



National Transport Commission (Road Transport Legislation—Heavy Vehicle Standards Regulations) Regulations 2006

Select Legislative Instrument No. 25, 2006

made under the

National Transport Commission Act 2003

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About this compilation

This compilation

This is a compilation of the *National Transport Commission (Road Transport Legislation—Heavy Vehicle Standards Regulations) Regulations 2006* that shows the text of the law as amended and in force on 5 March 2016 (the **compilation date**).

The notes at the end of this compilation (the **endnotes**) include information about amending laws and the amendment history of provisions of the compiled law.

Uncommenced amendments

The effect of uncommenced amendments is not shown in the text of the compiled law. Any uncommenced amendments affecting the law are accessible on the Legislation Register (www.legislation.gov.au). The details of amendments made up to, but not commenced at, the compilation date are underlined in the endnotes. For more information on any uncommenced amendments, see the series page on the Legislation Register for the compiled law.

Application, saving and transitional provisions for provisions and amendments

If the operation of a provision or amendment of the compiled law is affected by an application, saving or transitional provision that is not included in this compilation, details are included in the endnotes.

Editorial changes

For more information about any editorial changes made in this compilation, see the endnotes.

Modifications

If the compiled law is modified by another law, the compiled law operates as modified but the modification does not amend the text of the law. Accordingly, this compilation does not show the text of the compiled law as modified. For more information on any modifications, see the series page on the Legislation Register for the compiled law.

Self-repealing provisions

If a provision of the compiled law has been repealed in accordance with a provision of the law, details are included in the endnotes.

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1 Name of Regulations

These Regulations are the *National Transport Commission (Road Transport Legislation—Heavy Vehicle Standards Regulations) Regulations 2006*.

2 Commencement

These Regulations commence on the day after they are registered.

3 Road transport legislation—heavy vehicle standards

For section 7 of the *National Transport Commission Act 2003* (the NTC Act), Schedule 1 sets out road transport legislation, in the form of Regulations, about the design and construction of heavy vehicles.

Note 1: The road transport legislation set out in Schedule 1 does not have the force of law (see paragraph 7(2)(a) of the NTC Act).

Note 2: These Regulations must be made in accordance with the Agreement (see subparagraph 3(b)(ii) of the NTC Act).

Note 3: These Regulations are not subject to disallowance—see regulations made for the purposes of paragraph 44(2)(b) of the *Legislation Act 2003*.

Note 4: These Regulations are not subject to sunset—see regulations made for the purposes of paragraph 54(2)(b) of the *Legislation Act 2003*.

Note 5: The text set out in Schedule 1 is that of the Road Transport Reform (Heavy Vehicle Standards) Regulations (Statutory Rules 1995 No. 55). It has been formatted in accordance with current drafting practice (including styles of provision numbering and cross-referencing). Those Regulations were approved in draft form by the Ministerial Council for Road Transport on 10 November 1993.

Note 6: The making of the Road Transport Reform (Heavy Vehicle Standards) Regulations was notified in the Commonwealth of Australia *Gazette* on 29 March 1995. No date was ever fixed under subregulation 2(2) of those Regulations.

Schedule 1—Text of the Road Transport Reform (Heavy Vehicle Standards) Regulations

(regulation 3)

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1 Title

These Regulations may be cited as the Road Transport Reform (Heavy Vehicle Standards) Regulations.

2 Commencement

- (1) Regulations 1 and 2 commence on the day on which the making of these Regulations is notified in the *Gazette*.
- (2) The remaining provisions of these Regulations commence on a day or days specified by the Commonwealth Minister by notice in the *Gazette*.

3 Purpose

The purpose of these Regulations is to provide a set of standards, uniform or consistent throughout Australia, for the construction and performance of heavy motor vehicles and trailers:

- (a) to promote, throughout the life of vehicles, their safe use and efficiency, and to promote protection of the environment; and
- (b) to reduce the costs of transport administration.

4 Interpretation

- (1) In these Regulations:

Commonwealth Minister means the Minister of the Commonwealth administering the Act.

Heavy Vehicle Standards means the Heavy Vehicle Standards set out in the Schedule.

the Act means the *Road Transport Reform (Vehicles and Traffic) Act 1993*.

- (2) Words and phrases defined in the Heavy Vehicle Standards have the same meanings in the Regulations.

Note: Definitions appear at the end of the Heavy Vehicle Standards.

- (3) A note does not form part of these Regulations.
- (4) Subject to subregulation (5), a diagram appearing in these Regulations is illustrative only.
- (5) If a provision contains a diagram that is called an essential diagram, that diagram is part of these Regulations.

Regulation 5

5 Application of Heavy Vehicle Standards

- (1) The relevant requirements of the Heavy Vehicle Standards apply to a vehicle or combination of vehicles if it:
 - (a) is, or includes, a vehicle with a GVM exceeding 4.5 tonnes; and
 - (b) is on:
 - (i) a road; or
 - (ii) an area that divides a road; or
 - (iii) a footpath or nature strip adjacent to a road; or
 - (iv) an area that is not a road and that is open to or used by the public for driving or parking vehicles; or
 - (v) an area that is open to or used by the public and has been declared in accordance with section 16 of the Act to be an area to which these Regulations apply.
- (2) This regulation is subject to the exceptions mentioned in regulation 5A.

5A Exceptions to application of Heavy Vehicle Standards

- (1) A requirement of the Heavy Vehicle Standards does not apply to a vehicle, or combination of vehicles, used only on a railway or tramway.
- (2) A requirement in Parts 2 to 9 (inclusive) of the Heavy Vehicle Standards does not apply to a vehicle if:
 - (a) the requirement is inconsistent with a requirement of a second or third edition ADR applying to the vehicle; and
 - (b) the vehicle complies with the requirement mentioned in paragraph (a).
- (3) A requirement in Parts 2 to 9 (inclusive) of the Heavy Vehicle Standards does not apply to a vehicle if:
 - (a) the vehicle does not comply with a requirement of an ADR; and
 - (b) despite the non-compliance, approval has been given, under section 10 of the *Motor Vehicle Standards Act 1989*, to place identification plates on vehicles of that type; and
 - (c) the vehicle complies with the approval conditions (if any); and
 - (d) the requirement of the Heavy Vehicle Standards corresponds to the requirement of the ADR.

6 Vehicles and combinations to be properly maintained

- (1) A vehicle or combination of vehicles must be kept in a condition that ensures:
 - (a) its safe operation; and
 - (b) the safety of its occupants and of other road users.
- (2) A vehicle or combination of vehicles must be maintained in a condition that ensures that each of its emissions control systems remains fitted, and continues operating, essentially in accordance with the system's original design.

- (3) Subregulations (1) and (2) include, but are not limited to, the following aspects of the vehicle or combination:
- (a) its steering, brakes, suspension, wheels, tyres, towing equipment and the means of transmitting engine power to the driven wheels; and
 - (b) the lights and reflectors that it is required to have under these Regulations; and
 - (c) the strength of its structure; and
 - (d) its driver's view of the road; and
 - (e) its exhaust system; and
 - (f) its fuel system.

Note: The requirements of regulation 6 apply in addition to the requirements of the Heavy Vehicle Standards. The Heavy Vehicle Roadworthiness Guidelines, published in August 1994 by the National Road Transport Commission, provide information to help people meet the requirements of regulation 6.

7 Exemption from Heavy Vehicle Standards

The Minister may declare in writing under section 17 of the Act that a specified vehicle is exempt from a requirement of the Heavy Vehicle Standards if he or she is satisfied that:

- (a) compliance with the requirement would prevent the vehicle from operating in the manner, or for the purpose, for which the vehicle was built or modified; or
- (b) the vehicle is an experimental vehicle, or prototype or other vehicle, that could not reasonably be expected to comply with the requirement; or
- (c) the vehicle:
 - (i) was registered, or authorised to be driven or towed on a road, in Australia before this regulation commenced; and
 - (ii) was not required to comply with a requirement similar to the requirement from which the vehicle is being exempted.

Note: Subsection 46(2) of the *Acts Interpretation Act 1901* of the Commonwealth allows the Minister to specify a vehicle for an exemption by referring to a class of vehicles. Vehicles can also be exempted from the dimension requirements of these Regulations by the Minister under the Road Transport Reform (Medium and Long Combination Vehicles) Regulations or the Road Transport Reform (Oversize and Overmass Vehicles) Regulations.

8 Failure of a motor vehicle to comply with Heavy Vehicle Standards

- (1) If a motor vehicle fails to comply with a requirement in these Regulations that applies to it, each of the following persons is guilty of an offence:
 - (a) the owner of the motor vehicle;
 - (b) the driver of the motor vehicle.
- (2) A person who is both the owner and the driver of the motor vehicle may be punished only once in relation to the same failure of the motor vehicle to comply with a requirement.

Regulation 9

Note: The words *driver* and *owner* are defined in the Heavy Vehicle Standards.

9 Failure of a trailer to comply with Heavy Vehicle Standards

- (1) If a trailer fails to comply with a requirement in these Regulations that applies to it, each of the following persons is guilty of an offence:
 - (a) the owner of the trailer;
 - (b) the owner of any motor vehicle towing the trailer;
 - (c) the driver of any motor vehicle towing the trailer.
- (2) A person who meets more than one of the descriptions in paragraphs (1)(a), (b) and (c) may be punished only once in relation to the same failure of the trailer to comply with a requirement.

10 Failure of a combination of vehicles to comply with Heavy Vehicle Standards

- (1) If a combination of vehicles taken as a whole fails to comply with a requirement in these Regulations that applies to it, each of the following persons is guilty of an offence:
 - (a) the owner of a motor vehicle forming part of the combination;
 - (b) the driver of a motor vehicle forming part of the combination.
- (2) A person who is both the owner and the driver of the motor vehicle may be punished only once in relation to the same failure of the combination of vehicles to comply with a requirement.

11 Penalty for an offence

A person convicted of an offence under regulation 8, 9 or 10 is liable to a penalty not exceeding \$2 000 for an individual or \$10 000 for a body corporate.

12 Failure to comply with certain exemptions

An exemption given under any Regulations made under the Act is to be disregarded in the prosecution of a person for an offence against these Regulations if:

- (a) the offence relates to the failure of a vehicle or combination of vehicles to comply with a dimension limit applying under these Regulations; and
- (b) the exemption permitted a greater dimension limit, but, at the time of the alleged offence, the vehicle or combination of vehicles was travelling:
 - (i) on a route other than a route where the vehicle or combination was permitted to travel under the exemption; or
 - (ii) at a time other than a time when the vehicle was permitted to travel under the exemption; or
 - (iii) accompanied by fewer than the number of pilot or escort vehicles required under the exemption.

13 Application of *Criminal Code*

Chapter 2 of the *Criminal Code* applies to an offence against these Regulations as if the Code were in operation in this jurisdiction.

14 Prescribed persons—delegation

For section 18 of the Act, the following persons are prescribed:

- (a) each Commonwealth, State or Territory public authority;
- (b) each officer or employee of:
 - (i) the Commonwealth or a State or Territory; or
 - (ii) each Commonwealth, State or Territory public authority;
- (c) person holding an office established under a Commonwealth, State or Territory law.

Schedule—Heavy vehicle standards

Subregulation 4(1)

Introductory note to Heavy Vehicle Standards

The Heavy Vehicle Standards apply to all vehicles and trailers over 4.5 tonnes GVM (gross vehicle mass), regardless of when they were built, unless they have been exempted. Some of the Standards relate to combinations of vehicles such as B-doubles or road trains.

In most cases, if a vehicle meets all of the Standards, it is suitable for use on the road without special restrictions. However, some vehicles at or approaching some of the maximum dimensions may be severely restricted as to where they can travel. These restrictions are imposed by other sets of regulations under the *Road Transport Reform (Vehicles and Traffic) Act 1993*. For example, other sets of regulations restrict the operation of:

- rigid vehicles more than 12.5 metres long or 4.3 metres high; and
- combinations of vehicles more than 19 metres long or 4.3 metres high; and
- vehicles with a quad-axle group.

The Standards are intended to cover areas not already covered by the Australian Design Rules (ADRs), which are a set of rules for designing and building vehicles. The ADRs do not cover vehicles built before 1969, combinations of vehicles of any age, or some vehicles built for a special purpose. These are covered in Parts 2 to 9 (inclusive) of the Standards. The ADRs did not cover every safety feature for vehicles built between 1969 and 1988. The Standards are intended to fill these gaps too. If a vehicle is covered by both an ADR and a Standard, and the 2 are inconsistent, the vehicle must generally comply with the ADR.

These Standards also require a vehicle to continue to comply with the applicable ADRs.

A vehicle must continue to comply with these Regulations, even if it is modified. The *National Code of Practice: Heavy Vehicle Modifications*, issued by the Federal Office of Road Safety in Vehicle Standards Bulletin 6, provides advice to help decide whether a modified vehicle continues to comply with the Regulations. It is recommended that modifications be made in accordance with the Code. Modifications that are not covered by, or consistent with, the Code may also be permitted, but the owner must ensure that the vehicle continues to comply with these Regulations. Road laws provide that vehicles must not be used on a road unless they are in a safe condition.

Part 1—Application of ADRs

Note: This Part sets out how the ADRs and the other requirements in these Standards are applied to various vehicles. Vehicles are required to continue to comply with the relevant ADRs throughout their life but, because the most recent standards are the appropriate ones for today's roads, a vehicle is allowed to meet a more recent standard instead of the one that applied to it when it was built. An earlier standard need not be complied with if it is inconsistent with a later standard dealing with the same thing on the same vehicle, and the vehicle complies with the later standard. Older vehicles are allowed to be fitted with any equipment that is allowed on newer vehicles. As explained in the Introductory Note, modified vehicles must still comply with these Standards.

The following terms defined in clause 10.6 are used in this Part:

ADR	prime mover
GVM	semi-trailer
mudguard	

The following terms defined in section 4 of the Act are used in this Part:

motor vehicle	trailer
---------------	---------

1.1 Compliance with second edition ADRs

- (1) A vehicle to which a second edition ADR applies must comply with the ADR.
- (2) For the purpose of subclause (1), a second edition ADR applies to a vehicle if the cover sheet of the document containing the standard includes a recommendation by the Australian Transport Advisory Council that vehicles in a category that includes the vehicle:
 - (a) comply, or be designed to comply, with the ADR; or
 - (b) be equipped with a thing that complies with the ADR; or
 - (c) have instruments located so as to comply with the ADR.
- (3) In spite of subclause (1), a vehicle need not comply with a requirement of a second edition ADR if:
 - (a) the requirement has been superseded by, or is inconsistent with, a requirement of a third edition ADR; and
 - (b) the vehicle complies with the third edition ADR requirement.

1.2 Compliance with third edition ADRs

A vehicle to which a third edition ADR applies must comply with the ADR.

1.3 Limitations on application of the ADRs

- (1) A vehicle need not comply with an ADR if:
 - (a) despite non-compliance with the ADR, approval has been given, under subsection 10A(2) or 10A(3) of the *Motor Vehicle Standards Act 1989*, to place identification plates on vehicles of that type; and
 - (b) the vehicle complies with the approval conditions (if any).

Clause 1.4

Note: Section 10A of the *Motor Vehicle Standards Act 1989* deals with the attachment of identification plates to vehicles. Subsection 10A(2) deals with vehicles that do not comply with an ADR, but the non-compliance is only in minor and inconsequential respects. Subsection 10A(3) deals with vehicles that do not comply with an ADR, and the non-compliance is not minor and inconsequential, but the vehicle will be safe to use if specified conditions are observed.

- (2) The luminous transmittance requirements in paragraph 2.16(2)(b) apply instead of the corresponding requirements in the relevant ADR.
- (3) The requirements of subclause 2.18(5) (relating to the speed at which a tyre must be suitable for road use) apply instead of the tyre speed category requirements in the relevant ADR.
- (4) A vehicle to which subclause 5.38(3) applies need not comply with any requirements of a third edition ADR that would prevent it displaying lights or reflectors mentioned in subclause 5.38(3).
- (5) A vehicle to which subclause 5.38(4) applies need not comply with any requirements of a third edition ADR that would prevent it displaying the lights permitted by the subclause.

1.4 Additional equipment on vehicles

- (1) If a third edition ADR permits a vehicle to be fitted with equipment, a vehicle may be fitted with the equipment, even though the vehicle was manufactured before the date specified in the ADR for the type of vehicle.
- (2) If a third edition ADR contains a requirement for equipment fitted to a vehicle manufactured on or after a specified date, any equipment of that kind fitted to the vehicle after manufacture of the vehicle must comply with:
 - (a) the requirement as in force when the vehicle was manufactured; or
 - (b) if the requirement is amended in the period after the manufacture of the vehicle and before the fitting of the equipment—the requirement as in force:
 - (i) when the vehicle was manufactured; or
 - (ii) when the equipment was fitted; or
 - (iii) at any time between manufacture and the fitting of the equipment.

1.5 Compliance with later editions of standards

A vehicle need not comply with an edition of an ADR, or an Australian Standard or a British Standard, mentioned in this Schedule if the vehicle complies with a later edition of the ADR or a later standard.

Part 2—General safety requirements

Note: To allow a vehicle to be operated safely, every aspect of the vehicle needs to be properly designed to minimise the potential for accidents or harm to other road users. This Part sets out various requirements covering the driver's view from, and control of, a vehicle, protection of vehicle occupants and other road users, and other safety features of a more general nature.

The following terms defined in clause 10.6 are used in this Part:

ADR	GVM
approved material	mudguard
Australian Standard	pole-type trailer
axle	prime mover
axle group	repeater horn
B-double	road train
driver	single axle
emergency vehicle	

The following terms defined in section 4 of the Act are used in this Part:

motor vehicle	road
trailer	

2.1 Steering

- (1) The centre of at least 1 steering control of a motor vehicle must be to the right of, or in line with, the centre of the vehicle.
- (2) A component of the steering system of a motor vehicle that is essential for effective steering of the vehicle must be built to transmit energy by mechanical means only.
- (3) Failure of a non-mechanical component of the steering system must not prevent effective steering of the vehicle.

2.2 Turning ability

A motor vehicle must be able to turn both left and right, within a circle not exceeding 25 metres in diameter, measured by the outer edge of the tyre track at ground level.

2.3 Ability to travel backwards and forwards

A motor vehicle must be capable of being driven both backwards and forwards by the driver when the driver is in the normal driving position.

2.4 External or internal protrusions

- (1) An object fitted to a vehicle must be designed, built and fitted to the vehicle in a way that minimises the likelihood of injury to a person making contact with the vehicle.

Clause 2.5

- (2) Subclause (1) does not apply to an object fitted to a vehicle if:
 - (a) the vehicle was designed before 1 January 1965 and the object was part of the design; or
 - (b) the object was fitted to the vehicle before 1 January 1965 in accordance with the law of the place where the object was fitted.

