

1995—No. 608

TRAFFIC ACT 1909—REGULATION

(Relating to the adoption of the National Heavy Vehicle Standards)

NEW SOUTH WALES



[Published in Gazette No. 122 of 6 October 1995]

HIS Excellency the Governor, with the advice of the Executive Council, and in pursuance of the Traffic Act 1909, has been pleased to make the Regulation set forth hereunder.

MICHAEL KNIGHT MP
Minister for Roads.

Commencement

1. This Regulation commences on 6 October 1995.

Amendments

2. The Motor Traffic Regulations 1935 are amended:
 - (a) by inserting after Regulation 2 the following Regulation:

Notes in the text

2A. Notes in the text of these Regulations are explanatory notes and do not form part of the Regulations. They are provided to assist understanding.

- (b) by omitting from Regulation 80 (1) the words “a siren horn or an alternating dud-tone horn” and by inserting instead the words “any emergency siren or alarm permitted under Schedule F”;
- (c) by inserting in Regulation 92 (5A) after the words “Schedule F” the words “or Division 2 of Part 4 of the Appendix to Division 7 of Schedule F”;

- (d) by inserting after Regulation 92AA (1) (b) the following paragraph:
 - ; or
 - (c) that complies with the requirements of paragraph 170 of Schedule F but does not comply with any one of the requirements as to maximum length, width and height contained in Division 2 of Part 4 of the Appendix to Division 7 of Schedule F, applying to a rigid vehicle (other than a bus or semi-trailer).
- (e) by omitting from Regulation 95 (6) (d) (ii) the matter “, 72C or 110A of Schedule F” and by inserting instead the matter “or 72C of Schedule F or clause 5.28 (3) of the Appendix to Division 7 of Schedule F”;
- (f) by inserting after Regulation 95 (6) (d) (iii) the following subparagraph:
 - ; or
 - (iv) a light referred to in clause 5.38 (4) of the Appendix to Division 7 of Schedule F to operate on a motor vehicle, except in the case of a vehicle referred to in that subclause.
- (g) by inserting in Regulation 95AA (1) after the matter “Schedule F” the matter “, or clause 5.38 (3) or (4) of the Appendix to Division 7 of Schedule F”;
- (h) by omitting Regulation 113D (1) (c) and by inserting instead the following paragraph:
 - (c) the strength rating of the tow coupling, or fifth wheel assembly of the hauling unit, determined in accordance with Division 7 of Schedule F;
- (i) by inserting in Regulation 117B (1) (a) after the words “Schedule F” the words “(in the case of a motor vehicle that has a GVM (as defined in Division 7 of Schedule F) of 4.5 tonnes or less) or Part 4 of the Appendix to Division 7 of Schedule F (in the case of a motor vehicle that has a GVM (as defined in that Division) of more than 4.5 tonnes)”;
- (j) by omitting Regulation 117T;
- (k) by omitting Regulation 118 (1) (e) and (f) and by inserting instead the following paragraphs:
 - (e) any articulated vehicle that exceeds 19m in length;
 - (f) any motor vehicle and trailer combination that exceeds 23m (in the case of a combination referred to in clause 4.7 (2) (c) of the Appendix to Division 7 of Schedule F) or 19m (in any other case).

- (1) by inserting in Regulation 118A (1) after the definition of “freight container” the following definition:

“**prescribed deceleration**” means (where “g” (the acceleration due to gravity) equals 9.81 metres per second per second):

- (a) in the case of a forward deceleration: 0.8g; or
- (b) in the case of a rearward deceleration: 0.5g; or
- (c) in the case of a lateral deceleration: 0.8g; or
- (d) in the case of a vertical deceleration: 0.2g;

- (m) by inserting after Regulation 118A (1) the following clauses:

(2) The loading of a motor vehicle must be such that if the vehicle underwent a prescribed deceleration:

- (a) the load would not become dislodged from the vehicle; and
- (b) the vehicle’s stability and weight distribution would not be adversely affected; and
- (c) the load would not move in relation to the vehicle, except to the extent permissible under clause (2A).

(2A) Movement of a load that is contained within the sides or the enclosure of a vehicle body is permissible as follows:

- (a) vertical movement of the load is permissible if the load cannot move horizontally;
- (b) vertical movement and horizontal movement of the load are both permissible if the load consists of very lightweight objects or the load is a loose bulk load;
- (c) any movement of the load is permissible if the load is bulk liquid.

(2B) A person must not drive a motor vehicle on a public street, or cause or permit a motor vehicle to stand on a public street, if the loading of the vehicle does not comply with clause (2).

- (n) by omitting Regulation 118A (3) (d), (e) and (f) and by inserting instead the following paragraph:

- (d) any loading (not being a freight container) or equipment that is not securely fastened to the motor vehicle or trailer (or otherwise secured) in such a manner as is likely to prevent the loading or equipment, or any part of it, from:
 - (i) hanging or projecting from the motor vehicle or trailer in a manner likely to cause injury or damage to any person or property or likely to cause a hazard to other road users; or

- (ii) becoming dislodged or falling from the vehicle or trailer.
- (o) by inserting in Regulation 123B (c) after the matter “1 January 1988,” the words “not being a motor lorry or bus to which Part 8 of the Appendix to Division 7 of Schedule F applies, and”;
- (p) by inserting in Regulation 123B (d) after the matter “1 January 1988,” the words “not being a motor lorry to which Part 8 of the Appendix to Division 7 of Schedule F applies, and”;
- (q) by inserting after Regulation 123D (1) (a) the following paragraph:
 - (al) in the case of a vehicle to which Division 7 of Schedule F applies—in the manner prescribed in that Division; and
- (r) by inserting in Regulation 136 (1) after the matter “Schedule F” the words “, direction indicator lights that can be operated as referred to in clause 5.28 (3) of the Appendix to Division 7 of Schedule F,”;
- (s) by omitting from paragraph 2B of Schedule F the matter “Divisions 2–5” and by inserting instead the matter “Divisions 2–4”;
- (t) by inserting after paragraph 2C (2) of Schedule F the following subparagraph:
 - (3) If any part or item of equipment of a motor vehicle is required to comply with Division 7 (including the Appendix to that Division) and that requirement conflicts with a requirement of Division 6, the requirement in Division 6 prevails to the extent of the conflict.
- (u) by inserting in paragraph 5B of Schedule F after the words “vehicles except” the words “those to which Division 7 applies and”;
- (v) by inserting in paragraph 42C of Schedule F after the words “vehicles except” the words “those to which Division 7 applies, and”;
- (w) by omitting from paragraph 57 (e) (i) of Schedule F the words “and every motor vehicle first registered on and after the 1st January 1961, the mass limit of which is 6 tonnes or more, which is fitted with such a braking system,”;
- (x) by omitting paragraph 58A of Schedule F;
- (y) by omitting from paragraph 60 of Schedule F the matter “, 58A”;
- (z) by omitting paragraph 68A (4) (c) of Schedule F;

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- (aa) by omitting paragraph 68A1 of Schedule F;
 - (ab) by omitting paragraph 68B (4) (c) of Schedule F;
 - (ac) by omitting from paragraph 68C (2) (c) of Schedule F the words “having a gross vehicle weight not exceeding 4.5 tonnes”;
 - (ad) by omitting paragraph 68C (2) (d) of Schedule F;
 - (ae) by omitting from paragraph 71A (1) (e) of Schedule F the words “, other than a motor vehicle having a gross vehicle weight exceeding 4.5 tonnes”;
 - (af) by omitting paragraph 71A (1) (f) of Schedule F;
 - (ag) by omitting paragraph 72A (1A) of Schedule F;
 - (ah) by omitting from paragraph 72B (c) of Schedule F the words “, and a vehicle having a gross vehicle weight exceeding 4.5 tonnes”;
 - (ai) by omitting paragraph 73 (b1) (iii) of Schedule F;
 - (aj) by omitting from paragraph 86C (1) (c) of Schedule F the words “Having a gross vehicle weight of 4.5 tonnes or less”;
 - (ak) by omitting paragraph 86C (2) of Schedule F;
 - (al) by omitting from paragraph 86H (1) (d) (i) of Schedule F the words “, an implement and a vehicle having a gross vehicle weight exceeding 4.5 tonnes,” and by inserting instead the words “and an implement,”;
 - (am) by omitting paragraph 86L of Schedule F;
 - (an) by omitting paragraph 860A of Schedule F;
 - (ao) by inserting in paragraph 86P of Schedule F after the words “buses except” the words “those to which Division 7 applies, and”;
 - (ap) by omitting Division 5 of Schedule F;
 - (aq) by omitting the words “PART 2” before paragraph 161 of Schedule F and inserting instead the words “PART 3”;
 - (ar) by inserting after Division 6 of Schedule F the following Division:

DIVISION 7

*Construction and equipment standards for heavy motor
vehicles not subject to the provisions of Divisions 2–4*

PART 1

Preliminary

165. Application of Division:

This Division applies to motor vehicles (whenever built) that have a GVM over 4.5 tonnes and combinations of motor vehicles (whenever built) that have, or include, a vehicle that has a GVM over 4.5 tonnes.

166. Interpretation:

(1) Part 10 of the Appendix to this Division applies to the interpretation of the whole of this Division.

(2) Unless the contrary intention appears, the limits prescribed in the Appendix to this Division for the dimensions of a motor vehicle refer to the motor vehicle together with any loading or equipment on the vehicle.

167. Compliance with Appendix to Division:

A motor vehicle, or a combination, to which this Division applies must comply with the Appendix to this Division.

168. Approvals by Authority:

Any approval given under this Division by the Authority may be given unconditionally or subject to one or more conditions. An approval that is subject to one or more conditions does not apply in a case where those conditions are not satisfied.

PART 2*Modifications to Appendix***169. Flashing warning lamps:**

Despite clause 5.38 (1) and (2) of the Appendix to this Division, a vehicle may be fitted with a lamp or lamps that would, if the vehicle were one to which paragraph 149 (a) or (c) applied, satisfy the requirements of that subparagraph.

PART 3*Exceptions to requirements as to dimensions***170. Dimensions of vehicles regulated by permit:**

(1) The limits prescribed in the Appendix to this Division for the dimensions of motor vehicles do not apply to a vehicle that is the subject of a specific or general overdimension vehicle permit for the time being in force under Part 9A of these Regulations.

(2) Nothing in this paragraph prevents the imposition, as a condition of a permit under Part 9A of these Regulations, of one or more of the requirements of the Appendix to this Division, with or without modification.

171. Vehicle lengths:

(1) Despite clause 4.6 (1) (a) of the Appendix to this Division, the distance from the point of articulation of a low-loader float to the foremost extremity of the rear overhang may exceed 9.5m.

(2) Despite clause 4.6 (1) (b) of the Appendix to this Division, the distance from the point of articulation of a low-loader float to the rearmost extremity of the rear overhang may exceed 12.3m.

172. Vehicle dimensions:

(1) The dimensions of a rigid motor vehicle may exceed the length and width limits that apply to it under the Appendix to this Division if:

- (a) the vehicle is not designed to carry passengers or goods or, though designed to carry goods, is carrying an indivisible load; and
- (b) the vehicle is not a semi-trailer; and
- (c) the length of the vehicle does not exceed 14m; and
- (d) the width of the vehicle does not exceed 3m (excluding any rear vision mirror, side mounted lamp, signalling device and tyre pressure monitoring system).

(2) This paragraph has effect subject to Regulation 92AA.

173. Rear overhang of controlled access bus:

Despite clause 4.8 (4) of the Appendix to this Division, the rear overhang of a controlled access bus must not exceed 70 per cent of the distance between the centre of the foremost axle and the foremost extremity of the rear overhang, or 4.9m, whichever is the shorter length.

INTRODUCTORY NOTE TO APPENDIX TO DIVISION 7 OF
SCHEDULE F

The Vehicle Standards in the Appendix apply to all motor vehicles, and trailers, over 4.5 tonnes GVM, whenever they were built, unless they have been exempted. Some of the Standards in the Appendix relate to combinations of vehicles.

In most cases, if a vehicle meets all of the Standards in the Appendix, it is suitable for use on the road without special restrictions. However, some very large vehicles may be restricted as to where they can travel by other regulations under the Act. Furthermore, Division 7 modifies the Appendix to some extent (see paragraphs 165–173 of Schedule F), and in the case of conflict between Division 6 and Division 7 (including the Appendix), Division 6 prevails (paragraph 2C (3) of Schedule F).

The Standards in the Appendix are intended to be read with 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 or combinations of vehicles of any age. These are covered in Parts 2 to 9 of this Appendix. The ADRs did not cover every safety feature for vehicles built between 1969 and 1988. The Appendix is intended to complement the ADRs for vehicles built during this period. If a vehicle is covered by both an ADR and the Appendix, and the two are inconsistent, the vehicle must generally comply with the ADR (but see above).

