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Amusement rides and devices

STANDARDS AUSTRALIA


AS 3533

This Australian Standard was prepared by Committee ME/51, Amusement Rides and Devices. It was approved on behalf of the Council of the Standards Association of Australia on 27 June 1988 and published on 12 September 1988.

The following interests are represented on Committee ME/51:

Australian Assembly of Fire Authorities
Australian Permanent Ride Parks' Association
Department of Employment and Industrial Affairs, Queensland
Department of Industrial Relations and Employment, New South Wales
Department of Labour, Victoria
Department of Labour and Industry, Tasmania
Department of Occupational Health, Safety and Welfare, Western Australia
Institution of Engineers, Australia
Metal Trades Industry Association of Australia
Safety Institute of Australia
Showmen's Guild of Australia
Victoria Showmen's Guild

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AUSTRALIAN STANDARD

**AMUSEMENT RIDES AND
DEVICES**

AS 3533—1988

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PREFACE

This Standard was prepared by the Association's Committee on Amusement Rides and Devices.

The need for a Standard became clear in November 1983 at a conference called by the Standards Association of Australia, at which the lack of uniform standards for safety in design, manufacturing, and erection were pointed out by State authorities, manufacturers, and operators.

As no equivalent Standards in other countries were known to the committee, this Standard was derived from technical literature, existing regulations, and guidelines, and the combined experience of the committee and organizations represented on it.

The committee acknowledges the contribution by the Royal Australian Air Force on the subject of the influence of acceleration on the human body (Appendix D) and wishes to record its appreciation for their permission to include this material.

A logbook is being issued as a supplement to this Standard. The purpose of the logbook is to enable a record to be kept, in a standardized manner, of the significant approvals, inspections, modifications, and maintenance exercises during the lifetime of the devices.

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STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard
AMUSEMENT RIDES AND DEVICES

SECTION 1. SCOPE AND GENERAL

1.1 SCOPE. This Standard specifies requirements for the manufacture, construction, testing, assembly, erection, site layout, maintenance, inspection, and fire safety measures for fixed and portable amusement rides and devices, excluding the following:

- (a) Transit equipment used in snowfields.
- (b) Any equipment that is specifically covered in other Standards, e.g. playground equipment (see AS 1924.1, AS 1924.2, or AS 2155).
- (c) Miniature trains and railway systems owned and operated by model railway societies, clubs or associations, where train speed does not exceed 10 km/h and/or track gauge does not exceed 205 mm.

NOTES:

1. Authorities generally require that miniature trains and railway systems described in (c) above comply with the requirements and conditions set down by associations such as The Australian Association of Live Steamers.
2. Amusement rides and devices in all Australian States have to be registered or certified by the relevant authority. A list of some of these authorities is given in Appendix H.

1.2 REFERENCED DOCUMENTS. The documents below are referred to in this Standard.

AS

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| <p>1170 SAA Loading Code
Part 1: Dead and live loads (AS 1170.1)
Part 2: Wind forces (AS 1170.2)</p> <p>1200 SAA Boiler Code</p> <p>1210 SAA Unfired Pressure Vessels Code</p> <p>1228 Boilers—Water tube</p> <p>1250 SAA Steel Structures Code</p> <p>1319 Safety signs for the occupational environment</p> <p>1394 Round steel wire for ropes</p> <p>1403 Design of rotating steel shafts</p> <p>1418 SAA Crane Code
Part 1: General requirements (AS 1418.1)</p> <p>1530 Methods for fire tests on building materials, components and structures
Part 2: Test for flammability of materials (AS 1530.2)
Part 3: Test for early fire hazard properties of materials (AS 1530.3)</p> <p>1538 SAA Cold-formed Steel Structures Code</p> <p>1576 SAA Metal Scaffolding Code</p> <p>1596 SAA LP Gas Code</p> <p>1656 Steel wire ropes (other than for mining purposes)</p> <p>1657 SAA Code for Fixed Platforms, Walkways, Stairways, and Ladders</p> <p>1664 SAA Aluminium Structures Code</p> <p>1720 SAA Timber Structures Code
Part 1: Design methods (AS 1720.1)</p> | <p>1768 Lightning protection</p> <p>1797 Boilers—Fire-tube, shell, and miscellaneous</p> <p>1851 Maintenance of fire protection equipment
Part 1: Portable fire extinguishers (AS 1851.1)</p> <p>1924 Playground equipment for parks, schools and domestic use
Part 1: General requirements (AS 1924.1)
Part 2: Design and construction—Safety aspects (AS 1924.2)</p> <p>1939 Classification of degrees of protection provided by enclosures for electrical equipment</p> <p>1940 SAA Flammable and Combustible Liquids Code</p> <p>2155 Playgrounds—Guide to siting and to installation and maintenance of equipment</p> <p>2293 Emergency evacuation lightning in buildings
Part 1: Design and installation (AS 2293.1)
Part 2: Maintenance procedures (AS 2293.2)</p> <p>2321 Short-link chain for lifting purposes (non-calibrated)</p> <p>2759 Steel wire rope—Application guide</p> <p>3000 SAA Wiring Rules</p> <p>3002 Electrical installations—Shows and carnivals</p> <p>3100 Approval and test specification for definitions and general requirements for electrical materials and equipment</p> <p>3108 Approval and test specification—Isolating transformers and safety isolating transformers
Part 1: General requirements (AS 3108.1)
Part 2: Supplementary requirements—Isolating transformers (AS 3108.2)
Part 3: Supplementary requirements—Safety isolating transformers (AS 3108.3)</p> <p>3126 Approval and test specification for extra-low voltage transformers</p> <p>3190 Approval and test specification for current-operated (core balance) earth-leakage devices</p> <p>B226 Hydraulic hose</p> <p>CB1 SAA Boiler Code (superseded)</p> <p>CSA
CAN3-Z98-M78 Passenger ropeways</p> |
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1.3 DEFINITIONS. For the purpose of this Standard, the definitions below apply.

1.3.1 Shall—indicates that a requirement is mandatory.

1.3.2 Should—indicates a recommendation.

1.3.3 Authority—the Authority having statutory powers to control the design, manufacture, and installation of equipment described in this Standard in the State or Territory in which the equipment is designed, manufactured, and installed or operated.