



## **Amusement rides and devices**

### **Part 4.5: Specific requirements— Waterborne inflatables**



This Australian Standard® was prepared by Committee ME-051, Amusement Rides and Devices. It was approved on behalf of the Council of Standards Australia on 10 January 2017. This Standard was published on 3 February 2017.

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The following are represented on Committee ME-051:

- Australian Amusement Association
  - Australian Amusement Leisure and Recreation Association
  - Consumers Federation of Australia
  - Department of Justice and Attorney General, Qld
  - Attorney-General's Department, SA
  - Engineers Australia
  - Kidsafe
  - Safety Institute of Australia
  - SafeWork NSW
  - Showmen's Guild of Australasia
  - Worksafe Division, Department of Commerce, Western Australia
  - WorkSafe Victoria
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Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee.

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Australian Standard®

**Amusement rides and devices**

**Part 4.5: Specific requirements—  
Waterborne inflatables**

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## PREFACE

This Standard was prepared by Standards Australia Committee ME-051, Amusement Rides and Devices to supersede AS 3533.4.5(Int).

The objective of this Standard is to provide designers, manufacturers, proprietors and operating staff with requirements and guidance specific to the design, construction, operation and maintenance of waterborne inflatable equipment and facilities that will protect health and safety of both operating staff and patrons of these devices.

This Standard is part of a series designed to cover aspects of safety for amusement rides and devices. Parts 3533.1 and 3533.2 deal with the general aspects of safety common to all kinds of amusement rides and devices and are intended to be used in conjunction with the specific requirements for the particular type of ride. While some ride-specific requirements have been included in Parts 1 and 2, these are now being progressively moved into individual Standards in a new AS 3533.4 series. Parts in the AS 3533.4 series relate to particular rides or devices and give requirements and guidance tailored to the particular kinds of hazards relevant for that ride or device.

In the development of this Standard, reference was made to EN 15649-1:2009. *Floating leisure articles for use on and in the water, Part 1: Classification materials, general requirements and test methods.*

The terms 'normative' and 'informative' have been used in this Standard to define the application of the appendix to which they apply. A 'normative' appendix is an integral part of a Standard, whereas an 'informative' appendix is only for information and guidance.

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## FOREWORD

At present, various persons have been assigned a duty of care in the Work Health and Safety (WHS) legislation in Australia.

This Foreword indicates how these duties can generally be interpreted and may provide an understanding of the basis for the requirements in this Standard.

Under WHS legislation, persons conducting a business or undertaking have a duty to ensure the safety of their workers and other people at the workplace. The operator of a waterborne inflatable (WBI) therefore has a duty to ensure that participants and others present are not exposed to risks arising from the activities. This duty includes, as far as reasonably practicable, providing a safe and healthy work environment, safe plant and structures, safe systems of work and any information, training, instruction or supervision as necessary to protect persons from the conduct of the facility and its operation.

Persons conducting a business or undertaking also have a duty to consult with workers, not just employees, who carry out work for the business or undertaking who are, or are likely to be, directly affected by a matter relating to work health or safety.

Designers, manufacturers and suppliers of plant and structures also have duties to ensure, so far as is reasonably practicable, the plant (or structure) is safe and without risk when used for a purpose for which it was designed and manufactured. Additionally they need to provide information on the purpose and any conditions necessary to ensure it is safe when used, including maintenance and repair.

There are specific requirements for installation of plant (e.g. each setup of a waterborne inflatable) to include an inspection and for identified risks to be controlled.

While this is a broad summary of the applicable legislation, readers should make themselves aware of the legislation in their jurisdiction.

Details on sealed inflatables have NOT been included in this Standard.

# STANDARDS AUSTRALIA

## Australian Standard Amusement rides and devices

### Part 4.5: Specific requirements—Waterborne inflatables

#### 1 SCOPE

This Standard specifies safety requirements and test methods related to materials, safety, performance, operation and management of constant airflow inflatable devices when used as amusement devices on controlled water. It also specifies information to be supplied with the equipment.

NOTE: The next edition of this Standard is intended to also include sealed inflatable devices other than aquatic toys, e.g. blow up rings, inflated seahorses, rings intended for use on water slides, flotation aids for water familiarization.

#### 2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

##### AS

- 3533 Amusement rides and devices
- 3533.1 Part 1: Design and construction
- 3533.2 Part 2: Operation and maintenance
- 3533.3 Part 3: In-service inspection
- 4422 Playground surfacing—Specifications, requirements and test methods
- 4685 Playground equipment
- 4685.1 Part 1: General safety requirements and test methods
- 4878 Methods of test for coated fabrics
- 4878.6 Part 6: Determination of tensile strength and elongation at break

##### ISO

- 2231 Rubber- or plastics-coated fabrics — Standard atmospheres for conditioning and testing
- 4674 Rubber-or plastics-coated fabrics — Determination of tear resistance
- 4674-1 Part 1: Constant rate of tear methods
- 15025 Protective clothing — Protection against heat and flame — Method of test for limited flame spread

##### BS

- 3408 Specification for tarpaulins
- 5438 Methods of test for flammability of vertically oriented textile fabrics and fabric assemblies subjected to a small igniting flame

##### EN

- 15649 Floating leisure articles for use on and in the water
- 15649-6 Part 6: Additional specific safety requirements and test methods for Class D devices