The Appendix also requires a vehicle subject to an ADR to continue to comply with the applicable ADRs (unless exempted). A vehicle must continue to comply with the Appendix, even if it is modified. Codes of Practice such as the “National Code of Practice: Heavy Vehicle Modifications”, issued by the Federal Office of Road Safety in Vehicle Standards Bulletin 6, provide advice to help decide whether a modified vehicle complies with the ADRs. It is recommended that modifications be made in accordance with the Code. Modifications not covered in, or not consistent with, the Code may also be permitted, but the owner must ensure that the vehicle continues to comply with the ADRs, the Appendix and the Motor Traffic Regulations 1935 in general. Copies of the Code may be obtained from the Federal Office of Road Safety, Department of Transport, Canberra.

Other Acts and Regulations may have additional administrative requirements for modified vehicles.

**APPENDIX TO DIVISION 7 OF SCHEDULE F
HEAVY VEHICLE STANDARDS**

PART 1—APPLICATION OF ADRs

NOTE

This Part sets out how the second and third edition of the ADRs and the other requirements in this Appendix are applied to vehicles over 4.5 tonnes in gross vehicle mass. Vehicles subject to ADRs are required to continue to comply with the relevant ADRs throughout their life. Any 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 this Appendix.

The following terms defined in clause 10.8 are used in this Part:

ADR	prime mover
GVM	semi-trailer
mudguard	

Compliance with second edition ADRs

- 1.1 (1)** A vehicle to which a second edition ADR applies must comply with the ADR.
- 1.1 (2)** For the purpose of subclause (1), a second edition ADR applies to a vehicle if the cover sheet of the document containing the ADR 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.
- 1.1 (3)** Despite 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.

Compliance with third edition ADRs

1.2 (1) A vehicle to which a third edition ADR applies must comply with the ADR.

Limitations on application of the ADRs

1.3 (1) Despite clauses 1.1 and 1.2:

(a) a vehicle (other than a personally imported vehicle) that:

- (i) has been approved as a nonstandard vehicle under the Motor Vehicle Standards Act 1989 of the Commonwealth; or
- (ii) fails to comply with a requirement of the ADR in a minor or inconsequential respect and is the subject of an approval under section 10 (2) of the Motor Vehicle Standards Act 1989 of the Commonwealth which allows plates to be placed on the vehicle; and

(b) continues to comply with the conditions (if any) of that approval, need not comply with a requirement of an ADR if it has been exempted from that requirement under that approval.

1.3 (2) Despite clauses 1.1 and 1.2, the luminous transmittance requirements in clause 2.16 (3) apply to a vehicle instead of the corresponding requirements in the relevant ADR.

1.3 (3) Despite clauses 1.1 and 1.2, the requirements of clause 2.18 (7)–(9) (relating to the speed at which a tyre must be suitable for road use) apply to a vehicle instead of the tyre speed category requirements in the relevant ADR.

1.3 (4) Despite clause 1.2, the requirements of:

- (a) clause 5.38 (3) (b) relating to the colour of a light that flashes on an emergency vehicle or police vehicle; and
- (b) clause 5.38 (3) (c) relating to the colour of reflectors on an emergency vehicle or police vehicle,

apply to a vehicle instead of the corresponding requirements in the relevant ADR.

Additional equipment on vehicles.

1.4 (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 built before the date specified in the ADR for the type of vehicle.

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 a vehicle, the driver's 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 10.8 are used in this Part:

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

Division 1—All vehicles

Steering

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

Turning ability

- 2.2 (1)** A 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.

Ability to travel backwards and forwards

- 2.3 (1)** A vehicle must be capable of being driven both backwards and forwards by the driver when the driver is in the normal driving position.

Internal or extend protrusions

- 2.4 (1)** A vehicle must not have fitted to it an object or fitting that:
- (a) protrudes from the vehicle in a way that is reasonably likely to increase the risk of injury to a person; and
 - (b) is not technically essential to the vehicle.
- 2.4 (2)** An object or fitting that is technically essential to a vehicle must be designed, built and fitted to the vehicle in a way that minimises the risk of bodily injury to a person making contact with the vehicle.

NOTE

An example of an object that protrudes but is not technically essential to a vehicle is a bonnet mascot that is rigid and is not designed to spring away on impact.

A bull bar that unduly increases the risk of injury to a person would not be allowed to be fitted. However, a well-designed bull bar that minimises the greater risk of bodily injury in an accident involving contact with the bull bar would be allowed.

Driver's view and control of vehicle

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

Seating

- 2.6 (1)** A seat provided for a driver or passenger in a vehicle must be securely attached to the vehicle.

Mudguards

- 2.7 (1)** A vehicle must have firmly fitted to it:
- (a) a mudguard for each wheel or for adjacent wheels; and
 - (b) for all axles on a vehicle that is part of a B-double—spray suppression devices complying with Parts 1 and 2 of British Standard AU200–1984 “Spray Reducing Devices for Heavy Goods Vehicles”, as in force at the commencement of this Appendix, and available from offices of the Standards Association of Australia.
- 2.7 (2)** Subclause (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.

<p style="text-align: center;">NOTE</p> <p>Examples of vehicles to which subclause (2) (a) applies are timber jinkers, most road-making plant and some agricultural implements.</p>

- 2.7 (3)** A mudguard fitted to a vehicle 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.
- 2.7 (4)** Despite subclause (3), a mudguard may be at least:
- (a) 230 millimetres above the ground; or
 - (b) on a vehicle built to be used off road—300 millimetres above the ground.

- 2.7 (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, signalling devices and reflectors; and
 - (b) has a body the vertical measurement of which is less than 300 millimetres 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.

Horns and alarms

- 2.8 (1)** A 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.
- 2.8 (2)** A 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.
- 2.8 (3)** Subclause (2) does not apply to:
- (a) an emergency vehicle or police vehicle; or
 - (b) a vehicle which is 25 or more years old and is fitted as an emergency vehicle or police vehicle if:
 - (i) the vehicle is used for exhibition purposes; or
 - (ii) it is part of a person's collection of vehicles that were formerly emergency vehicles or police vehicles; or
 - (c) a vehicle fitted with an anti-theft alarm device producing a sound described in subclause (2), if the device cannot be operated while the vehicle is moving.
- 2.8 (4)** A vehicle may be fitted with a device which emits a regular, intermittent sound while the vehicle is rolling backwards or in reverse gear.
- 2.8 (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.

Wear vision mirrors

- 2.9 (1)** A rear vision mirror or mirrors must be fitted to a vehicle in accordance with this clause in such a way that the driver can clearly see by reflection a clear view of:
- (a) the road to the rear of the vehicle; and
 - (b) any following or overtaking vehicle.

- 2.9 (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.
- 2.9 (3)** Despite subclause (2), a rear vision mirror fitted to a vehicle may project beyond the widest part (excluding lights and reflectors) of the vehicle or combination by not more than 230 millimetres if the mirror can fold or collapse to project not more than 150 millimetres beyond that part.
- 2.9 (4)** A mirror on the left side of a vehicle must have a reflecting surface of at least 150 square centimetres.
- 2.9 (5)** At least one rear vision mirror on the right side of a vehicle must have a flat reflecting surface if:
- (a) the vehicle has only one steering control; and
 - (b) the centre of the steering control is to the right of, or in line with, the centre of the vehicle.
- 2.9 (6)** A vehicle may be fitted with additional rear vision mirrors or mirror surfaces that are flat or convex or a combination of flat and convex.

Automatic transmissions

- 2.10 (1)** A 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.
- 2.10 (2)** A vehicle that is:
- (a) fitted with automatic transmission; and
 - (b) built after 1975,
- must have in the driver's compartment an indicator showing the transmission control position.
- 2.10 (3)** Subclauses (1) and (2) do not apply to a vehicle that has less than 4 wheels.

Diesel engines

- 2.11 (1)** A 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.

Bonnet latching

- 2.12 (1)** A vehicle with a moveable body panel, forward of the windscreen, that covers an engine, luggage, storage or battery compartment, must be provided with a device to secure that panel.
- 2.12 (2)** 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 a primary device and a secondary device to secure the panel.

Electrical wiring, connections and installations

- 2.13 (1)** The wiring of the 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 each of its 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.
- 2.13 (2)** The electrical connectors between vehicles and trailers, for the operation of the vehicle lights prescribed in this Appendix, must comply with Australian Standard AS 2513–1982 “Electrical Connections for Trailer Vehicles”.
- 2.13 (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.
- 2.13 (4)** In addition, the electrical wiring, connections and installations of a semi-trailer, dog trailer or converter dolly used after 30 June 1998 in a road train more than 19 metres long 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.

Television and visual display units

- 2.14 (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.
- 2.14 (2)** Subclause (1) does not apply to the 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: rearview screens, ticket-issuing machines, navigational or intelligent highway and vehicle system equipment, vehicle monitoring devices, dispatch systems and closed circuit television security cameras.

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

Windscreens and windows

- 2.15 (1)** Glazing used in a windscreen, window, or an interior partition of a vehicle must be of material approved by the Authority if the vehicle was built on or after 1 July 1953.

Window tinting

- 2.16 (1)** Glazing in a vehicle must have a luminous transmittance of not less than:
- (a) 75% in the case of a windscreen of a vehicle built after 1971; and
 - (b) 70% in any other case.
- 2.16 (2)** Subclause (1) does not apply to the greater of the following areas of a windscreen:
- (a) the area above the highest point of the windscreen that is swept by a windscreen wiper;
 - (b) the upper 10% of the windscreen.
- 2.16 (3)** Despite subclause (1) (b):
- (a) glazing behind the rear of the driver's seat, whether in a side or rear window or interior partition, may be coated so as to achieve a luminous transmittance of not less than 35%;
 - (b) glazing in a side window forward of the rear of the driver's seat may, with the approval of the Authority, be coated so as to reduce its luminous transmittance below 70%.
- 2.16 (5)** Windscreen glazing to which subclause (1) applies must not be coated so as to reduce its luminous transmittance.
- 2.16 (6)** Glazing that has been coated to reduce its luminous transmittance must not have a reflectance of more than 10%.
- 2.16 (7)** In this clause:
- “**glazing**” means material fitted to the front, sides, rear or interior of a vehicle, through which a driver or a passenger can obtain a view of the road, but does not include a coating added after manufacture of the material;
 - “**luminous transmittance**” of glazing means the proportion of light that is able to pass through the glazing expressed as a percentage of the light that would be transmitted if the glazing were not present.

Windscreen wipers and washers

- 2.17 (1)** A vehicle fitted with a windscreen must be fitted with at least one windscreen wiper.

- 2.17 (2)** At least one windscreen wiper fitted to a vehicle must:
- (a) be able to remove moisture from the part of the windscreen in front of the driver to allow the driver an adequate view of the road ahead of the 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) if fitted to a vehicle built after 1934—be driven by any continuous means; and
 - (d) if fitted to a vehicle built after 1959:
 - (i) be able to remove moisture from the part of the windscreen in front of the driver and a corresponding part of the windscreen on the other side of the centre of the vehicle to allow the driver an adequate view of the road ahead of the vehicle when the windscreen is wet; and
 - (ii) if operated by engine manifold vacuum—be provided with a vacuum reservoir or pump to maintain efficient operation of the wiper while the vehicle is in motion.
- 2.17 (3)** A vehicle built after 31 December 1982 and fitted with a windscreen must also be fitted with a windscreen washer that can direct water on to the exterior of the windscreen within the area swept by a windscreen wiper so that the windscreen wiper can spread the water to the whole area swept by the windscreen wiper.
- 2.17 (4)** A windscreen washer must be able to be operated from a normal driving position.
- 2.17 (5)** Despite subclauses (1) and (3), if the driver in a normal driving position can obtain an adequate view of the road ahead of the vehicle when the windscreen is obscured, the vehicle need not be fitted with a windscreen wiper or washer.

Wheels and tyres

- 2.18 (1)** A vehicle built after 1932 must be fitted with pneumatic tyres.
- 2.18 (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.
- 2.18 (3)** The size and capacity of a pneumatic 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; or
 - (b) in the case of:
 - (i) a radial ply tyre—825 kilopascals; or
 - (ii) another tyre—700 kilopascals.
- 2.18 (4)** A tyre fitted to a vehicle must be free of any apparent defect which could make the vehicle unsafe.

- 2.18 (7)** 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.
- 2.18 (8)** A tyre retreaded before the commencement of this Appendix must not be used on a vehicle if:
- (a) the tyre is of a kind to which a standard in Part A of Table 2 applies; and
 - (b) it was retreaded after the issue of that standard; and
 - (c) it was not retreaded in accordance with one of the standards in Part A or B of Table 2.
- 2.18 (9)** A tyre retreaded after the commencement of this Appendix must not be used on a vehicle if:
- (a) the tyre is of a kind to which the standard in Part B of Table 2 applies; and
 - (b) it was not retreaded in accordance with that standard.

