



## **Amusement rides and devices**

### **Part 4.4: Specific requirements—Hire go-karts**



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 9 February 2018. This Standard was published on 21 March 2018.

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The following are represented on Committee ME-051:

- Attorney-General's Department South Australia
  - Australian Amusement Association
  - Australian Amusement Leisure and Recreation Association
  - Consumers Federation of Australia
  - Department of Justice and Attorney General, Qld
  - Engineers Australia
  - Kidsafe
  - Safety Institute of Australia
  - SafeWork NSW
  - Showmens Guild of Australasia
  - Worksafe Division, Department of Commerce, WA
  - WorkSafe Victoria
- 

This Standard was issued in draft form for comment as DR AS 3533.4.4:2017.

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 and through the public comment period.

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Australian Standard<sup>®</sup>

## Amusement rides and devices

### Part 4.4: Specific requirements—Hire go-karts

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## PREFACE

This Standard was prepared by the Australian members of the Joint Standards Australia/Standards New Zealand Committee ME-051, Amusement Rides and Devices, to supersede AS 3533.4.4—2011, *Amusement rides and devices, Part 4.4: Specific requirements—Concession go-karts*. After consultation with stakeholders in both countries, Standards New Zealand decided to develop this Standard as an Australian Standard rather than an Australian/New Zealand Standard.

This Standard complements the general requirements for amusement rides and devices specified in AS 3533.1 and AS 3533.2.

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 hire go-karts and facilities that will protect the health and safety of both operating staff and patrons of these devices. WHS legislation may have specific requirements for record keeping and log requirements.

The current Australian Standard AS 3533.4 (series) requires the operator to refer to three separate documents in order to have an understanding of the industry standard for hire karts in Australia. This revised Standard will be an all-encompassing version which will have all the relevant information contained in one document.

This Standard is part of a series designed to cover aspects of safety for amusement rides and devices. AS 3533.1 and AS 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 AS 3533.1 and AS 3533.2, 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. This Standard has completed this process for go-karts including clauses for design, maintenance, and testing.

It should be noted that compliance with this Australian Standard alone does not necessarily ensure that all legal obligations are being fulfilled.

The terms ‘normative’ and ‘informative’ have been used in this Standard to define the application of the appendices 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

Under Health and Safety legislation in Australia, 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 hire go-kart facility therefore has a duty to ensure that patrons and others present are not exposed to risks arising from the activities.

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

This duty of care 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, including patrons, workers, and spectators 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.

In addition to this Standard, readers are advised that legislation in their jurisdiction may also apply.

In preparation of this Standard the committee reviewed ASTM F2007-07a and EN 16230-1. It was noted the European kart into kart crash test speed was 15 km/h. Investigation with numerous Australian kart operators identified a common maximum speed for indoor karts at 45 km/h and outdoor karts at 70 km/h. It was hence considered that a crash test speed of 15 km/h was not representative (too low) of the speeds Australian hire go-karts achieve on tracks. Therefore a kart into kart test at a higher speed is specified. Impact tests at similar speeds are specified for impacts with barriers.

## STANDARDS AUSTRALIA

### Australian Standard Amusement rides and devices

#### Part 4.4: Specific requirements—Hire go-karts

## SECTION 1 SCOPE AND GENERAL

### 1.1 SCOPE

This Standard sets out requirements and guidance for the design, construction, operation, inspection, testing and maintenance of hire go-karts, tracks and facilities. This includes arrive and drive patrons and corporate or other pre-booked events, e.g. simulated race events.

This Standard is not applicable to—

- (a) events where track time is hired and privately owned karts are used;
- (b) fun karts or race kart activities; or
- (c) dirt or clay tracks.

This Standard is only written to apply to commercially operated facilities where hire karting for a fee is conducted.

This Standard is to be applied for any replacement or new go-karts and is not intended to be applied retrospectively.

This Standard considers karts that run at no more than 70 km/h.

#### NOTES:

- 1 Some parts of this Standard may be useful for karts that run at more than 70 km/h. However, the safety of the design of the kart and track should be assessed in light of the higher speed.
- 2 This Standard is intended to be used in conjunction with AS 3533.1 and AS 3533.2, which provide requirements and recommendations on matters common to all amusement rides and devices. Specific requirements in this Standard take precedence over corresponding requirements in AS 3533.1 and AS 3533.2. If the requirements of any part of this Standard conflict with any National, State or Territory regulations, the appropriate statutory regulations apply.

### 1.2 REFERENCED DOCUMENTS

#### AS

1668	The use of mechanical ventilation and air conditioning in buildings
1668.2	Part 2: Mechanical ventilation in buildings
1851	Routine service of fire protection systems and equipment
1940	The storage and handling of flammable and combustible liquids
2444	Portable fire extinguishers and fire blankets—Selection and location
3533	Amusement rides and devices
3533.1	Part 1: Design and construction
3533.2	Part 2: Operation and maintenance
4024	Safety of machinery (series)