

South Australia

Road Traffic (Mass and Loading Requirements) Regulations 1999

under the *Road Traffic Act 1961*

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Dictionary

Legislative history

1—Short title

These regulations may be cited as the *Road Traffic (Mass and Loading Requirements) Regulations 1999*.

3—Schedule contains mass and loading requirements

The Schedules contain mass and loading requirements made pursuant to section 113 of the *Road Traffic Act 1961*.

Notes—

- 1 If a vehicle that does not comply with the mass and loading requirements is driven on a road, a person commits an offence if the person is the driver or operator of the vehicle (sections 123 and 124 of the *Road Traffic Act 1961*). If the vehicle is a heavy vehicle transporting goods, the consignor, packer, loader or consignee of any goods in or on the vehicle also commits an offence (sections 125 to 128).
- 2 Under section 161A of the *Road Traffic Act 1961*, certain vehicles can only be driven on roads with the approval of the Minister.

4—Interpretation

- (1) A definition in the dictionary at the end of these regulations applies to each use of the word or expression in these regulations, unless the contrary intention appears.
- (2) A note does not form part of these regulations.
- (3) A diagram appearing in these regulations is illustrative only.

5—Application of mass and loading requirements

- (1) Except as provided in Schedule 2, Schedule 1 applies only to the following vehicles (*heavy vehicles*):
 - (a) vehicles with a GVM exceeding 4.5 tonnes;
 - (b) combinations that include a vehicle with a GVM exceeding 4.5 tonnes.
- (2) Schedule 2 applies to other vehicles (*light vehicles*).
- (3) Neither Schedule 1 nor Schedule 2 applies to a vehicle or combination that is used only on a railway or tramway.

6—Proof of loading offences

- (1) In proceedings for a failure to comply with clause 9 (1), (2) or (3) of Schedule 1 (relating to loading a vehicle), it is sufficient for the prosecution to prove that the load on the vehicle was not placed, secured or restrained (as the case requires) in a way that met the performance standards recommended in the *Load Restraint Guide* published by the National Transport Commission, as in force from time to time.
- (2) If the prosecution in proceedings for a failure to comply with clause 9 (2) of Schedule 1 (relating to securing a load on a vehicle) proves that the load, or part of the load, had fallen off the vehicle, the burden of proof is on the defendant to show compliance.

7—Declaring buses to be complying buses

- (1) This regulation applies to a bus with two or three axles and a single steer axle that:
 - (a) is not fitted with a compliance plate in accordance with the *Motor Vehicle Standards Act 1989* of the Commonwealth, as in force from time to time; or
 - (b) is fitted with a compliance plate in accordance with that Act but the compliance plate indicates that the bus was manufactured before 1 July 1994.

- (2) The Registrar of Motor Vehicles may declare that a bus equipped with an approved air suspension system is a complying bus for the purposes of these regulations if the Registrar is satisfied that the bus meets:
 - (a) the emergency exit specifications in ADR 44; and
 - (b) the rollover strength specifications in ADR 59; and
 - (c) the occupant protection specifications in ADR 68.

Schedule 1—Mass and loading requirements for heavy vehicles

Part 1—Mass limits

1—Mass limit for a single vehicle

- (1) The total mass of a vehicle and any load must not exceed the vehicle's GVM.
- (2) The mass transmitted to the ground by the axles of a trailer and any load when the trailer is connected to a towing vehicle must not exceed the trailer's GTM.

2—Mass limits for tyres, wheels and axles

- (1) The mass on a wheel or axle must not exceed the limit set by its manufacturer.
- (2) The mass on a tyre must not exceed the greatest load capacity determined for the tyre by the manufacturer at a cold inflation pressure that does not exceed:
 - (a) 825 kilopascals for a radial ply tyre; or
 - (b) 700 kilopascals for any other tyre.
- (3) The mass on an axle group or single axle must not exceed the limit provided for it in Table 1.
- (4) The mass limit in Table 1 that applies to an axle group that includes a retractable axle must be determined as if the axle did not exist, unless subclause (5) applies.
- (5) A retractable axle is part of an axle group for the purposes of Table 1 if, when the mass on the group exceeds:
 - (a) 6 tonnes, in the case of a tandem axle group; or
 - (b) 11 tonnes, in the case of a tri-axle group,

the tyres on the axle are in contact with the ground and the load-sharing suspension system is operating on each axle (including the retractable axle) and tyre in the group.

- (6) The sum of the mass on the axle groups and single axles on a vehicle or combination must not exceed:
 - (a) in the case of a complying bus without a trailer:
 - (i) if the complying bus has 2 axles—16.0 tonnes; and
 - (ii) if the complying bus has a rear tandem axle group fitted with single tyres on one axle and dual tyres on the other axle—20.0 tonnes; and
 - (iii) if the complying bus has a rear tandem axle group fitted with dual tyres on both axles—22.5 tonnes; and

- (b) in the case of a combination consisting of a complying bus and a trailer—the sum of the mass limit specified for the bus in paragraph (a) and the mass limits of the axle groups and single axles of the trailer as provided in Table 1; and
 - (ba) in the case of a low floor bus with 2 axles that is licensed to carry standing passengers—16.0 tonnes; and
 - (c) in any other case—the sum of the mass limits of the axle groups and axles, as provided in Table 1.
- (7) In this clause and in Table 1—
- low floor bus** means a bus, designed to assist the entry, exit and movement of passengers—
- (a) that has no internal step at an entrance or exit or otherwise in the passenger walkway areas of the bus; or
 - (b) that, due to the area of the floor of the bus that is not more than 550 mm above the ground, is not required to comply with ADR 59.