2.5 Driver's view and control of vehicle

- (1) A motor vehicle must be built:
 - (a) to allow the driver a view of traffic to its front and sides; and
 - (b) with its controls located;so that the driver can drive it safely.
- (2) The rearmost position of any passenger seat in a motor vehicle must not be located more than 100 millimetres in front of the rearmost position of the driver's seat.

2.6 Seating

A seat provided for a person to use in a moving vehicle must be securely attached to the vehicle.

2.7 Mudguards and spray suppression

- (1) A vehicle must have firmly fitted to it:
 - (a) a mudguard for each wheel or for adjacent wheels; and
 - (b) if the vehicle is part of a B-double-spray suppression devices complying with British Standard AU200 – 1984, *Spray Reducing Devices for Heavy Goods Vehicles*, Parts 1 and 2, for each axle group and single axle.
 - (2) Paragraph (1)(a) does not apply to a vehicle if:
 - (a) its construction or use makes it unnecessary or impracticable to provide mudguards; or
 - (b) the body or part of the body of the vehicle acts as a mudguard.
- Note: Examples of vehicles to which paragraph (2)(a) applies are timber jinkers, most road-making plant and some agricultural implements.
- (3) A mudguard must, when the wheels of the vehicle are in position for it to move straight ahead:
 - (a) reduce the danger of a person contacting the moving wheels; and
 - (b) in the case of the rear wheels:
 - (i) cover the overall tyre width of the wheel or wheels for which it is provided; and
 - (ii) be fitted so that the height above the ground of the lowest edge of the rear of the mudguard is not more than one third of the horizontal distance of that edge from the centre of the rearmost axle.

- (4) In spite of subclause (3), the mudguard may be at least:
 - (a) 230 millimetres above the ground; or
 - (b) on a vehicle built to be used off a road—300 millimetres above the ground.
- (5) The external surface of a rear mudguard, except a mudflap, that can be seen from the rear of the vehicle to which it is fitted must be coloured white or silver if the vehicle:
 - (a) is at least 2.2 metres wide, excluding mirrors, side-mounted lights and reflectors; and
 - (b) has a body that is less than 300 millimetres high at the rear, measured from the lowest point of the body above the ground to the highest point; and
 - (c) is not fitted with rear marking plates in accordance with clause 5.39.

2.8 Horns and alarms

- (1) A motor vehicle must have fitted to it at least one horn or other device capable of giving sufficient audible warning to other road users of the approach or position of the vehicle.
- (2) A motor vehicle must not have fitted to it a device capable of producing a sound resembling the sound of a siren, bell, exhaust whistle, compression whistle or repeater horn.
- (3) Subclause (2) does not apply to:
 - (a) an emergency or police vehicle; or
 - (b) a motor vehicle that is 25 or more years old and is fitted as an emergency or police vehicle if the vehicle:
 - (i) is used for exhibition purposes; or
 - (ii) is part of a collection of vehicles that were formerly emergency or police vehicles; or
 - (c) an anti-theft alarm if the alarm cannot be operated while the vehicle's ignition is on.
- (4) A motor vehicle may be fitted with a device which emits a regular, intermittent sound while the vehicle is rolling backwards or in reverse gear.
- (5) A device described in subclause (4) must not be louder than is reasonably necessary for a person close to the vehicle and the driver to be able to hear the device.

2.9 Rear-vision mirrors

- (1) Each side of a motor vehicle must be fitted with a mirror, which when used together enable the driver of the vehicle at all times to obtain, by reflection, a clear view of:
 - (a) the road to the rear of the vehicle; and
 - (b) any following or overtaking vehicle.

Clause 2.10

- (2) A mirror fitted to a vehicle must not project more than 150 millimetres beyond the widest part (excluding lights and reflectors) of the vehicle or combination of vehicles including the vehicle.
- (3) In spite of subclause (2), the mirrors fitted to a motor vehicle may project beyond the widest part (excluding lights and reflectors) of the vehicle or combination of vehicles by up to 230 millimetres if they can be folded or collapsed to project not more than 150 millimetres.
- (4) One mirror on the left side of the vehicle must have a reflecting surface of at least 150 square centimetres.
- (5) One mirror on the right side of the vehicle must have:
 - (a) a reflecting surface of at least 150 square centimetres; and
 - (b) a flat reflecting surface, if:
 - (i) the vehicle has only 1 steering control; and
 - (ii) the centre of the steering control is to the right of, or in line with, the centre of the motor vehicle.
- (6) A vehicle may be fitted with additional mirrors or mirror surfaces that are flat or convex or a combination of flat and convex.

2.10 Automatic transmissions

- (1) A motor vehicle fitted with an automatic transmission must have an engine starter mechanism that cannot operate when the transmission control is in a position to drive the vehicle.
- (2) A vehicle that is:
 - (a) fitted with automatic transmission; and
 - (b) manufactured after 1975;must have in the driver's compartment an indicator showing the transmission control position.

2.11 Diesel engines

A motor vehicle propelled by a compression ignition engine (commonly known as a "diesel engine") must be fitted with a device that prevents the engine from being started accidentally or inadvertently.

2.12 Bonnet securing devices

- (1) A motor vehicle with a moveable body panel forward of the windscreen, and covering an engine, luggage, storage or battery compartment, must be provided with a device to secure the panel.
- (2) However, if the panel opens from the front in a way that partly or completely obstructs the driver's forward view through the windscreen, the panel must be provided with both primary and secondary devices to secure the panel.

2.13 Electrical wiring, connections and installations

- (1) The wiring of electrical equipment of a vehicle, other than the high tension ignition wiring, must:
 - (a) be supported at intervals of not more than 600 millimetres, unless the vehicle is a pole-type trailer with a pole whose length can be adjusted, or an extendible trailer; and
 - (b) be insulated at joints; and
 - (c) be located where it cannot:
 - (i) become overheated; or
 - (ii) contact moving parts; or
 - (iii) come close enough to the fuel system to constitute a fire hazard; and
 - (d) be protected from chafing.
- (2) The electrical connectors between motor vehicles and trailers, for operation of the vehicle lights prescribed in these Standards, must comply with Australian Standard AS 2513 – 1982, *Electrical Connections for Trailer Vehicles*.
- (3) A trailer must be equipped with an electrical conductor, independent of the trailer coupling, that provides a return path between the electrical circuits of the trailer and the towing vehicle.
- (4) The electrical wiring, connections and installations of a semi-trailer, dog trailer or converter dolly used in a road train more than 19 metres long after 30 June 1998 must comply with third edition ADR 63 whether or not it was built before the date specified in the ADR for that type of vehicle.

2.14 Television and visual display units

- (1) A television receiver or visual display unit must not be installed in a vehicle if any part of the image on the screen is visible to the driver from the normal driving position.
- (2) Subclause (1) does not apply to installation of a driver's aid in any vehicle or a destination sign in a bus.

Note: Examples of display units that are considered to be drivers' aids are: rear-view screens, ticket-issuing machines, navigational or intelligent highway and vehicle system equipment, vehicle monitoring devices, despatch systems and closed circuit television security cameras.

- (3) A television receiver or visual display unit and its associated equipment in a vehicle must be securely mounted in a position that:
 - (a) does not obscure the driver's view of the road; and
 - (b) does not impede the movement of a person in the vehicle.

2.15 Windscreens and windows

- (1) Transparent material used in a windscreen, window, or an interior partition of a motor vehicle must be approved material if:

Clause 2.16

- (a) the motor vehicle was manufactured on or after 1 July 1953; or
- (b) the material was fitted on or after 1 July 1953.

- (2) In subclause (1):

transparent material does not include any coating added to the windscreen, window or partition after its manufacture.

2.16 Window tinting

- (1) Glazing in a motor vehicle must not have:
 - (a) a luminous transmittance of less than:
 - (i) 75% in the case of a windscreen of a vehicle manufactured after 1971; and
 - (ii) 70% in any other case; or
 - (b) for glazing to which a coating or film has been added—a reflectance of more than 10%.
- (2) Paragraph (1)(a) does not apply to:
 - (a) the greater of the following areas of a windscreen:
 - (i) the area above the highest point of the windscreen that is swept by a windscreen wiper;
 - (ii) the highest area, measured in front of the driver's seat, that covers 10% of the windscreen; or
 - (b) glazing with a luminous transmittance of at least 35% behind the driver's seat.
- (3) In this clause, *glazing* means transparent material, or a combination of transparent materials, fitted to the front, sides or rear of a vehicle, through which the driver or a passenger can obtain a view of the road.

2.17 Windscreen wipers and washers

- (1) A motor vehicle fitted with a windscreen must be fitted with at least one windscreen wiper.
- (2) A windscreen wiper or windscreen wipers must:
 - (a) be able to remove moisture from the windscreen in front, and to the left, of the driver to allow the driver an adequate view of the road ahead of the motor vehicle when the windscreen is wet; and
 - (b) be able to be operated by the driver of the vehicle from a normal driving position; and
 - (c) be power-driven; and
 - (d) if operated by engine manifold vacuum—be provided with a vacuum reservoir or pump to maintain efficient operation of the wiper or wipers while the vehicle is in motion.
- (3) A motor vehicle:

- (a) manufactured on or after 1 January 1983; and
 - (b) required to be fitted with a windscreen wiper;
- must be fitted with a windscreen washer that can direct water on to the exterior of the windscreen within the area swept by a wiper so that the wiper can spread the water to the whole area swept by the wiper.
- (4) A windscreen washer must be able to be operated from a normal driving position.
 - (5) In spite of subclause (1), if the driver in a normal driving position can obtain an adequate view of the road ahead of the motor vehicle when the windscreen is obscured, the vehicle need not be fitted with a windscreen wiper or washer.

2.18 Wheels and tyres

- (1) A vehicle must be fitted with pneumatic tyres.
- (2) The wheels and tyres fitted to an axle of a vehicle must be of sufficient size and capacity to carry the portion of the GVM transmitted to the ground through the axle.
- (3) The size and capacity of a tyre to be fitted to a vehicle must be determined using a cold inflation pressure that does not exceed the lesser of:
 - (a) the pressure recommended by the manufacturer of the tyre; and
 - (b) in the case of:
 - (i) a radial ply tyre—825 kilopascals; or
 - (ii) another tyre—700 kilopascals.
- (4) A tyre fitted to a vehicle must be free of any apparent defect which could make the vehicle unsafe.
- (5) A tyre fitted to a vehicle must be suitable for road use at:
 - (a) a speed of at least 100 kilometres an hour; or
 - (b) if the vehicle cannot travel at a speed of 100 kilometres an hour—its top speed.
- (6) A tyre that is retreaded before the commencement of this subclause must not be used on a vehicle if:
 - (a) an Australian Standard mentioned in Part 1 of the table applies to the tyre; and
 - (b) the tyre was retreaded after the issue of the standard; and
 - (c) the tyre was not retreaded in accordance with an Australian Standard mentioned in Part 1 or 2 of the table.
- (7) A tyre retreaded after the commencement of this subclause must not be used on a vehicle if:
 - (a) an Australian Standard mentioned in Part 2 of the table applies to the tyre; and

- (b) the tyre was not retreaded in accordance with the standard.

Table Australian Standards for tyre retreading

Part 1

Australian Standard AS 1973 – 1976, *Retreaded Pneumatic Passenger Car and Light Truck Tyres*

Australian Standard AS 1973 – 1985, *Retreaded Pneumatic Passenger and Light Truck Tyres*

Part 2

Australian Standard AS 1973 – 1993, *Pneumatic Tyres—Passenger Car, Light Truck and Truck/Bus—Retreading and Repair Processes*

Note: Australian Standard AS 1973 requires various markings on retreaded tyres. These may include a speed rating less than the rating originally marked on the tyre.

2.19 Tyre tread

- (1) A tyre of a vehicle must not have cleats or other gripping devices that could damage the road surface.
- (2) Except at tread wear indicators, a tyre fitted to a vehicle must have a tread pattern at least 1.5 millimetres deep in a band that runs continuously:
 - (a) across at least 75% of the tyre width that normally comes into contact with the road; and
 - (b) around the whole circumference of the tyre.
- (3) A vehicle must not be fitted with a tyre that has been treated by re-cutting or re-grooving the tread rubber, unless the tyre was:
 - (a) constructed with an extra thickness of rubber designed for the purpose of re-cutting or re-grooving; and
 - (b) labelled to indicate the construction.

Part 3—Vehicle marking

Note: This Part sets out requirements that help to identify a vehicle for the purpose of knowing who is responsible for it on the road, and to warn other motorists that the vehicle may be unusually long.

The following terms defined in clause 10.6 are used in this Part:

Australian Standard road train
B-double

The following terms defined in section 4 of the Act are used in this Part:

motor vehicle trailer

3.1 Vehicle and engine identification numbers

- (1) The engine block of a motor vehicle must have an individual engine identification number stamped, embossed or otherwise permanently displayed on it.
- (2) An engine identification number on a plate that is fixed to an engine block using screws or rivets is not permanently displayed on the block.
- (3) A vehicle must have an individual vehicle identification number clearly stamped, embossed or otherwise permanently displayed on a substantial part of its frame or chassis.
- (4) An identification number must be located where it can be read easily without having to use tools to remove a part of the vehicle that would otherwise obstruct the reader's view.
- (5) In this clause, **number** includes letters.

3.2 White or silver band on certain vehicles

A vehicle that:

- (a) is at least 2.2 metres wide; and
 - (b) has a body that is less than 300 millimetres high at the rear, measured from the lowest point of the body above the ground to the highest point; and
 - (c) is not fitted with rear marking plates in accordance with clause 5.39;
- must have a white or silver band at least 75 millimetres high across the full width of the rearmost part of the body of the vehicle.

3.3 Warning signs for combinations of vehicles more than 22 metres long

- (1) A combination of vehicles more than 30 metres long must display 'ROAD TRAIN' warning signs complying with this clause and clause 3.5.
- (2) A combination of vehicles more than 22 metres, but not more than 30 metres, long must display a 'LONG VEHICLE' warning sign (or, for a road train, 'ROAD TRAIN' warning signs) complying with this clause and clause 3.5.

Clause 3.4

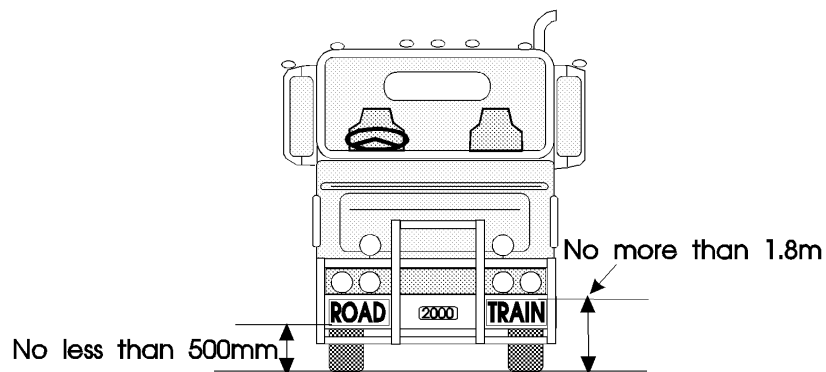
- (3) Subclauses (1) and (2) do not apply to the extent that they are inconsistent with the conditions set out in a notice or permit issued under the Act.
- (4) The words on a 'ROAD TRAIN' or 'LONG VEHICLE' warning sign must be in black upper case letters at least 180 millimetres high in typeface Series B (N) and complying with Australian Standard AS 1744 *Forms of Letters and Numerals for Road Signs*.
- (5) If a 'ROAD TRAIN' or 'LONG VEHICLE' warning sign is in 2 pieces, a single word of the expression must appear on one piece and the other word on the other piece.
- (6) 'ROAD TRAIN' warning signs must be displayed in pairs and fitted horizontally, one at the front and the other at the rear, of the combination of vehicles.
- (7) A 'LONG VEHICLE' warning sign must be fitted horizontally to the rear of the combination of vehicles.

3.4 When warning signs not to be displayed

A 'ROAD TRAIN' warning sign or a 'LONG VEHICLE' warning sign must not be displayed on a vehicle unless it is a vehicle to which clause 3.3 applies.

3.5 Specifications for warning signs

- (1) A warning sign must be:
 - (a) durable; and
 - (b) manufactured in 1 or 2 pieces from sheet steel 0.8 millimetres thick or an alternative material of at least equivalent stiffness, unless it is designed to be fixed to the vehicle body using an adhesive.
- (2) A sign must be at least 1.02 metres wide and 250 millimetres high.
- (3) A sign must be coated with yellow retro-reflective material (class 1 or class 2) which meets Australian Standard AS 1906, *Retro-reflective Materials and Devices for Road Traffic Control Purposes*.
- (4) A sign must have a black border.
- (5) The sign must show the sign manufacturer's name or logo, and the brand and class of retro-reflective material used, in block letters not more than 10 millimetres high.
- (6) A warning sign must be mounted so that no part of the sign is:
 - (a) more than 1.8 metres above the ground; or
 - (b) less than 500 millimetres above the ground.



Positioning of a warning sign

3.6 Left hand drive signs

- (1) A motor vehicle with the centre of a steering control to the left of the centre of the vehicle must display the words 'LEFT HAND DRIVE' on the rear of the vehicle.
- (2) The words must be in letters at least 75 millimetres high, and in a colour that contrasts with the background to the words on the vehicle.

Part 4—Vehicle configuration and dimensions

Note: This Part sets out various requirements covering suspensions on vehicles and size limits for single vehicles and combinations of vehicles, so that they can be operated safely with other traffic, without taking up too much road space or damaging the road and structures on the road.

Generally, the limits specified in this Part apply to a vehicle and any load it may be carrying.

Specific requirements for loaded vehicles are covered in other sets of regulations under the *Road Transport Reform (Vehicles and Traffic) Act 1993*. Those regulations also include a number of different size limits to cater for vehicles from which the load is allowed to protrude, for example height and allowable rear overhang of car carriers.

