AS ISO 2860:2020
ISO 2860:1992

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Earth-moving machinery — Minimum access dimensions

AS ISO 2860:2020

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Australian Industry Group
Better Regulation Division — SafeWork NSW
Construction and Mining Equipment Industry Group
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Department of Regional NSW
Engineers Australia / Mining Electrical and Mining Mechanical Engineering Society
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Minerals Council of Australia
University of Queensland

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Earth-moving machinery — Minimum access dimensions

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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 the minimum openings for hand, head, body, arm and two-handed access on earth-moving machinery as defined in ISO 6165.

It provides engineers and designers with information in order that the access openings provided on equipment and machinery for purposes of inspection, adjustment and maintenance have sufficient dimensions for the intended function by personnel in the field or shop.

This document is identical with, and has been reproduced from, ISO 2860:1992, *Earth-moving machinery — Minimum access dimensions*.

As this document has been reproduced from an International Standard, the following apply:

(a) In the source text "this International Standard" should read "this document".

(b) A full point substitutes for a comma when referring to a decimal marker.

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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.

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.

International Standard ISO 2860 was prepared by Technical Committee ISO/TC 127, *Earth-moving machinery*, Sub-Committee SC 2, *Safety requirements and human factors*.

This fourth edition cancels and replaces the third edition (ISO 2860:1983), of which it constitutes a technical revision.

Australian Standard®

Earth-moving machinery — Minimum access dimensions

1 Scope

This International Standard specifies the minimum access openings on earth-moving machinery as defined in ISO 6165 for

a) hand access,

b) head access,

c) body access,

d) arm access,

e) two-handed access.

It provides engineers and designers with information in order that the access openings provided on equipment and machinery for purposes of inspection, adjustment and maintenance have sufficient dimensions for the intended function by personnel in the field or shop.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 3411:1982, *Earth-moving machinery — Human physical dimensions of operators and minimum operator space envelope.*

ISO 6165:1987, *Earth-moving machinery — Basic types — Vocabulary.*

3 Minimum access openings

The dimensions shown in 3.1 to 3.4 are the recommended minimum for limited activity through the opening. Larger openings would be needed in specific instances, depending upon the nature of the task, size and mass of the parts, etc. Such larger openings can be more useful and allow greater efficiency.

The larger openings for access with arctic clothing are for earth-moving machines and equipment intended for use in cold environments.

Based on available anthropometric data, the recommended openings, in figures 1 to 5, are the smallest that will accommodate the 95th percentile operator as defined in ISO 3411.

In all cases in 3.1 to 3.4, all corners may have an optional maximum 25 mm radius.

3.1 Hand access

Hand access shall be in accordance with figure 1.