



Product safety bulletin

Fixed-gear pedal bicycles

July 2010

This bulletin alerts suppliers and users of pedal bicycles about serious safety issues related to fixed-gear bicycles, or 'fixies'.

Two-wheeled fixed-gear bicycles are emerging as a new type of recreation equipment. But these bikes may not comply with Australian mandatory safety standards and may put riders at risk of death or serious injury.

What are fixed-gear bicycles?

These are bicycles that have pedals chained directly to the rear wheel so that whenever the wheel rotates the pedals also rotate.

Some fixed-gear bikes are currently being sold without several compulsory safety features required under the mandatory standard for pedal bicycles in Australia and under road safety laws. These include:

- front and rear brakes
- reflectors
- a warning mechanism for pedestrians and other riders.

Laws applying to fixed-gear bikes

Supplying fixed-gear bikes in Australia without compulsory safety features such as a front or back brake is against the law. This applies to anyone in the business of selling, selling through hire purchase, exchanging, leasing or hiring these products.

To help reduce the risk of death or serious injury, consumers should report any supply of bicycles without safety features immediately to the ACCC by calling 1300 302 502 or visiting productsafety.gov.au.

Bicycles not required to comply with the mandatory standard

- Bicycles with a wheel base of less than 640 mm.
- Bicycles that are designed, promoted and supplied primarily for use in competition such as track racing.
- One-of-a-kind bicycles—that is, bicycles that are uniquely constructed to the order of an individual consumer.
- Bicycles that are designed to be hinged or folded, or to be taken apart beyond removal of the front wheel, for ease of storage or portability.

- Tandem bicycles.
- Power-assisted bicycles.
- Bicycles showing signs of appreciable wear or second-hand bicycles.
- Recumbent bicycles.

Hazards

Death or serious injury

Having no brakes or only a front brake can cause the rider to lose control and be propelled over the handlebars to the ground. Whether this occurs in mixed road traffic or elsewhere, the rider can suffer:

- serious head injuries
- broken bones
- lacerations and bruises.

Pedestrians and other bike riders are also at risk of serious injury or death if someone riding a fixed-gear bike loses control and collides with them.

Mandatory standard for pedal bicycles

The mandatory standard is based on Australian / New Zealand Standard AS/NZS 1927:1988 *Pedal bicycles—Safety requirements*.

The following checklist provides suppliers and consumers with information about aspects of pedal bicycles they can visually check to ensure they comply with the mandatory standard.

Bicycle checklist for suppliers

Brakes

- At least two brakes are fitted, one on the front wheel and the other on the back.
- Hand brakes are accessible to a rider in the normal riding position.
- The right lever connects to the front brake and the left lever to the rear brake.
- Brake friction pads are securely attached to the backing plate or holder and, when applied, touch only the wheel rim.
- For bicycles with cantilever brakes—a safety device is fitted to prevent the stirrup cable from touching the tyre.
- For children's bicycles (with a wheel base of 640–765 mm)—a back-pedal brake is fitted.

Reflectors

- Reflectors that comply with Australian Standard AS 2142 *Reflectors for pedal bicycles* are fitted, including:
 - at least one rear red reflector
 - at least one yellow reflector on each wheel and visible from each side
 - yellow reflectors on the front and rear sides of the pedals
 - at least one white front reflector.

Bell or other warning device

- A bell or other suitable audible warning device is fitted.

Sharp edges

- All parts of the bicycle that could come into contact with the rider's hands or legs are free from sharp edges, including:
 - each end of the front mudguard
 - the rear end of the rear mudguard
 - each end of the chain guard
 - the end of the kick stand.

Control cables

- Control cables for brakes and gears have end protectors to stop them unravelling.

Wheels and tyres

- The wheels are secured to the frame with a positive locking device with securely tightened nuts.
- Quick-release devices that:
 - are adjustable to allow setting for tightness
 - clearly indicate the open and locked positions through their form and markings.

- Tyres are marked in lettering at least 3 mm high with the manufacturer's recommended inflation pressure in kilopascals. If the inflation pressure is in units other than kilopascals, the instruction manual gives the kilopascal equivalent.

