

AS 3868—1991

Australian Standard[®]

**Earth-moving machinery—Design
guide for access systems**

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Construction and Mining Equipment Association of Australia
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PREFACE

This Standard was prepared by the Standards Australia Committee on Earth-moving Equipment at the request of the Department of Mines, Queensland.

Although it is based on ISO 2867—1980, *Earth-moving machinery—Access systems*, it includes additional recommendations to suit Australian conditions.

The Standard forms part of the series AS 2958, *Earth-moving machinery—Safety*.

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STANDARDS AUSTRALIA

Australian Standard

Earth-moving machinery—Design guide for access systems

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE This Standard recommends criteria for design of component parts of access systems on earth-moving machines having engine power in excess of 15 kW.

1.2 REFERENCED DOCUMENTS The following documents are referred to in this Standard:

AS

| | |
|--------|--|
| 1170 | SAA Loading Code |
| 1170.1 | Part 1: Dead and live loads and load combinations |
| 1170.2 | Part 2: Wind loads |
| 1250 | SAA Steel Structures Code |
| 1538 | Cold-formed Steel Structures Code |
| 1554 | SAA Structural Steel Welding Code |
| 1657 | SAA Code for Fixed Platforms, Walkways, Stairways, and Ladders |
| 1664 | SAA Aluminium Structures Code |
| 1665 | SAA Aluminium Welding Code |
| 1734 | Aluminium and aluminium alloys—Flat sheet, coiled sheet and plate |
| 1866 | Aluminium and aluminium alloys—Extruded rod, bar, solid and hollow shapes |
| 2953 | Earth-moving machinery—Human dimensions |
| 2953.1 | Part 1: Minimum access |
| 2953.2 | Part 2: Physical dimensions of operators and minimum operator space envelope |

1.3 DEFINITIONS For the purpose of this Standard, the definitions below apply.

1.3.1 Entrance opening—opening providing entry to the operating compartment.

1.3.2 Grab rail (handrail) and grab handle—devices that may be grasped by the hand for body support.

1.3.2.1 Grab rail (handrail)—device designed specifically to permit movement of the hand to a different location without removing the hand from the device. (See Figure 4.1.)

1.3.2.2 Grab handle—device designed specifically for single placement of a hand. (See Figure 4.2.)

1.3.3 Guardrail—a rail above the outside edge of a walkway or platform to protect a person falling. (See Figure 5.1.)

1.3.4 Ladder—system consisting of a series of steps that are uniformly spaced and will accommodate either one foot or both feet.

1.3.5 Platform—surface on which personnel are required to perform a service function, or a machine function other than operating.

1.3.6 Step—device designed for foot placement.

1.3.7 Should—indicates a recommendation.

1.3.8 Walkway—surface designed for personnel to move about on the machine.



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