The following terms defined in clause 10.6 are used in this Part:

articulated bus	GVM
axle	load-sharing suspension system
axle group	point of articulation
bus	overhang
centre of an axle group	rear overhang line
combination of vehicles	road train
converter dolly	semi-trailer
dog trailer	single axle
drawbar	single axle group
fifth wheel coupling	tandem axle group
ground clearance	twinsteer axle group

The following terms defined in section 4 of the Act are used in this Part:

motor vehicle	trailer
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Division 1—Axles

4.1 Axle configuration

- (1) A motor vehicle, other than an articulated bus, must have only:
 - (a) a single axle group, a twinsteer axle group or a single axle towards the front of the vehicle; and
 - (b) one axle group or a single axle towards the rear of the vehicle.
- (2) An articulated bus must have on:
 - (a) its front section:
 - (i) only a single axle group, a twinsteer axle group or a single axle towards the front of the section; and
 - (ii) only one axle group or a single axle towards the rear of the section; and
 - (b) a section other than its front section—only one axle group or single axle.
- (3) A trailer, other than a semi-trailer, must have only:
 - (a) one axle group or a single axle; or
 - (b) 2 axle groups or 2 single axles in the following configuration:

- (i) one axle group or single axle towards the front of the vehicle, with all the wheels on the axle group or single axle connected to the steering mechanism for that part of the trailer; and
 - (ii) one axle group or single axle towards the rear of the vehicle.
- (4) A semi-trailer must have only one axle group or a single axle.
- (5) The axle group or single axle must be located towards the rear of the semi-trailer.
- (6) A semi-trailer that is extendible, or is fitted with sliding axles, must:
 - (a) have a securing device that:
 - (i) can securely fix the extendible part or the sliding axles to the rest of the vehicle in any position of adjustment provided; and
 - (ii) is located in a position that can prevent accidental or inadvertent release, if it is mounted on the chassis of the vehicle; and
 - (iii) is fitted with a visible or audible warning device to indicate to a person standing beside the vehicle that the device is not engaged; and
 - (iv) is fitted with a means of preventing loss of air from the air brake supply, if the device uses air from the brake system and fails in a way that allows air to escape; and
 - (v) is held in the applied position by direct mechanical action without the intervention of any hydraulic, electric or pneumatic device; and
 - (b) be built so that the adjustable parts of the vehicle remain connected if the securing device fails.

4.2 Relation between axles in an axle group

The axles in an axle group, other than a twinsteer axle group, fitted to a vehicle must relate to each other through a load-sharing suspension system.

Division 2—Dimensions

4.4 Width

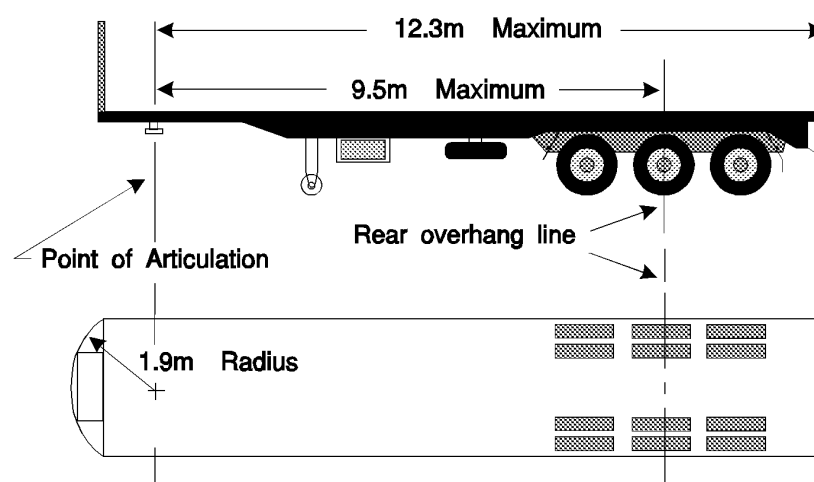
- (1) A vehicle must not be more than 2.5 metres wide.
- (2) For the purposes of subclause (1), the width of a vehicle is measured without taking into account rear-vision mirrors, lights or reflectors that:
 - (a) are mounted on either side of the vehicle; and
 - (b) comply with these Standards.

4.5 Length of single motor vehicles

- (1) A motor vehicle, other than an articulated bus or a controlled access bus, must not be more than 12.5 metres long.
- (2) A controlled access bus must not be more than 14.5 metres long.
- (3) An articulated bus must not be more than 18 metres long.

4.6 Length of single trailers

- (1) On a semi-trailer or a dog trailer:
 - (a) the distance between the point of articulation at the front of the trailer and the rear overhang line must not be more than 9.5 metres; and
 - (b) the distance between the point of articulation at the front of the trailer and the rear of the trailer must not be more than 12.3 metres.
- (2) A projection forward of the point of articulation at the front of a semi-trailer must be contained within a radius of 1.9 metres from the point of articulation.



Maximum dimensions of a semi-trailer

- (3) If a semi-trailer has more than one point of articulation at the front, it must meet the requirements of subclauses (1) and (2) when measured at one of the points.
- (4) In addition to meeting the other requirements of this clause, a trailer built to carry cattle, sheep, pigs or horses must not have more than 12.5 metres of its length available for the carriage of animals.
- (5) For subclause (4), the length available for the carriage of animals on a trailer is to be measured from the inside of the front wall or door of the trailer to the inside of the rear wall or door of the trailer, with any intervening partitions being disregarded.

4.7 Length of combinations of vehicles

- (1) A combination of vehicles must not be more than 19 metres long.
- (2) In spite of subclause (1):
 - (a) a B-double must not be more than 25 metres long; and
 - (b) a road train must not be more than 53.5 metres long; and
 - (c) a combination of vehicles designed to carry vehicles on more than 1 deck, other than a B-double or road train, must not be more than 23 metres long.
- (3) In a B-double built to carry cattle, sheep, pigs or horses, the 2 semi-trailers must not have more than 18.8 metres of their combined length available for the carriage of animals.
- (4) For subclause (3), the length available for the carriage of animals on a semi-trailer is to be measured from the inside of the front wall or door of the trailer to the inside of the rear wall or door of the trailer, with any intervening partitions being disregarded.

4.8 Rear overhang

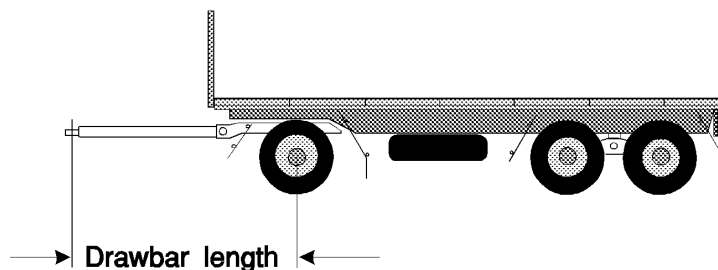
- (1) The rear overhang of a semi-trailer, or a dog trailer consisting of a semi-trailer and converter dolly, must not exceed the lesser of:
 - (a) 60% of the distance between the point of articulation at the front and the rear overhang line; and
 - (b) 3.7 metres.
- (2) A semi-trailer with more than one point of articulation at the front must comply with subclause (1) when measured at the same point used for measurement of compliance with subclause 4.6(3).
- (3) The rear overhang of a trailer with only one axle group or single axle, other than a semi-trailer, must not exceed the lesser of:
 - (a) the length of the load carrying area, or body, ahead of the rear overhang line; and
 - (b) 3.7 metres.

Clause 4.9

- (4) The rear overhang of a vehicle not described in subclause (1) or (3) must not exceed the lesser of:
- (a) 60% of the distance between the centre of the front axle and the rear overhang line; and
 - (b) 3.7 metres.

4.9 Trailer drawbar length

- (1) The distance between the coupling pivot point on the drawbar of a dog trailer and the centre-line of the front axle group or the centre line of the front single axle of the trailer must:
- (a) not exceed 5 metres; and
 - (b) not be less than 3 metres, if the trailer is used in a road train more than 19 metres long.



Length of a drawbar on a dog trailer

- (2) The distance between the coupling pivot point on a drawbar and the centre-line of the axle group or single axle on a trailer with only one axle group or single axle, other than a semi-trailer, must not exceed 8.5 metres.

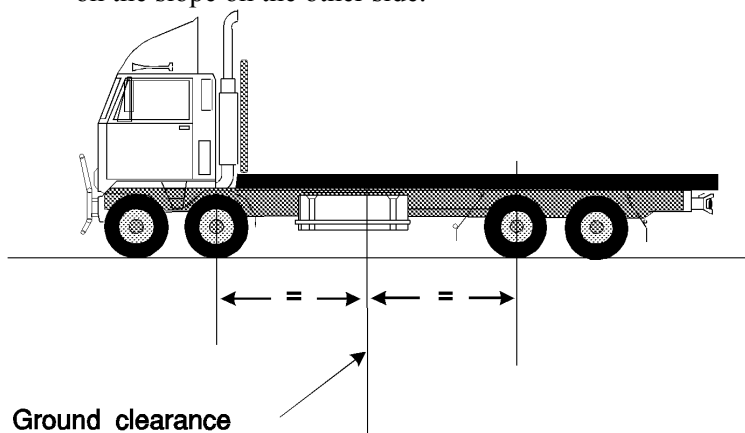
4.10 Height

- (1) A vehicle must not be more than 4.3 metres high.
- (2) In spite of subclause (1):
- (a) the height of a vehicle built to carry cattle, sheep, pigs or horses must not exceed 4.6 metres; and
 - (b) the height of a double-deck bus must not exceed 4.4 metres.

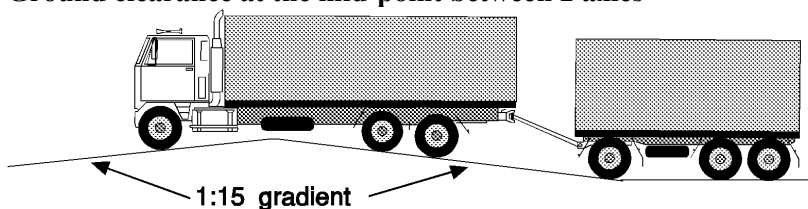
4.11 Ground clearance

- A motor vehicle or combination of vehicles must have a ground clearance:
- (a) of at least 100 millimetres at any point within 1 metre of an axle; and
 - (b) of at least one-thirtieth of the distance between the centres of adjacent axles at the mid-point between them; and
 - (c) at any other point—of at least the distance that allows the vehicle or combination to pass over a peak in the road, the gradient on either side of which is 1:15, when the wheels of one axle of the vehicle or combination

are on the slope on one side of the peak and the wheels of the next axle are on the slope on the other side.



Ground clearance at the mid-point between 2 axles



Ground clearance over a peak in the road

Division 3—Additional requirements for a converter dolly

4.12 Axle arrangement on a converter dolly

A converter dolly must have a single axle group, a tandem axle group or a single axle.

4.13 Construction of a converter dolly

A converter dolly must be built so that the torque reaction generated in the dolly by braking forces can be:

- (a) transmitted through a towing coupling built for the purpose into a towing vehicle; or
- (b) absorbed or dissipated by a limited travel suspension system fitted to a tandem axle group on the dolly.

4.14 Converter dolly coupling

- (1) The fifth wheel coupling of a converter dolly must be able to pivot about a horizontal axis transverse to the vehicle.
- (2) A converter dolly referred to in paragraph 4.13(1)(a) must have a fixed drawbar.
- (3) The drawbar of a converter dolly referred to in paragraph 4.13(1)(b) must be hinged to the front of the dolly chassis in a way that allows the drawbar to swing up and down.

4.15 Converter dolly suspension

- (1) A tandem axle group supporting a converter dolly referred to in paragraph 4.13(1)(a) must have a single point or air bag suspension system.
- (2) A tandem axle group supporting a converter dolly referred to in paragraph 4.13(1)(b) must have a suspension system incorporating:
 - (a) at least 4 laminated springs; or
 - (b) leading and trailing arms; or
 - (c) torsion bars; or
 - (d) air bags.

Part 5—Lights and reflectors

Note: This Part deals with how the lights on a vehicle are fitted and work so that the driver can see the road, pedestrians and other vehicles at night, and can signal to others. Unless these Standards prohibit the fitting of a particular kind of light or reflector, it may be fitted to a vehicle.

Regulations dealing with road traffic state when certain lights must be switched on. The visibility requirements for lights in this Part apply to lights switched on at times when road traffic regulations require them to be switched on. The requirements in this Part for a light, other than a brake light or direction indicator light, to be visible over a specified distance apply only at night.

In this Part, the description **yellow** is used instead of the description **amber** that is used in many older pieces of legislation and some ADRs.

The following terms defined in clause 10.6 are used in this Part:

ADR	high-beam
driver	low-beam
emergency vehicle	pole-type trailer
GTM	prime mover
GVM	semi-trailer

The following terms defined in section 4 of the Act are used in this Part:

motor vehicle	trailer
road	

Division 1—General requirements for lights

5.1 Prevention of glare

A light, other than a high-beam headlight, fitted to a vehicle must be built and adjusted to provide the necessary amount of light, without dazzling the driver or rider of another vehicle approaching or being approached by the vehicle.

5.2 Pairs of lights

- (1) If a pair of lights is fitted to a vehicle:
 - (a) one light must be fitted towards each side of the vehicle; and
 - (b) the centre of each light of the pair must be the same distance from the longitudinal axis of the vehicle; and
 - (c) the centre of each light of the pair must be at the same height above ground level; and
 - (d) each light of the pair must project approximately the same amount of light of the same colour.
- (2) Subclause (1) does not apply to number plate lights referred to in Division 6 or to pairs of side marker lights fitted under Division 8 or interior lights referred to in Division 13.

Division 2—Headlights

5.3 Headlights to be fitted to a vehicle

- (1) A motor vehicle must have a pair of low-beam headlights fitted to it.
- (2) If a motor vehicle is capable of travelling at a speed of more than 60 kilometres an hour:
 - (a) each low-beam headlight referred to in subclause (1) must also be able to work in the high-beam position; or
 - (b) a pair of headlights that can work in the high-beam position must also be fitted to the vehicle.
- (3) A motor vehicle may also have additional pairs of headlights fitted to it.

5.4 How should headlights be fitted?

- (1) The low-beam headlights fitted to a vehicle must have their centres at least 600 millimetres apart.
- (2) The centre of a low-beam headlight must be:
 - (a) not more than 1.4 metres above ground level; and
 - (b) at least 500 millimetres above ground level.
- (3) Headlights must be fitted to a vehicle so that their light does not reflect off the vehicle into the driver's eyes.

5.5 Performance of headlights

When switched on, a headlight or additional headlight fitted to a vehicle must:

- (a) show only white light; and
- (b) project its main beam of light ahead of the vehicle; and
- (c) illuminate the road ahead of the vehicle.

5.6 Effective range of headlights

- (1) A low-beam headlight must be effective at a distance of at least 25 metres.
- (2) A high-beam headlight must be effective at a distance of at least 50 metres.

5.7 Changing headlights from high-beam to low-beam position

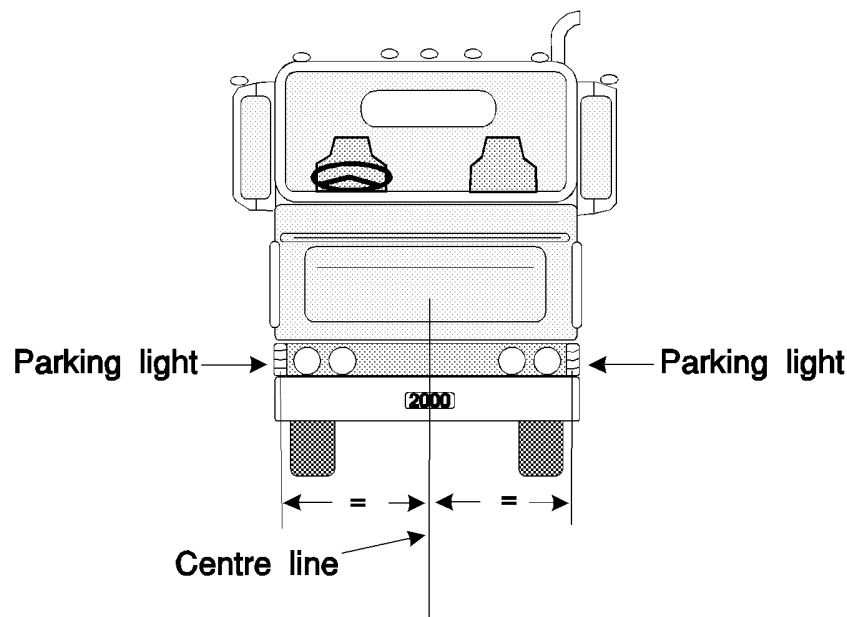
- (1) A motor vehicle capable of a speed of more than 60 kilometres an hour must be fitted with:
 - (a) a dipping device enabling the driver in the normal driving position:
 - (i) to change the headlights from the high-beam position to the low-beam position; or

- (ii) simultaneously to switch off a high-beam headlight and switch on a low-beam headlight; and
 - (b) a device to indicate to the driver that the headlights are in the high-beam position.
- (2) A headlight fitted to a vehicle not fitted with a dipping device described in paragraph (1)(a) must be in the low-beam position.
- (3) A headlight fitted to a vehicle:
 - (a) must be able to be, or remain, switched on only in the low-beam position, when another headlight fitted to the vehicle is switched to the low-beam position; and
 - (b) if the headlight cannot be switched to the low-beam position-must not be closer to the side of the vehicle than a headlight that can be in the low-beam position.

Division 3—Parking lights

5.8 Parking lights

- (1) A pair of parking lights must be fitted to the front of a motor vehicle.
- (2) A pair of parking lights must be fitted with the centre of each light:
 - (a) at least 600 millimetres from the centre of the other light; and
 - (b) within 510 millimetres of the nearer side of the vehicle.



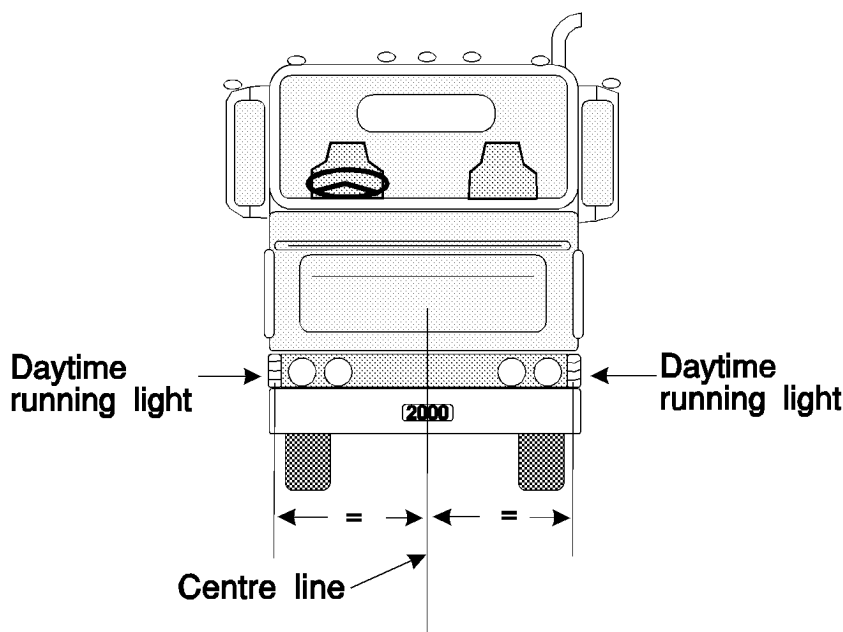
Location of parking lights on a vehicle

- (3) When switched on, a parking light must:
 - (a) show a white light visible 200 metres from the front of the vehicle; and
 - (b) not use more power than 7 watts.
- (4) Parking lights fitted to a motor vehicle manufactured on or after 1 January 1970 must be wired so that, when a headlight on the vehicle is switched on, the parking lights:
 - (a) stay switched on if they are already switched on; or
 - (b) come on if they are not already switched on.