Table 1—Mass limits for single axles and axle groups

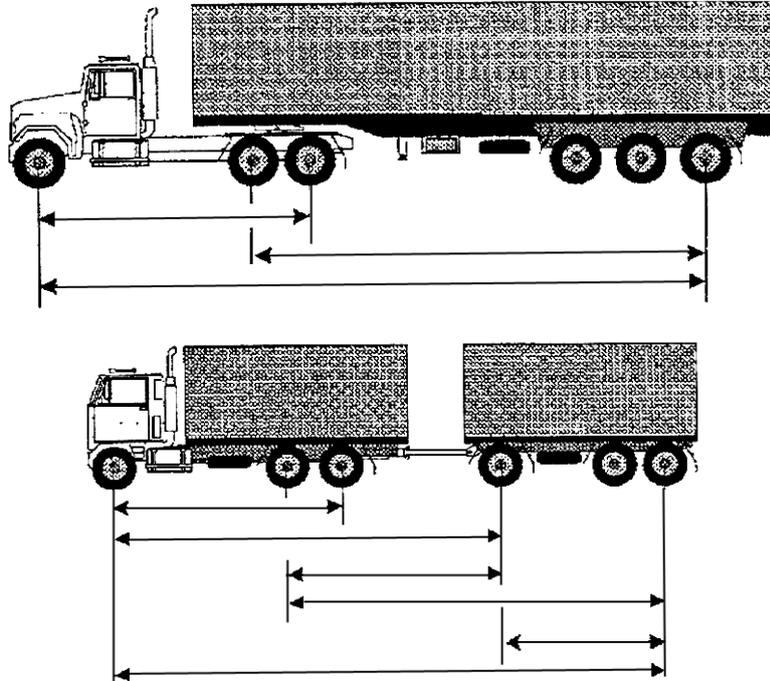
Description of single axle or axle group	Mass Limit (tonnes)
Single axles and single axle groups	
Single steer axle on:	
(a) a complying bus	6.5
(b) any other motor vehicle	6.0
Single axle or single axle group fitted with single tyres with section width of:	
(a) less than 375 mm	6.0
(b) at least 375 mm but less than 450 mm	6.7
(c) at least 450 mm	7.0
Single axle or single axle group fitted with dual tyres on:	
(a) a pig trailer	8.5
(b) a complying bus or bus licensed to carry standing passengers (other than a bus referred to in paragraph (ba))	10.0
(ba) a low floor bus with 2 axles that is licensed to carry standing passengers	11.0
(c) any other vehicle	9.0
Twinsteer axle groups	
Twinsteer axle group without a load-sharing suspension system	10.0
Twinsteer axle group with a load-sharing suspension system	11.0
Tandem axle groups	
Tandem axle group fitted with single tyres with section width of:	
(a) less than 375 mm	11.0

Description of single axle or axle group	Mass Limit (tonnes)
(b) at least 375 mm but less than 450 mm	13.3
(c) at least 450 mm	14.0
Tandem axle group fitted with single tyres on one axle and dual tyres on the other axle on:	
(a) a complying bus	14.0
(b) any other vehicle	13.0
Tandem axle group fitted with dual tyres on:	
(a) a pig trailer	15.0
(b) any other vehicle	16.5
Tri-axle groups	
Tri-axle group on a vehicle fitted with single tyres with section width of less than 375 mm on all axles, or single tyres on 1 or 2 axles and dual tyres on the other axle or axles	15.0
Tri-axle group on a pig trailer with either single tyres with section width of at least 375 mm, dual tyres on all axles, or a combination of those tyres	18.0
Tri-axle group, on a vehicle other than a pig trailer, with either single tyres with section width of at least 375 mm, dual tyres, or a combination of those tyres	20.0
Quad-axle groups	
Quad-axle group fitted with single tyres with section width of less than 375 mm	15.0
Quad-axle group fitted with single tyres with section width of at least 375 mm or dual tyres	20.0

3—Mass limits relating to axle spacing

- (1) Subject to this clause, in the case of a heavy vehicle, the mass limits in Table 2 must not be exceeded in relation to the distances set out in the Table that apply to the heavy vehicle.
- (2) In the case of a road train, the mass limits in Table 3 must not be exceeded in relation to the distances set out in the Table that apply to the road train.
- (3) In the case of a B-double, the mass limits in Table 4 must not be exceeded in relation to the distances set out in the Table that apply to the B-double.
- (3a) Despite the preceding subclauses, subclause (1) and Table 2 will apply to a road train or B-double that is driven on a road in contravention of a condition of approval that applies to the road train or B-double under section 161A of the Act and restricts the roads on which it may be driven.
- (4) Each distance in Table 2, 3 or 4 refers to:
 - (a) the distance from the centre of any single axle to the centre of any other single axle; or

- (b) the distance from the centre of any single axle to the centre of the furthest axle in any axle group; or
- (c) the greatest distance between the centres of axles in any 2 axle groups.