Table 2

<p>Part A:</p> <ul style="list-style-type: none"> (a) Australian Standard AS 1973–1976, entitled “Retreaded Pneumatic Passenger Car and Light Truck Tyres”; (b) Australian Standard AS 1973–1985, entitled “Retreaded Pneumatic Passenger Car and Light Truck Tyres”;
<p>Part B:</p> <ul style="list-style-type: none"> (c) Australian Standard AS 1973–1993, entitled “Pneumatic Tyres—Passenger Car, Light Truck and Truck/Bus—Retreading and Repair Processes”.
<p style="text-align: center;">NOTE</p> <p>Australian Standard AS 1973 requires various markings on retreaded tyres which may include a speed rating less than that originally marked on the tyre.</p>

Tyre tread

- 2.19 (1)** A tyre of a vehicle must not have cleats or other gripping devices that could damage the road surface.
- 2.19 (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 the tyre width that normally comes into contact with the road; and
 - (b) around the whole circumference of the tyre.
- 2.19 (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 contains requirements that help to identify a vehicle and to warn other motorists that the vehicle may be unusually long.

The following terms defined in clause 10.8 are used in this Part:

Australian Standard	combination
B-double	road train

Vehicle and engine identification numbers

- 3.1 (1)** A vehicle must have an individual engine identification number stamped, embossed or otherwise permanently displayed on the vehicle.
- 3.1 (2)** A vehicle built after 1930 must have an engine identification number located on its engine block.
- 3.1 (3)** A vehicle built on or after 1 January 1960 may have an engine identification number on a plate that is fixed to an engine block using screws or rivets if the number is also stamped, embossed or otherwise permanently displayed on the engine block.
- 3.1 (4)** 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.
- 3.1 (5)** A vehicle or engine identification number required under this clause 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.

3.1 (6) In this clause, “**number**” includes letters.

White or silver band on certain vehicles

3.2 (1) A vehicle that:

- (a) is at least 2.2 metres wide; and
- (b) has a body the vertical measurement of which is less than 300 millimetres 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.

Warning signs for combinations more than 22 metres long

3.3 (1) A combination more than 30 metres long must have “ROAD TRAIN” warning signs in accordance with this clause and clause 3.5.

3.3 (2) A combination more than 22 metres long but not more than 30 metres long must have warning signs in accordance with this clause and clause 3.5 that are:

- (a) in the case of a road train, “ROAD TRAIN” warning signs or a “LONG VEHICLE” warning sign; or
- (b) in the case of a B-double, or other combination that is not a road train, a “LONG VEHICLE” warning sign.

3.3 (3) Subclauses (1) and (2) do not apply to the extent that they are inconsistent with the conditions of a notice or permit issued under the Act or the Regulations under the Act.

3.3 (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), complying with Australian Standard AS 1744 “Forms of Letters and Numerals for Road Signs”.

3.3 (5) If a “ROAD TRAIN” or “LONG VEHICLE” warning sign is in two pieces, one word must appear on one piece and the other word on the other piece.

3.3 (6) “ROAD TRAIN” warning signs must be used in pairs and fitted horizontally, one at the front and the other at the rear of the combination concerned.

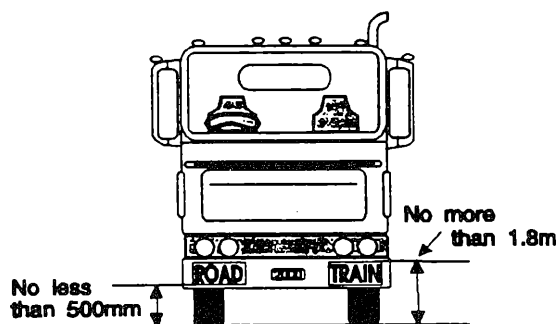
3.3 (7) A “LONG VEHICLE” warning sign must be fitted horizontally to the rearmost part of the combination concerned.

Warning signs not to be used in other cases

- 3.4 (1)** A “ROAD TRAIN” warning sign or a “LONG VEHICLE” warning sign must not be used on a vehicle or combination except in accordance with clause 3.3.

Specifications for warning signs

- 3.5 (1)** A warning sign must be:
- (a) durable; and
 - (b) built 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 a vehicle body using an adhesive.
- 3.5 (2)** A warning sign must be at least 1020 millimetres wide and 250 millimetres high.
- 3.5 (3)** A warning 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”.
- 3.5 (4)** A warning sign must have a black border.
- 3.5 (5)** A warning 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.
- 3.5 (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

Left hand drive sign

- 3.6 (1)** A vehicle that has the centre of a steering control to the left of the centre of the vehicle must have the words “LEFT HAND DRIVE” on the rear of the vehicle in letters at least 75 millimetres high in a contrasting colour to any background.

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 regulations under the Traffic Act 1909. Those regulations also include a number of different size limits to cater for vehicles from which the load is allowed to protrude, for example those regulations deal with height and allowable rear overhang of car carriers.

The following terms defined in clause 10.8 are used in this Part:

air brake	ground clearance
articulated bus	GVM
axle	load-sharing suspension system
axle group	point of articulation
B-double	rear overhang
bus	rear overhang line
combination	road train
controlled access bus	semi-trailer
converter dolly	single axle
dog trailer	single axle group
drawbar	tandem axle group
fifth wheel coupling	twinsteer axle group

*Division 1—Axles***Axle configuration**

- 4.1 (1)** A 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.
- 4.1 (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.
- 4.1 (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.
- 4.1 (4)** A semi-trailer must have only one axle group or a single axle.
- 4.1 (5)** The axle group or single axle must be located towards the rear of the semi-trailer.

- 4.1 (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 semi-trailer 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 semi-trailer; and
 - (iii) is fitted with a visible or audible warning device to indicate to a person standing beside the semi-trailer 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 semi-trailer remain connected if the securing device fails.

Relation between axles in an axle group

- 4.2 (1)** 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.

Minimum axle spacings

- 4.3 (1)** The centre lines of adjacent axles that are not in the same axle group on a vehicle with a GVM of more than 12 tonnes must be at least 2.5 metres apart.

Division 2—Dimensions

Width

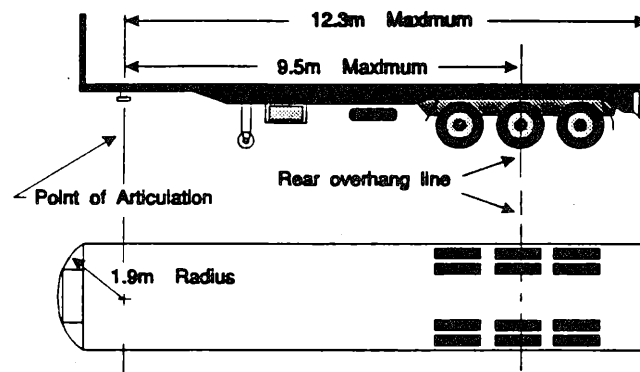
- 4.4 (1)** A vehicle must not be more than 2.5 metres wide.
- 4.4 (2)** For the purposes of subclause (1), the width of a vehicle is measured without taking into account rear vision mirrors, lights, signalling devices or reflectors that:
- (a) are mounted on either side of the vehicle; and
 - (b) comply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

Length of single vehicles

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

Length of single trailers

- 4.6 (1)** On a semi-trailer or a dog trailer:
- (a) the distance between the point of articulation at the front 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 and the rear of the trailer must not be more than 12.3 metres.
- 4.6 (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**

- 4.6 (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 at least one of the points.
- 4.6 (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.
- 4.6 (5)** For the purposes of subclause (4), the length available for the carriage of animals on a trailer must 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 (as the case requires), and any intervening partitions must be disregarded.

Length of combinations of vehicles

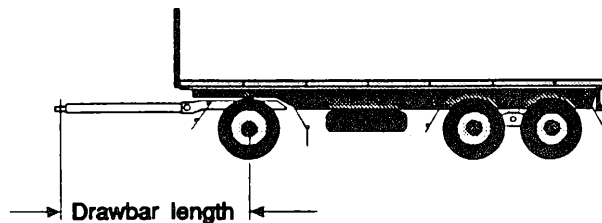
- 4.7 (1)** A combination must not be more than 19 metres long.
- 4.7 (2)** Despite subclause (1):
- (a) a B-double must not be more than 25 metres long; and
 - (b) a road train must not be more than 53.5 metres long; and
 - (c) a combination (other than a B-double or road train) that is designed to carry vehicles on more than one deck must not be more than 23 metres long.
- 4.7 (3)** In a Bdouble built to carry cattle, sheep, pigs or horses, the two semi-trailers must not have more than 18.8 metres of their combined length available for the carriage of animals.
- 4.7 (4)** For the purposes of subclause (3), the length available for the carriage of animals on a trailer must 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 (as the case requires), and any intervening partitions must be disregarded.

Rear overhang

- 4.8 (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.
- 4.8 (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 clause 4.6 (3).
- 4.8 (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.
- 4.8 (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.

Trailer drawbar length

- 4.9 (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

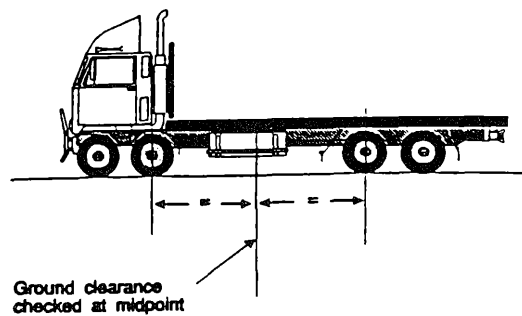
- 4.9 (2)** The distance between the coupling pivot point on a drawbar and the centre line of the axle group or single axle on a trailer with only one axle group or single axle, other than a semi-trailer, must not exceed 8.5 metres.

Height

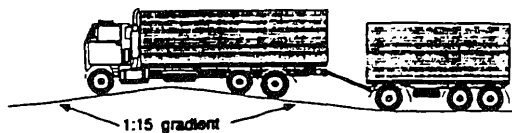
- 4.10 (1)** A vehicle must not be more than 4.3 metres high.
- 4.10 (2)** Despite subclause (1):
- (a) the height of a vehicle built to carry cattle, sheep, pigs or horses may exceed 4.3 metres but must not exceed 4.6 metres; and
 - (b) the height of a double-deck bus may exceed 4.3 metres but must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

Ground clearance

- 4.11 (1)** A vehicle or combination must have a ground clearance of:
- (a) at least 100 millimetres at any point within 1 metre of an axle; and
 - (b) 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—at least the distance that allows the vehicle or combination to pass over a peak in a 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

Axle arrangement on a converter dolly

- 4.12 (1)** A converter dolly must have a single axle group, a tandem axle group or a single axle.

Construction of a converter dolly

- 4.13 (1)** 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.

Converter dolly coupling

- 4.14 (1)** The fifth wheel coupling of a converter dolly must be able to pivot about a horizontal axis transverse to the vehicle.
- 4.14 (2)** A converter dolly built as referred to in clause 4.13 (1) (a) must have a fixed drawbar.

- 4.14 (3)** The drawbar of a converter dolly built as referred to in clause 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.

Converter dolly suspension

- 4.15 (1)** A tandem axle group supporting a converter dolly built as referred to in clause 4.13 (1) (a) must have a single point or air bag suspension system.
- 4.15 (2)** A tandem axle group supporting a converter dolly built as referred to in clause 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 this Appendix prohibits the fitting of a particular kind of light or reflector, it may be fitted to a vehicle.

The Motor Traffic Regulations 1935 state when certain lights must be switched on. The visibility requirements for lights in this Part apply to lights switched on at times when the 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 as a more modern term, instead of the description “amber” which is used in earlier legislation and some ADRs.

The following terms defined in clause 10.8 are used in this Part:

ADR	low-beam
bus	pole-type trailer
daylight	prime mover
driver	rear fog light
emergency vehicle	semi-trailer
front fog light	service brake
GTM	
GVM	
high-beam	

*Division 1—General requirements for lights***Prevention of glare**

- 5.1 (1)** 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 of another vehicle approaching or being approached by the vehicle.

Pairs of lights

- 5.2 (1)** If lights are required by this Appendix to be fitted in pairs to a vehicle:
- (a) one light must be fitted on each side of the longitudinal axis 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.

*Division 2—Headlights***Headlights to be fitted to a vehicle**

- 5.3 (1)** A vehicle must have fitted to it a pair of low-beam headlights.
- 5.3 (2)** If a vehicle built after 1934 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 be able to work in the high-beam position; or
 - (b) the vehicle must have an additional pair of headlights that can work in the high-beam position.
- 5.3 (3)** A vehicle may have further pairs of headlights fitted to it.
- 5.3 (4)** In spite of subclause (3), a vehicle first registered before 1 October 1995 may have one or two additional headlights fitted.