Division 4—Daytime running lights

5.9 Daytime running lights

- (1) A pair of daytime running lights may be fitted to a motor vehicle.
- (2) A pair of daytime running lights must be fitted with the centre of each light:
 - (a) at least 600 millimetres from the centre of the other light; and
 - (b) within 510 millimetres of the nearer side of the vehicle.



Location of daytime running lights on a vehicle

- (3) When switched on, a daytime running light must:
 - (a) show a white light visible from the front of the vehicle; and
 - (b) not use more power than 25 watts.
- (4) Daytime running lights must be wired so that they go off when a headlight or parking light is switched on.

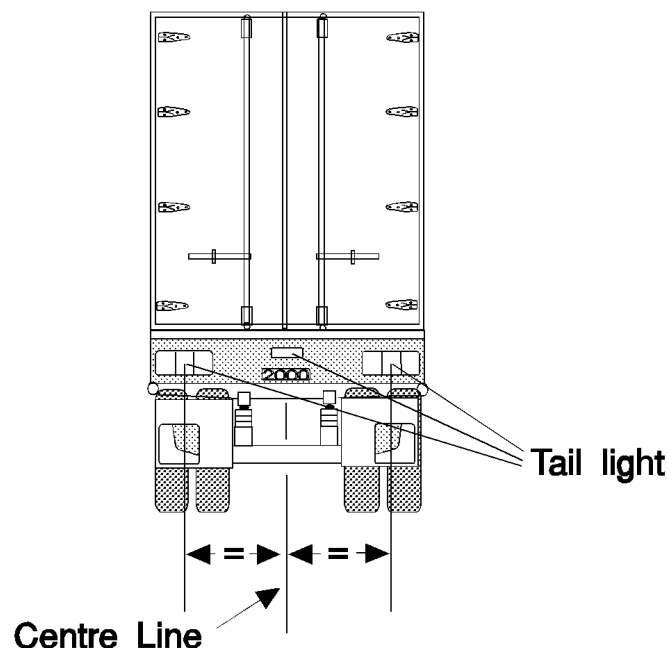
Division 5—Tail lights

5.10 Tail lights

- (1) A vehicle must have fitted towards each side of its rear at least one tail light, with its centre not more than 1.5 metres above ground level.
- (2) A vehicle may have fitted to it one or more additional tail lights at any height above ground level.

5.11 Pattern of fitting tail lights

- (1) If an even number of tail lights are fitted to a vehicle, they must be fitted symmetrically on each side of the longitudinal axis of the vehicle.
- (2) If an odd number of tail lights are fitted to a vehicle:
 - (a) one light must:
 - (i) be fitted in the centre of the rear of the vehicle; or
 - (ii) be placed so as also to illuminate the number plate of the vehicle with white light; and
 - (b) an even number of lights must be fitted symmetrically on each side of the longitudinal axis of the vehicle.



Location of tail lights on a vehicle

- (3) Tail lights fitted in accordance with this Division may also serve as rear clearance lights if they are fitted to a vehicle in accordance with subclause 5.17(3).

5.12 Performance of tail lights

When switched on, a tail light must:

- (a) show a red light visible 200 metres from the rear of the vehicle; and
- (b) not use more power than 7 watts.

5.13 Wiring of tail lights

A tail light must be wired to come on and stay on when a parking light or headlight on the vehicle is switched on.

Division 6—Number-plate lights

5.14 Number-plate lights

- (1) At least one number-plate light must be fitted to the rear of a vehicle.
- (2) When switched on, the number-plate light or lights must illuminate a number plate on the rear of the vehicle with white light, so that the characters on the number plate can be easily read at night 20 metres from the rear of the vehicle.
- (3) A number-plate light:
 - (a) may be combined with a tail light; and
 - (b) must not project white light to the rear of the vehicle except by reflection; and
 - (c) must not obscure the characters on the number plate; and
 - (d) must be wired to come on and stay on when a parking light or headlight on the vehicle is switched on.

Division 7—Clearance lights

5.15 Front clearance lights

- (1) A pair of front clearance lights must be fitted to a motor vehicle that is at least 2.2 metres wide, or a prime mover.
- (2) Front clearance lights may only be fitted to a vehicle that is at least 1.8 metres wide.
- (3) The centre of a front clearance light must be:
 - (a) no more than 400 millimetres from a side of the vehicle; and
 - (b) at least 750 millimetres higher than the centre of any low beam headlight fitted to the vehicle.
- (4) A front clearance light may be mounted on an external rear-vision mirror or a mirror support if, when the mirror is correctly adjusted, no part of the lens of the light is visible to a person in the normal driving position.
- (5) When switched on, a front clearance light must:
 - (a) show a yellow or white light visible 200 metres from the front of the vehicle; and
 - (b) not use more power than 7 watts.

5.16 External cabin lights

- (1) A motor vehicle with front clearance lights may also have additional forward-facing lights fitted to, or above, the roof of its cabin.
- (2) The additional forward-facing lights must be symmetrically spaced on each side of the longitudinal axis of the vehicle, with their centres at least 120 millimetres apart.
- (3) When switched on, an additional forward-facing light must:
 - (a) show a yellow or white light; and
 - (b) not use more power than 7 watts.

5.17 Rear clearance lights

- (1) A pair of rear clearance lights must be fitted to the rear of a vehicle that is at least 2.2 metres wide.
- (2) Rear clearance lights may only be fitted to a vehicle that is at least 1.8 metres wide.
- (3) The centre of a rear clearance light must be:
 - (a) not more than 400 millimetres from a side of the vehicle; and
 - (b) at least 600 millimetres above ground level, if practicable.

Schedule 1 Text of the Road Transport Reform (Heavy Vehicle Standards) Regulations

Schedule Heavy vehicle standards

Part 5 Lights and reflectors

Clause 5.17

- (4) When switched on, a rear clearance light must:
- (a) show a red light visible 200 metres from the rear of the vehicle; and
 - (b) not use more power than 7 watts.

Division 8—Side marker lights

5.18 Which vehicles need side marker lights?

- (1) A pair of side marker lights must be fitted towards the rear of the sides of a motor vehicle that is more than 7.5 metres long and at least 2.2 metres wide.
- (2) A motor vehicle built to draw a pole-type trailer, or a pole-type trailer, with one cross-bar or bolster must have a side marker light fitted to each side of the cross-bar or bolster.
- (3) A pole-type trailer with at least 2 cross-bars or bolsters must have fitted to each side of:
 - (a) the front cross-bar or bolster a light which, when switched on, shows a yellow light to the front; and
 - (b) the back cross-bar or bolster a light which, when switched on, shows a red light to the rear.
- (4) At least 2 side marker lights must be fitted towards each side of:
 - (a) a trailer that is:
 - (i) up to 7.5 metres long; and
 - (ii) at least 2.2 metres wide; and
 - (iii) not a pole-type trailer; or
 - (b) a semi-trailer that is up to 7.5 metres long.
- (5) At least 3 side marker lights must be fitted towards each side of:
 - (a) a trailer that is:
 - (i) more than 7.5 metres long; and
 - (ii) at least 2.2 metres wide; and
 - (iii) not a pole-type trailer; or
 - (b) a semi-trailer that is more than 7.5 metres long.

5.19 Location of side marker lights

- (1) The centre of a side marker light must not be more than 150 millimetres from the nearer side of the vehicle.
- (2) The centre of a front side marker light:
 - (a) fitted to a motor vehicle must be towards the front of the vehicle with no part of the lens visible to the driver; or
 - (b) fitted to a trailer must be:
 - (i) within 300 millimetres of the foremost point of the side of the trailer; or
 - (ii) if the construction of the trailer makes it impracticable to comply with subparagraph (i)—as close as practicable to the front of the trailer.

Clause 5.20

- (3) The centre of a rear side marker light fitted to a vehicle must be:
 - (a) within 300 millimetres of the rearmost point of the side of the vehicle; or
 - (b) if the construction of the vehicle makes it impracticable to comply with paragraph (a)—as close as practicable to the rear of the vehicle.
- (4) The centres of adjacent side marker lights fitted to the side of a vehicle must be an equal distance apart.
- (5) Subclauses (2) to (4) (inclusive) do not apply to side marker lights fitted to a cross-bar or bolster of:
 - (a) a pole-type trailer; or
 - (b) a motor vehicle built to tow a pole-type trailer.
- (6) Only the rearmost side marker lights need be fitted if compliance with subparagraph (2)(b)(ii) and paragraph (3)(b) would mean that the front and rear side marker lights would be less than 2.5 metres apart.
- (7) A side marker light must be fitted to a vehicle so that:
 - (a) its centre is not more than:
 - (i) 1.5 metres above ground level; or
 - (ii) if it is not practicable to fit it lower—2.1 metres above ground level; and
 - (b) its centre is at least 600 millimetres above ground level; and
 - (c) it is, as far as practicable, in a row of side marker lights along the side of a vehicle.
- (8) A vehicle fitted with side marker lights in accordance with subclause (7) may have fitted to it additional side marker lights with centres at any height at least 600 millimetres above ground level.

5.20 Performance of side marker lights

- (1) When switched on, a side marker light must:
 - (a) show light visible for 200 metres from the vehicle; and
 - (b) not use more power than 7 watts.
- (2) When switched on, a side marker light, other than a light referred to in subclause 5.18(3), must show yellow light towards the front of the vehicle and red light towards the rear of the vehicle.

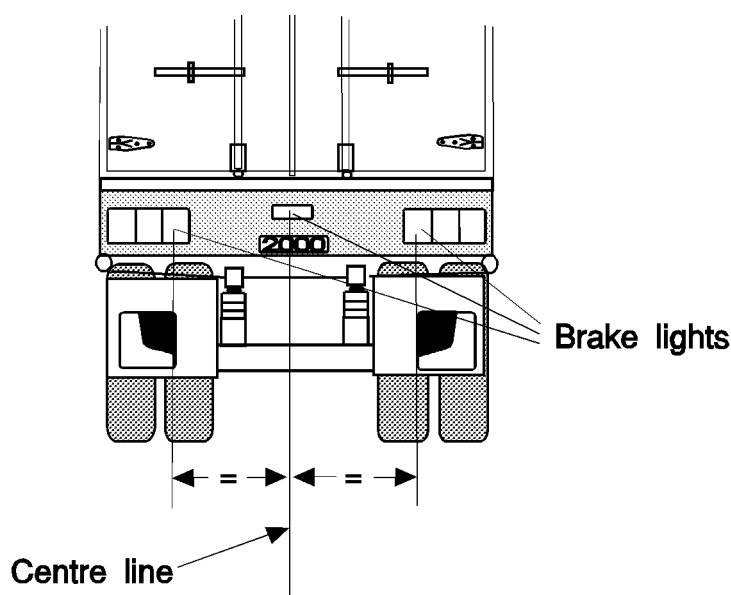
5.21 Side marker lights and rear clearance lights

The rearmost side marker light of a vehicle may also be a rear clearance light for the purposes of clause 5.17.

Division 9—Brake lights

5.22 Fitting brake lights

- (1) A pair of brake lights must be fitted to the rear of a vehicle.
- (2) The centre of a brake light must be:
 - (a) not more than:
 - (i) 1.5 metres above ground level; or
 - (ii) if it is not practicable to fit the light lower—2.1 metres above ground level; and
 - (b) at least 350 millimetres above ground level.
- (3) A vehicle fitted with brake lights in accordance with subclauses (1) and (2) may have fitted to it one or more additional brake lights, with their centres at any height but at least 350 millimetres above ground level.
- (4) If an even number of brake lights is fitted to a vehicle, the lights must be fitted symmetrically on each side of the longitudinal axis of the vehicle.
- (5) If an odd number of brake lights is fitted to a vehicle, one must be fitted on the vertical centre line of the rear of the vehicle and the others must be fitted symmetrically on each side of the longitudinal axis of the vehicle.



Location of brake lights on a vehicle

5.23 Performance and operation of brake lights

- (1) When switched on, a brake light must show a red light visible 30 metres from the rear of the vehicle at any time.
- (2) A brake light fitted to a motor vehicle must come on when the brake that is normally used to stop the vehicle is applied.
- (3) Subclause (2) does not apply if the controls in the vehicle are in a position that makes it impossible for the engine to operate.
- (4) A brake light on a trailer must come on when:
 - (a) the brake light of the towing vehicle comes on in accordance with subclause (2); and
 - (b) a brake control on the towing vehicle, which independently activates the service brake on the trailer, is operated.
- (5) A brake light may be operated by an engine brake, retarder or similar device.
- (6) An engine brake, retarder or similar device operating a brake light must not:
 - (a) interfere with the operation of the brake light as required by subclause (2) or (4); or
 - (b) cause the brake light to remain on if a malfunction of the device occurs.

Division 10—Reversing lights

5.24 Reversing lights

- (1) One or more reversing lights may be fitted to the rear of a vehicle.
- (2) A reversing light must:
 - (a) when switched on, show white or yellow light to the rear of the vehicle;
and
 - (b) have its centre not more than 1.2 metres above ground level.
- (3) A reversing light fitted to a motor vehicle must be wired so that it can be switched on only when the vehicle is reversing or is in reverse gear.
- (4) A reversing light fitted to a trailer must be wired so that it can be switched on only when a motor vehicle towing the trailer is reversing or is in reverse gear.

Division 11—Direction indicator lights

5.25 Direction indicator lights on a motor vehicle

A motor vehicle must have:

- (a) a pair of direction indicator lights fitted on or towards its front, facing forward; and
- (b) a pair of direction indicator lights fitted on or towards its rear, facing backwards.

5.26 Direction indicator lights on a trailer

A pair of direction indicator lights must be fitted on or towards the rear of a trailer, facing backwards.

5.27 Location of direction indicator lights

- (1) A pair of direction indicator lights must be fitted so that the centre of each light is:
 - (a) at least 600 millimetres from the centre of the other light; and
 - (b) at least 350 millimetres above ground level; and
 - (c) not more than:
 - (i) 1.5 metres above ground level; or
 - (ii) if it is not practicable for the light to be fitted lower—2.1 metres above ground level.
- (2) A vehicle fitted with direction indicator lights in accordance with paragraph (1)(c) may be fitted with additional pairs of direction indicator lights with centres at any height at least 350 millimetres above ground level.

5.28 Operation and visibility of direction indicator lights

- (1) A direction indicator light must:
 - (a) when operating, display regular flashes of light at a rate of not less than 60, and not more than 120, flashes a minute; and
 - (b) be controlled by a switch that can be operated by a person in the driving position of the vehicle; and
 - (c) be wired to an audible or visible telltale in the vehicle that shows the driver of the vehicle that the light is operating; and
 - (d) be on and off at the same time as any other light of the same type fitted on the same side of the vehicle.
- (2) The flashes of light referred to in paragraph (1)(a) must:
 - (a) if the light shows to the front of the vehicle—be white or yellow; or
 - (b) if the light shows to the rear of the vehicle, be:
 - (i) yellow; or

- (ii) if the vehicle was manufactured before 1 January 1960—yellow or red; or
 - (c) if the light shows to the side of the vehicle—be yellow.
- (3) If a vehicle's direction indicator lights show only yellow light, the vehicle may be equipped to allow the lights to operate simultaneously on both sides of the vehicle, if a visible or audible signal informs the driver of the simultaneous operation.
- (4) When operating, a direction indicator light must be visible at any time 30 metres from:
 - (a) if the light is facing forward-the front of the vehicle; or
 - (b) if the light is facing backward-the rear of the vehicle; or
 - (c) if the light is facing outwards from the side of the vehicle—that side of the vehicle.
- (5) When operating, each direction indicator light of one pair of lights fitted on or towards the front of a motor vehicle that is more than 7.5 metres long or a prime mover must be visible at any time at a point:
 - (a) 1.5 metres at right angles away from the side of the vehicle on which the light is fitted; and
 - (b) in line with the rear of the vehicle.

Division 12—Fog lights

5.29 Front fog lights

- (1) A pair of front fog lights may be fitted to a motor vehicle to project light in front of the vehicle.
- (2) If the lights are further than 400 millimetres from their respective sides of the vehicle, their centres must be at least 600 millimetres apart.
- (3) If the top of the fog light is higher than the top of any low-beam headlight on the vehicle, the centre of the fog light must not be higher than the centre of the low-beam headlight.
- (4) A front fog light must:
 - (a) show white or yellow light; and
 - (b) be a low-beam light; and
 - (c) be capable of being switched on and off independently of any headlight; and
 - (d) be fitted so that the light from it does not reflect off the vehicle into the driver's eyes.

5.30 Rear fog lights

- (1) A vehicle may have fitted to its rear:
 - (a) a pair of rear fog lights; or
 - (b) one rear fog light fitted on, or to the right, of the centre of the vehicle.
- (2) A rear fog light must:
 - (a) have its centre:
 - (i) not more than 1.5 metres above ground level; and
 - (ii) at least 100 millimetres from the centre of a brake light; and
 - (b) project light behind the vehicle; and
 - (c) show a red light; and
 - (d) not use more power than 27 watts; and
 - (e) have incorporated in its wiring an independent telltale located in the driver's view showing when the light is switched on.

Division 13—Interior lights

5.31 Interior lights

- (1) A vehicle may be fitted with interior lights that illuminate any interior part of the vehicle.
- (2) An interior light must show only light necessary for its purpose.

Division 14—Reflectors generally

5.32 General requirements for reflectors

- (1) A reflector fitted to a vehicle must show a red, yellow or white reflection of light when light is projected directly onto the reflector at night by a low-beam headlight that:
 - (a) is 45 metres from the reflector; and
 - (b) complies with these Standards.
- (2) The reflection must be clearly visible from the position of the headlight.

Division 15—Reflectors at the back of a vehicle

5.33 Rear reflectors

- (1) A vehicle, other than a pole-type trailer, must have towards each side of its rear a rear-facing red reflector.
- (2) A pole-type trailer must have at least 4 rear-facing red reflectors on its back cross-bar or bolster.
- (3) The centre of each reflector must be:
 - (a) at the same height above ground level; and
 - (b) not more than 1.5 metres above ground level.
- (4) At least one point on a reflector must be no more than 400 millimetres from the nearest side of the vehicle.
- (5) A vehicle fitted with rear-facing red reflectors in accordance with subclause (1) or (2) may be fitted with additional red reflectors at any height above ground level or any distance from the side of the vehicle.

Division 16—Reflectors on the side of a vehicle

5.34 Compulsory side reflectors on pole-type trailers

- (1) Yellow or red side-facing reflectors must be fitted along the length of the left and right faces of the pole of a pole-type trailer at intervals of not more than 1.25 metres.
- (2) Additional side-facing reflectors may be fitted in accordance with clause 5.35 to a pole-type trailer.

