

Vehicle Standards Information 4

November 2021

This information sheet supersedes all previous copies of VSI 4.

Summary of standards for registration requirements for motorcycles and mopeds

This Vehicle Standards Information sheet outlines the minimum standards requirements for motorcycles and mopeds with full registration in Victoria.

This information sheet must be considered when determining the roadworthiness of a motorcycle or moped and modified vehicles must not contravene these requirements unless it complies with the Australian Design Rules

Introduction

Vehicles have different design and construction requirements based on their year of manufacture and the Australian Design Rules (ADRs) that apply to them.

ADRs for motorcycles and mopeds were first introduced in 1975 and progressively introduced thereafter. The introduction dates for various ADRs are listed in the relevant sections of this document.

Where an ADR exists for a relevant feature of a vehicle, the vehicle must continue to comply with the version of the ADR in force at the time the vehicle was manufactured, or a later version of that ADR.

A vehicle must not be modified in such a manner that it no longer complies with the ADRs or Standards

for Registration. Where a motorcycle or moped has not been modified from its original manufactured state it will typically comply with these requirements.

Vehicles manufactured on or after July 1988 must be fitted with an approved compliance plate or otherwise appear on the Register of Approved Vehicles, when presented for first registration.

If a vehicle rule in this document has a date of implementation then the rule does not apply to vehicles built before this date

Definitions

“Motorcycle” means a two wheeled motor vehicle with an engine cylinder capacity exceeding 50ml (50cc) or a maximum speed exceeding 50km/h and includes a motor cycle with a trailer, forecar or sidecar attached.

“Moped” means a two or three wheeled motor vehicle, not being a power-assisted pedal cycle, with an engine cylinder capacity not exceeding 50ml (50cc) (or another power source) and a maximum speed not exceeding 50km/h.

“Australian Design Rule” (ADR) means a national standard for motor vehicles as published by the Commonwealth Department of Infrastructure, Transport, Regional Development and Communications (DITRDC).

Note:

- Apart from some specific construction requirements for a moped set out in this information sheet, all safety, registration and driver licence requirements for a motorcycle also apply to a moped.

- Some motorcycles and mopeds are manufactured for agricultural or off-road use and do not comply with the Standards for Registration. These vehicles are not eligible for full registration but may be eligible for recreational or farm motorcycle registration.

Requirements

1. General safety

A vehicle must be constructed so that it meets the requirements of the applicable standards, is safe to use and unlikely to cause a danger to any person.

Refer to VSI 26 *Roadworthiness Requirements* for general roadworthy requirements.

2. Tyres

All tyres must be of a type suitable for highway use, have load and speed ratings appropriate to the vehicle and be free from any feature or defect likely to make use of the vehicle unsafe. Tyres carrying markings or codes indicating the tyre is unsuitable for highway use are not acceptable.

3. Lighting equipment and reflectors

3.1 General

Where two or more lamps of the same kind or type are fitted, they must be at the same height and be symmetrically located about the vehicle's longitudinal axis. Where only one lamp of a type or kind is fitted it must be mounted centrally.

The lighting and reflectors for motorcycles and mopeds manufactured on or after October 1991 must comply with ADR 19.

3.2 Head lamps

Motorcycles must be fitted with at least one forward facing headlamp. The centre of a low beam headlamp fitted to a vehicle manufactured on or after July 1953 must not be less than 500mm and not more than 1.4m above the ground. Two headlamps may be fitted within the above dimensions, either one above the other or side by side at the same level above the ground and at equal distances from the longitudinal axis of the motor cycle.

Motorcycles manufactured after 1934 that are capable of a maximum speed exceeding 60 km/h must have headlamps providing both dipped and undipped beams, and must be equipped with a headlamp dipping device.

The effective range of headlamps must be at least the following:

Headlamp type	Distance
High beam headlamp	Not less than 50 metres
No dipping device fitted	Not less than 25 metres
Dipped headlamp	Not less than 25 metres
Headlamp on a motor cycle built before 1931	Not less than 12 metres
Headlamp on a moped	Not less than 12 metres

3.3 Brake lamps

Motorcycles and mopeds manufactured after 1934 must be fitted with at least one red brake lamp. Brake lamps must be fitted so that they are not less than 350mm and not more than 1.5m above the ground.

For motorcycles and mopeds manufactured after 1974 the brake lamps should operate when either the front or rear brake is applied. However, motorcycles or mopeds manufactured before this date may be fitted with brake lamps that are operated only when the rear brake is applied.

In addition to being switched on by brake application, the brake lamps may also be switched on by a device sensing sudden deceleration.

When on, brake lamps must show a red light visible 30 metres from the rear of the vehicle

3.4 Red rear lamps

All motorcycles and mopeds must be fitted with at least one red rear lamp (tail lamp), which when lit shows a clear red light visible from 200 metres to the rear and does not use more than 7 watts of power.

The lamp must be mounted so that it is not higher than 1.5m above the ground.

3.5 Number plate lamp

All motorcycles and mopeds must be fitted with a number plate lamp which, when lit, illuminates the rear number plate with a white light so that the characters on the number plate can be read at night 20 metres from the rear of the vehicle. The lamp must not project white light directly to the rear except by reflection. The tail lamp, brake lamp and number plate lamp may be incorporated in one housing.

3.6 Turn signal lamps

Motorcycles and mopeds manufactured on or after July 1975 must be fitted with turn signal lamps. The two front lamps must show amber or white light and the two rear lamps must show yellow light. Pairs of lamps must not be less than 300mm apart, and must be between 350mm and 1.5m above the ground.