Protective guards

- For children's bicycles (with a wheel base of 640–765 mm)—a guard encloses the chain wheel and the upper run of the chain.
- For all other bicycles—the upper junction of the chain and chain wheel has a guard that can only be removed using a tool.
- Derailleur gears fitted to rear wheels have a protective guard.

Pedals

- For pedals with a definite preferred position—the upper side (at least) of the pedals have tread.
- For pedals designed to be used with toe clips—if toe clips are optional, the pedal surfaces have tread. If the pedals are designed only for use with toe clips, the toe clips are fitted to the pedal.
- For all other pedals—both pedal surfaces have tread.

Handlebars

- Ends of handlebars are securely capped or covered by other end-mounted devices.
- Handgrips are secure.
- Handlebar stems have either a permanent ring or a mark to indicate the minimum insertion depth or a positive and permanent way to ensure insertion to at least the minimum depth.

Seat pillar

- Seat pillar has a permanent mark or ring indicating minimum insertion depth.

Lighting

- Where lights are fitted, they meet Australian Standard AS 3562 *Lighting equipment for bicycles* and/or the requirements permitted by a relevant regulatory authority such as the local road traffic authority.

Markings

- Permanent markings either stamped or engraved on the frame state the:
 - name and address in Australia of the manufacturer, importer or other supplier
 - identification number of the bicycle.

Informative labelling

- For fully assembled bicycles with misaligned handlebars—there is a cautionary label on the handlebars advising that adjustment is required.
- For bicycles with misaligned handlebars and detached pedals—there is a cautionary label advising that attachment and adjustment is required.
- For all other partially assembled bicycles—the consumer package has:
 - the following warning in bold capital letters 15 mm high:

THIS IS A PARTIALLY ASSEMBLED BICYCLE REQUIRING THE ATTACHMENT OF THE FOLLOWING PARTS IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

- a list in lettering at least 10 mm high of the detached components and the tools necessary for proper assembly and adjustment, including the recommendation that a torque wrench be used.
- the following warning, with the word 'warning' in capitals 20 mm high and the remaining words no lower than 10 mm on each detached component or the consumer package:

WARNING: IN THE INTERESTS OF SAFETY IT IS RECOMMENDED THAT YOU HAVE THIS BICYCLE ASSEMBLED BY A SKILLED BICYCLE MECHANIC.

- For bicycles that are styled like a BMX off-road or stunt bicycle but are not actually suited for that purpose—the following warning is attached on an adhesive label in a prominent position in capital letters at least 3 mm high:

WARNING: THIS BICYCLE IS NOT DESIGNED FOR OFF-ROAD USE OR FOR STUNTING.

Instructions

- The bicycle is supplied with an owner's manual containing instructions for use and maintenance.
- For partially assembled bicycles—the instruction manual includes assembly instructions.

Supplier responsibilities

Suppliers have a responsibility to ensure that the goods they stock meet mandatory safety standards.

To aid compliance, retailers should always read the detailed requirements outlined and cross-referenced in:

- AS/NZS 1927:1988 *Pedal bicycles—Safety requirements* (available for purchase at www.saiglobal.com).
- Consumer Protection Notice No. 6 of 2004 (available at productsafety.gov.au).

Suppliers should always request that pedal bicycles they order meet the mandatory standard, and undertake visual checks of stock to ensure it complies with obvious requirements.

Penalties and consequences

As a supplier you may identify or be made aware that the bicycles you supply do not comply with the mandatory standard. If this occurs, you must immediately withdraw the product from the market.

Further action such as initiating an immediate product recall may also be required, depending on the particular circumstances and level of risk.

Supplying products that do not comply with a mandatory standard is an offence under the *Trade Practices Act 1974*.

Fines for non-compliance are:

- up to \$1.1 million for companies
- up to \$220 000 for individuals.

Contact

For more information about mandatory standards, bans, recalls and emerging issues—and to subscribe to email alerts and RSS feeds—visit our websites:

productsafety.gov.au

recalls.gov.au

You can also follow us on Twitter: twitter.com/productsafetyau

ACCC Infocentre: 1300 302 502

Callers who are deaf or have a hearing or speech impairment can contact us through the National Relay Service: relayservice.com.au

Voice-only (speak and listen) users phone: 1300 555 727 and ask for 1300 302 502

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