Measurement of distances for Tables 2, 3 and 4

- (5) The mass limits in Table 2, 3 or 4 apply to the sum of the mass on each axle group or single axle in the distance referred to in the Table, including the axles between which the distance is measured.
- (6) The total mass of a vehicle or a combination, and any load, must not exceed 15 tonnes if the distance between any 2 axles that are not part of the same axle group is less than 2.5 metres.

Table 2—Mass limits relating to axle spacing (other than road trains and b-doubles)

Distance (metres)		Mass limit (tonnes)	Distance (metres)		Mass limit (tonnes)
exceeding	not exceeding		exceeding	not exceeding	
0	3.7	23.0	6.8	7.0	33.0
3.7	3.8	23.5	7.0	7.2	33.5
3.8	4.0	24.0	7.2	7.3	34.0
4.0	4.2	24.5	7.3	7.5	34.5
4.2	4.3	25.0	7.5	7.7	35.0
4.3	4.5	25.5	7.7	7.8	35.5
4.5	4.7	26.0	7.8	8.0	36.0
4.7	4.8	26.5	8.0	8.2	36.5
4.8	5.0	27.0	8.2	8.3	37.0
5.0	5.2	27.5	8.3	8.5	37.5

Distance (metres)		Mass limit (tonnes)	Distance (metres)		Mass limit (tonnes)
exceeding	not exceeding		exceeding	not exceeding	
5.2	5.3	28.0	8.5	8.7	38.0
5.3	5.5	28.5	8.7	8.8	38.5
5.5	5.7	29.0	8.8	9.0	39.0
5.7	5.8	29.5	9.0	9.2	39.5
5.8	6.0	30.0	9.2	9.3	40.0
6.0	6.2	30.5	9.3	9.5	40.5
6.2	6.3	31.0	9.5	9.7	41.0
6.3	6.5	31.5	9.7	9.8	41.5
6.5	6.7	32.0	9.8	10.0	42.0
6.7	6.8	32.5	10.0		42.5

Table 3—Mass limits relating to axle spacing (road trains)

Distance (metres)		Mass limit (tonnes)	Distance (metres)		Mass limit (tonnes)
exceeding	not exceeding		exceeding	not exceeding	
3.5	3.7	23.0	10.2	10.3	43.0
3.7	3.8	23.5	10.3	10.5	43.5
3.8	4.0	24.0	10.5	10.7	44.0
4.0	4.2	24.5	10.7	10.8	44.5
4.2	4.3	25.0	10.8	11.0	45.0
4.3	4.5	25.5	11.0	11.2	45.5
4.5	4.7	26.0	11.2	11.3	46.0
4.7	4.8	26.5	11.3	11.5	46.5
4.8	5.0	27.0	11.5	11.7	47.0
5.0	5.2	27.5	11.7	11.8	47.5
5.2	5.3	28.0	11.8	12.0	48.0
5.3	5.5	28.5	12.0	12.2	48.5
5.5	5.7	29.0	12.2	12.3	49.0
5.7	5.8	29.5	12.3	12.5	49.5
5.8	6.0	30.0	12.5	12.7	50.0
6.0	6.2	30.5	12.7	12.8	50.5
6.2	6.3	31.0	12.8	13.0	51.0
6.3	6.5	31.5	13.0	13.2	51.5
6.5	6.7	32.0	13.2	13.3	52.0
6.7	6.8	32.5	13.3	13.5	52.5
6.8	7.0	33.0	13.5	13.7	53.0
7.0	7.2	33.5	13.7	13.8	53.5

Road Traffic (Mass and Loading Requirements) Regulations 1999—30.6.2011 to 9.2.2014—revoked
 Schedule 1—Mass and loading requirements for heavy vehicles