5.35 Optional side-facing reflectors

- (1) A vehicle may be fitted with side-facing reflectors.
- (2) A side-facing reflector:
 - (a) towards the front of the vehicle must be yellow or white; and
 - (b) towards the rear of the vehicle must be yellow or red; and
 - (c) on the central part of the vehicle must be yellow.

Division 17—Front reflectors

5.36 Compulsory front reflectors on trailers

- (1) A front-facing white or yellow reflector must be fitted towards each side of the front of:
 - (a) a semi-trailer, other than a pole-type trailer; and
 - (b) the front cross-bar or bolster of a pole-type trailer; and
 - (c) a trailer that is at least 2.2 metres wide.
- (2) The centre of each reflector must be:
 - (a) at the same height above ground level; and
 - (b) not more than 1.5 metres above ground level; and
 - (c) not more than 400 millimetres from the nearer side of the vehicle.
- (3) Additional reflectors may be fitted in accordance with clause 5.37 to a trailer referred to in subclause (1).

5.37 Optional front reflectors

- (1) A vehicle may have one or more front-facing white or yellow reflectors fitted towards each side of its front.
- (2) The centres of the reflectors must be:
 - (a) at the same height above ground level; and
 - (b) equidistant from the longitudinal axis of the vehicle; and
 - (c) at least 600 millimetres apart.

Division 18—Other lights, rear marking plates or reflectors

5.38 Additional lights and reflectors

- (1) A vehicle may display a light or reflector of a type that is not described in these Standards.

Note: The ADRs allow particular types of vehicles to be fitted with a range of lights and reflectors, additional to those described in this Part (e.g. flashing yellow lights on tow trucks). Under clause 1.4 of these Standards, those lights and reflectors may also be fitted to vehicles to which third edition ADRs do not apply.

- (2) Subclause (1) does not allow the display on a vehicle of:
- (a) a light that flashes; or
 - (b) a light or reflector that:
 - (i) shows red light to the front; or
 - (ii) shows white light to the rear; or
 - (iii) is similar in size, colour and intensity to a traffic light; or
 - (iv) is shaped or located in a way that reduces the effectiveness of a light or reflector that is specified by these Standards.
- (3) Subclause (2) does not apply to:
- (a) a police vehicle; or
 - (b) an emergency vehicle; or
 - (c) an Australian Protective Service vehicle; or
 - (d) an Australian Customs Service vehicle; or
 - (e) an Airservices Australia vehicle.
- (4) Also, a vehicle to which this subclause applies may display 1 or more lights that flash and show yellow light.
- (5) Subclause (4) applies to:
- (a) a vehicle built or fitted for use in hazardous positions on a road; and
 - (b) a vehicle, or combination of vehicles, whose dimensions exceed the limits fixed under the Road Transport Reform (Oversize and Overmass Vehicles) Regulations and that is required to operate in accordance with a notice or permit issued under those Regulations; and
 - (c) a vehicle built or fitted to accompany a vehicle, or combination of vehicles, mentioned in paragraph (b); and
 - (d) a bus fitted with a sign indicating to other road users that the bus carries children.

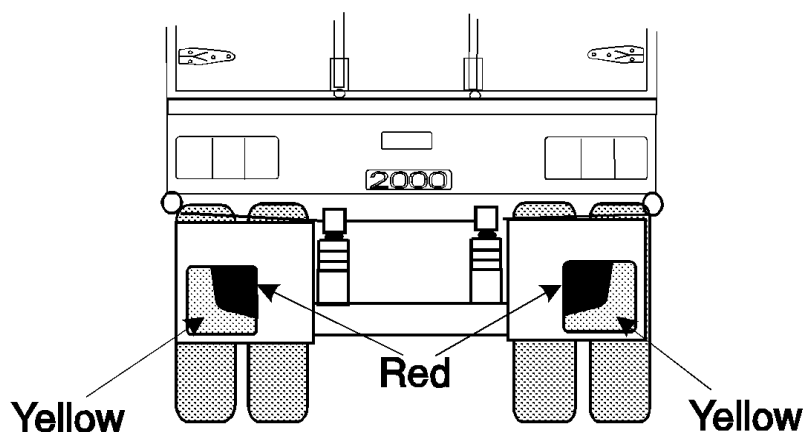
Note: Examples of vehicles to which paragraph (5)(a) refers are tow trucks and motor breakdown service vehicles.

5.39 Rear marking plates

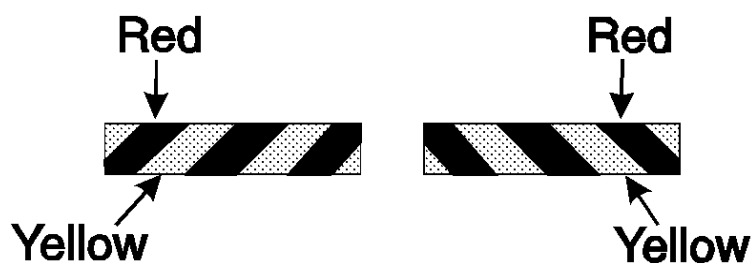
- (1) Rear marking plates must be fitted to:
-

- (a) a motor vehicle, other than a bus with specific provision for standing passengers, that has a GVM of more than 12 tonnes; or
- (b) a trailer that has a GTM of more than 10 tonnes;
- in accordance with clause 13.6.101 of third edition ADR 13/00.
- (2) Subclause (1) applies to a vehicle even though it was manufactured before the date specified in the ADR.

Note: Rear marking plates may be fitted to any motor vehicle that does not exceed 12 tonnes GVM or to any trailer that does not exceed 10 tonnes GVM.



An example of rear marking plates



An alternative pattern for rear marking plates

Part 6—Braking systems

Note: This Part sets out the braking system requirements for vehicles to ensure that they can be reliably slowed even if a part of a braking system fails, and to ensure that a vehicle can be prevented from rolling away when parked. The Part also includes special requirements for braking systems on B-doubles and road trains to ensure that the braking systems on the component vehicles are compatible. The special requirements do not apply to a road train that has a length of 19 metres or less.

The following terms defined in clause 10.6 are used in this Part:

ADR	emergency brake
air brake	prime mover
Australian Standard	road train
axle	semi-trailer
axle group	service brake
B-double	single axle group
braking system	spring brake
combination of vehicles	tandem axle group
converter dolly	tri-axle group
driver	vacuum brakes

The following terms defined in section 4 of the Act are used in this Part:

motor vehicle	trailer
road	

Division 1—Brake requirements for all vehicles

6.1 Parts of a braking system

- (1) Each component of the braking system of a vehicle must comply with the design and performance requirements of one relevant standard issued by one of the following bodies before these Regulations commenced:
 - (a) the Council of the Standards Association of Australia;
 - (b) the British Standards Institution;
 - (c) the American Society of Automotive Engineers;
 - (d) the American National Standards Institute;
 - (e) the Japanese Standards Association;
 - (f) the German Deutsches Institut für Normung;
 - (g) the International Organisation for Standardisation.
- (2) A brake tube or hose fitted to a vehicle must:
 - (a) be manufactured from a material appropriate to its intended use in the vehicle; and
 - (b) be of adequate length to allow for the full range of steering and suspension movement of the vehicle to which it is attached; and
 - (c) be fitted so as to prevent it being damaged by:
 - (i) a source of heat from the normal operation of the vehicle; or
 - (ii) any movement of the parts to which it is attached during the normal operation of the vehicle.

6.2 Provision for wear

The braking system of a vehicle must provide for adjustment to take account of normal wear.

6.3 Supply of air or vacuum to brakes

- (1) If air brakes are fitted to a vehicle:
 - (a) the compressor that supplies the air to the brakes must be capable of building up air pressure to at least 80% of the governor cut-out pressure in not more than 5 minutes from a time when the compressed air reserve is fully depleted; and
 - (b) the air storage tanks must have sufficient capacity to enable 5 applications of the service brakes before the air pressure drops below half the governor cut-out pressure; and
 - (c) there must be an automatic or manual condensate drain valve at the lowest point of each air brake reservoir in the system; and
 - (d) any spring brake fitted to the vehicle must not operate before the warning referred to in paragraph 6.7(3)(b) or 6.10(3)(a) has been given.
- (2) If vacuum brakes are fitted to a vehicle, the vacuum supply must be capable of building up vacuum:
 - (a) within 30 seconds to the level at which the warning signal referred to in paragraph 6.7(3)(b) or 6.10(3)(a) no longer operates; and
 - (b) within 60 seconds to the normal working level;
from a time when the vacuum reserve is fully depleted.

6.4 Performance of braking systems

- (1) One sustained application of the brake must be able to produce the performance specified in subclause (2), (3) or (4):
 - (a) when the motor vehicle or combination of vehicles is on a dry, smooth, level road surface, free from loose material; and
 - (b) without part of the vehicle or combination of vehicles moving outside a straight path:
 - (i) 3.7 metres wide; and
 - (ii) centred on the longitudinal axis of the vehicle or combination before the brake was applied.
- (2) The braking system of a motor vehicle or combination of vehicles must bring the vehicle or combination from a speed of 35 kilometres an hour to a stop within:
 - (a) 16.5 metres when the service brake is applied; or
 - (b) 40.5 metres when the emergency brake is applied.
- (3) The braking system of a motor vehicle or combination of vehicles must decelerate the vehicle or combination, from any speed at which the vehicle can travel, by an average of at least:

Clause 6.4

- (a) 2.8 metres a second a second when the service brake is applied; or
 - (b) 1.1 metres a second a second when the emergency brake is applied.
- (4) The braking system of a motor vehicle or combination of vehicles must achieve a minimum peak deceleration of the vehicle or combination, from any speed at which the vehicle can travel, of:
 - (a) 4.4 metres a second a second when the service brake is applied; or
 - (b) 1.5 metres a second a second when the emergency brake is applied.
- (5) The parking brake of a vehicle or combination must be capable of holding the vehicle or combination stationary on a 12% upgrade or downgrade.

Division 2—Motor vehicle braking systems

6.5 What braking system must a motor vehicle have?

- (1) A motor vehicle must be fitted with a braking system that:
 - (a) comprises brakes fitted to all wheels of the vehicle; and
 - (b) has at least 2 separate methods of activation, arranged so that effective braking remains on at least 2 wheels if one method fails.
- (2) The braking system must have a service brake operating on all wheels that, when applied:
 - (a) acts directly on the wheels and not through the vehicle's transmission; or
 - (b) acts on a shaft between a differential of a vehicle and a wheel.
- (3) The braking system must have a parking brake that:
 - (a) is held in the applied position by direct mechanical action without the intervention of any hydraulic, electrical or pneumatic device; and
 - (b) is fitted with a locking device capable of holding the brake in the applied position; and
 - (c) has its own separate control.
- (4) The braking system must have an emergency brake.
- (5) The parking brake may also be the emergency brake.

6.6 Operation of brakes on motor vehicles

The braking system on a motor vehicle must be arranged to allow the driver of the motor vehicle to apply the brakes from a normal driving position.

6.7 Air or vacuum brakes on motor vehicles

- (1) If a motor vehicle has air brakes, its braking system must include at least one air storage tank.
- (2) If a motor vehicle has vacuum brakes, its braking system must include at least one vacuum tank.
- (3) An air storage tank or vacuum tank must:
 - (a) be built to ensure that if:
 - (i) the engine of the vehicle stops; or
 - (ii) the source of air or vacuum fails;the service brake can be applied to meet the requirements of clause 6.4 at least twice; and
 - (b) be built to provide a visible or audible warning to the driver, while in a normal driving position, of lack of air or vacuum that would prevent the service brake from performing at least twice as required by clause 6.4; and

Clause 6.7

- (c) be safeguarded by a check valve or other device against loss of air or vacuum if the supply fails or leaks.
- (4) If vacuum brakes or air brakes are fitted to a motor vehicle equipped to tow a trailer, the brakes of the motor vehicle must be able to stop it at the standard required for emergency brakes by clause 6.4, if a trailer breaks away.
- (5) The braking system of a motor vehicle equipped to tow a trailer fitted with air brakes must include protection against loss of supply line air or brake control signal air.
- (6) The protection must:
 - (a) operate automatically if a brake supply line hose connecting the motor vehicle and a trailer fails; and
 - (b) maintain enough air pressure to allow the brakes to be applied at the standard required for emergency brakes by clause 6.4; and
 - (c) include a visible or audible warning to the driver.

Division 3—Trailer braking systems

6.8 What brakes must a trailer have?

- (1) A trailer, other than a semi-trailer or converter dolly, must have brakes that operate on at least 2 wheels at opposite ends of one or more axles of the trailer.
- (2) A semi-trailer or converter dolly must have brakes that operate on all its wheels.

6.9 Operation of brakes on a trailer

- (1) The braking system of a trailer must allow the driver of a motor vehicle to which the trailer is coupled to operate the brakes from a normal driving position.
- (2) The brakes on a trailer must:
 - (a) operate automatically and promptly if the trailer breaks away from the towing vehicle; and
 - (b) remain in operation for at least 15 minutes after a break-away; and
 - (c) be able to hold the trailer on a 12% upgrade or downgrade while in operation after a break-away.

6.10 Air or vacuum brakes on a trailer

- (1) If a trailer has air brakes, its braking system must include at least one air storage tank.
- (2) If a trailer has vacuum brakes, its braking system must include at least one vacuum tank.
- (3) An air storage tank or vacuum tank must be:
 - (a) built to provide a visible or audible warning to the driver of the towing vehicle, while the driver is in a normal driving position, of lack of air or vacuum that would prevent the brakes from performing as required by clause 6.4; and
 - (b) safeguarded by a check valve or other device against loss of air or vacuum if the supply fails or leaks.

Division 4—Additional brake requirements for B-doubles and long road trains

6.11 Application to road trains more than 19 metres long

This Division does not apply to a road train that has a length of 19 metres or less, or a vehicle used in a road train of that length.

6.12 Braking system design for a prime mover in a B-double

- (1) A prime mover used in a B-double must meet the requirements of second edition ADR 35A or third edition ADR 35.
- (2) A prime mover used in a B-double must also have an anti-lock braking system complying with ADR 64/00 if the prime mover:
 - (a) was manufactured on or after 1 January 1990; or
 - (b) was first used in a B-double on or after 1 January 1994; or
 - (c) is used in a B-double that includes a road tank vehicle carrying dangerous goods.

6.13 Braking system design for a motor vehicle in a road train

A motor vehicle that:

- (a) would not otherwise be required to comply with an ADR relating to braking; and
- (b) is used in a road train;

must comply with the requirements specified in either second edition ADR 35A or third edition ADR 35 for the performance of the service brake system, the secondary brake system and the parking brake system.

6.14 Braking system design for a trailer in a B-double or a road train

- (1) A trailer that:
 - (a) would not otherwise be required to comply with an ADR relating to braking; and
 - (b) is used in a B-double or road train;must comply with the requirements specified in second edition ADR 38 or third edition ADR 38 for the performance of the service brake system, the emergency brake system and the parking brake system.
- (2) A road train trailer to which subclause (1) applies need not be fitted with a mechanical parking brake if it carries wheel chocks that provide a performance equivalent to the performance requirement specified in that subclause for a parking brake system.

- (3) A semi-trailer, irrespective of its date of manufacture, must have an anti-lock braking system that meets the requirements of ADR 38/01 if:
- (a) it is being used in a B-double that includes a road tank vehicle, whether or not the semi-trailer is itself a road tank vehicle; and
 - (b) the road tank vehicle is carrying dangerous goods.

6.15 Air brakes of a motor vehicle in a B-double or road train

- (1) If a B-double or road train is fitted with brakes that operate using compressed air, the braking system of the motor vehicle must meet the requirements in subclauses (2) and (3) when:
- (a) the pressure is measured in an 800 millilitre vessel connected by a 2 metre pipe with a bore of approximately 13 millimetres to the coupling head of the braking system; and
 - (b) the initial air pressure is not less than:
 - (i) the arithmetic average of the maximum and minimum pressures in the operating pressure range specified by the manufacturer of the vehicle; or
 - (ii) if there is no manufacturer's specification—650 kilopascals.
- (2) The pressure must reach at least 420 kilopascals within 400 milliseconds after the rapid and complete application of the foot-operated control of the braking system.
- (3) After the brakes have been fully applied, the pressure must fall within 500 milliseconds of the release of the foot-operated control to 35 kilopascals.

6.16 Air brakes in a B-double or road train: least favoured chamber

- (1) The pressure in the least favoured chamber of the braking system of a B-double or road train whose brakes operate using compressed air must meet the requirements of subclause (2) when the initial air pressure is not less than:
- (a) the arithmetic average of the maximum and minimum pressures in the operating pressure range specified by the manufacturer of the vehicle; or
 - (b) if there is no manufacturer's specification—650 kilopascals.
- (2) The pressure must reach at least 420 kilopascals within:
- (a) 1.0 seconds of the rapid and complete application of the foot-operated control on a B-double; or
 - (b) 1.5 seconds of the rapid and complete application of the foot-operated control on a road train.
- (3) After the brakes have been fully applied, the pressure must fall to 35 kilopascals or the pressure at which the friction surfaces cease to contact each other within:
- (a) 1.0 second of the release of the foot-operated brake control on a B-double; or
 - (b) 1.5 seconds of the release of the foot-operated brake control on a road train.

- (4) In subclause (1), *least favoured chamber* means the brake chamber with the longest line to the treadle valve in the prime mover.

6.17 Recovery of air pressure for brakes in a B-double or road train

The air pressure in each air brake reservoir in a B-double or road train must recover to at least 420 kilopascals within one minute after 3 full brake applications have been made within a 10 second period if, before the 3 brake applications have been made:

- (a) the engine is running at maximum speed; and
- (b) the governor cut-in pressure is no higher than:
 - (i) the pressure recommended by the manufacturer; or
 - (ii) if there is no recommendation by the manufacturer—550 kilopascals; and
- (c) the initial air pressure in the storage tanks of the vehicles is not less than:
 - (i) the arithmetic average of the maximum and minimum pressures in the operating pressure range specified by the manufacturer of the vehicle; or
 - (ii) if there is no manufacturer's specification—650 kilopascals.

6.18 Air supply for brakes in a B-double or road train

A B-double or road train that uses compressed air to operate accessories must have:

- (a) sufficient air compressor capacity and air receiver volume to ensure that the operation of the accessories does not adversely affect brake performance; and
- (b) a compressed air system built to ensure that the brake system is preferentially charged.

6.19 Brake line couplings

- (1) Brake line couplings on the same part of a vehicle in a B-double or road train must not be interchangeable.
- (2) The couplings must be polarised in accordance with Australian Standard AS D8 – 1971, *Hose Couplings for Use with Vacuum and Air-Pressure Braking Systems on Prime Movers, Trailers and Semi-trailers*, if the hoses used with the brake couplings are used for the same purpose as the hoses described in the Australian Standard.

6.20 Simultaneous parking brake application

If the parking brake of a motor vehicle in a B-double or road train is applied, the parking brakes of any attached trailer (except a trailer carrying wheel chocks in accordance with subclause 6.14(2)) must also be applied automatically.

