AS ISO 6682:2020
ISO 6682:1986
IS0 6682:1986/Amd.1:1989

Australian STANDARD®

STANDARDS Australia

Earth-moving machinery — Zones of comfort and reach for controls



AS ISO 6682:2020

This Australian Standard® was prepared by ME-063, Earthmoving Equipment. It was approved on behalf of the Council of Standards Australia on 27 October 2020.

This Standard was published on 13 November 2020.

The following are represented on Committee ME-063:

Australian Industry Group
Better Regulation Division — SafeWork NSW
Construction and Mining Equipment Industry Group
Department of Natural Resources, Mines and Energy, Qld
Department of Regional NSW
Engineers Australia/Mining Electrical and Mining Mechanical Engineering Society
Institute of Instrumentation, Control & Automation Australia
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This Standard was issued in draft form for comment as DR AS ISO 6682:2020.

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ISBN 978 1 76113 030 4

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First published as AS ISO 6682:2020.

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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 define zones of comfort and reach for controls derived from the overlapping reach capability of large and small operators in the seated position.

This document is intended as a guide for the design of the operator compartment controls for earth-moving machinery.

This document is identical with, and has been reproduced from, ISO 6682:1986, *Earth-moving machinery — Zones of comfort and reach for controls,* and its Amendment No. 1 (1989), which has been added at the end of the source text.

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Foreword

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Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 6682 was prepared by Technical Committee ISO/TC 127, *Earth-moving machinery.*

This second edition cancels and replaces the first edition (ISO 6682-1980), of which it constitutes a minor revision.

Users should note that all International Standards undergo revision from time to time and that any reference made herein to any other International Standard implies its latest edition, unless otherwise stated.

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Earth-moving machinery — Zones of comfort and reach for controls

1 Scope

This International Standard defines zones of comfort and reach for controls derived from the overlapping reach capability of large and small operators in the seated position.

2 Field of application

This document is intended as a guide for the design of the operator compartment controls for earth-moving machinery.

3 References

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

ISO 5353, *Earth-moving machinery — Seat index point (SIP).*

ISO 6746/1, *Earth-moving machinery — Definitions of dimensions and symbols — Part 1: Base machine.*

4 Definitions

4.1
SIP
Seat Index Point as defined by ISO 5353 (fixed at nominal seat adjustments).

4.2
control displacement
Travel or movement of a control through its operational range.

4.3
control location
Positions of a control, including the corresponding control displacement, defined from the SIP.

4.4
primary controls
Controls that are used frequently or continuously by the operator, such as:

a) Machine controls: transmission, brakes, steering, engine speed, etc.

b) Working tool controls: blade controls, bucket controls, ripper controls, etc.

4.5
secondary controls
Controls that are infrequently used by the operator, such as lights, windscreen wipers, starter, heater, air conditioner, etc.

4.6
zones of comfort
Preferred control location zones for primary hand and foot controls. Both large and small operators should be able to reach controls comfortably in these zones.

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