How should headlights be fitted?

- 5.4 (1)** The centres of low-beam headlights fitted as a pair on a vehicle with 4 or more wheels must be at least 600 millimetres apart.
- 5.4 (2)** Subclause (1) does not apply to a vehicle built before 1970 if the centres of its low-beam headlights were less than 600 millimetres apart when built and if they are not closer than the original distance at which they were built.

- 5.4 (3)** The centre of a low-beam headlight fitted to a vehicle built after June 1953 must be:
- (a) at least 500 millimetres above ground level; and
 - (b) not more than 1.4 metres above ground level.
- 5.4 (4)** Headlights must be fitted to a vehicle so that their light does not reflect off the vehicle into the driver's eyes.

Performance of headlights

- 5.5 (1)** When operating, 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.

Effective range of headlights

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

Changing headlights from high-beam to low-beam position

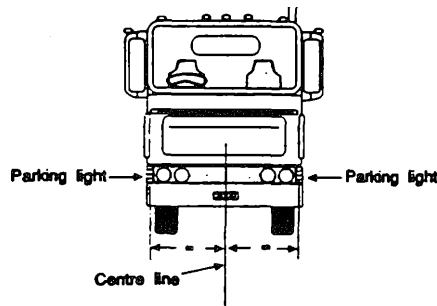
- 5.7 (1)** A vehicle built after 31 December 1934 and capable of travelling at a speed of more than 60 kilometres an hour must be fitted with:
- (a) a dipping device enabling the driver in the normal driving position:
 - (i) to change the headlights from the high-beam position to the low-beam position; or
 - (ii) simultaneously to switch off a high-beam headlight and switch on a low-beam headlight; and
 - (b) if the vehicle was built after June 1953—a device to indicate to the driver that the headlights are in the high-beam position.
- 5.7 (2)** A headlight fitted to a vehicle not fitted with a dipping device described in subclause (1) (a) must operate in the low-beam position.
- 5.7 (3)** When a headlight fitted to a vehicle is switched to the low-beam position, the other headlights on the vehicle must operate only in the low-beam position or be extinguished.

Division 3—Parking lights

Parking lights

- 5.8 (1)** A pair of parking lights must be fitted to the front of a vehicle built after June 1953.

- 5.8 (2) A pair of parking lights fitted to a vehicle with 4 or more wheels must be fitted with the centre of each light:
- (a) at least 600 millimetres from the centre of the other light; and
 - (b) not more than 510 millimetres from the nearer of the two sides of the vehicle.



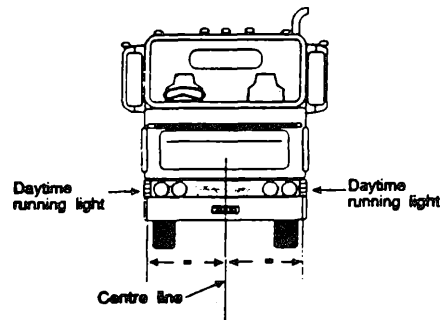
Location of parking lights on a vehicle

- 5.8 (3) In spite of subclause (1), a vehicle first registered before 1 July 1971 need not be fitted with parking lights.
- 5.8 (5) When operating, 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.
- 5.8 (6) A parking light fitted to a vehicle built on or after 1 January 1970 must be wired so that, when a headlight on the vehicle is switched on, the parking light:
- (a) stays on if it is already switched on; or
 - (b) comes on if it is not already switched on.

Division 4—Daytime running lights

Daytime running lights

- 5.9 (1) A pair of daytime running lights may be fitted to a vehicle.
- 5.9 (2) A pair of daytime running lights fitted to a vehicle with 4 or more wheels must be fitted with the centre of each light:
- (a) at least 600 millimetres from the centre of the other light; and
 - (b) not more than 510 millimetres from the nearer of the two sides of the vehicle.



Location of daytime running lights on a vehicle

- 5.9 (3)** When operating, 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.
- 5.9 (4)** Daytime running lights must be wired so that they are extinguished when a headlight or parking light is switched on.

Division 5—Tail lights

Tail lights

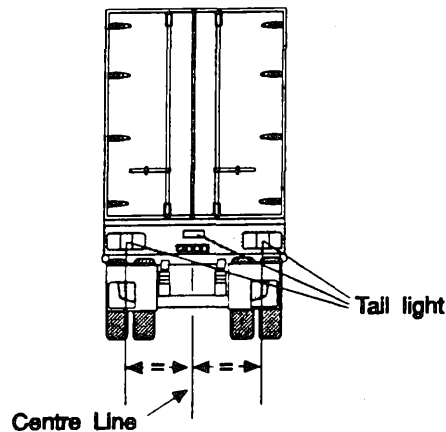
- 5.10 (1)** A vehicle must have fitted on or towards its rear at least one tail light, with its centre not more than 1.5 metres above ground level.
- 5.10 (2)** A trailer built after June 1973 must have at least 2 tail lights, at least one being fitted on or towards each side of the rear of the trailer and having its centre not more than 1.5 metres above ground level.
- 5.80 (3)** A vehicle may have fitted to it one or more additional tail lights at any height above ground level.

Pattern of fitting tail lights

- 5.11 (1)** If only one tail light is fitted to a vehicle, it must be fitted in the centre or to the right of the centre of the vehicle's rear.
- 5.11 (3)** If two or more tail lights are fitted to a vehicle at least two must be fitted as a pair.

NOTE

Clause 5.2 describes how pairs of lights must be fitted.



Location of tail lights on a vehicle

- 5.11 (4)** 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 clause 5.17 (3).

Performance of tail lights

- 5.12 (1)** When operating, 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.

Wiring of tail lights

- 5.13 (1)** A tail light must be wired to operate when a parking light or headlight on the vehicle is operating.

Division 6—Number-plate lights

Number-plate lights

- 5.14 (1)** At least one number-plate light must be fitted to the rear of a vehicle.
- 5.14 (2)** When operating, 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.

- 5.14 (3)** A number-plate light:
- (a) may be combined with another 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 operate when a parking light, headlight or tail light on the vehicle is operating.

Division 7—Clearance lights

Front clearance lights

- 5.15 (1)** Front clearance lights may only be fitted to a vehicle that is at least 1.8 metres wide.
- 5.15 (2)** A pair of front clearance lights must be fitted to a vehicle that is at least 2.2 metres wide, or a prime mover.
- 5.15 (3)** The centre of a front clearance light must be:
- (a) not more than 400 millimetres from the side of the vehicle; and
 - (b) if the vehicle was built after June 1953 at least 750 millimetres higher than the centre of any low-beam headlight fitted to the vehicle.
- 5.15 (4)** A front clearance light may be mounted on an external rearview mirror or a mirror support if, when the mirror is correctly adjusted, no part of the lens of the clearance light is visible to a person in the normal driving position.
- 5.15 (5)** When operating, 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.

External cabin lights

- 5.16 (1)** A vehicle fitted with front clearance lights may also have additional forward-facing lights on or above the roof of its cabin.
- 5.16 (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.
- 5.16 (3)** When operating, an additional forward-facing light must:
- (a) show a yellow or white light; and
 - (b) not use more power than 7 watts.

Rear clearance lights

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

- 5.18 (1)** A pair of side marker lights must be fitted towards the rear of the sides of a vehicle that is more than 7.5 metres long and at least 2.2 metres wide.
- 5.18 (2)** A vehicle built to draw a pole-type trailer must have a side marker light fitted to each side of the vehicle's cross-bar or bolster. A pole-type trailer with a single cross-bar or bolster must also have a side marker light fitted to each side of the cross-bar or bolster.
- 5.18 (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 operating, shows a yellow light to the front; and
 - (b) the back cross-bar or bolster a light which, when operating, shows a red light to the rear.
- 5.18 (4)** 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.

- 5.18 (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.

Location of side marker lights

- 5.19 (1)** The centre of a side marker light must be not more than 150 millimetres from the nearer of the two sides of the vehicle.
- 5.19 (2)** The centre of a front side marker light must be:
- (a) fitted to a vehicle on its side towards the front of the vehicle with no part of the lens visible to the driver; or
 - (b) fitted to a trailer:
 - (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.
- 5.19 (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)—close as practicable to the rear of the vehicle.
- 5.19 (4)** The centres of adjacent side marker lights fitted to the side of a vehicle must be equal distances apart.
- 5.19 (5)** Subclauses (2)–(4) do not apply to side marker lights fitted to a cross-bar or bolster of:
- (a) a pole-type trailer; or
 - (b) a vehicle built to tow a pole-type trailer.
- 5.19 (6)** Only the rearmost side marker lights need be fitted if compliance with subclauses (2) (b) (ii) and (3) (b) would mean that the front and rear side marker lights would be less than 2.5 metres apart.

- 5.19 (7)** A side marker light must be fitted to a vehicle so that:
- (a) its centre is not more than 1.5 metres above ground level (if practicable) and in any case not more than 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.
- 5.19 (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.

Performance of side marker lights

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

Side marker lights and rear clearance lights

- 5.21 (1)** 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

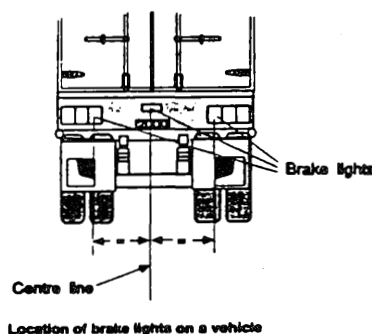
Fitting brake lights

- 5.22 (1)** A brake light must be fitted to the rear of a vehicle built after 1934.
- 5.22 (2)** A pair of brake lights must be fitted to the rear of:
- (a) a vehicle (other than a trailer) built after 1 October 1991 that has 4 or more wheels; and
 - (b) a trailer built after 1 October 1991.

NOTE

Clause 5.2 describes how pairs of lights must be fitted.

- 5.22 (3)** The centre of a brake light must be:
- (a) at least 350 millimetres above ground level; and
 - (b) not more than 1.5 metres above ground level (if practicable) and in any case not more than 2.1 metres above ground level.
- 5.22 (4)** A vehicle to which subclause (1) or (2) applies may have one or more additional brake lights, with their centres at any height but at least 350 millimetres above ground level.
- 5.22 (5)** If only one brake light is fitted to a vehicle, it must be fitted in the centre or to the right of the centre of the vehicle's rear.



Performance and operation of brake lights

- 5.23 (1)** When operating, a brake light must show a red light visible 30 metres from the rear of the vehicle at any time.
- 5.23 (2)** A brake light fitted to a vehicle must come on, if it is not already on, when:
- (a) a service brake is applied, if the vehicle has 4 or more wheels or is built after 1974; or
 - (b) the rear wheel brake is applied, if the vehicle has 3 wheels or less and was built before 1975.
- 5.23 (3)** Subclause (2) does not require a brake light to operate when the controls in a vehicle are in a position that makes it impossible for the engine to operate.
- 5.23 (4)** A brake light on a trailer must come on:
- (a) when the brake light of the towing vehicle is switched on in accordance with subclause (2); and
 - (b) when any device which independently activates the brakes fitted to the trailer (other than a device which is automatically activated if the trailer breaks away from the towing vehicle) comes into operation.
- 5.23 (5)** A brake light may be operated by an engine brake, a retarder or similar device.
- 5.23 (6)** An engine brake, retarder or similar device operating a brake light must not interfere with the proper operation of the brake light.

Division 10—Reversing lights**Reversing lights**

- 5.24 (1)** One or more reversing lights may be fitted to the rear of a vehicle and on each side near the rear of the vehicle.
- 5.24 (2)** A reversing light must:
- (a) when operating, show white or yellow light to the rear or to the side and rear of the vehicle; and
 - (b) have its centre not more than 1.2 metres above ground level.
- 5.24 (3)** A reversing light fitted to a vehicle must be wired so that it operates only when the vehicle is reversing or is in reverse gear.
- 5.24 (4)** A reversing light fitted to a trailer must be wired so that it operates only when a vehicle towing the trailer is reversing or is in reverse gear.
- 5.24 (5)** A yellow reversing light may also operate as a direction indicator light.

NOTE

The 3rd Edition ADRs only allow white reversing lights
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Division 11—Direction indicator lights**Direction indicator lights on a vehicle**

- 5.25 (1)** A vehicle built on or after 1 September 1966 that has 4 or more wheels must have:
- (a) a pair of direction indicator lights fitted on its front or towards its front, facing forward; and
 - (b) a pair of direction indicator lights fitted on its rear or towards its rear, facing backwards.

Direction indicator lights on a trailer

- 5.26 (1)** A pair of direction indicator lights must be fitted, facing backwards, on the rear or towards the rear of a trailer built after June 1973.