6.21 Capacity of air reservoirs

- (1) The capacity of the air storage tanks of a motor vehicle used in a B-double or road train must be at least 12 times the volume of all the brake activation chambers on the motor vehicle.
- (2) The capacity of the air storage tanks of a trailer used in a B-double or road train must be at least 8 times the volume of all the brake activation chambers on the trailer.

Part 7—Control of emissions and LPG fuel systems

Note: This Part sets out requirements to ensure that motor vehicles do not put out too much smoke or noise, and that exhaust gases cannot enter the passenger compartment of a vehicle. It also deals with rules to ensure that LPG fuel systems are safely installed in vehicles, and that vehicles with LPG installed can be identified.

The following terms defined in clause 10.6 are used in this Part:

Australian Standard bus

The term *motor vehicle* is defined in section 4 of the Act.

Division 1—Control of emissions

7.1 Crank case gases

A motor vehicle that is:

- (a) manufactured after 1971; and
- (b) powered by a petrol engine;

must be built or fitted to prevent crank case gases from escaping into the atmosphere.

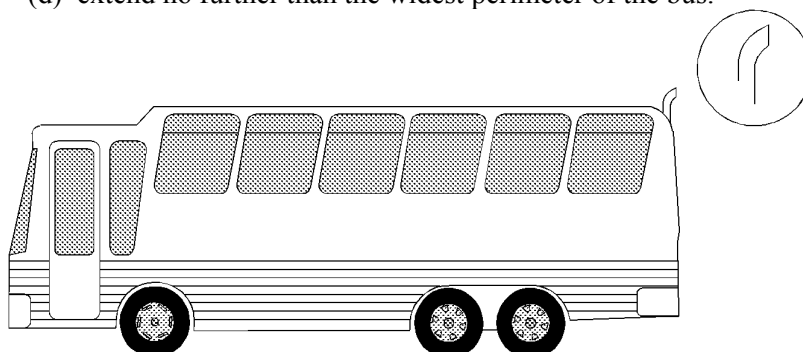
7.2 Visible emissions

- (1) A motor vehicle propelled by an internal combustion engine must not emit visible emissions for a continuous period of 10 seconds or more.
- (2) Subclause (1) does not apply if the emission is visible only because of its heat, or the condensation of water vapour.

7.4 Exhaust system

- (1) A motor vehicle propelled by an internal combustion engine must be fitted with a silencing device through which all the exhaust from the engine passes.
- (2) The exhaust system of a motor vehicle must:
 - (a) have any exposed section, except the outlet, shielded to prevent personal injury during normal operating conditions; and
 - (b) not pass through the passenger or driving compartment; and
 - (c) if the vehicle is fitted with an exhaust system with a vertical outlet pipe that does not direct the main exhaust flow straight up—direct the flow rearwards at an angle within 0° to 45° of the longitudinal centre line of the vehicle; and
 - (d) if a rain cap is fitted—be installed so that the hinge of the cap makes an angle of 90° (plus or minus 10°) with the longitudinal centre line of the vehicle when viewed from above.
- (3) The outlet of the exhaust system of a motor vehicle, other than a bus, must extend:

- (a) behind the back seat; and
 - (b) at least 40 millimetres beyond the outermost joint of the floorpan that is not continuously welded or permanently sealed; and
 - (c) to the widest perimeter of the vehicle, if:
 - (i) the body of the vehicle is permanently enclosed; and
 - (ii) the vehicle is not fitted with a vertical exhaust system; and
 - (d) no further than the widest perimeter of the vehicle.
- (3A) The outlet pipe of the exhaust system of a motor vehicle, other than a bus, must:
- (a) if the vehicle is fitted, or required under a law in force in this jurisdiction to be fitted, with an exhaust system with a vertical outlet pipe—discharge the main exhaust flow to the air above the horizontal, and at least 150 millimetres above the cab; and
 - (b) if the vehicle is not fitted, and is not required under a law in force in this jurisdiction to be fitted, with an exhaust system with a vertical outlet pipe—discharge the main exhaust flow to the air:
 - (i) not above the horizontal; and
 - (ii) not more than 45° downwards; and
 - (iii) less than 750 millimetres above the ground; and
 - (c) in every case—not discharge the main exhaust flow to the left.
- (4) The exhaust system of a bus must:
- (a) have its outlet as near as practicable to the rear of the vehicle; and
 - (b) if the bus is fitted, or required under a law in force in this jurisdiction to be fitted, with an exhaust system with a vertical outlet pipe—discharge the main exhaust flow to the air upwards, or rearwards at an angle above the horizontal, and behind the passenger compartment; and
 - (c) if the bus is not fitted, and is not required under a law in force in this jurisdiction to be fitted, with an exhaust system with a vertical outlet pipe—discharge the main exhaust flow to the air:
 - (i) rearwards or to the right of the vehicle; and
 - (ii) horizontally or not more than 45° downwards; and
 - (d) extend no further than the widest perimeter of the bus.



Bus exhaust outlet pipe

Clause 7.5

7.5 Stationary noise level limits

- (1) The exhaust noise level of a stationary motor vehicle may be measured in accordance with the test method specified in the *Roadworthiness Guidelines* approved by the Ministerial Council for Road Transport and in force immediately before the commencement of this clause.
- (2) If the exhaust noise level of a stationary motor vehicle is measured in accordance with the test method mentioned in subclause (1), the exhaust noise level must not exceed the noise level limit applying to the vehicle under the table.

Note: The *Roadworthiness Guidelines* are published by, and may be obtained from, the National Road Transport Commission.

Table Noise level limits

Engine type	GVM (t)	Exhaust height (mm)	Date vehicle built	Noise level limit (dB (A))
<i>Spark ignition</i>	>4.5	<1 500	before 1 July 1983	98
			on or after 1 July 1983	95
		≥1 500	before 1 July 1983	94
			on or after 1 July 1983	91
<i>Diesel</i>	>4.5 but ≤12	<1 500	before 1 July 1980	107
			on or after 1 July 1980 but before 1 July 1983	104
			on or after 1 July 1983	101
	>12	<1 500	before 1 July 1980	109
			on or after 1 July 1980 but before 1 July 1983	106
			on or after 1 July 1983	103
	>4.5 but ≤12	≥1 500	before 1 July 1980	103
			on or after 1 July 1980 but before 1 July 1983	100
			on or after 1 July 1983	97
	>12	≥1 500	before 1 July 1980	105
			on or after 1 July 1980 but before 1 July 1983	102
			on or after 1 July 1983	99

Division 2—LPG fuel systems

7.6 LPG-powered vehicles

- (1) A motor vehicle equipped to run on LPG must comply with the edition of Australian Standard AS 1425 (which relates to use of LPG in vehicles) that was current when the vehicle was first equipped to run on LPG.
- (2) A vehicle equipped to run on LPG must have fixed conspicuously to the front and rear vehicle number plates a label that is:
 - (a) made of durable material; and
 - (b) at least 25 millimetres wide; and
 - (c) at least 25 millimetres high; and
 - (d) reflective red conforming to Australian Standard AS 1742 – 1975, *Manual of Uniform Traffic Control Devices*, Appendix C, Class 2; and
 - (e) marked ‘LP GAS’ or ‘LPG’, or marked with words or acronyms to similar effect, in upper case letters at least 6 millimetres high.

Part 8—Maximum road speed limiting

Note: This Part requires various heavy vehicles built after 31 December 1987 but before 1 July 1991 to have a restricted top speed. However, the Part exempts from being speed limited emergency vehicles and certain 2-axle prime movers owned by farmers and used in primary production.

The following terms defined in clause 10.6 are used in this Part:

ADR	GVM
axle	owner
bus	prime mover
emergency vehicle	road train

The following terms defined in section 4 of the Act are used in this Part:

motor vehicle	road
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8.1 Speed limiting

- (1) A bus with a GVM of more than 14.5 tonnes that was manufactured after 31 December 1987 must comply with the technical requirements of ADR 65.
- (2) A prime mover with a GVM of more than 15 tonnes that was manufactured after 31 December 1987 must comply with the technical requirements of ADR 65.
- (3) For the purposes of the technical requirements of ADR 65, the maximum road speed capability of a motor vehicle used in a road train is 90 kilometres an hour.

Note: Vehicle Standards Bulletin 2 (VSB 2) contains the technical requirements of ADR 65. The Bulletin is available from the Federal Office of Road Safety.

8.2 Exemptions from speed limiting

- (1) Clause 8.1 does not apply to:
 - (a) an emergency vehicle; or
 - (b) a bus with specific provision for standing passengers.
- (2) Subclause 8.1(2) does not apply to a 2-axle prime mover if:
 - (a) it was manufactured after 31 December 1987 but before 1 July 1991; and
 - (b) its owner is a person who uses it for agriculture, horticulture, or other primary production activities (except forestry, fishing and mining).

Part 9—Mechanical connections between vehicles

Note: This Part sets out various requirements to ensure that the couplings used when operating motor vehicles and trailers in combinations are strong enough to hold them together. The requirements in this Part relating to mechanical connections between vehicles in a road train do not apply to a road train that has a length of 19 metres or less.

The following terms defined in clause 10.6 are used in this Part:

Australian Standard	pole-type trailer
axle	prime mover
axle group	rear overhang line
B-double	road train
centre of an axle group	semi-trailer
converter dolly	single axle
dog trailer	tow coupling overhang
drawbar	turntable
D-value	50 millimetre kingpin
fifth wheel coupling	75 millimetre kingpin
point of articulation	90 millimetre kingpin

The following terms defined in section 4 of the Act are used in this Part:

motor vehicle	trailer
---------------	---------

Division 1—Couplings on all types of vehicles

9.1 General coupling requirements

- (1) A fifth wheel coupling, kingpin or the mating parts of a coupling must not be used for a load greater than the manufacturer's load rating.
- (2) A kingpin must be used only with a fifth wheel coupling that has a corresponding jaw size.

Note: For example, an adaptor is not to be used to fit a kingpin to a fifth wheel coupling.

- (3) The mating parts of a coupling used to connect a semi-trailer to a towing vehicle must not allow the semi-trailer to roll to an extent that makes the towing vehicle unstable.

9.2 Drawbar couplings

A coupling for attaching a trailer, other than a semi-trailer or pole-type trailer, to a towing vehicle must be built and fitted so that:

- (a) the coupling is equipped with a positive locking mechanism; and
- (b) the positive locking mechanism can be released regardless of the angle of the trailer to the towing vehicle.

Division 2—Additional coupling requirements for B-doubles and long road trains

9.3 Application of Division to road trains

This Division does not apply to a vehicle, coupling or part of a coupling that is used in a road train that has a length of 19 metres or less.

9.4 Couplings for B-doubles and road trains

- (1) A fifth wheel coupling used to connect a towing vehicle to a semi-trailer used in a B-double or road train must not be built with a pivot that allows a semi-trailer to roll relative to the towing vehicle.
- (2) Subclause (1) does not apply to a fifth wheel coupling if:
 - (a) the semi-trailer design requires torsional stresses to be minimised; and
 - (b) the roll axis of the fifth wheel coupling is above the surface of the coupler plate; and
 - (c) the degree of rotation allowed around the roll axis of the fifth wheel coupling is restricted to prevent roll instability.
- (3) A turntable used in a vehicle manufactured on or after the commencement of these Regulations that forms part of a B-double or road train must be marked with:
 - (a) the name or trademark of the manufacturer; and
 - (b) the D-value rating;of the turntable.
- (4) A trailer with only one axle group or a single axle (except a semi-trailer or a converter dolly) that is used in a road train must not have a coupling fitted at its rear.

9.5 Selection of fifth wheel couplings for B-doubles

- (1) A fifth wheel coupling used in a B-double must have a D-value complying with Australian Standard AS 1773 – 1990, *Articulated Vehicles—Fifth Wheel Assemblies*.
- (2) A turntable used in a B-double must have a D-value complying with Australian Standard AS 1773 – 1990, *Articulated Vehicles—Fifth Wheel Assemblies*.
- (3) A fifth wheel coupling used in a B-double that is built for a 50 millimetre or 90 millimetre kingpin must:
 - (a) be built to meet the dimensional requirements in Australian Standard AS 1773 – 1990, *Articulated Vehicles—Fifth Wheel Assemblies*; and
 - (b) not be worn away more than is recommended by that Australian Standard.

- (4) A fifth wheel coupling used in a B-double that is built for a 75 millimetre kingpin must:
 - (a) be compatible with the kingpin described in subclause 9.10(4); and
 - (b) not be worn away more than is specified in clause 9.7.

9.6 Selection of fifth wheel couplings for road trains

- (1) A fifth wheel coupling used in a road train must have a D-value complying with Australian Standard AS 1773 – 1990, *Articulated Vehicles—Fifth Wheel Assemblies*.
- (2) A turntable used in a road train must have a D-value complying with Australian Standard AS 1773 – 1990, *Articulated Vehicles—Fifth Wheel Assemblies*.
- (3) A fifth wheel coupling used in a road train that is built for a 50 millimetre or 90 millimetre kingpin must meet the dimensional requirements in Australian Standard AS 1773 – 1990, *Articulated Vehicles—Fifth Wheel Assemblies*.
- (4) A fifth wheel coupling used in a road train that is built for a 75 millimetre kingpin must be compatible with the kingpin described in subclause 9.10(4).

9.7 Deciding the D-value of fifth wheel couplings

In testing a fifth wheel coupling built for a 75 millimetre kingpin used in a B-double or road train to decide whether its D-value meets the requirements of subclause 9.6(1), the longitudinal movement (after readjusting the jaws of the coupling using a kingpin built to the dimensions mentioned in subclause 9.10(4)) must not be more than 4 millimetres.

9.8 Mounting of fifth wheel couplings on B-doubles and road trains

A fifth wheel coupling must be mounted on a prime mover or a semi-trailer used in a B-double or a road train in accordance with the requirements of Australian Standard AS 1771 – 1987, *Installation of Fifth Wheel and Turntable Assemblies*.

9.9 Branding of fifth wheel couplings on B-doubles and road trains

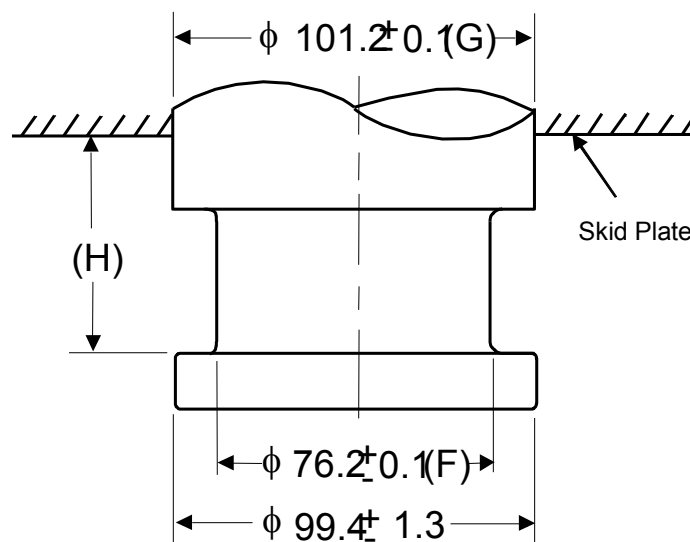
A fifth wheel coupling on a vehicle manufactured on or after 1 July 1991 forming part of a B-double or road train must be clearly and permanently marked in accordance with Australian Standard AS 1773 – 1990, *Articulated Vehicles—Fifth Wheel Assemblies* with:

- (a) the name or trademark of its manufacturer; and
- (b) its D-value rating; and
- (c) its nominal size.

9.10 Selection of kingpins for B-doubles and road trains

- (1) A kingpin used in a B-double must:

- (a) be a 50 millimetre, 75 millimetre or 90 millimetre kingpin; and
 - (b) have a D-value complying with Australian Standard AS 2175 – 1990, *Articulated Vehicles—Kingpins*.
- (2) A kingpin used in a road train must:
- (a) be a 50 millimetre, 75 millimetre or 90 millimetre kingpin; and
 - (b) have a D-value complying with Australian Standard AS 2175 – 1990, *Articulated Vehicles—Kingpins*.
- (3) A 50 millimetre or 90 millimetre kingpin used in a B-double or road train must:
- (a) be built to meet the dimensional requirements in Australian Standard AS 2175 – 1990, *Articulated Vehicles—Kingpins*; and
 - (b) not be worn away more than is recommended by that Australian Standard.
- (4) A 75 millimetre kingpin used in a B-double or road train must:
- (a) be built to meet the dimensions in the essential diagram below; and
 - (b) not be worn away more than is specified in paragraphs 9.10(5)(a), (b) and (c).



(All dimensions in millimetres)

Dimensions of a 75 millimetre kingpin

- (5) When testing a 75 millimetre kingpin described in the essential diagram in subclause (4) to determine whether its D-value meets the requirements of paragraph (1)(b) or (2)(b):
- (a) diameter F must not wear more than 3 millimetres; and
 - (b) diameter G must not wear more than 2 millimetres; and
 - (c) height H must not wear more than 2.3 millimetres.

9.11 Attachment of kingpins on B-doubles and road trains

A kingpin on a trailer used in a B-double or road train must be attached in accordance with:

- (a) the manufacturer's recommendations and instructions; or
- (b) the guidelines detailed in Australian Standard AS 2175 – 1990, *Articulated Vehicles—Kingpins*.

9.12 Branding of kingpins on B-doubles and road trains

A kingpin used in a trailer manufactured on or after 1 July 1991 that forms part of a B-double or road train must be clearly and permanently marked on the lower circular face of the kingpin in accordance with Australian Standard AS 2175 – 1990, *Articulated Vehicles—Kingpins* with:

- (a) the name or trademark of its manufacturer; and
- (b) its D-value rating; and
- (c) its nominal size.

9.13 Selection of couplings and drawbar eyes on road trains

A drawbar-type coupling or a drawbar eye used in a road train must:

- (a) be a 50 millimetre pin type; and
- (b) have a D-value complying with Australian Standard AS 2213 – 1984, *50 mm Pin-Type Couplings and Drawbar Eyes for Trailers*; and
- (c) be built to the dimensions specified in that Australian Standard; and
- (d) not be worn away more than is recommended in that Australian Standard.

9.14 Attachment of couplings and drawbar eyes on road trains

A drawbar-type coupling or drawbar eye in a road train must be built and positioned so that:

- (a) when the road train is moving, the drawbar can move at least 15 degrees upwards or downwards from the position it occupies when the road train is parked on level ground; and
- (b) the pivot point of the coupling is not more than 300 millimetres forward of the rear of the trailer to which it is attached; and
- (c) it is at a height of at least 800 millimetres, but not more than 950 millimetres, when the road train is unloaded and parked on level ground.