Distance (metres)		Mass limit	Distance (metres)		Mass limit
exceeding	not exceeding	(tonnes)	exceeding	not exceeding	(tonnes)
7.2	7.3	34.0	13.8	14.0	54.0
7.3	7.5	34.5	14.0	14.2	54.5
7.5	7.7	35.0	14.2	14.3	55.0
7.7	7.8	35.5	14.3	14.5	55.5
7.8	8.0	36.0	14.5	14.7	56.0
8.0	8.2	36.5	14.7	14.8	56.5
8.2	8.3	37.0	14.8	15.0	57.0
8.3	8.5	37.5	15.0	15.2	57.5
8.5	8.7	38.0	15.2	15.3	58.0
8.7	8.8	38.5	15.3	15.5	58.5
8.8	9.0	39.0	15.5	15.7	59.0
9.0	9.2	39.5	15.7	15.8	59.5
9.2	9.3	40.0	15.8	16.0	60.0
9.3	9.5	40.5	16.0	16.2	60.5
9.5	9.7	41.0	16.2	16.3	61.0
9.7	9.8	41.5	16.3	16.5	61.5
9.8	10.0	42.0	16.5	16.7	62.0
10.0	10.2	42.5	16.7	16.8	62.5
16.8	17.0	63.0	23.5	23.7	83.0
17.0	17.2	63.5	23.7	23.8	83.5
17.2	17.3	64.0	23.8	24.0	84.0
17.3	17.5	64.5	24.0	24.2	84.5
17.5	17.7	65.0	24.2	24.3	85.0
17.7	17.8	65.5	24.3	24.5	85.5
17.8	18.0	66.0	24.5	24.7	86.0
18.0	18.2	66.5	24.7	24.8	86.5
18.2	18.3	67.0	24.8	25.0	87.0
18.3	18.5	67.5	25.0	25.2	87.5
18.5	18.7	68.0	25.2	25.3	88.0
18.7	18.8	68.5	25.3	25.5	88.5
18.8	19.0	69.0	25.5	25.7	89.0
19.0	19.2	69.5	25.7	25.8	89.5
19.2	19.3	70.0	25.8	26.0	90.0
19.3	19.5	70.5	26.0	26.2	90.5
19.5	19.7	71.0	26.2	26.3	91.0
19.7	19.8	71.5	26.3	26.5	91.5

revoked—30.6.2011 to 9.2.2014—Road Traffic (Mass and Loading Requirements) Regulations 1999
 Mass and loading requirements for heavy vehicles—Schedule 1

Distance (metres)		Mass limit	Distance (metres)		Mass limit
exceeding	not exceeding	(tonnes)	exceeding	not exceeding	(tonnes)
19.8	20.0	72.0	26.5	26.7	92.0
20.0	20.2	72.5	26.7	26.8	92.5
20.2	20.3	73.0	26.8	27.0	93.0
20.3	20.5	73.5	27.0	27.2	93.5
20.5	20.7	74.0	27.2	27.3	94.0
20.7	20.8	74.5	27.3	27.5	94.5
20.8	21.0	75.0	27.5	27.7	95.0
21.0	21.2	75.5	27.7	27.8	95.5
21.2	21.3	76.0	27.8	28.0	96.0
21.3	21.5	76.5	28.0	28.2	96.5
21.5	21.7	77.0	28.2	28.3	97.0
21.7	21.8	77.5	28.3	28.5	97.5
21.8	22.0	78.0	28.5	28.7	98.0
22.0	22.2	78.5	28.7	28.8	98.5
22.2	22.3	79.0	28.8	29.0	99.0
22.3	22.5	79.5	29.0	29.2	99.5
22.5	22.7	80.0	29.2	29.3	100.0
22.7	22.8	80.5	29.3	29.5	100.5
22.8	23.0	81.0	29.5	29.7	101.0
23.0	23.2	81.5	29.7	29.8	101.5
23.2	23.3	82.0	29.8	30.0	102.0
23.3	23.5	82.5	30.0	30.2	102.5
30.2	30.3	103.0	32.3	32.5	109.5
30.3	30.5	103.5	32.5	32.7	110.0
30.5	30.7	104.0	32.7	32.8	110.5
30.7	30.8	104.5	32.8	33.0	111.0
30.8	31.0	105.0	33.0	33.2	111.5
31.0	31.2	105.5	33.2	33.3	112.0
31.2	31.3	106.0	33.3	33.5	112.5
31.3	31.5	106.5	33.5	33.7	113.0
31.5	31.7	107.0	33.7	33.8	113.5
31.7	31.8	107.5	33.8	34.0	114.0
31.8	32.0	108.0	34.0	34.2	114.5
32.0	32.2	108.5	34.2	34.3	115.0
32.2	32.3	109.0	34.3	34.5	115.5

Table 4—Mass limits relating to axle spacing (b-doubles)