When operated, the signal lamps must flash at a rate of between 45 and 120 times per minute and be visible from a distance of 30 metres.

All turn signal lamps must be operable by the rider from the normal riding position, and must be equipped with an audible or visible tell-tale indicator.

3.7 Fog lamps

Motorcycles may be fitted with one or two white or yellow front fog lamps and one or two red rear fog lamps.

The centre of the front fog lamps must not be higher than the centre of the low beam head lamp. If two lamps of a kind are fitted, they must be at the same height and symmetrically mounted. The centre of a rear fog lamp must not be higher than 1.5m above the ground and not closer than 100mm from the centre of any brake lamp.

3.8 Reflectors

At least one red reflector must be fitted to the rear of a motorcycle, sidecar or moped. The centre of a reflector fitted to a motorcycle or moped must not be more than 1.5m above the ground.

3.9 Front lamp on a Side Car

A side car attached to a motorcycle or moped built on or after July 1953 must be fitted with a lamp not exceeding 7 watts of power which when lit shows a white or yellow light to the front of the vehicle visible from a distance of 200 metres.

The lamp must be fitted to the front of the side car so that the centre is not more than 150mm from the extreme left edge of the side car.

4. Horn (audible warning system)

A horn must be fitted which, when operated, is capable of giving sufficient audible warning to other road users of the presence of the vehicle.

Sirens, whistles or horns which emit an alternating or variable tone, or sound like a warning device fitted to emergency vehicles, are not allowed.

The horn for motorcycles and mopeds manufactured on or after July 1988 must comply with the appropriate version of ADR 42.

5. Rear vision mirrors

At least one effective rear vision mirror must be fitted on the right hand side of the motorcycle or moped. A second mirror must be fitted to the left hand side of any motorcycle or moped manufactured on or after July 1975.

Where more than one rear vision mirror is fitted, every mirror must be flat or every mirror must be convex. A combination of flat and convex mirrors is not allowed.

The radius of curvature of convex mirrors must not be less than 1.2m.

The mirrors for motorcycles and mopeds built on or after July 1988 must comply with the appropriate version of ADR 14.

6. Braking equipment

All motorcycles and mopeds must have a braking system which has either:

- two independent braking systems operated by a foot pedal and hand lever or two hand levers; or
- one braking system operating on all wheels but which retains braking on at least one wheel after any component failure.

The braking system of motorcycles and mopeds manufactured on or after March 1976 must comply with the appropriate version of ADR 33.

Hydraulic brake hoses fitted to motorcycles and mopeds manufactured on or after July 1975 must comply with the appropriate version of ADR 7 or ADR 42.

7. Guards

7.1 Mudguards

A mudguard which effectively catches and deflects downwards any objects being thrown up by the rotation of the wheel it is covering must be fitted to each wheel. A mudguard is also required on all side-car wheels.

The mudguards for motorcycles and mopeds manufactured on or after July 1988 must comply with the appropriate version of ADR 42.

7.2 Chain guard

All chain driven motorcycles and mopeds must have effective provision to prevent any part of a rider's body or clothing being caught in the chain or sprockets. This protection may be provided by the frame or by a separate chain guard.

The chain guard should extend, from and including the front sprocket, to a point not less than 300mm to the rear of the rearmost footrest or, to a point vertically above the centre of the rear sprocket.

The chain guard for motorcycles and mopeds manufactured on or after July 1988 must comply with the appropriate version of ADR 57.

8. Noise prevention

An effective exhaust muffler must be securely fitted so that all the exhaust gases pass through it. The muffler must not be fitted with a cut-out or by-pass.

Vehicle noise emissions must comply with the limits set by the Victorian Environment Protection Agency in the *Environment Protection (Vehicle Emissions) Regulations 2013*.

Motorcycles and mopeds in categories LC, LD and LEM manufactured on or after 1 July 1988 must comply with ADR 39.

Motorcycles and mopeds in categories LEP and LEG manufactured on or after 1 July 1992 must comply with ADR 28.

Moped noise (LA and LB category) manufactured on or after 1 July 1988 must comply with ADR 56.

9. Miscellaneous

All motorcycles and mopeds must have an engine stop switch.

All motorcycles and mopeds must be fitted with footrests for the rider and for any passenger for whom a seating position is provided.

Handlebars on all motorcycles and mopeds must be at least 500mm wide and not more than 900mm wide, and must be mounted symmetrically. The handgrips must be not more than 380mm higher than the point of attachment of the handlebars to the vehicle.

The horizontal distance from the mid-point between the head-stem bearings to the front axle must be not more than 550mm.

The lowest part of the hand grip on the handlebars must not be higher than:

- a for a motor bike built on or after 1 July 1988—380 millimetres above the attachment point of the handlebars to the motor bike; or
- b motorcycles and mopeds manufactured on or after July 1988 must comply with ADR 57 which supersedes the requirements in section 9 of this information sheet.

Motorcycles and moped should be fitted with a stand capable of supporting the vehicle substantially upright when stationary. Any stand must not contact the road surface under any of the motorcycle or moped's normal operating conditions and with the stand in the fully retracted position. Stands must fold rearwards.

Motorcycles and mopeds manufactured after June 1988 must comply with ADR 57 which supersedes the requirements in section 9 of this information sheet.

For further information

Further information is available on the VicRoads website: vicroads.vic.gov.au or by calling VicRoads on **13 11 71** (TTY **13 36 77**, Speak and Listen **1300 555 727**).