9.15 Branding of couplings and drawbar eyes on road trains

A drawbar-type coupling or a drawbar eye on a vehicle manufactured on or after 1 July 1991 forming part of a road train must be clearly and permanently marked in accordance with Australian Standard AS 2213 – 1984, *50-mm Pin-Type Couplings and Drawbar Eyes for Trailers* with:

- (a) the name or trademark of manufacturer; and

- (b) its D-value rating.

9.16 Tow coupling overhang on road trains

- (1) The tow coupling overhang of a motor vehicle, other than a prime mover, used in a road train must not be more than the greater of:
 - (a) 30% of the distance from the centre of the front axle to the centre of the axle group or single axle at the rear of the vehicle; and
 - (b) 2.7 metres:
- (2) The tow coupling overhang of a semi-trailer, or a dog trailer consisting of a semi-trailer and converter dolly, used in a road train must not be more than 30% of the distance from the point of articulation to the centre of the axle group or single axle at the rear of the vehicle.
- (3) The tow coupling overhang of any other dog trailer used in a road train must not be more than 30% of the distance from the centre of the front axle group or single axle to the centre of the axle group or single axle at the rear of the vehicle.

Part 10—Interpretation and definitions

Division 1—Interpretation of ADRs

10.1 Second edition ADRs

In these Standards, a reference to a second edition ADR is a reference to a standard contained in a document:

- (a) known as an Australian Design Rule; and
- (b) incorporated in a 3-volume book entitled *Australian Design Rules for Motor Vehicle Safety, Second Edition*, published by the Commonwealth Department of Transport;

as in force immediately before these Standards commenced.

10.2 Third edition ADRs

In these Standards, a reference to a third edition ADR is a reference to a standard contained in a document:

- (a) known as an Australian Design Rule; and
- (b) incorporated in a book entitled *Australian Design Rules for Motor Vehicles and Trailers, Third Edition, endorsed by the Australian Transport Advisory Council*, published by the Commonwealth Department of Transport and Communications;

as amended from time to time.

Note: The following table provides a comparative list of some technical terms used in these Standards and the third edition of the ADRs, for information.

Third Edition ADR	Heavy Vehicle Standards
Main-beam headlamp	High-beam headlight
Dipped-beam headlamp	Low-beam headlight
Front fog lamp	Front fog light
Reversing lamp	Reversing light
Direction indicator lamp	Direction indicator light
Stop lamp	Brake light
Rear registration plate lamp	Number plate light
Front position (side) lamp	Parking light
Rear position (side) lamp	Tail light
Rear fog lamp	Rear fog light
End-outline marker lamp	Front or rear clearance light
Rear reflex reflector, non-triangular	Rear reflector
Front reflex reflector, non-triangular	Front reflector
Side reflex reflector, non-triangular	Side reflector

Clause 10.3

Third Edition ADR	Heavy Vehicle Standards
External cabin lamp	External cabin light
Internal lamp	Interior light
Side marker lamp	Side marker light
Daytime running lamp	Daytime running light
Wheelguard	Mudguard

10.3 ADR transitional provisions

For the purposes of these Standards, if an ADR is the subject of a transitional provision in the book entitled *Australian Design Rules for Motor Vehicles and Trailers, Third Edition, endorsed by the Australian Transport Advisory Council*, published by the Commonwealth Department of Transport and Communications, as at the commencement of these Standards, the ADR has effect subject to the transitional provision.

Note: The transitional provisions in the third edition ADRs were introduced to enable vehicles that were approved under second edition ADRs before 1 July 1988 to continue to have compliance plates placed on them under the *Motor Vehicle Standards Act 1989*.

Division 2—Miscellaneous

10.4 Measurement of distance between lines

In these Standards, a reference to a distance between 2 lines that are parallel means the distance measured at right angles between the lines.

10.5 Equipment of a vehicle

In these Standards, a reference to a vehicle includes its equipment.

10.5A Application to retractable axles

For these Standards, a retractable axle is taken to be an axle only when it is in the lowered position.

Division 3—Definitions

Note: The *Road Transport Reform (Vehicles and Traffic) Act 1993* defines the following terms in section 4:

motor vehicle means a vehicle that is built to be propelled by a motor that forms part of the vehicle;

road means an area that is open to or used by the public and is developed for, or has as one of its main uses, the driving or riding of motor vehicles;

trailer means a vehicle that is built to be towed, or is towed, by a motor vehicle, but does not include a motor vehicle being towed.

The terms have the same meaning in these Standards as they have in the Act.

10.6 Definitions

In this Schedule:

ADR (Australian Design Rule) means a national standard under the *Motor Vehicle Standards Act 1989*.

air brake means an air-operated or air-assisted brake.

approved material means material with characteristics equivalent to those of material specified in one of the following standards:

- (a) Australian Standard AS R1 – 1965, *Safety Glass for Land Transport*;
- (b) Australian Standard AS R1 – 1968, *Safety Glass for Land Transport*;
- (c) Australian Standard AS 2080 – 1977, *Safety Glass for Vehicles*;
- (d) British Standards Institution BS 857:1967, *Specification for Safety Glass for Land Transport*, read with Amendments 1, 2, 3 and 4;
- (e) British Standards Institution BS 5282:1975, *Road Vehicle Safety Glass*, read with Amendments 1 and 2;
- (f) Economic Commission for Europe Regulation No. 43, *Uniform Provisions Concerning Approval of Safety Glazing and Glazing Materials for Installation on Power Driven Vehicles and their Trailers*;
- (g) British Standards Institution BS AU178:1980, *Road Vehicle Safety Glass*;
- (h) Japanese Industrial Standard, JISR 3211 – 1979, *Safety Glasses for Road Vehicles*;
- (i) American National Standard ANSIZ26.1 – 1980, *Safety Code for Safety Glazing Materials for Glazing Motor Vehicles Operating on Land Highways*.

articulated bus means a bus:

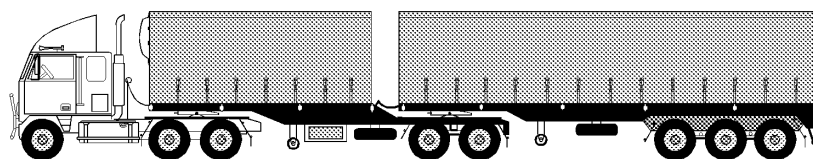
- (a) consisting of at least 2 rigid sections with access between the sections for passengers; and
- (b) the sections of which are connected to each other so as to allow rotary movement between the sections.

Australian Standard means a standard, approved for publication on behalf of the Council of the Standards Association of Australia, as in force at the commencement of these Standards.

axle means one or more shafts positioned in a line across a vehicle, on which one or more wheels intended to support the vehicle turn.

axle group means a single axle group, tandem axle group, twinsteer axle group, tri-axle group or quad-axle group;

B-double means a combination of vehicles consisting of a prime mover towing 2 semi-trailers.



B-double

braking system means all the brakes of a vehicle and all the components of the mechanisms by which they are operated.

British Standard, for a provision of these Regulations, means a standard current on or before the commencement of the provision that is approved for publication by the British Standards Institution.

Note: Copies of British Standards are available from offices of the Standards Association of Australia.

British Standards Institution means the body incorporated as the British Standards Institution under Royal Charter in the United Kingdom.

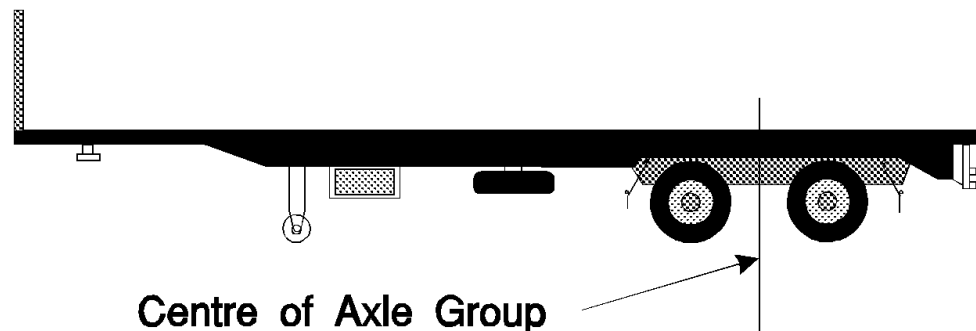
bus means a motor vehicle:

- (a) built mainly to carry people; and
- (b) that seats more than 9 adults (including the driver).

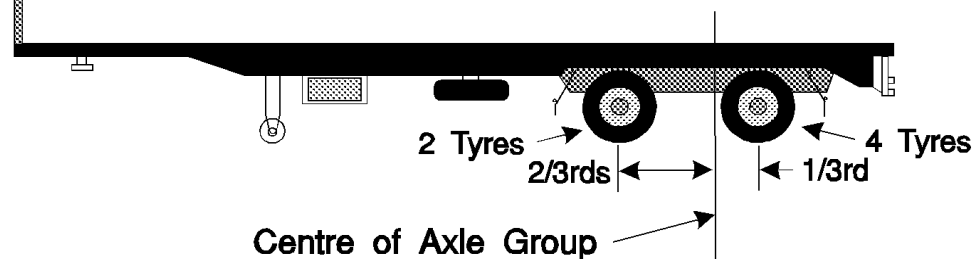
centre of an axle group means:

- (a) a line located midway between the centre lines of the outermost axles of the group; or
- (b) if the group consists of 2 axles, one of which is fitted with twice the number of tyres as the other axle—a line located one third of the way from the centre line of the axle with more tyres towards the centre line of the axle with fewer tyres.

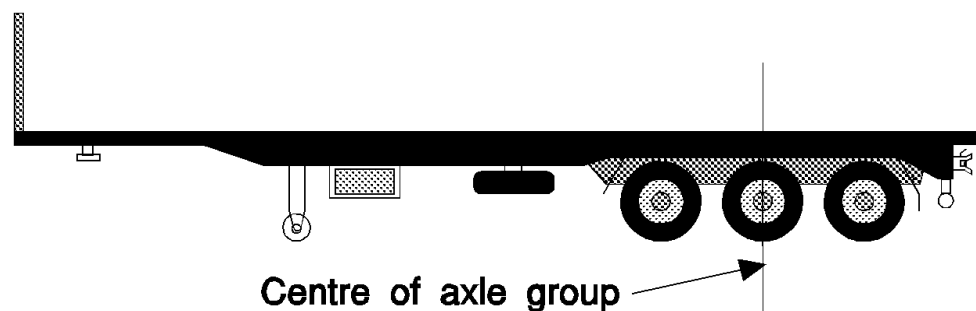
Clause 10.6



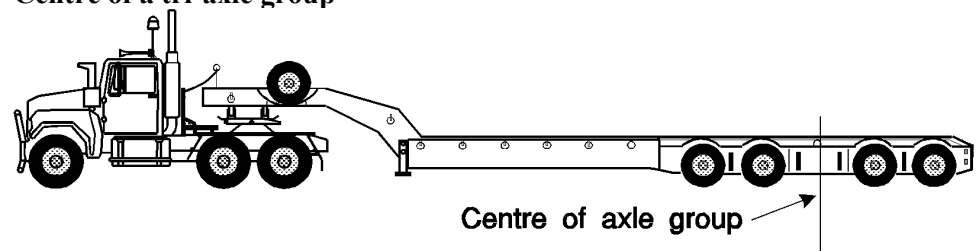
Centre of a tandem axle group fitted with an equal number of tyres on each axle



Centre of a tandem axle group fitted with a different number of tyres on each axle



Centre of a tri-axle group

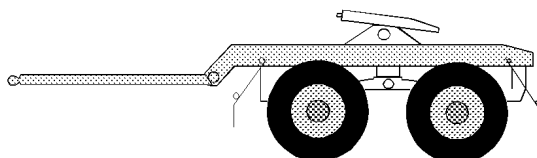


Centre of a quad-axle group

combination of vehicles means a motor vehicle connected to one or more trailers.

controlled access bus means a bus, except an articulated bus, that is more than 12.5 metres long.

converter dolly means a trailer with one axle group or single axle and a fifth wheel coupling, designed to convert a semi-trailer into a dog trailer.



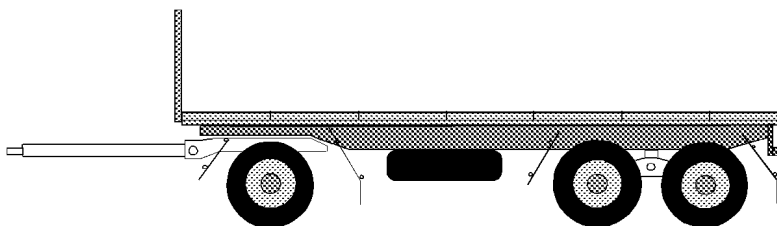
Converter dolly

Criminal Code means the Criminal Code set out in the Schedule to the *Criminal Code Act 1995* of the Commonwealth.

dangerous goods has the same meaning as in the Road Transport Reform (Dangerous Goods) Regulations.

dog trailer means a trailer (including a trailer consisting of a semi-trailer and converter dolly) with:

- (a) one axle group or single axle at the front that is steered by connection to the towing vehicle by a drawbar; and
- (b) one axle group or single axle at the rear.



Dog trailer

drawbar means a part of a trailer (other than a semi-trailer) that connects the trailer body to a coupling for towing purposes.

driver means the person driving or in control of a vehicle.

emergency brake means a brake designed to be used if a service brake fails.

emergency vehicle has the same meaning as in the Road Transport Reform (Australian Road Rules) Regulations.

emission includes noise emission.

fifth wheel coupling means a device, other than the upper rotating element and the kingpin (which are parts of a semi-trailer), used with a prime mover, semi-trailer or a converter dolly to permit quick coupling and uncoupling and to provide for articulation.

Clause 10.6

ground clearance means the minimum distance to the ground from the underside of a vehicle excluding its tyres, wheels, wheel hubs, brake backing plates and flexible mudguards or mudflaps.

GTM (gross trailer mass) means the mass transmitted to the ground by the axles of a trailer when the trailer is loaded to its GVM and connected to a towing vehicle.

GVM (gross vehicle mass) means the maximum loaded mass of a vehicle:

- (a) specified by the manufacturer; or
- (b) specified by the vehicle registration authority if:
 - (i) the manufacturer has not specified a maximum loaded mass; or
 - (ii) the manufacturer cannot be identified; or
 - (iii) the vehicle has been modified to the extent that the manufacturer's specification is no longer appropriate.

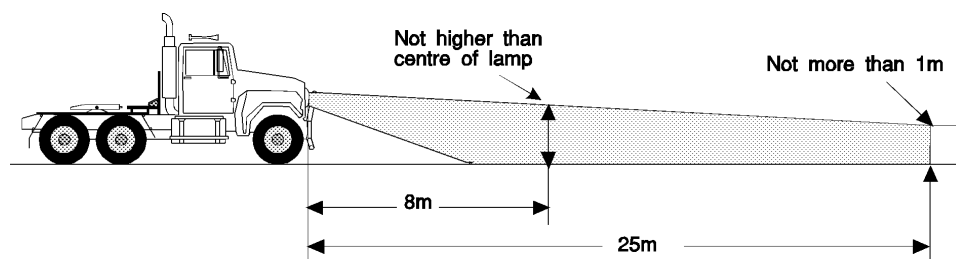
high-beam, in relation to a headlight, means built or adjusted so that it is not in the low-beam position.

load-sharing suspension system means an axle group suspension system that:

- (a) is built to divide the load between the tyres on the group so that no tyre carries a mass more than 10% greater than the mass it would carry if the load were divided equally; and
- (b) has effective damping characteristics on all axles of the group.

low-beam, in relation to a headlight or front fog light fitted to a vehicle, means built or adjusted so that, when the vehicle is standing on level ground, the top of the main beam of light projected is:

- (a) not higher than the centre of the headlight or fog light, when measured at a point 8 metres in front of the vehicle; and
- (b) not more than one metre higher than the level on which the motor vehicle is standing, when measured at a point 25 metres in front of the vehicle.



A headlight in the low-beam position

mudguard means a fitting or device, with or without a mudflap, which is built and fitted to a vehicle in a way that will, as far as practicable, catch or deflect downwards any stone, mud, water or other substance thrown up by the rotation of the wheel for which the fitting or device is provided.

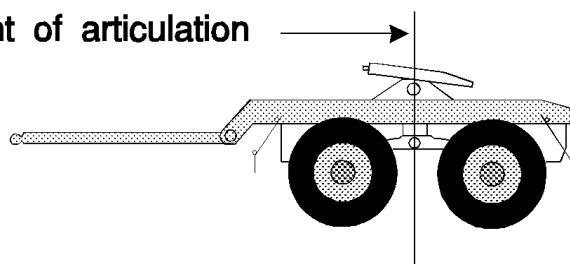
owner, in relation to a vehicle, means:

- (a) a person in whose name the vehicle is registered under a Commonwealth, State or Territory Act; or
- (b) a person who, according to the vehicle registration authority's records, has acquired the vehicle from the person in whose name the vehicle is registered under the relevant Act; or
- (c) if the vehicle is not registered—a person to whom a mark, plate, or permit has been issued to allow the vehicle to be used; or
- (d) a person who is entitled to the possession of the vehicle.

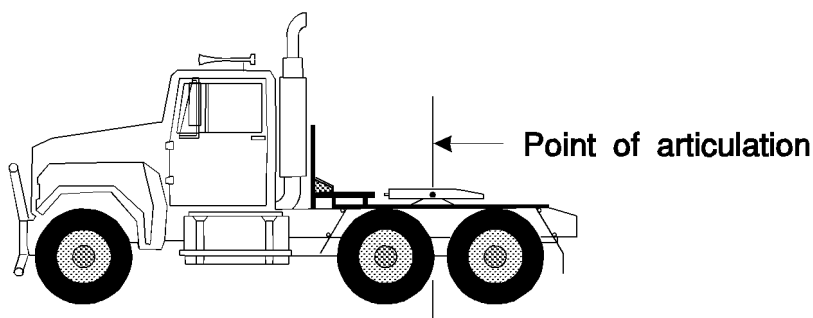
point of articulation means:

- (a) the axis of a kingpin for a fifth wheel; or
- (b) the vertical axis of rotation of a fifth wheel coupling; or
- (c) the vertical axis of rotation of a turntable assembly; or
- (d) the vertical axis of rotation of the front axle group or single axle of a dog trailer.