Distance (metres)		Mass limit (tonnes)	Distance (metres)		Mass limit (tonnes)
exceeding	not exceeding		exceeding	not exceeding	
0	3.7	23.0	7.2	7.3	34.0
3.7	3.8	23.5	7.3	7.5	34.5
3.8	4.0	24.0	7.5	7.7	35.0
4.0	4.2	24.5	7.7	7.8	35.5
4.2	4.3	25.0	7.8	8.0	36.0
4.3	4.5	25.5	8.0	8.2	36.5
4.5	4.7	26.0	8.2	8.3	37.0
4.7	4.8	26.5	8.3	8.5	37.5
4.8	5.0	27.0	8.5	8.7	38.0
5.0	5.2	27.5	8.7	8.8	38.5
5.2	5.3	28.0	8.8	9.0	39.0
5.3	5.5	28.5	9.0	9.2	39.5
5.5	5.7	29.0	9.2	9.3	40.0
5.7	5.8	29.5	9.3	9.5	40.5
5.8	6.0	30.0	9.5	9.7	41.0
6.0	6.2	30.5	9.7	9.8	41.5
6.2	6.3	31.0	9.8	10.0	42.0
6.3	6.5	31.5	10.0	10.2	42.5
6.5	6.7	32.0	10.2	10.3	43.0
6.7	6.8	32.5	10.3	10.5	43.5
6.8	7.0	33.0	10.5	10.7	44.0
7.0	7.2	33.5	10.7	10.8	44.5
10.8	11.0	45.0	16.0	16.3	53.5
11.0	11.2	45.5	16.3	16.7	54.0
11.2	11.3	46.0	16.7	17.0	54.5
11.3	11.7	46.5	17.0	17.3	55.0
11.7	12.0	47.0	17.3	17.7	55.5
12.0	12.3	47.5	17.7	18.0	56.0
12.3	12.7	48.0	18.0	18.3	56.5
12.7	13.0	48.5	18.3	18.7	57.0
13.0	13.3	49.0	18.7	19.0	57.5
13.3	13.7	49.5	19.0	19.3	58.0
13.7	14.0	50.0	19.3	19.7	58.5
14.0	14.3	50.5	19.7	20.0	59.0
14.3	14.7	51.0	20.0	20.3	59.5

Distance (metres)		Mass limit (tonnes)	Distance (metres)		Mass limit (tonnes)
exceeding	not exceeding		exceeding	not exceeding	
14.7	15.0	51.5	20.3	20.7	60.0
15.0	15.3	52.0	20.7	21.0	60.5
15.3	15.7	52.5	21.0		62.5
15.7	16.0	53.0			

4—Mass limits for combinations

- (1) The total mass of a combination other than a road train or B-double, and any load, must not exceed 42.5 tonnes.
- (2) The loaded mass of a dog trailer or pig trailer must not exceed the loaded mass of the towing vehicle.
- (3) The total mass of a combination, and any load, must not exceed the towing vehicle's GCM.
- (4) If—
 - (a) —
 - (i) the manufacturer of a motor vehicle forming part of a road train or B-double has not specified the GCM of the vehicle; 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; and

(b) a corresponding Authority has not specified the GCM of the vehicle, the GCM of the vehicle is to be determined by the Registrar of Motor Vehicles as a mass not exceeding the mass determined in accordance with the following formula:

$$\text{Mass in kg} = \frac{K \times M \times R \times T}{16}$$

where—

K means:

- (a) 0.055 if a single drive axle is fitted to the motor vehicle; or
- (b) 0.053 if a single drive tandem axle group is fitted to the motor vehicle; or
- (c) 0.051 if a dual drive tandem axle group is fitted to the motor vehicle

M means the number of tyre revolutions per kilometre as specified by the tyre manufacturer for the tyres fitted to the driving axle or axles

R means the overall gear reduction between engine and drive wheels

T means the maximum engine net torque in newton-metres.

- (5) The total mass of a road train, and any load, must not exceed 115.5 tonnes.
- (6) The total mass of a B-double, and any load, must not exceed 62.5 tonnes.

Part 2—Size and projection of loads

5—Size limits

- (1) A vehicle or a combination, and its load, must not exceed a size limit set for the vehicle or combination in the vehicle standards.
- (2) The distance measured at right angles between the rear overhang line of a vehicle and the rear of any load it is carrying must not exceed the rear overhang that the vehicle is allowed under the vehicle standards.

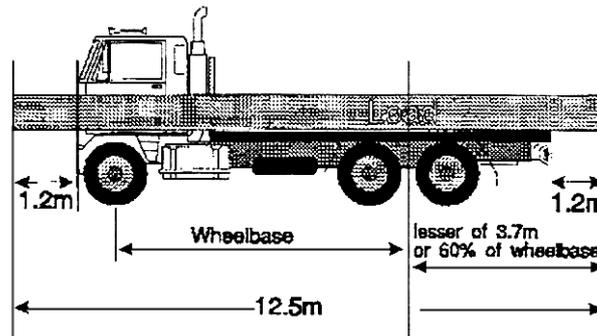
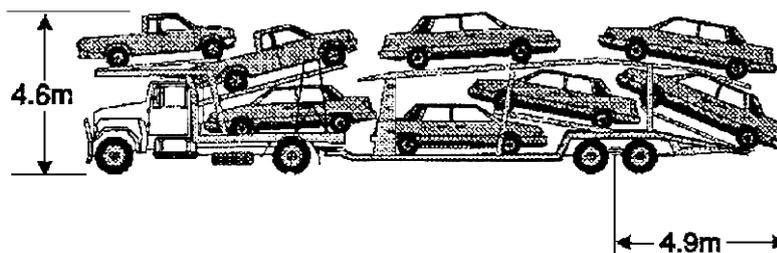


Illustration of front projection limit, rear overhang limit from vehicle standards and maximum rear projection of load allowed without a warning signal

