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ISO 10263-2:2009

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Earth-moving machinery — Operator enclosure environment

Part 2: Air filter element test method



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Department of Regional NSW
Engineers Australia
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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 to determine performance levels of operator enclosure panel-type air filters used to filter the air entering an earth-moving machine operator enclosure with a powered fresh air system.

This document is identical with, and has been reproduced from, ISO 10263-2:2009, *Earth-moving machinery — Operator enclosure environment — Part 2: Air filter element test method.*

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

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 10263-2 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 10263-2:1994), 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*

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Earth-moving machinery — Operator enclosure environment

Part 2: Air filter element test method

1 Scope

This part of ISO 10263 specifies a uniform test method to determine performance levels of operator enclosure panel-type air filters used to filter the air entering an earth-moving machine operator enclosure with a powered fresh air 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 5011:2000, *Inlet air cleaning equipment for internal combustion engines and compressors — Performance testing*

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

ISO 12103-1, *Road vehicles — Test dust for filter evaluation — Part 1: Arizona test dust*

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
filter efficiency
measure of the ability of the air filter element to remove particulate matter

3.2
operator enclosure air filter element
medium in which particulate matter is removed from the incoming air supply

3.3
test dust
particulate matter used to evaluate the filter element

4 Air filter element performance test

The test shroud configurations for the operator enclosure filter comparison tests are given in 4.1.1 and Figure 1. This test procedure also designates a recommended intake velocity for the dust-mixing chamber.

4.1 Test equipment and instruments

4.1.1 Test equipment

Test equipment in accordance with Figure 2, used to determine the resistance to air flow, particulate holding capacity, particulate removal efficiency, and sealing characteristics. For element configurations other than panel type, see ISO 5011.

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