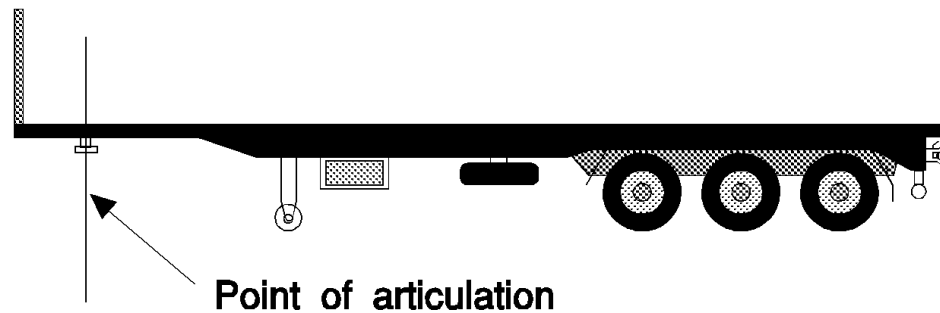
Point of articulation



Point of articulation—fifth wheel coupling on a converter dolly (forming the front axle group of a dog trailer)



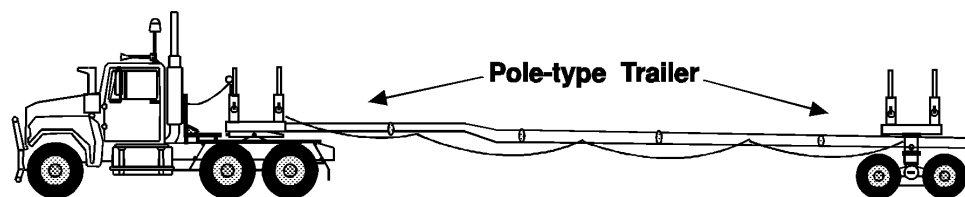
Articulation—fifth wheel on a prime mover



Point of articulation—kingpin for fifth wheel

pole-type trailer means a trailer that:

- (a) is attached to a towing vehicle by means of a pole or an attachment fitted to the pole; and
- (b) is ordinarily used for transporting loads, such as logs, pipes, structural members or other long objects, that are generally capable of supporting themselves like beams between supports.



Pole-type trailer

police officer means:

- (a) a member or special member of the Australian Federal Police; or
- (b) a member (however described) of a State or Territory police force or service; or
- (c) a service police officer within the meaning of the *Defence Force Discipline Act 1982* of the Commonwealth.

police vehicle means a vehicle driven by a police officer in the course of his or her duty.

prime mover means a motor vehicle built to tow a semi-trailer.

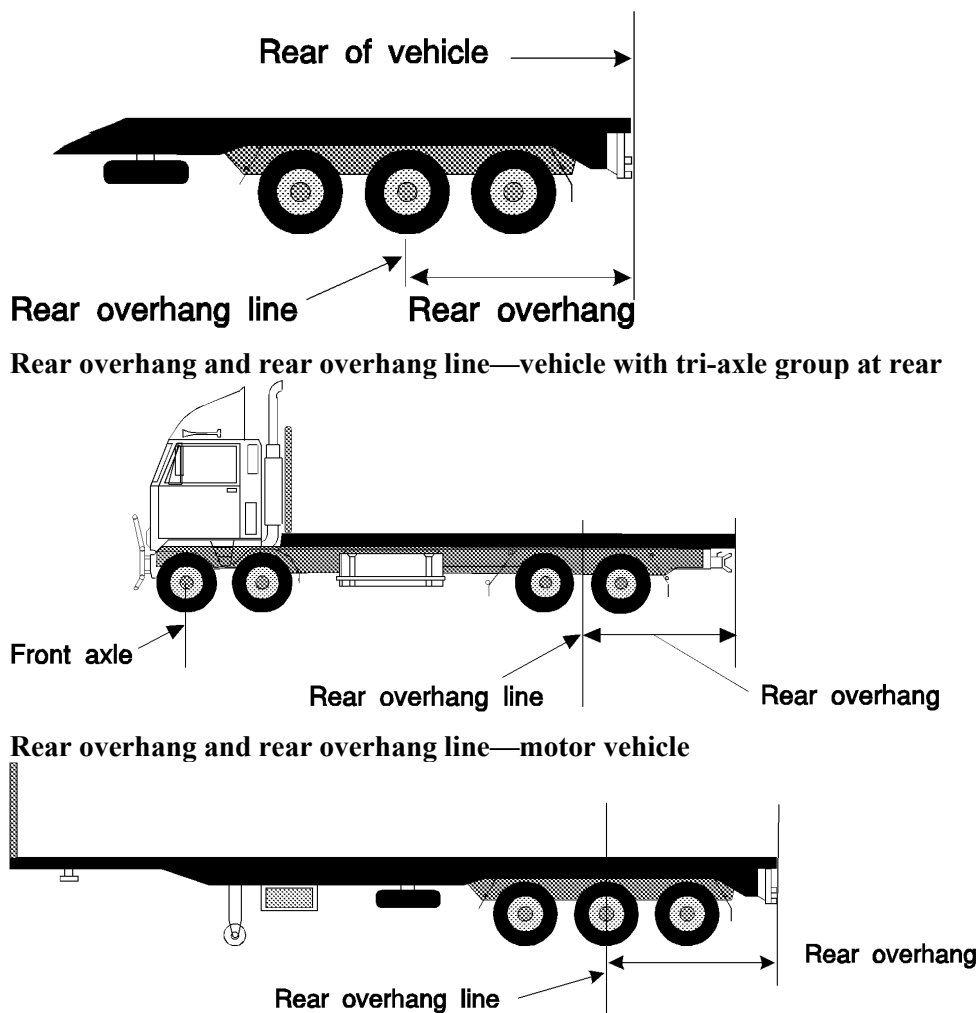
quad-axle group means a group of 4 axles, in which the horizontal distance between the centre lines of the outermost axles is more than 3.2 metres but not more than 4.9 metres.

rear overhang means the distance between the rear overhang line and the rear of the vehicle.

rear overhang line means:

- (a) if there is a single axle at the rear of the vehicle—the centre line of the axle; or

- (b) if there is an axle group at the rear of the vehicle—the centre of the axle group, determined without regard to the presence of any steerable axle, unless all axles in the group are steerable.



Rear overhang and rear overhang line—semi-trailer

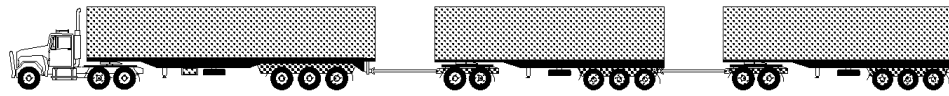
repeater horn means a device which makes a sound alternating between different tones or frequencies on a regular time cycle.

retractable axle means an axle with a means of adjustment enabling it to be raised or lowered relative to the other axles in the axle group.

road tank vehicle has the same meaning as in the sixth edition of the *Australian Code for the Transport of Dangerous Goods by Road and Rail*.

road train means a combination of vehicles, other than a B-double, consisting of a motor vehicle towing at least 2 trailers (counting as one trailer a converter dolly supporting a semi-trailer).

Clause 10.6



Road train

semi-trailer means a trailer (including a pole-type trailer) that has:

- (a) one axle group or single axle towards the rear; and
- (b) a means of attachment to a prime mover that would result in some of the load being imposed on the prime mover.

service brake means the brake normally used to decelerate a vehicle.

single axle means an axle not forming part of an axle group.

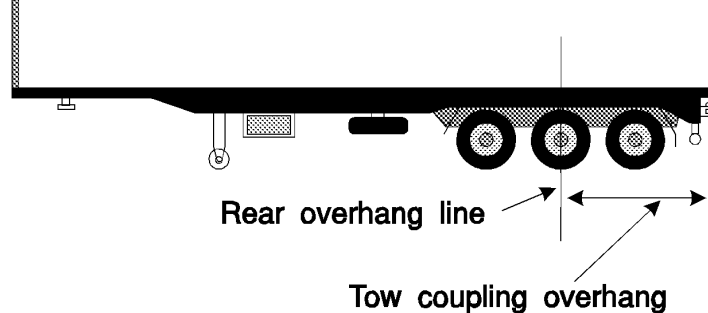
single axle group means a group of 2 or more axles, in which the horizontal distance between the centre lines of the outermost axles is less than 1 metre.

spring brake means a brake using one or more springs to store the energy required to operate the brake.

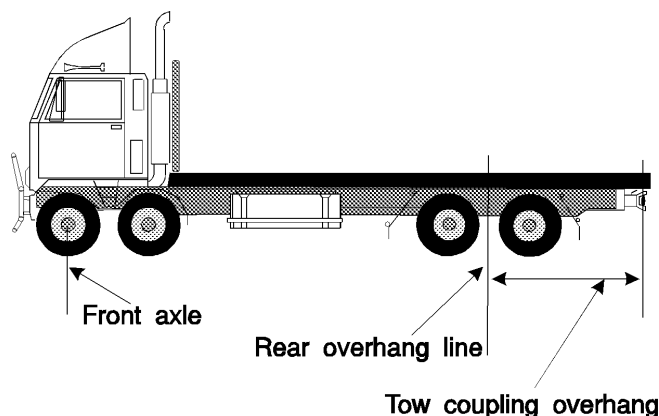
tandem axle group means a group of at least 2 axles, in which the horizontal distance between the centre lines of the outermost axles is at least 1 metre, but not more than 2 metres.

this jurisdiction means the Australian Capital Territory and the Jervis Bay Territory.

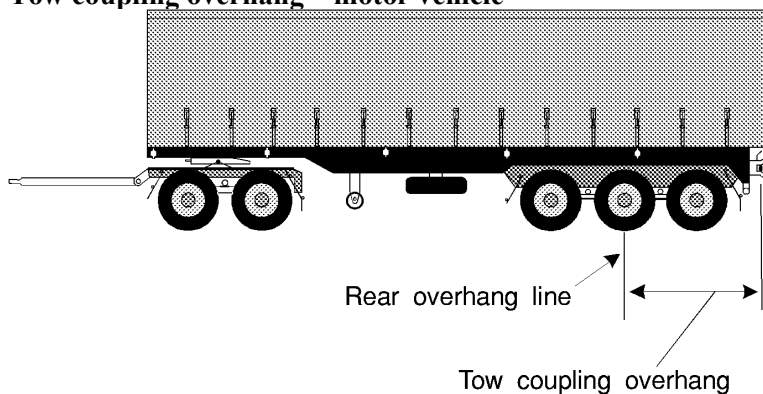
tow coupling overhang means the horizontal distance from the centre of the axle group, or the centre line of the single axle, at the rear of a vehicle to the pivot point of the coupling near the rear of the vehicle.



Tow coupling overhang—semi-trailer with extra coupling at rear



Tow coupling overhang—motor vehicle



Tow coupling overhang—dog trailer

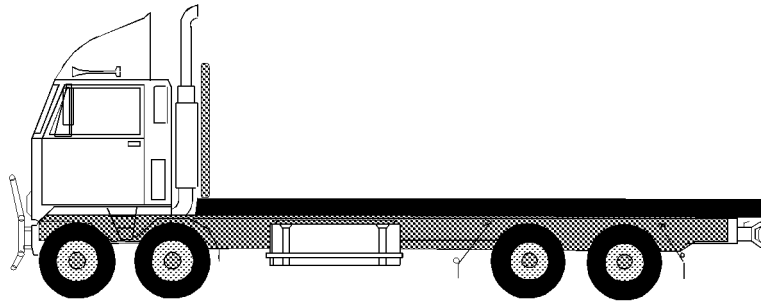
tri-axle group means a group of at least 3 axles, in which the horizontal distance between the centre lines of the outermost axles is more than 2 metres, but not more than 3.2 metres.

turntable means a bearing that is built to carry vertical and horizontal loads, but does not allow quick separation of its upper and lower rotating elements, and that is used to connect and allow articulation between:

- (a) a prime mover and semi-trailer; or
- (b) the steering axle or axle group of a dog trailer and the body of the trailer; or
- (c) a fifth wheel coupling and the vehicle to which it is mounted.

twinsteer axle group means a group of 2 axles:

- (a) with single tyres; and
- (b) fitted to a motor vehicle; and
- (c) connected to the same steering mechanism; and
- (d) the horizontal distance between the centre lines of which is at least 1 metre, but not more than 2 metres.



Twinsteer axle group

Twinsteer axle group on a motor vehicle

vacuum brakes means vacuum-operated or vacuum-assisted brakes.

vehicle registration authority, in relation to a vehicle, means:

- (a) the authority that last registered the vehicle; or
- (b) if the vehicle has never been registered—the authority responsible for registering vehicles in the jurisdiction in which the vehicle is used or is intended to be used.

50 millimetre kingpin means a kingpin meeting the dimension requirements for a 50 millimetre kingpin in Australian Standard AS 2175 – 1990, *Articulated Vehicles—Kingpins*.

75 millimetre kingpin means a kingpin with the dimensions specified in subclause 9.10(4).

90 millimetre kingpin means a kingpin meeting the dimension requirements for a 90 millimetre kingpin in Australian Standard AS 2175 – 1990, *Articulated Vehicles—Kingpins*.

Endnotes

Endnote 1—About the endnotes

The endnotes provide information about this compilation and the compiled law.

The following endnotes are included in every compilation:

Endnote 1—About the endnotes

Endnote 2—Abbreviation key

Endnote 3—Legislation history

Endnote 4—Amendment history

Abbreviation key—Endnote 2

The abbreviation key sets out abbreviations that may be used in the endnotes.

Legislation history and amendment history—Endnotes 3 and 4

Amending laws are annotated in the legislation history and amendment history.

The legislation history in endnote 3 provides information about each law that has amended (or will amend) the compiled law. The information includes commencement details for amending laws and details of any application, saving or transitional provisions that are not included in this compilation.

The amendment history in endnote 4 provides information about amendments at the provision (generally section or equivalent) level. It also includes information about any provision of the compiled law that has been repealed in accordance with a provision of the law.

Editorial changes

The *Legislation Act 2003* authorises First Parliamentary Counsel to make editorial and presentational changes to a compiled law in preparing a compilation of the law for registration. The changes must not change the effect of the law. Editorial changes take effect from the compilation registration date.

If the compilation includes editorial changes, the endnotes include a brief outline of the changes in general terms. Full details of any changes can be obtained from the Office of Parliamentary Counsel.

Misdescribed amendments

A misdescribed amendment is an amendment that does not accurately describe the amendment to be made. If, despite the misdescription, the amendment can be given effect as intended, the amendment is incorporated into the compiled law and the abbreviation “(md)” added to the details of the amendment included in the amendment history.

If a misdescribed amendment cannot be given effect as intended, the abbreviation “(md not incorp)” is added to the details of the amendment included in the amendment history.

Endnotes

Endnote 2—Abbreviation key

Endnote 2—Abbreviation key

ad = added or inserted	o = order(s)
am = amended	Ord = Ordinance
amdt = amendment	orig = original
c = clause(s)	par = paragraph(s)/subparagraph(s) /sub-subparagraph(s)
C[x] = Compilation No. x	pres = present
Ch = Chapter(s)	prev = previous
def = definition(s)	(prev...) = previously
Dict = Dictionary	Pt = Part(s)
disallowed = disallowed by Parliament	r = regulation(s)/rule(s)
Div = Division(s)	reloc = relocated
ed = editorial change	renum = renumbered
exp = expires/expired or ceases/ceased to have effect	rep = repealed
F = Federal Register of Legislation	rs = repealed and substituted
gaz = gazette	s = section(s)/subsection(s)
LA = <i>Legislation Act 2003</i>	Sch = Schedule(s)
LIA = <i>Legislative Instruments Act 2003</i>	Sdiv = Subdivision(s)
(md) = misdescribed amendment can be given effect	SLI = Select Legislative Instrument
(md not incorp) = misdescribed amendment cannot be given effect	SR = Statutory Rules
mod = modified/modification	Sub-Ch = Sub-Chapter(s)
No. = Number(s)	SubPt = Subpart(s)
	<u>underlining</u> = whole or part not commenced or to be commenced

Endnote 3—Legislation history

Endnote 3—Legislation history

Name	Registration	Commencement	Application, saving and transitional provisions
National Transport Commission (Road Transport Legislation—Heavy Vehicle Standards Regulations) Regulations 2006 (SLI No. 25, 2006)	20 Feb 2006 (F2006L00238)	21 Feb 2006 (r 2)	
National Transport Commission (Road Transport Legislation—Heavy Vehicle Standards Regulations) Amendment Regulations 2006 (No. 1) (SLI No. 24, 2006)	20 Feb 2006 (F2006L00239)	21 Feb 2006 (r 2)	—
Acts and Instruments (Framework Reform) (Consequential Amendments) Regulation 2016	29 Feb 2016 (F2016L00170)	Sch 1 (item 54): 5 Mar 2016 (s 2(1) item 1)	—

Endnotes

Endnote 4—Amendment history

Endnote 4—Amendment history

Provision affected	How affected
r 3	am F2016L00170
Schedule 1	
r 3	am F2006L00239
	ed C1
r 5	am F2006L00239
r 5A	ad F2006L00239
r 6	am F2006L00239
r 7	am F2006L00239
	ed C1
r 10	am F2006L00239
r 12	ad F2006L00239
r 13	ad F2006L00239
r 14	ad F2006L00239
Schedule (within Schedule 1)	
Schedule heading.....	rs F2006L00239
Part 1	
c 1.3	am F2006L00239
c 1.4	am F2006L00239
c 1.5	ad F2006L00239
Part 2	
c 2.1	am F2006L00239
c 2.4	am F2006L00239
c 2.5	am F2006L00239
c 2.7	am F2006L00239
c 2.8	am F2006L00239
c 2.9	am F2006L00239
c 2.12	rs F2006L00239
c 2.15	am F2006L00239
c 2.16	am F2006L00239
c 2.18	am F2006L00239
Part 3	
c 3.3	rs F2006L00239
c 3.4	rs F2006L00239
c 3.6	ad F2006L00239
Part 4	
Division 1	
c 4.1	am F2006L00239

Endnote 4—Amendment history

Provision affected	How affected
c 4.3.....	rep F2006L00239
Division 2	
c 4.6.....	am F2006L00239
c 4.7.....	am F2006L00239
Part 5	
Division 9	
c 5.23.....	am F2006L00239
Division 18	
c 5.38.....	am F2006L00239
	ed C1
Part 6	
Division 1	
c 6.3.....	am F2006L00239
	ed C1
Division 4	
c 6.12.....	am F2006L00239
c 6.14.....	am F2006L00239
c 6.16.....	am F2006L00239
c 6.20.....	am F2006L00239
	ed C1
Part 7	
Part 7 heading.....	rs F2006L00239
Division 1	
Division 1 heading.....	ad F2006L00239
c 7.2.....	am F2006L00239
c 7.3.....	rep F2006L00239
c 7.4.....	am F2006L00239
	ed C1
c 7.5.....	ad F2006L00239
Division 2	
Division 2.....	ad F2006L00239
c 7.6.....	ad F2006L00239
Part 8	
c 8.2.....	am F2006L00239
Part 9	
Division 2	
c 9.5.....	am F2006L00239
c 9.6.....	am F2006L00239
c 9.7.....	rs F2006L00239

Endnotes

Endnote 4—Amendment history

Provision affected	How affected
c 9.9.....	am F2006L00239
c 9.10.....	am F2006L00239
c 9.13.....	am F2006L00239
	ed C1
Part 10	
Division 2	
c 10.5A.....	ad F2006L00239
Division 3	
c 10.6.....	am F2006L00239