AS/NZS 2088:2009

Australian/New Zealand Standard™

Prams and strollers—Safety requirements

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee CS-020, Prams and Strollers. It was approved on behalf of the Council of Standards Australia on 27 October 2009 and on behalf of the Council of Standards New Zealand on 27 November 2009.
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The following are represented on Committee CS-020:

Australian Chamber of Commerce and Industry
Australian Consumers' Association - CHOICE
Australian Industry Group
Australian Retailers Association
Barnados New Zealand
Competition & Consumer Policy Division, Department of Treasury
Consumers' Federation of Australia
Crippled Children's Association
Infant Nursery Products Association of Australia
Kidsafe
Ministry of Consumer Affairs, New Zealand
National Safety Council of Australia
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We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Please address your comments to the Chief Executive of either Standards Australia or Standards New Zealand at the address shown on the back cover.

This Standard was issued in draft form for comment as DR AS/NZS 2088.

Australian/New Zealand Standard™

Prams and strollers—Safety requirements

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee CS-020, Prams and Strollers to supersede AS/NZS 2088:2000 of the same title.

Concerns raised over the safety of accessories and toddler seats and the stability of some strollers have prompted the inclusion of more detailed requirements for accessories and more stringent testing on strollers in this edition of AS/NZS 2088.

Toddler seats have become an increasingly popular attachment to strollers and prams, however, these seats are usually attached high up on the frame of the stroller or pram and when occupied can change the centre of gravity. If the toddler seat was not initially designed to be attached to the stroller or pram it is fitted to, the vehicle can become unstable.

In response to several infant deaths, a new test to address the issue of misuse has been developed to determine the stability of a stroller. Tragedies have occurred when children have been left unattended and, left unrestrained. Other accidents and tragedies have occurred when strollers have rolled away from carers.

As a result new requirements have been included in this revision of the Standard for:

(a) The inclusion of a brake actuator to be red, revised warnings and the option for an automatic brake to be used with the vehicle to prevent runaway vehicles.

(b) The addition of new stability tests to ensure that infants who wriggle to the end of the vehicle cannot cause the vehicle to over balance.

(c) The revision of harnessing requirements in order to prevent loops being created by the harness that could cause strangulation as well as ensuring that the harness fits the occupant securely. Shoulder straps are still required to fully secure the child.

(d) Retention and test requirements for add-on items such as bassinets, child restraints (infant carriers) and toddler seats.

(e) Testing of toddler platforms that are used for an additional toddler to stand on.

For further product clarification, three-wheeled or 'jogging' strollers fall within the scope of this Standard.

Provision has been made in this edition for using an automatic parking brake.

The need to use D rings on harness systems or a connection means for harnesses complying with BS 6684, *Safety harnesses for restraining children when in perambulators (baby carriages), pushchairs and high chairs and when walking* has been removed from the Standard. This does not mean that prams or strollers cannot be supplied with these fittings. It is an acknowledgement that an adequate harness system is fitted to the vehicle and it is unlikely an additional harness needs to be attached.

In Australia, the Australian Competition and Consumer Commission (ACCC) currently administer a Trade Practices Act (TPA) mandatory safety standard for prams and strollers which include some requirements of this Standard.

This Standard differs from some of the requirements of the Australian TPA mandatory product safety standard. Further information about the TPA mandatory safety standard can be obtained from the ACCC website.

The term ‘normative’ has been used in this Standard to define the application of the Appendix to which it applies. A ‘normative’ Appendix is an integral part of a Standard.

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1 SCOPE

This Standard specifies materials, construction, performance and labelling requirements for prams, strollers and their accessories.

2 OBJECTIVE

The objective of this Standard is to provide manufacturers, authorities and others with minimum safety requirements in order to reduce the likelihood of injury to children.

3 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS
1815 Metallic materials—Rockwell hardness test
1815.1 Part 1: Test method (scales A, B, C, D, E, F, G, H, K, N, T)

AS/NZS
2172 Cots for household use—Safety requirements

AS/NZS ISO
8124 Safety of toys
8124.1 Part 1: Safety aspects related to mechanical and physical properties (ISO 8124.1:2000, MOD)
8124.3 Part 3: Migration of certain elements

4 DEFINITIONS

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

4.1 Accessory

Any item that is not an integral part of the vehicle but is supplied as being suitable for use with the vehicle. This will include all items sold together with or separate from the vehicle and nominated in the vehicle instructions.