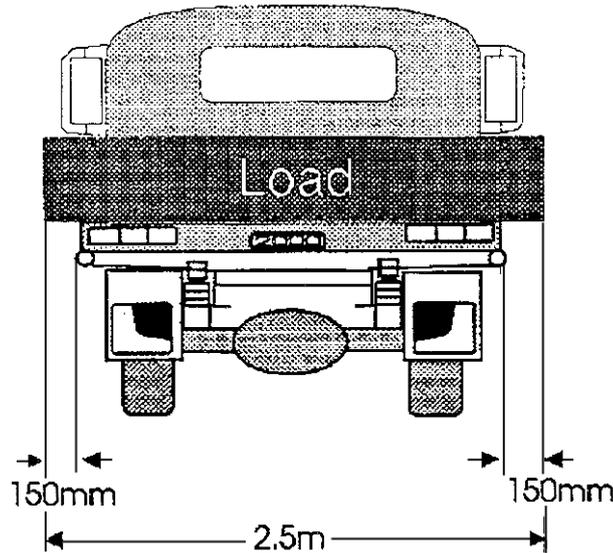
- (3) In spite of subclauses (1) and (2):
 - (a) the height of a vehicle that is carrying vehicles on more than one deck, and its load, must not exceed 4.6 metres; and
 - (b) the distance measured at right angles between the rear overhang line of a trailer carrying vehicles on more than one deck and the rear of the rearmost vehicle on the trailer must not exceed 4.9 metres.



Height limit and rear overhang limit of a loaded car carrier

6—Front and side projections

A load on a vehicle must not project more than 1.2 metres in front of the vehicle, or more than 150 millimetres from the outermost part of either side of it.



Vehicle loaded to width limits referred to in clause 5(1), with maximum side projection of load allowed under clause 6

Note—

The combined dimensions of a vehicle and its load must still meet the requirements of clause 5 even if the load projects from the vehicle in any direction.

7—Rear projections

- (1) The rear of a load on a vehicle must carry a warning signal if the load:
 - (a) projects more than 1.2 metres behind the vehicle; or
 - (b) projects to the rear of the vehicle so that the end of the load cannot be seen easily from behind; or
 - (c) is on a pole-type trailer.
- (2) In daytime, the warning signal must be a brightly coloured flag or piece of material, with each side at least 300 millimetres long.
- (3) In the night-time, the warning signal must be a red light which can be seen for 200 metres.

8—Dangerous projections

A load on a vehicle must not project in a way that is dangerous to a person or to property, even if all dimension and warning requirements are met.

Part 3—Placing and securing loads

9—Loading obligations

- (1) A load on a vehicle must not be placed in a way that makes the vehicle unstable or unsafe.

- (2) A load on a vehicle must be secured so that it is unlikely to fall or be dislodged from the vehicle.
- (3) An appropriate method must be used to restrain the load on a vehicle.

10—Trailers

- (1) A trailer in a combination must be securely coupled to the vehicle in front of it.
- (2) The components of a coupling used between vehicles must be compatible and properly connected to each other.

Schedule 2—Mass and loading requirements for light vehicles

1—Mass limit for a single light vehicle

- (1) The mass of any load on a vehicle must not exceed a maximum specified by the vehicle's manufacturer.
- (2) The total mass of a vehicle and any load must not exceed a maximum specified by the vehicle's manufacturer.

2—Mass of vehicle towed by light vehicle

The loaded mass of a vehicle towed by another vehicle must not exceed—

- (a) the capacity of the towing apparatus of the towing vehicle; or
- (b) a mass specified by the manufacturer of the towing vehicle as the maximum mass of a vehicle that may be towed by the towing vehicle; or
- (c) if a mass is not specified by the manufacturer of the towing vehicle as referred to in paragraph (b) and the towed vehicle is fitted with brakes that may be operated by the driver of the towing vehicle—one and a half times the unloaded mass of the towing vehicle; or
- (d) if a mass is not specified by the manufacturer of the towing vehicle as referred to in paragraph (b) and the towed vehicle is not fitted with brakes that may be operated by the driver of the towing vehicle—the unloaded mass of the towing vehicle.

3—Application of Parts 2 and 3 of Schedule 1

Parts 2 and 3 of Schedule 1 also apply to light vehicles.

Dictionary

In these regulations—

ADR (Australian Design Rule) means a national standard under the *Motor Vehicle Standards Act 1989* of the Commonwealth, as in force from time to time;

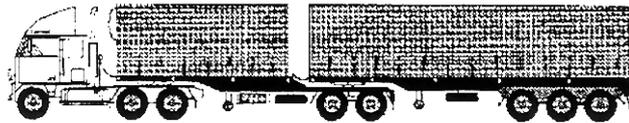
approved air suspension system, in relation to a vehicle, means a suspension system in which:

- (a) vertical movement between each axle and the body of the vehicle is controlled by variations in the pressure of air in an air spring; and
- (b) the proportion of the vehicle's mass that is borne by the air spring remains substantially constant despite variations in the pressure of air in the air spring;

