

Australian/New Zealand Standard™

Pedal bicycles—Safety requirements



AS/NZS 1927:2010

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee CS-010, Pedal Bicycles. It was approved on behalf of the Council of Standards Australia on 10 June 2010 and on behalf of the Council of Standards New Zealand on 12 July 2010.

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The following are represented on Committee CS-010:

Association of Accredited Certification Bodies
Australian Competition and Consumer Commission
Australian Retailers Association
Bicycle Industries Australia
Bicycle Industry Association New Zealand
Consumer Affairs Victoria
Department of Tourism, Fair Trading and Wine Industry Development, Qld
Ministry of Consumer Affairs, New Zealand
New Zealand Retailers Association
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Australian/New Zealand Standard™

Pedal bicycles—Safety requirements

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee CS-010, Pedal Bicycles to supersede AS/NZS 1927—1998, *Pedal bicycles—Safety requirements*.

The principal changes from the previous edition of this Standard are as follows:

- (a) Modified definition of power-assisted bicycles. (Clause 1.4.1)
- (b) Labelling of unassembled or partly assembled bicycles regarding need for a skilled mechanic, now required only on consumer package. (Clause 1.6.4)
- (c) Deletion of the warning regarding off road and stunt bicycle look-alikes. (Clause 1.6.4)
- (d) Addition of stunt pegs to list of items to be clear of sharp edges. (Clause 2.2)
- (e) The limitation on projections on the bicycle in front of the rider relaxed for front-of-rider child carrier seats and water bottle provision. (Clause 2.4)
- (f) Changed arrangement for attachment of handlebar stem. (Clause 2.12.3)
- (g) Deletion of requirement for pedal reflectors if pedals are the sole clip type. (Clause 2.15.2.4)
- (h) Deletion of the road worthiness test. (Section 3)
- (i) Deletion of the wet braking test requirements. (Clause 3.4.3)
- (j) Modification to the front hub retention test extraction force. (Appendix C)

In developing this edition of this Standard the Committee took steps to ensure that its requirements remained generally consistent with ISO 4210:1996, *Cycles—Safety requirements for bicycles*. Exceptions to this are as follows:

- (i) A provision in ISO 4210 whereby a measure of permanent deformation is allowed under the fork and frame test. It was considered that a bicycle should be able to meet this test without any such permanent deformation.
- (ii) A provision in ISO 4210 that, where a bicycle is fitted with a front wheel quick release device, the wheel is to be removable on release of the device without altering the setting of the adjusting nut. The Committee considered that such a provision could lead to accidental loss of the front wheel if the device was inadvertently released unless the pull-out force was substantially increased.
- (iii) Provisions in ISO 4210 for impact testing of fork and frame assemblies. As also noted in the Preface to the previous edition of this Standard, it was considered that the static tests specified in this Standard achieve the same degree of effectiveness. The Committee has confirmed that view for this edition.
- (iv) Requirements of ISO 4210 to conduct braking performance tests under wet as well as dry conditions. The Committee believes that, with standardization of rim and brake pad materials in the industry, an acceptable dry braking performance is an adequate indicator of satisfactory performance when wet. The Standard does not require a wet performance test.

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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Australian/New Zealand Standard
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SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard specifies safety requirements for the design, assembly, and performance of all types of pedal bicycles and subassemblies of pedal bicycles having a wheelbase of 640 mm or greater, but excludes track racers and one-of-a-kind bicycles.

It also specifies requirements for the instructions to be given in a manual on use and maintenance, and for the instructions for the assembly of bicycles offered for supply in a partially assembled state.

NOTE: Bicycles having a wheelbase of less than 640 mm are covered by AS/NZS ISO 8124.

1.2 OBJECTIVE

The objective of this Standard is to provide manufacturers and suppliers of bicycles together with authorities concerned with consumer safety with a set of performance requirements both for the bicycle as a whole and for the individual components and assemblies upon which the safety of the user is dependent.

1.3 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS

2142 Reflectors for pedal bicycles

3562 Lighting equipment for bicycles

AS/NZS

1906 Retroreflective devices for road traffic control purposes

1906.2 Part 2: Retroreflective devices (non-pavement application)

AS/NZS ISO

8124 Safety of toys (series)

ISO

4210 Cycles—Safety requirements for bicycles

New Zealand Traffic Regulations

1.4 DEFINITIONS

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

1.4.1 Bicycle

A two-wheeled pedal vehicle that is either solely human-powered or is power-assisted by an auxiliary motor.

NOTE: Most jurisdictions will place restrictions on the allowable auxiliary power output for on-road use.