4.2 Bassinet

An accessory with a body of box-like or boat-like shape designed to transport a fully-reclined baby or child weighing up to and including 9 kg and attached onto the vehicle.

4.3 Child restraint

A device used to restrain a child passenger in a motor vehicle.

4.4 Folding

Collapsing or bending a portion of the vehicle through a hinge mechanism provided for the purpose.

4.5 Liner

A removable and/or additional seat pad.

4.6 Pram

A wheeled vehicle with a body of box-like or boat-like shape designed to transport a baby or child weighing up to and including 9 kg, primarily in a fully reclined position.

4.7 Single action release mechanism

A securing device which is released by the application of one force acting in one direction.

4.8 Shall

Indicates that a statement is mandatory.

4.9 Should

Indicates a recommendation.

4.10 Storage containers

A feature or accessory, such as a basket, tray or bag that is used to carry goods.

4.11 Stroller

A wheeled vehicle designed to transport a child usually in a seated position, and which may also be adjusted to a semi-reclined or a fully reclined position.

4.12 Structural failure

Observed breakage, or failure to remain operational.

4.13 Toddler platform

A device that is attached to a vehicle where a toddler can stand and stabilize themselves by holding the handle or other defined structure. The platform may be fitted with wheels. The platform may be an integral part of the stroller or may be a removable accessory.

4.14 Toddler seat

An accessory that provides an additional seating position consisting of a separate seat that can be added to and removed from the vehicle.

4.15 Vehicle

A pram or stroller.

4.16 Wheel

Either a single wheel or a set of adjacent wheels attached to the same mounting point, unless otherwise stated.

5 DIMENSIONS

The minimum depth of the body of a pram at, or at any position within 300 mm from, the harness attachment points shall be 140 mm when measured from the top edge of the top surface of the mattress or the next horizontal plane (the seat if there is one). The minimum depth at any other point on the sides or ends of the body shall be 100 mm.

NOTE: A useful source of data for determining other dimensions for prams and strollers is: NHMRC *Percentile charts—Charts and tables of heights, masses and head circumferences of infants, children and adolescents*, Canberra: AGPS, 1981.

6 MATERIALS

6.1 Toxicity

All materials and all coatings that are capable of being sucked, licked, mouthed or swallowed while the child is properly restrained in the vehicle shall comply with the maximum acceptable levels of element migration when tested in accordance with AS/NZS ISO 8124.3.

6.2 Corrosion

All metal parts, including springs, nuts, bolts and washers, shall either be made of corrosion-resistant material or be protected against corrosion.

NOTE: Compliance is assessed by visual inspection.

7 ACCESSORIES

7.1 General

All combinations of vehicle and accessories shall comply with the requirements of this Standard.

7.2 Child restraints

For vehicles that can be fitted with child restraints as an accessory, the child restraint shall be secured to the vehicle such that the occupant would be positioned in a manner as specified by the manufacturer's instructions. The combination of the vehicle and the child restraint shall meet the requirements of Clauses 8.7.2, 9.8.1, and 9.13 and be subject to tests required by Clause 10 and Table 1.

NOTE: Both the Australian and New Zealand Governments have mandatory compliance requirements for child restraints used in cars.

7.3 Toys

Toys sold as an accessory of the vehicle and accessories embodying toys sold as part of the vehicle should comply with the relevant requirements of AS/NZS ISO 8124.1 and AS/NZS ISO 8124.3.

NOTE: Both the Australian and New Zealand Governments have mandatory compliance requirements for toys.

8 CONSTRUCTION

8.1 Objects which could come into contact with a child's head

A vehicle in any configuration shall not have any protruding objects that are not padded or otherwise protected and that could come into contact with a child's head while the child is properly restrained in the vehicle.

8.2 Open-ended tubes

Vehicles shall not contain any open-ended tubes in which a child's finger or fingers could be trapped while the child is properly restrained in the vehicle. All open ended tubes that are accessible to a child within a vehicle and allow the passage of a 5 mm diameter rod to a depth of 10 mm or more shall also allow the passage of a 12 mm diameter rod. Where a tube is not circular, the opening shall be tested at the centre of the largest dimension of the aperture.