Location of direction indicator lights

5.27 (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 1.5 metres above ground level (if practicable) and in any case not more than 2.1 metres above ground level.

<p style="text-align: center;">NOTE</p> <p>Clause 5.2 describes how pairs of lights must be fitted.</p>
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5.27 (2) A vehicle fitted with direction indicator lights in accordance with subclause (1) may be fitted with additional pairs of direction indicator lights with centres at any height, at least 350 millimetres above ground level.

Operation and visibility of direction indicator lights

5.28 (1) A direction indicator light fitted on a vehicle must:

- (a) when operating, display regular flashes of light at a rate of not less than 60, and not more than 120, flashes per minute; and
- (b) be capable of being operated by a person in the driving position of the vehicle; and
- (c) be wired to an audible or visible device in the vehicle that informs the driver of the vehicle that the direction indicator light is operating; and
- (d) flash at the same time and at the same rate as any other lights of the same type fitted on the same side of the vehicle.

5.28 (2) The flashes of light referred to in subclause (1) (a) must be:

- (a) if the light faces forwards—white or yellow; or
- (b) if the light faces backwards:
 - (i) yellow; or
 - (ii) if the vehicle was built before July 1973—yellow or red; or
- (c) if the light faces outwards from the side of the vehicle:
 - (i) white or yellow towards the front and side; and
 - (ii) if the vehicle was built before July 1973—yellow or red towards the rear and side; and
 - (iii) if the vehicle was built in July 1973 or later—yellow towards the rear and side.

NOTE

The ADRs only allow yellow direction indicator lights.

- 5.28 (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 when the lights are operating simultaneously.
- 5.28 (4)** When operating, a direction indicator light must be visible at all times 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.
- 5.28 (5)** When operating, each direction indicator light of one pair of lights fitted on or towards the front of a vehicle that is a prime mover or that is more than 7.5 metres long must be visible at all times at a point that is:
- (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**Front fog lights**

- 5.29 (1)** A pair of front fog lights may be fitted to a vehicle.
- 5.29 (3)** Front fog lights fitted to a vehicle must be within 400 millimetres of their respective sides of the vehicle unless their centres are at least 600 millimetres apart.
- 5.29 (4)** If the top of a front 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.
- 5.29 (5)** A front fog light must:
- (a) project white or yellow light in front of the vehicle; 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.

Rear fog lights

- 5.38 (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.
- 5.30 (2)** A rear fog light must:
- (a) have its centre:
 - (i) not more than 1.5 metres above ground level; and
 - (ii) not nearer than 100 millimetres to the centre of any brake light; and
 - (b) project red light behind the vehicle; and
 - (c) not use more power than 27 watts; and
 - (d) 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**Interior lights**

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

Division 14—Reflectors generally**General requirements for reflectors**

- 5.32 (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 this Appendix.
- 5.32 (2)** The reflection must be clearly visible from the position of the headlight.

Division 15—Reflectors at the back of a vehicle**Rear reflectors**

- 5.33 (1)** A vehicle (other than a pole-type trailer) must have a rear-facing red reflector towards each side of its rear.
- 5.33 (2)** A pole-type trailer must have at least 4 rear-facing red reflectors on its back cross-bar or bolster.
- 5.33 (3)** The centres of the reflectors must be:
- (a) at the same height above ground level; and
 - (b) not more than 1.5 metres above ground level.
- 5.33 (4)** A reflector fitted to a vehicle, or to a trailer, must be not more than 400 millimetres from the nearer of the two sides of the vehicle.
- 5.33 (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**Compulsory side reflectors on pole-type trailers**

- 5.34 (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 1250 millimetres.
- 5.34 (2)** Additional side-facing reflectors may be fitted in accordance with clause 5.35 to a pole-type trailer.

Optional side-facing reflectors on vehicles in general

- 5.35 (1)** A vehicle may be fitted with side-facing reflectors.
- 5.35 (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**Compulsory front reflectors on trailers**

- 5.36 (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.
- 5.36 (2)** Each reflector must:
- (a) have its centre at the same height above ground level; and
 - (b) have its centre not more than 1.5 metres above ground level; and
 - (c) be not more than 400 millimetres from the side of the vehicle that is nearer the reflector.
- 5.36 (3)** Additional reflectors may be fitted to a trailer in accordance with clause 5.37.

Optional front reflectors

- 5.37 (1)** A vehicle may have one or more front-facing white or yellow reflectors fitted towards each side of its front.
- 5.34 (2)** The centres of a pair of 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**Additional lights and reflectors**

- 5.38 (1)** A vehicle may display a light or reflector of a type that is not described in this Appendix.

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 this Appendix, those lights and reflectors may also be fitted to vehicles to which third edition ADRs do not apply.

- 5.38 (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 this Appendix.
- 5.38 (3)** Despite subclause (2):
- (a) an emergency vehicle or a police vehicle may have one or more lights that flash and show:
 - (i) either blue light or red and blue light if the vehicle is a police vehicle; or
 - (ii) either red light or red and blue light if the vehicle is an ambulance or fire fighting vehicle; or
 - (iii) magenta light if the vehicle has an interception or apprehension role; or
 - (iv) yellow light if the vehicle is any other emergency vehicle; and
 - (b) an emergency vehicle or a police vehicle may have one or more reflectors that:
 - (i) show a reflection of red light to the front; or
 - (ii) show a reflection of white light to the rear; or
 - (iii) are similar in size, colour and intensity to traffic lights.
- 5.38 (4)** Despite subclause (2), any of the following vehicles may display at least one light that flashes and shows yellow light in any direction:
- (a) a vehicle built or fitted for use in a hazardous position on a road;
 - (b) a vehicle or combination that is required to operate in accordance with the conditions of a notice or permit relating to the operation of a vehicle or combination whose mass or dimensions exceed the limits fixed by or under the Act;
 - (c) a vehicle built or fitted to accompany a vehicle or combination of the kind referred to in paragraph (b);
 - (d) a bus that is fitted with a sign to indicate to other road users that it is carrying children.

Rear marking plates

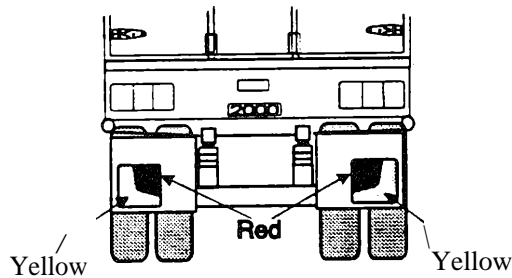
5.39 (1) Rear marking plates must be fitted to:

- (a) a 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.

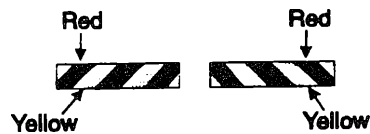
5.39 (2) Subclause (1) applies to a vehicle even though it was built before the date specified in the ADR.

NOTE

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



An example of rear marking plate



An alternative pattern for rear marking plates

Signalling devices

5.40 (1) This clause applies to a vehicle that is not fitted with a brake light or direction indicator light referred to in Division 9 or 11.

- 5.40 (2)** If the construction of the vehicle would otherwise prevent the driver from signalling, by means of a right hand signal, an intention to turn or move the vehicle to the right, or to stop or suddenly reduce the speed of the vehicle, the vehicle must be fitted with:
- (a) a mechanical signalling device; or
 - (b) a pair of turn signals.
- 5.44 (3)** A mechanical signalling device must:
- (a) be fitted to the right side of the vehicle; and
 - (b) be able to be operated by the driver from a normal driving position; and
 - (c) consist of a white or yellow representation of the human hand attached to an arm, with the hand being not less than 15 centimetres long and not less than half its length in width, with the thumb and fingers extended; and
 - (d) be constructed so that the driver of the vehicle can keep it:
 - (i) in a neutral position so that it is unlikely that the driver of any other vehicle or any other person would regard it as a signal; or
 - (ii) in a horizontal position with the palm of the hand facing forward and the fingers pointing outwards at a right angle to the vehicle to signal an intention to turn or move right; or
 - (iii) with the palm of the hand facing forward and the fingers pointing upwards to signal an intention to stop or reduce speed suddenly.
- 5.40 (4)** When the mechanical signalling device is in a position described in subclause (3) (d) (ii) or (i), the complete hand must be clearly visible from both the front and the rear of the vehicle, at a distance of 30 metres.

5.48 (5) A turn signal must:

- (a) consist of a steady or flashing illuminated yellow sign with an illuminated length of not less than 150 millimetres and an illuminated width of not less than 25 millimetres that:
 - (i) when in operation—is kept horizontal; and
 - (ii) when not in operation—is kept in a position so that it is unlikely that the driver of any other vehicle or any other person would regard it as a signal; and
- (b) be fitted to the side of the vehicle not less than 50 centimetres nor more than 2.1 metres above ground level, in such a position that the driver of the vehicle, from the normal driving position, can see whether the turn signal is in operation; and
- (c) be able to be operated by the driver, from the normal driving position; and
- (d) when in operation, be visible from both the front and rear of the vehicle at a distance of 30 metres.

5.40 (6) A vehicle that is not required to be fitted with any sort of direction indicator (whether direction indicator lights, a mechanical signalling device, or turn signals) may be fitted with a pair of direction indicator lights that are visible from both the front and rear of the vehicle if the vehicle is not more than 7.5 metres long.

Division 19—Vehicles not required to have lights or reflectors

Old vehicles used only during daylight

5.41 (1) Nothing in this Part requires a vehicle built before 1931 that is used only during daylight to be fitted with headlights, tail lights, number-plate lights, reflectors, clearance lights or side marker lights.

PART 6—BRAKING SYSTEMS

NOTE

This Part sets out the braking system requirements for heavy 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 Bdobles 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 10.8 are used in this Part:

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

Division 1—Brake requirements for all vehicles

Parts of a braking system

- 6.1 (1)** Each component of the braking system of a vehicle must comply with the design and performance requirements of a relevant standard issued by one of the following bodies before this Appendix commences:
- (a) 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 Deutsches Institut für Normung;
 - (g) the International Organisation for Standardisation.

- 6.1 (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 movements of the vehicle to which it is attached; and
 - (c) be fitted so as to prevent its 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.

Provision for wear

- 6.2 (1)** The braking system of a vehicle must provide for adjustment to take account of normal wear.

Supply of air or vacuum to brakes

- 6.3 (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 clause 6.7 (3) (b) or 6.10 (3) (a) has been given.
- 6.3 (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 clause 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.

Performance of braking systems

- 6.4 (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 is on a dry, smooth, level road surface, free from loose material; and
 - (b) without part of the motor vehicle or combination moving outside a straight path:
 - (i) 3.7 metres wide; and
 - (ii) centred on the longitudinal axis of the motor vehicle or combination before the brake was applied.

NOTE

These performance requirements apply whether or not the motor vehicle or combination is loaded.

- 6.4 (2)** The braking system of a motor vehicle or combination must bring the motor vehicle or combination from a speed of 35 kilometres an hour to a stop within the distance specified:
- (a) in Column 2 of Table 3, when the service brake is applied; and
 - (b) in Column 3 of Table 3, when the emergency brake is applied.

Table 3

Column 1 Gross mass of motor vehicle or combination of vehicles	Column 2 Stopping distance when service brake is applied (metres)	Column 3 Stopping distance when emergency brake is applied (metres)
more than 4.5 tonnes	16.5	40.5

- 6.4 (3)** The braking system of a motor vehicle or combination must decelerate the vehicle or combination, from any speed at which the vehicle or combination can travel, by an average of at least the rate specified:
- (a) in Column 2 of Table 4, when the service brake is applied; and
 - (b) in Column 3 of Table 4, when the emergency brake is applied.

Table 4

Column 1 Gross mass of motor vehicle or combination of vehicles	Column 2 Average decelera- tion when service brake is applied (metres per second per second)	Column 3 Average deceleration when emergency brake is applied (metres per second per second)
more than 4.5 tonnes	2.8	1.1

- 6.4 (4)** The braking system of a motor vehicle or combination must achieve a peak deceleration of the vehicle or combination, from any speed at which the vehicle or combination can travel, of at least the rate specified:
- (a) in Column 2 of Table 5, when the service brake is applied; and
 - (b) in Column 3 of Table 5, when the emergency brake is applied.

Table 5

Column 1 Gross mass of motor vehicle or combination of vehicles	Column 2 Average decelera- tion when service brake is applied (metres per second per second)	Column 3 Average deceleration when emergency brake is applied (metres per second per second)
more than 4.5 tonnes	2.8	1.1

- 6.4 (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.
- 6.4 (6)** Subclause (1) does not apply to a vehicle built before 1931.

