353:1995, *Earth-moving machinery, and tractors and machinery for agriculture and forestry — Seat index point*

ISO 9249:2007, *Earth-moving machinery — Engine test code — Net power*

ISO 10263-1, *Earth-moving machinery — Operator enclosure environment — Part 1: Terms and definitions*

ISO 10263-2, *Earth-moving machinery — Operator enclosure environment — Part 2: Air filter element test method*

ISO 10263-3, *Earth-moving machinery — Operator enclosure environment — Part 3: Pressurization test method*

ISO 10263-6, *Earth-moving machinery — Operator enclosure environment — Part 6: Determination of effect of solar heating*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 10263-1 and the following apply.

3.1
operator enclosure
part of the machine which completely surrounds the operator, preventing the free passage of external air, dust or other substances into the area around the operator

3.2
operator environment
space surrounding the operator defined by temperature and wind speed measurement points

3.3
air conditioning system
system which lowers the effective temperature of the air within the operator enclosure