8.3 Reversible handles

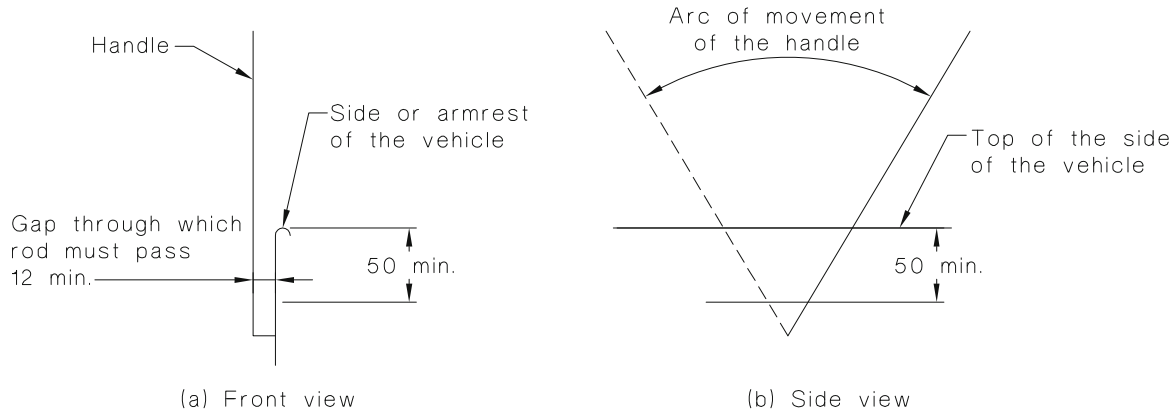
A reversible handle on a three-wheeled vehicle is not permitted.

If a vehicle has a reversible handle, either of the following shall apply:

(a) Where a reversible handle is operated by a single release actuator, a clearance shall be provided between the handle parts and the armrest or side of the vehicle for a downwards distance of not less than 50 mm throughout the arc of movement of the handle as it passes the armrest or side of the vehicle (see Figure 1). It shall be possible for a rod with a diameter of 12 mm and a length of 50 mm to enter and to be pulled out through the clearance (see gap shown in Figure 1) with a force of not more than 20 N.

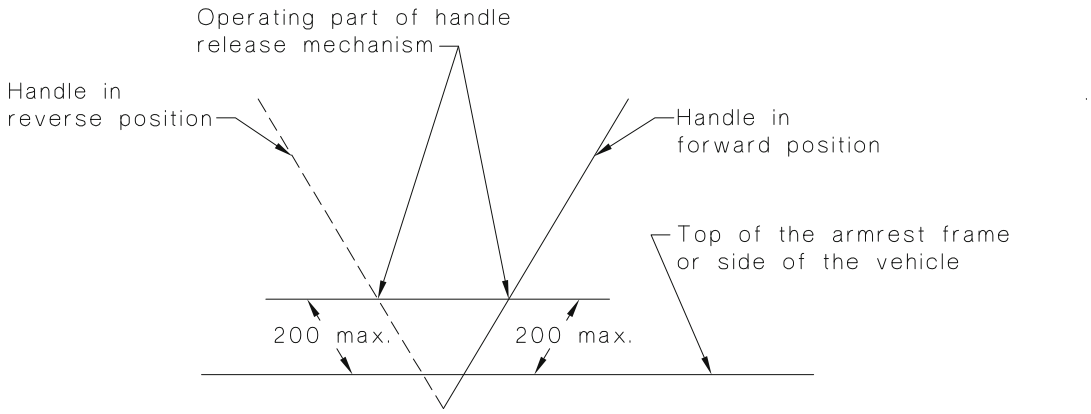
(b) Where more than one release mechanism is provided, at least one of the release mechanisms shall be situated on a side arm of the handle, not more than 200 mm above the plane of the armrest or top of the side of the vehicle at forward or reverse locked handle position (see Figure 2).

NOTE: The requirements in Clauses 8.3(a) and 8.3(b) are intended to reduce the likelihood of a child's fingers being in the path of a reversing handle. Either the gap is sufficient to clear the fingers if a child's hands are on the armrest or side of the vehicle, or at least one operating mechanism for the handle is situated so that the operator is forced to be within close proximity to the child while operating the handle, and thus may be likely to observe whether the child's hands are in the path of the handle as it moves.



DIMENSIONS IN MILLIMETRES

FIGURE 1 CLEARANCE FOR REVERSIBLE HANDLES OPERATED BY A SINGLE RELEASE MECHANISM



DIMENSIONS IN MILLIMETRES

FIGURE 2 POSITION FOR REVERSIBLE HANDLES HAVING AT LEAST ONE RELEASE MECHANISM