*Division 2—Motor vehicle braking systems***What braking system must a motor vehicle have?**

- 6.5 (1)** A motor vehicle with 4 or more wheels must be fitted with:
- (a) a braking system that comprises brakes fitted to all wheels of the vehicle and has at least 2 separate methods of activation, arranged so that effective braking remains on at least 2 wheels if one method fails; or
 - (b) two independent braking systems, each of which, when in operation, acts directly on not less than half the number of wheels of the vehicle.
- 6.5 (2)** The braking system of a motor vehicle with 4 or more wheels built after 1939 must have a service brake that operates on all wheels and that, when applied acts in one of the following ways in relation to each wheel:
- (a) directly on the wheel (and not through the vehicle's transmission); or
 - (b) on a shaft between a differential and the wheel.
- 6.5 (3)** A motor vehicle with 4 or more wheels 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.
- 6.5 (4)** A parking brake may also be an emergency brake.
- 6.5 (5)** If 2 or more independent braking systems are fitted to a motor vehicle with 4 or more wheels, they must be arranged so that, when any one system is operated, the brakes will be applied to all the wheels on at least one axle of the vehicle.

Operation of brakes on motor vehicles

- 6.6 (1)** The braking system on a motor vehicle must be arranged to allow the driver of the vehicle to apply the brakes from a normal driving position.

Air or vacuum brakes on motor vehicles

- 6.7 (1)** If a motor vehicle has air brakes, its braking system must include at least one air storage tank.
- 6.7 (2)** If a motor vehicle has vacuum brakes, its braking system must include at least one vacuum tank.

- 6.7 (3)** An air storage tank or vacuum tank must be:
- (a) 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) built to provide a visible or audible warning to the driver, while in a normal driving position, of a lack of air or vacuum that would prevent the service brake from performing at least twice as required by clause 6.4; and
 - (c) safeguarded by a check valve or other device against loss of air or vacuum if the supply fails or leaks.
- 6.7 (5)** If vacuum brakes or air brakes are fitted to a motor vehicle equipped to tow a trailer, the brakes of the vehicle must be able to stop the vehicle at the standard required for emergency brakes by clause 6.4, if a trailer breaks away.
- 6.7 (6)** 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.
- 6.7 (7)** The protection referred to in subclause (6) 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 when the protection operates.

Division 3—Trailer braking systems

What brakes must a trailer have?

- 6.8 (1)** A trailer must have brakes that operate on at least 2 wheels at opposite ends of one or more axles of the trailer.
- 6.8 (2)** A semi-trailer or converter dolly with a GTM of more than 2 tonnes must have brakes that operate on all its wheels.
- 6.8 (3)** Subclauses (1) and (2) are subject to the requirements of third edition ADR 38/00, even in relation to a vehicle that is not one to which that ADR is expressed to apply.

Operation of brakes on a trailer

- 6.9 (1)** The braking system of a trailer with a GTM of more than 2 tonnes must allow the driver of a motor vehicle to which the trailer is coupled to operate the brakes from a normal driving position.
- 6.9 (2)** The brakes on a semi-trailer or a trailer with a GTM of more than 2 tonnes 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.

Air or vacuum brakes on a trailer

- 6.10 (1)** If a trailer has air brakes, its braking system must include at least one air storage tank.
- 6.10 (2)** If a trailer has vacuum brakes, its braking system must include at least one vacuum tank.
- 6.10 (3)** An air storage tank or vacuum tank on a trailer 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 a 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**Application to road trains more than 19 metres long**

- 6.11 (1)** This Division does not apply to a road train that has a length of not more than 19 metres, or a vehicle used in a road train of that length.

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

- 6.12 (1)** A prime mover used in a B-double must meet the requirements of second edition ADR 35A or third edition ADR 35.

- 6.12 (2)** A prime mover used in a B-double must also have an anti-lock braking system that complies with third edition ADR 64/01, if the prime mover:
- (a) was manufactured on or after 1 January 1990; or
 - (b) regardless of its date of manufacture, was first used in a B-double on or after 1 January 1994; or
 - (c) regardless of its date of manufacture, is used in a B-double combination that includes a road tank vehicle that carries dangerous goods within the meaning of Regulation 119A.

Braking system design for a motor vehicle in a road train

- 6.13 (1)** 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 nevertheless 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.

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

- 6.14 (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.
- 6.14 (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.
- 6.14 (3)** A semi-trailer, regardless of its date of manufacture, must have an anti-lock braking system that meets the requirements of third edition ADR 38/01, if:
- (a) it is being used in a Bdouble that includes a road tank vehicle, whether or not the semi-trailer is itself a road tank vehicle; and
 - (b) the road tank vehicle carries dangerous goods within the meaning of Regulation 119A.

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

- 6.15 (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—450 kilopascals.
- 6.15 (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.
- 6.15 (3)** After the brakes have been fully applied, the pressure must fall, within half a second of the release of the foot-operated control, to 35 kilopascals.

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

- 6.16 (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—450 kilopascals.
- 6.16 (2)** The pressure must reach at least 420 kilopascals within:
- (a) 1.0 second 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.
- 6.16 (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.
- 6.16 (4)** In subclause (1), “least favoured chamber” means the brake chamber with the longest line to the foot-operated brake control in the prime mover.

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

- 6.17 (1)** 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—450 kilopascals.

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

- 6.18 (1)** 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.

Brake line couplings

- 6.19 (1)** Brake line couplings on the same part of a vehicle in a B-double or road train must not be interchangeable.
- 6.19 (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.

Simultaneous parking brake application

- 6.20 (1)** If the parking brake of a motor vehicle in a B-double or road train is applied, the parking brakes of any attached trailer must also be applied automatically.

Capacity of air reservoirs

- 6.21 (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.
- 6.21 (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—FUEL SYSTEMS, NOISE AND EMISSIONS**NOTE**

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

The following terms defined in clause 10.8 are used in this Part:

ADR	bus
Australian Standard	GVM

Crank case gases

- 7.1 (1)** A motor vehicle with 4 or more wheels 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.

Visible exhaust emissions

- 7.2 (1)** A motor vehicle:
- (a) built after 1930; and
 - (b) propelled by an internal combustion engine,
- must not emit visible exhaust emissions for any continuous period of 10 seconds or more.

- 7.2 (2)** A breach of subclause (1) is not constituted merely because the exhaust of a motor vehicle is visible because of its heat or the condensation of water vapour.

LPG-powered motor vehicles

- 7.3 (1)** A motor vehicle equipped to run on LPG must comply with:
- (a) the version of Australian Standard AS 1425 (relating to use of LPG in vehicles) that was current at the time the vehicle was first equipped to run on LPG; or
 - (b) that Standard as in force immediately before the commencement of this Appendix.
- 73 (2)** A motor vehicle equipped to run on LPG must have fixed conspicuously to the front and rear 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 "LPGAS", "LPG", or with words or acronyms to similar effect, in upper-case letters at least 6 millimetres high.
- 73 (3)** In this clause, "**LPG**" means a liquid that is a mixture consisting largely of one or more of butanes, butenes, propane and propene.

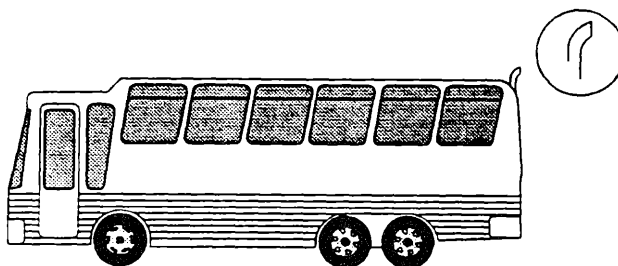
<p style="text-align: center;">NOTE</p>
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<p>LPG is a commonly used abbreviation for liquefied petroleum gas.</p>

Exhaust system

- 7.4 (1)** A motor vehicle propelled by an internal combustion engine must be fitted with an efficient silencing device through which all the exhaust from the engine passes.
- 7.4 (2)** A vertical exhaust system on a motor vehicle other than a bus must have any exposed section, other than the outlet, shielded or positioned to prevent injury to any person.

- 7.4 (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; and
 - (e) either:
 - (i) at least 150 millimetres above the cab, discharging above the horizontal and not to the left; or
 - (ii) less than 750 millimetres above the ground, discharging horizontally or not more than 45 degrees downwards and not to the left.
- 7.4 (4)** A bus must have fitted to it an exhaust system which:
- (a) has its outlet as near as practicable to the rear of the vehicle; and
 - (b) if the outlet pipe is vertical:
 - (i) discharges upwards; or
 - (ii) discharges rearwards at an angle above the horizontal behind the passenger compartment; and
 - (c) if the outlet pipe is not vertical:
 - (i) discharges rearwards or to the right of the vehicle, horizontally or not more than 45 degrees downwards; and
 - (ii) extends no further than the widest perimeter of the vehicle.



Bus exhaust outlet pipe

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 10.8 are used in this Part:

ADR	GVM
axle	owner
bus	prime mover
emergency vehicle	road train

Speed limiting

- 8.1 (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 third edition ADR 65.
- 8.1 (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 third edition ADR 65.
- 8.1 (3)** For the purposes of the technical requirements of third edition ADR 65, the maximum road speed capability of a motor vehicle used in a road train is 90 kilometres an hour.

NOTE

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

Exemptions from speed limiting

- 8.2 (1)** Clause 8.1 does not apply to:
- (a) an emergency vehicle or police vehicle; or
 - (b) a bus with specific provision for standing passengers.

- 8.2 (2) Clause 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 heavy 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 10.8 are used in this Part:

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

Division 1—Couplings on all types of vehicles

General coupling requirements

- 9.1 (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.
- 9.1 (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.

- 9.1 (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.

Drawbar couplings

- 9.2 (1)** 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.
- 9.2 (2)** A trailer to which subclause (1) applies that is in a combination, other than a trailer fitted with breakaway brakes in accordance with clause 6.9 (2), must be connected to the towing vehicle by at least one chain, cable or other flexible device, in addition to the coupling required by subclause (1).
- 9.2 (3)** The connection referred to in subclause (2) must be built and fitted so that:
- (a) the trailer will be kept in tow if the coupling breaks or accidentally detaches; and
 - (b) it permits all normal angular movement of the coupling without more slack than is necessary; and
 - (c) it will prevent the drawbar of the trailer from hitting the ground if the coupling detaches accidentally.

Division 2—Additional coupling requirements for B-doubles and long road trains**Application of Division to road trains**

- 9.3 (1)** 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.

Couplings for B-doubles and road trains

- 9.4 (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.

- 9.4 (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.
- 9.4 (3)** A turntable used in a vehicle manufactured on or after the commencement of this Appendix 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.
- 9.4 (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.

Selection of fifth wheel couplings for B-doubles

- 9.5 (1)** A fifth wheel coupling used in a B-double must have a D-value that accords with Australian Standard AS 1773-1990 “Articulated Vehicles—Fifth Wheel Assemblies”.
- 9.5 (2)** A turntable used in a B-double must have a D-value that accords with Australian Standard AS 1773-1990 “Articulated Vehicles—Fifth Wheel Assemblies”.

NOTE

A D-value of at least 107 kilonewtons (11.0 tonnes) will satisfy the requirements of clause 9.5 (1) and (2) if the B-double is operating within the mass limits prescribed under the Roads Act 1993.

- 9.5 (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.

- 9.5 (4)** A fifth wheel coupling used in a Bdouble that is built for a 75 millimetre kingpin must:
- (a) be compatible with the kingpin described in clause 9.10 (4); and
 - (b) not be worn away more than is specified in clause 9.7 (1) (a) and (b).

Selection of fifth wheel couplings for road trains

- 9.6 (1)** A fifth wheel coupling used in a road train must have a D-value that accords with Australian Standard AS 1773–1990 “Articulated Vehicles—Fifth Wheel Assemblies”.
- 9.6 (2)** A turntable used in a road train must have a D-value that accords with Australian Standard AS 1773–1990 “Articulated Vehicles—Fifth Wheel Assemblies”.

NOTE

If the road train is operating within the mass limits prescribed under the Roads Act 1993, a D-value of at least 140 kilonewtons (14.3 tonnes) for a prime mover and 162 kilonewtons (16.5 tonnes) for a converter dolly will satisfy the requirements of subclauses 9.6 (1) and (2).

- 9.6 (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”.
- 9.6 (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 clause 9.10 (4).

Determining the D-value of a fifth wheel coupling

- 9.7 (1)** When testing a fifth wheel coupling built for a 75 millimetre kingpin used in a B-double or road train to determine whether its D-value meets the requirements of clause 9.6 (1):
- (a) the closed jaw diameter must not wear more than 2.6 millimetres; and
 - (b) the jaw thickness must not wear more than 3 millimetres.

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

- 9.8 (1)** 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”.

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

- 9.9 (1)** 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.

