INTERNATIONAL STANDARD

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Earth-moving machinery — Laboratory evaluations of protective structures — Specifications for deflection-limiting volume

Engins de terrassement — Étude en laboratoire des structures de protection — Spécifications pour le volume limite de déformation

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ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

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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 3164 was prepared by Technical Committee ISO/TC 127, *Earth-moving machinery*, Subcommittee SC 2, *Safety, ergonomics and general requirements*.

This sixth edition cancels and replaces the fifth edition (ISO 3164:1995), which has been technically revised.

Earth-moving machinery — Laboratory evaluations of protective structures — Specifications for deflection-limiting volume

1 Scope

This International Standard specifies the deflection limiting volume (DLV) to be used when performing laboratory evaluations of structures which provide protection to operators of earth-moving machinery as defined in ISO 6165.

2 Normative references

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

ISO 3411:2007, *Earth-moving machinery — Physical dimensions of operators and minimum operator space envelope*

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

ISO 6165, *Earth-moving machinery — Basic types — Identification and terms and definitions*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
deflection-limiting volume
DLV
approximation of a large seated operator as defined in ISO 3411

3.1.1
orthogonal DLV
DLV (3.1) that is an orthogonal approximation of an operator

Note 1 to entry: See Figure 1.

3.1.2
rounded DLV
orthogonal DLV (3.1.1) with corners rounded to approximate the curvature of the operator (e.g. head, shoulders)

Note 1 to entry: See Figure 2.

3.1.3
orthogonal top head plane
270 mm by 330 mm rectangular horizontal surface used with the *rounded DLV* (3.1.2) to replicate the top horizontal surface of the *orthogonal DLV* (3.1.1)

Note 1 to entry: See Figure 3.