

AS 2955.7—1988/ISO 7128—1983

Australian Standard®

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**EARTH-MOVING MACHINERY—  
TESTS AND MEASUREMENTS**

**Part 7—MEASUREMENT OF THE  
DIMENSIONS OF WHOLE  
MACHINES WITH THEIR  
EQUIPMENT**

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(ISO Title: Earth-moving machinery—Methods of measuring the dimensions of whole machines with their equipment)

This Australian Standard was prepared by Committee ME/63, Earthmoving Equipment. It was approved on behalf of the Council of the Standards Association of Australia on 3 March 1988 and published on 17 June 1988.

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The following interests are represented on Committee ME/63:

Australian Mining Industry Council  
Bureau of Steel Manufacturers of Australia  
Construction Equipment Importers and Manufacturers of Australia  
Department of Administrative Services  
Department of Conservation, Forests and Lands, Vic.  
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*This Standard was issued in draft form for comment as DR 85198.*

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First published as AS 2955.7/ISO 7128—1988.

PUBLISHED BY STANDARDS AUSTRALIA  
(STANDARDS ASSOCIATION OF AUSTRALIA)  
1 THE CRESCENT, HOMEBUSH, NSW 2140

ISBN 0 7262 5011 2

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FOREWORD

1. This Australian Standard corresponds with ISO 7128—1983, *Earth-moving machinery—Methods of measuring the dimensions of whole machines with their equipment*
2. Introduction to and complete listing of the SAA series of earth-moving machinery Standards (AS 2951 to AS 2958) is available on request.
3. For the purpose of this Australian Standard the words 'International Standard' should be replaced by 'Australian Standard'.
4. ISO Standards referred to in this Standard correspond with the following Australian Standards:

ISO Standard	Australian Standard
ISO 6165	AS 2951.1
ISO 6746-1	AS 2951.2.1
ISO 6746-2	AS 2951.2.2
ISO 6747	AS 2951.3

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# Earth-moving machinery—Tests and measurements

## Part 7—Measurement of the dimensions of whole machines with their equipment

### 1 Scope

This International Standard specifies methods of measuring the dimensions of whole machines with their equipment.

### 2 Field of application

This International Standard applies to the basic types of earthmoving machines, as defined in ISO 6165, ISO 6746/1, ISO 6746/2, and ISO 6747.

### 3 References<sup>1)</sup>

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

ISO 6746, *Earth-moving machinery — Definitions of dimensions and symbols*

Part 1: *Base machine*.

Part 2: *Equipment*.

ISO 6747, *Earth-moving machinery — Tractors — Terminology*.

### 4 Definitions

For the purpose of this International Standard the following definitions apply:

**4.1 base machine:** As defined in ISO 6746/1.

**4.2 machine:** Wheeled or tracked earth-moving machine, the dimensions of which are to be determined with the appropriate equipment specified.

**4.3 equipment:** Working equipment which can be readily removed, or replaced by other items for particular purposes.

**4.4 direct measurement:** Measurement obtained directly from a single measuring device.

**4.5 indirect measurement:** Measurement obtained from a single measuring device but requiring the additional use of other devices such as level and plumb bob.

**4.6 complex measurement:** Measurement obtained from the sum of the indications from the application of several measuring devices.

**4.7 apparatus:** The complete set of equipment and devices required to determine the dimensions of a machine with its attachments.

**4.8 ground reference plane (GRP):** The zero “Z” plane on which the machine is placed for the measurements.

### 5 Preparation for testing

**5.1** The machine shall be clean, in the “no-load” condition, with the specified operating mass and equipped to the manufacturer’s specification.

**5.2** Tyre pressure shall be as specified by the manufacturer and the steering system shall be put in the “straight-ahead” position.

**5.3** Articulated machines should normally be tested in a straight line.

**5.4** The configuration of the machine for example “bucket-up” or “bucket down” shall be recorded.

**5.5** The GRP, for measuring, should be a level concrete or paved surface of adequate area. Its difference in height shall be less than 10 mm within the dimensions of the machine.

**5.6** The test pit, for measuring the digging depth, shall be of adequate depth.

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1) Other terminology standards will be added when available.