Selection of kingpins for B-doubles and road trains

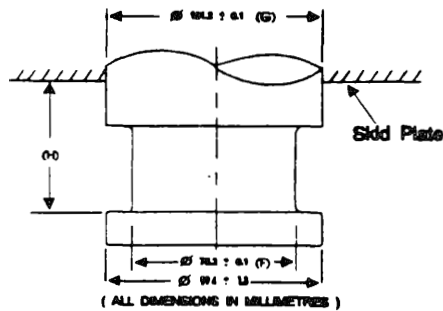
- 9.10 (1)** A kingpin used in a B-double must:
- (a) be a 50 millimetre, 75 millimetre or 90 millimetre kingpin; and
 - (b) have a D-value that accords with Australian Standard AS 2175–1990 “Articulated Vehicles—Kingpins”.
- 9.10 (2)** A kingpin used in a road train must:
- (a) be a 50 millimetre, 75 millimetre or 90 millimetre kingpin; and
 - (b) have a D-value that accords with Australian Standard AS 2175–1990 “Articulated Vehicles—Kingpins”.

NOTE

A D-value of at least 107 kilonewtons (11.0 tonnes) will satisfy the requirements of clause 9.10 (1) if the B-double is operating within the mass limits prescribed under the Roads Act 1993.

A D-value of at least 162 kilonewtons (16.5 tonnes) will satisfy the requirements of clause 9.10 (2) if the road train is operating within the mass limits prescribed under the Roads Act 1993.

- 9.10 (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.
- 9.10 (4)** A 75 millimetre kingpin used in a B-double or road train must:
- (a) be built to meet the dimensions in the diagram below; and
 - (b) not be worn away more than is specified in clause 9.10 (5).



Dimensions of a 75 millimetre kingpin

- 9.10 (5)** When testing a 75 millimetre kingpin described in the diagram in subclause (4) to determine whether its D-value meets the requirements of subclause (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 W must not wear more than 2.3 millimetres.

Attachment of kingpin on B-doubles and road trains

- 9.11 (1)** 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".

Branding of kingpins on B-doubles and road trains

- 9.12 (1)** 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.

Selection of couplings and drawbar eyes on road trains

- 9.13 (1)** 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 that accords with Australian Standard AS 2213–1984 “50mm Pin-Type Couplings and Drawbar Eyes for Trailers”; and

NOTE

A D-value of at least 186 kilonewtons (19 tonnes) will satisfy the requirements of clause 9.13 (1) (b) if the road train is operating within the mass limits prescribed under the Roads Act 1993.

- (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.

Attachment of couplings and drawbar eyes on road trains

- 9.14 (1)** 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.

Branding of couplings and drawbar eyes on road trains

- 9.15 (1)** 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 “50mm Pin-Type Couplings and Drawbar Eyes for Trailers” with:
- (a) the name or trademark of manufacturer; and
 - (b) its D-value rating.

Tow coupling overhang on road trains

- 9.16 (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.
- 9.16 (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.
- 9.16 (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*****Second edition ADR**

- 10.21 (1)** In these Regulations, 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, and available from, the Commonwealth Department of Transport,
- as amended and in force immediately before this Appendix commenced.
- 10.1 (2)** The words “left” and “right” in the following second edition ADRs must be read as “right” and “left” respectively in relation to a left-hand drive motor vehicle (that is, a motor vehicle that does not have the centre of a steering control on or to the right of the vehicle):
- (a) ADR 8—Safety Glass;
 - (b) ADR 12—Glare Reduction in Field of View;
 - (c) ADR 14—Rear Vision Mirrors;
 - (d) ADR 16—Windscreen Wipers and Washers;
 - (e) ADRs 18 and 18A—Location and Visibility of Instruments;
 - (f) ADRs 35 and 35A—Commercial Vehicle Braking Systems.

Third edition ADRs

10.2 (1) In these Regulations, 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, and available from, the Commonwealth Department of Transport,

as amended and in force from time to time.

NOTE

The following table provides a comparative list of some technical terms used in this Appendix and the third edition of the ADRs, for information.

<i>Third Edition ADR</i>	<i>Appendix</i>
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
External cabin lamp	External cabin light
Internal lamp	Interior light
Side marker lamp	Side marker light
Daytime running lamp	Daytime running light
Wheelguard	Mudguard

ADR transitional provisions

10.3 (1) For the purposes of this Appendix, if an ADR is the subject of a transitional provision in force immediately before the commencement of this Appendix and set out in or as an annexure to third edition ADR, 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 subject to an approval in force under second edition ADRs immediately before 1 July 1988 to continue to have compliance plates placed on them on or after 1 July 1988.

Division 2—Miscellaneous**Measurement of distance between lines**

- 10.4 (1)** In this Appendix, a reference to a distance between 2 lines that are parallel is a reference to the distance measured at right angles between the lines.

Equipment of a vehicle

- 10.5 (1)** In this Appendix, a reference to a vehicle includes a reference to its equipment.

Application to restored vehicles

- 10.6 (1)** For the purposes of this Appendix, a restored vehicle is regarded as having been built when it was originally built and not when it was restored.

Application to retractable axles

- 10.7 (1)** For the purposes of these Regulations, a retractable axle is regarded as being an axle when it is in its lowered position and is not regarded as being an axle when it is in its raised position.

*Division 3—Definitions***Definitions**

10.8 (1) In this Appendix, unless the contrary intention appears:

“**ADR**” (Australian Design Rule) means a national standard under the Motor Vehicle Standards Act 1989 of the Commonwealth;

“**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, as amended and in force at the commencement of this Appendix;
- (e) British Standards Institution BS 5282:1975 “Road Vehicle Safety Glass”, read with Amendments 1 and 2 as amended and in force at the commencement of this Appendix;
- (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” as amended and in force at the Commencement of this Appendix;
- (g) British Standards Institution BS AU178:1980 “Road Vehicle Safety Glass” as amended and in force at the commencement of this Appendix;
- (h) Japanese Industrial Standard JIS R 321 1–1979 “Safety Glasses for Road Vehicles” as amended and in force at the commencement of this Appendix;
- (i) American National Standard ANSI 226.1–1980 “Safety Code for Safety Glazing Materials for Glazing Motor Vehicles Operating on Land Highways” as amended and in force at the commencement of this Appendix;

NOTE

Copies of the above standards, except the Economic Commission for Europe standard referred to in paragraph (f), are available from offices of the Standards Association of Australia.

The standard referred to in paragraph (f) is available from the Federal Office of Road Safety, Department of Transport, Canberra.

“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 amended and in force at the Commencement of this Appendix;

NOTE

Copies of Australian Standards are available from offices of the Standards Association of Australia.

“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, winsteeer axle group, tri-axle group or quad-axle group;

“B-double” means a combination 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;

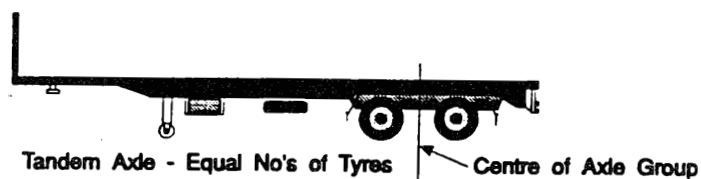
“British Standards Institution” means the institution of that name established under Royal Charter;

“bus” means a motor vehicle:

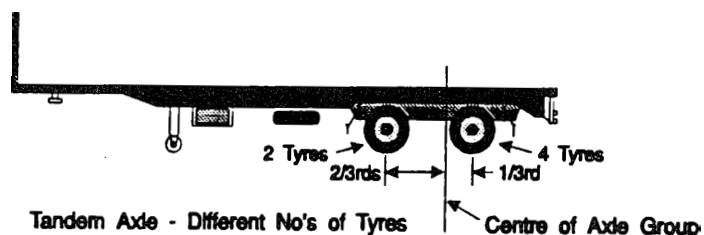
- (a) built mainly to carry people; and
- (b) that seats more than 9 adults (including the driver);

“centre of an axle group” means:

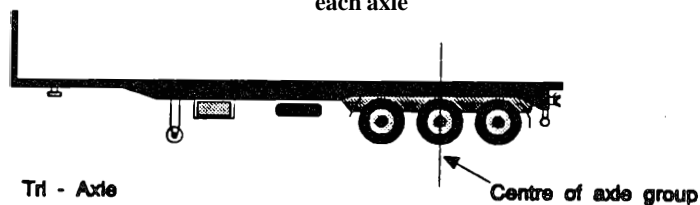
- (a) a line located midway between the centre lines of the outermost axles of the group; or
- (b) if the group consists of 2 axles, one of which is fitted with twice the number of tyres as the other axle—a line located one third of the way from the centre line of the axle with more tyres towards the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



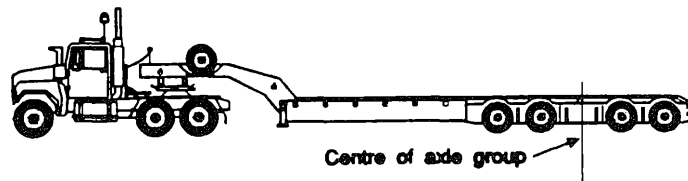
Centre of a tandem axle group fitted with an equal number of tyres on each axle



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

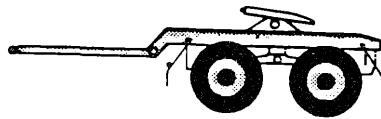


Centre of a tri-axle group



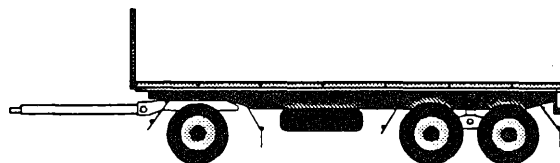
Centre of a quad-axle group

- “**combination**” 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

- “**daylight**” means the period starting half an hour before sunrise and ending half an hour after sunset;
 “**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 motor vehicle;

“D-value” means the strength capacity of a connection device as defined in:

- (a) Australian Standard AS 1773–1990 “Articulated Vehicles—Fifth Wheel Assemblies”; or
- (b) Australian Standard AS 2213–1984 “50mm Pin-type Couplings and Drawbar Eyes for Trailers”; or
- (c) Australian Standard AS 2175–1990 “Articulated Vehicles—King Pins”;

“Economic Commission for Europe” means the commission of that name established by the United Nations;

“emergency brake” means a brake designed to be used if a service brake fails;

“emergency vehicle” has the same meaning as in Regulation 80;

“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;

“front fog light” means a light used to improve the illumination of the road in case of fog, snowfall, heavy rain or a dust storm;

“glazing” means material fitted to the front, sides, rear or interior of a vehicle, through which the driver or a passenger can obtain a view of the road, but does not include a coating added after manufacture of the material;

“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 or front fog light fitted to a vehicle, means that the light is built or adjusted so that when the vehicle is standing on level ground, the top of the main beam of light projected is above the low beam position;

“independent braking system” means a braking system which is operated entirely separately from any other braking system on the vehicle except that any drum, disc or part on which a shoe or band or friction pad makes contact may be common to more than one braking system;

“jurisdiction” means a State, the Australian Capital Territory or the Northern Territory, as the case requires;

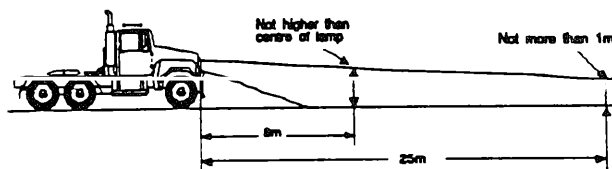
“left”, in relation to a vehicle, means to the left of the centre of the vehicle when viewed by a person in the vehicle and facing towards the front of the vehicle;

“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 that the light is 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 vehicle is standing, when measured at a point 25 metres in front of the vehicle;



A headlight in the low-beam position

NOTE

See clause 10.7 (1) as to the application of this Appendix to vehicles with retractable axles.

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

“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:

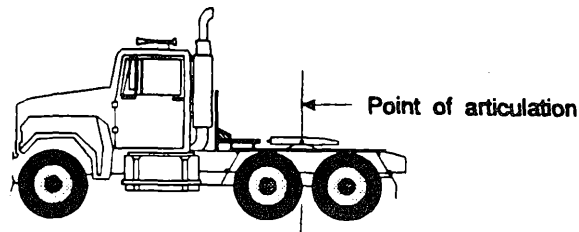
- (a) a person in whose name the vehicle is registered under a Commonwealth, State or Territory Act; or
- (b) a person who, according to the vehicle registration authority’s records, has acquired the vehicle from the person in whose name the vehicle is registered under the relevant Act; or
- (c) if the 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;

“personally imported vehicle” means a vehicle built after 1968:

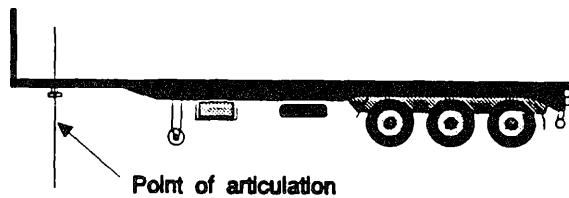
- (a) that was owned and used by the person importing it into Australia for a continuous period of at least 3 months before its entry into Australia; and
- (b) the owner of which, at the time of importation:
 - (i) is an Australian citizen or an Australian permanent resident or is a person who has applied to become an Australian citizen or an Australian permanent resident; and
 - (ii) is of an age that entitles him or her to hold a licence or a permit to drive a vehicle of that type; and
 - (iii) has not imported another vehicle owned by him or her within the year ending on the day on which the vehicle is landed in Australia;

“point of articulation” means:

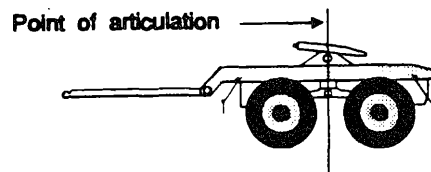
- (a) the axis of a kingpin for a fifth wheel; or
- (b) the vertical axis of rotation of a fifth wheel coupling; or
- (c) the vertical axis of rotation of a turntable assembly; or
- (d) the vertical axis of rotation of the front axle group or single axle of a dog trailer;



Articulation—fifth wheel on a prime mover



Point of articulation—kingpin for fifth wheel



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

“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 vehicle” means a vehicle driven by:

- (a) a member or special member of the Australian Federal Police; or
- (b) a member, however described, of the Police Force of a State or Territory; or
- (c) a service police officer within the meaning of the Defence Force Discipline Act 1982 of the Commonwealth,
acting in the course of his or her duty;

“prime mover” means a motor vehicle built to tow a semi-trailer;

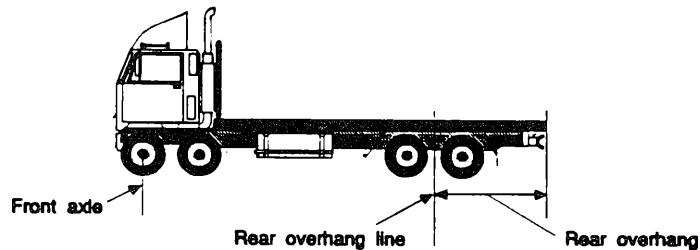
“quad-axle group” means a group of 4 axles, in which the horizontal distance between the centre lines of the outermost axles is more than 3.2 metres but not more than 4.9 metres;

“rear fog light” means a light used on a vehicle to make it more easily visible from the rear in dense fog;

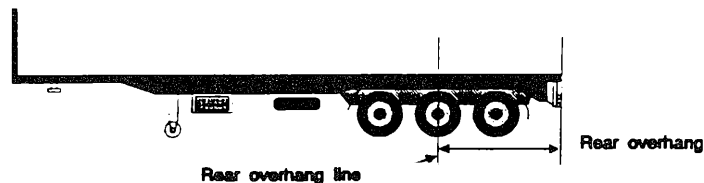
“rear overhang” means the distance between the rear overhang line and the rear of the vehicle;

“rear overhang line” means:

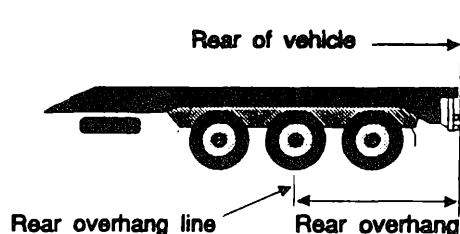
- (a) if there is a single axle at the rear of the vehicle—the centre line of the axle; or
- (b) if there is an axle group at the rear of the vehicle—the centre of the axle group, determined without regard to the presence of any steerable axle unless all axles in the group are steerable;



Rear overhang mod rear overhang line—motor vehicle



Rear overhang and rear overhang line—semi-trailer



Rear overhang and rear overhang line—vehicle with tri-axle group at rear

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

“restored vehicle” means a vehicle that is being or has been restored to its manufacturer’s specifications, so far as it is reasonably practicable to meet those specifications;

“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;

NOTE

See clause 10.7 (1) as to the application of this Appendix to vehicles with retractable axles.

“right”, in relation to a vehicle, means to the right of the centre of the vehicle when viewed by a person in the vehicle and facing towards the front 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;

“road train” means a combination, 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);



Road trains

“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;

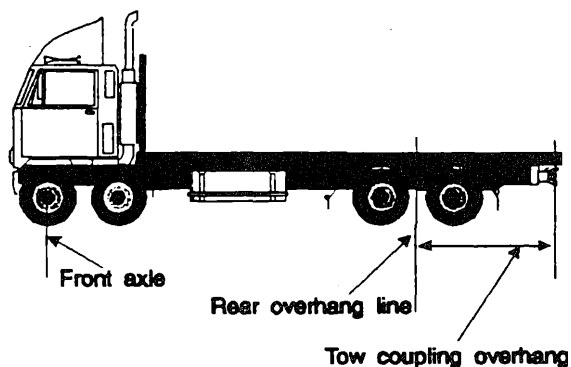
“single axle group” means a group of 2 or more axles, in which the horizontal distance between the centre lines of the outermost axles is less than 1 metre;

“spring brake” means a brake using one or more springs to store the energy required to operate the brake;

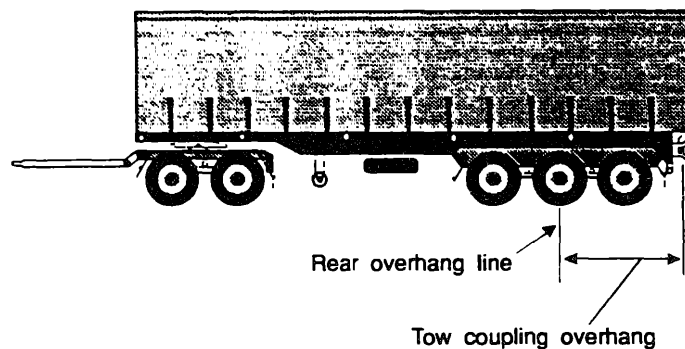
“Standards Association of Australia” means the Association of that name incorporated under Royal Charter;

“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;

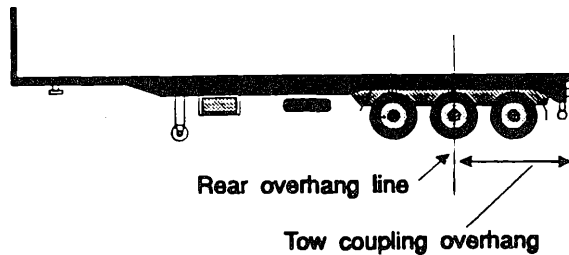
“tow coupling overhang” means the horizontal distance from the centre of the axle group, or the centre line of the single axle, at the rear of a vehicle to the pivot point of the coupling near the rear of the vehicle;



Tow coupling overhang—motor vehicle



Tow coupling overhang—dog trailer



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

“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;

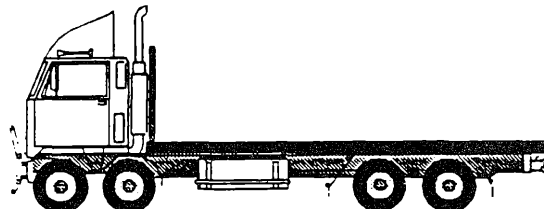
“tri-axle group” means a group of at least 3 axles, in which the horizontal distance between the centre lines of the outermost axles is more than 2 metres, but not more than 3.2 metres;

“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 a 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

Twinsager 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;

“yellow” includes amber;

“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”.

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- 6.13 Braking system design for a motor vehicle in a road train
- 6.14 Braking system design for a trailer in a B-double or a road train
- 6.15 Air brakes of a motor vehicle in a Bdouble or road train
- 6.16 Air brakes in a B-double or road train: least favoured chamber
- 6.17 Recovery of air pressure for brakes in a B-double or road train
- 6.18 Air supply for brakes in a B-double or road train
- 6.19 Brake line couplings
- 6.20 Simultaneous parking brake application
- 6.21 Capacity of air reservoirs

PART 7—FUEL SYSTEMS, NOISE AND EMISSIONS

- 7.1 Crank case gases
- 7.2 Visible exhaust emissions
- 7.3 LPG-powered vehicles
- 7.4 Exhaust system

PART 8—MAXIMUM ROAD SPEED LIMITING

- 8.1 Speed limiting
- 8.2 Exemptions from speed limiting

PART 9—MECHANICAL CONNECTIONS BETWEEN VEHICLES

Division 1—Couplings on all types of vehicles

- 9.1 General coupling requirements
- 9.2 Drawbar couplings

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

- 9.3 Application of Division to road trains
- 9.4 Couplings for B-doubles and road trains
- 9.5 Selection of fifth wheel couplings for B-doubles
- 9.6 Selection of fifth wheel couplings for road trains
- 9.7 Determining the D-value of a fifth wheel coupling
- 9.8 Mounting of fifth wheel couplings on B-doubles and road trains
- 9.9 Branding of fifth wheel couplings on B-doubles and road trains
- 9.10 Selection of kingpins for B-doubles and road trains
- 9.11 Attachment of kingpins on B-doubles and road trains
- 9.12 Branding of kingpins on B-doubles and road trains
- 9.13 Selection of couplings and drawbar eyes on road trains
- 9.14 Attachment of couplings and drawbar eyes on road trains
- 9.15 Branding of couplings and drawbar eyes on road trains
- 9.16 Tow coupling overhang on road trains

PART 10—INTERPRETATION AND DEFINITIONS

Division 1—Interpretation of ADRs

- 10.1 Second edition ADRs
- 10.2 Third edition ADRs
- 10.3 ADR transitional provisions

Division 2—Miscellaneous

- 10.4 Measurement of distance between lines
- 10.5 Equipment of a vehicle
- 10.6 Application to restored vehicles
- 10.7 Application to retractable axles

Division 3—Definitions

- 10.8 Definitions
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- (as) by omitting the matter relating to Regulation 92 in Table A of Part 2 of Schedule K and by inserting instead the following matter:

Regulation 92, in respect of the standing or driving of a motor vehicle which does not comply with any of the following provisions of Schedule F:

(a) paragraph 4, defective suspension equipment	82
(b) paragraph 4, defective road wheels, wheel studs or nuts	82
(c) paragraph 4, defective or missing body panels	61
(d) paragraph 4, clause 7.3 of the Appendix to Division 7 of Schedule F, defective LPG equipment or labelling.....	61
(e) paragraph 6, clauses 5.3, 5.7 of that Appendix, defective headlamps	61
(f) paragraph 9, clauses 5.10–5.13 of that Appendix, defective tail lamps	61
(g) paragraph 16, clauses 5.22–5.23 of that Appendix, defective brake lamps	61
(h) paragraphs 43, 44A, 44B, 44C, 44D, 44E, 45, 46, clauses 4.5–47 of that Appendix, exceed dimensions	61
(i) paragraphs 4, 57, 58, 60, 61, 61A, 62, 63 (1), clauses 6.1–6.10 of that Appendix, defective brakes	136
(i) paragraph 63 (2), defective emergency brakes	61
(k) paragraphs 4, 64 (a), clause 2.1 of that Appendix, defective steering	136
(l) paragraph 66 (1), clause 4.8 of that Appendix, excessive overhang	61
(m) paragraphs 4, 67, oil and fuel leaks	82
(n) paragraph 68A, seat belt removed or defective	184
(o) paragraphs 4, 68B, clause 2.6 of that Appendix, defective seating	82
(p) paragraphs 4, 68C, defective door latches, hinges	61
(q) paragraph 75, defective body/chassis structural member	82
(r) paragraphs 75, 75A, 76, clauses 7.1, 7.2, 7.4 of that Appendix, undue emission, inefficient silencer	82
(s) paragraph 82, clauses 2.18, 2.19 of that Appendix, defective tyres	61
(t) paragraph 110, defective or missing fire extinguisher (bus)	61
(u) clauses 9.3–9.16 of that Appendix, road train equipment offences	82

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- (at) by omitting the matter “(a) to (e)” from the matter relating to Regulation 118 (1) (a) to (e) wherever occurring in Table A of Part 2 of Schedule K and by inserting instead the matter “(a) to (d)”;
- (au) by omitting the matter “(f)” from the matter relating to Regulation 118 (1) (f) wherever occurring in Table A of Part 2 of Schedule K and by inserting instead the matter “(e) or (f)”.

EXPLANATORY NOTE

The purpose of this amendment to the Motor Traffic Regulations 1935, is to allow the early implementation of the National Heavy Vehicle Standards for vehicles exceeding 4.5 tonnes gross vehicle mass as well as to make certain changes to those Regulations for the purpose of law revision.

This Regulation is made under section 3 of the Traffic Act 1909.