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

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

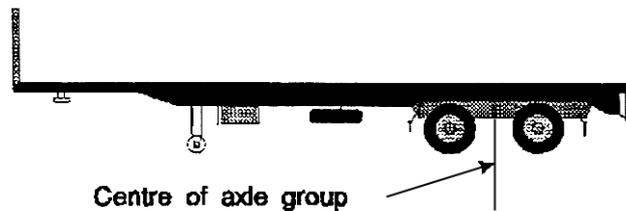
B-double means a combination consisting of a prime mover towing 2 semi-trailers where the first semi-trailer is connected to the prime mover by a fifth wheel coupling and the second semi-trailer is connected to the first semi-trailer by a fifth wheel coupling;



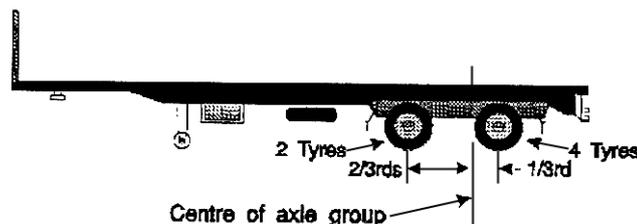
Typical B-double

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;



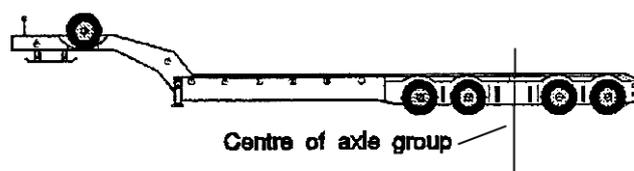
Centre of a typical tandem axle group fitted with an equal number of tyres on each axle



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



Centre of a typical tri-axle group



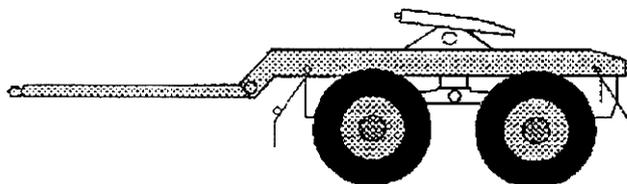
Centre of a typical quad-axle group

combination means a group of vehicles consisting of a motor vehicle connected to one or more vehicles;

complying bus means:

- (a) a bus with 2 or 3 axles and a single steer axle that:
 - (i) is fitted with a compliance plate in accordance with the *Motor Vehicle Standards Act 1989* of the Commonwealth, as in force from time to time, indicating that the bus was manufactured during or after July 1994; and
 - (ii) meets the emergency exit specifications in ADR 44; and
 - (iii) meets the rollover strength specifications in ADR 59; and
 - (iv) meets the occupant protection specifications in ADR 68; and
 - (v) is equipped with an approved air suspension system; or
- (b) a bus that is the subject of a declaration under regulation 7 or under a law of another State or a Territory that corresponds to that regulation;

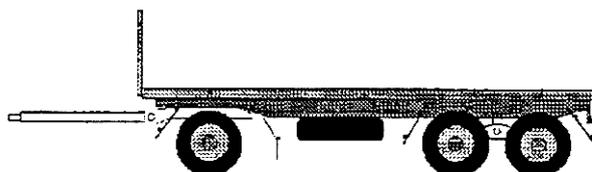
converter dolly means a trailer with one tandem axle group or single axle and a fifth wheel coupling designed to convert a semi-trailer into a dog trailer;



Typical converter dolly

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;



Typical 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;

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;

GCM of a vehicle means the greatest possible sum of the maximum loaded mass of the vehicle and of any vehicles that may lawfully be towed by it at any one time:

- (a) as specified by the vehicle's manufacturer; or
- (b) as specified by an Australian Authority if:
 - (i) the manufacturer has not specified the sum of the 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;

GTM (gross trailer mass) means the maximum loaded mass transmitted to the ground by the axles of a trailer when it is connected to a towing vehicle:

- (a) as specified by the manufacturer; or
- (b) as specified by an Australian Authority if:
 - (i) the manufacturer has not specified a maximum loaded mass transmitted to the ground by the axles of the trailer when connected to a towing vehicle; or
 - (ii) the manufacturer cannot be identified; or
 - (iii) the trailer has been modified to the extent that the manufacturer's specification is no longer appropriate;

GVM of a vehicle means the maximum loaded mass of the vehicle:

- (a) as specified by the vehicle's manufacturer; or
- (b) as specified by an Australian 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;

load of a vehicle, or in or on a vehicle, means:

- (a) all the goods, passengers and drivers in or on the vehicle; and
- (b) all fuel, water, lubricants and readily removable equipment carried in or on the vehicle and required for its normal operation; and
- (c) personal items used by a driver of the vehicle; and
- (d) anything that is normally removed from the vehicle when not in use,

and includes a part of a load as so defined;

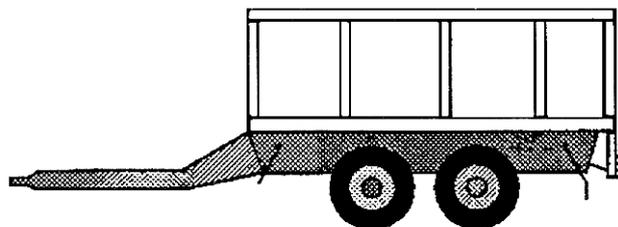
load-sharing suspension system means an axle group suspension system that:

- (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;

night-time means the time beginning at sunset and ending at sunrise;

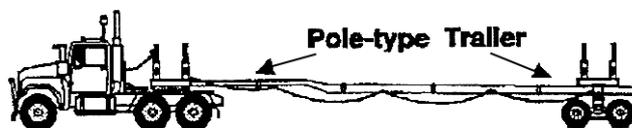
pig trailer means a trailer with one axle group or single axle near the middle of its load-carrying surface, and connected to the towing vehicle by a drawbar;



Typical pig 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 a 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;



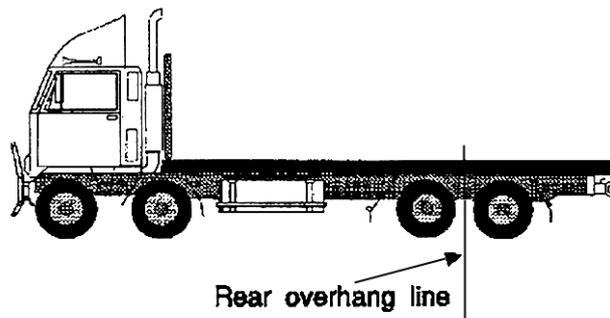
Typical pole-type trailer

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

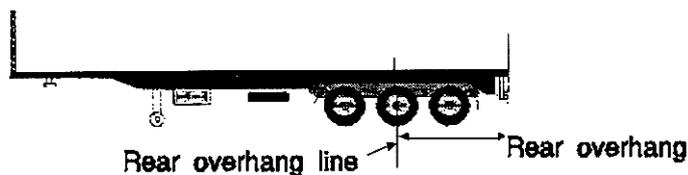
quad-axle group means a group of 4 axles, in which the horizontal distance between the centre-lines of the outermost axles is more than 3.2 metres but not more than 4.9 metres;

rear overhang 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 or retractable axle in the group unless all axles in the group are steerable or retractable;



Rear overhang line on a typical motor vehicle that has an axle group



Rear overhang line on a typical semi-trailer

retractable axle means an axle that can be raised so that the tyres on the axle do not touch the ground;

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);



Typical triple road train

semi-trailer means a 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;

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

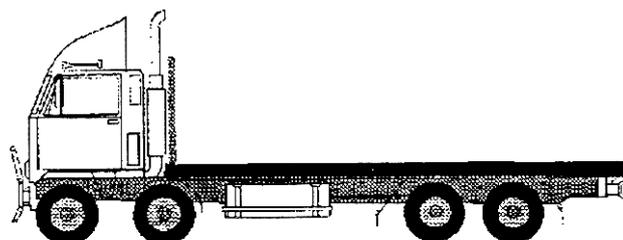
single axle group means a group of 2 or more axles, in which the horizontal distance between the centre-lines of the outermost axles is less than 1 metre;

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;

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;

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 whose centre-lines is at least 1 metre, but not more than 2 metres;



Typical twinsteer axle group on a motor vehicle

vehicle standards means the *Road Traffic (Vehicle Standards) Rules 1999*.

Legislative history

Notes

- Please note—References in the legislation to other legislation or instruments or to titles of bodies or offices are not automatically updated as part of the program for the revision and publication of legislation and therefore may be obsolete.
- Earlier versions of these regulations (historical versions) are listed at the end of the legislative history.
- For further information relating to the Act and subordinate legislation made under the Act see the Index of South Australian Statutes or www.legislation.sa.gov.au.

Revocation of regulations

The *Road Traffic (Mass and Loading Requirements) Regulations 1999* were revoked by r 3 of the *Road Traffic Revocation Regulations 2013* on 10.2.2014.

Principal regulations and variations

Year	No	Reference	Commencement
1999	234	<i>Gazette 25.11.1999 p2575</i>	1.12.1999
2001	122	<i>Gazette 7.6.2001 p2192</i>	7.6.2001
2005	194	<i>Gazette 8.9.2005 p3278</i>	8.9.2005: r 2
2007	44	<i>Gazette 26.4.2007 p1388</i>	30.4.2007: r 2
2011	168	<i>Gazette 30.6.2011 p2874</i>	30.6.2011: r 2

Provisions varied

Entries that relate to provisions that have been deleted appear in italics.

Provision	How varied	Commencement
<i>r 2</i>	<i>omitted under the Legislation Revision and Publication Act 2002</i>	8.9.2005
r 5		
r 5(1)	varied by 44/2007 r 4	30.4.2007
r 6		
r 6(1)	varied by 168/2011 r 4	30.6.2011
Sch 1		
cl 1		
cl 1(1)	cl 1 redesignated as cl 1(1) by 122/2001 r 3(a)	7.6.2001
cl 1(2)	inserted by 122/2001 r 3(a)	7.6.2001
cl 2		
cl 2(6)	varied by 122/2001 r 3(b) varied by 194/2005 r 4(1)	7.6.2001 8.9.2005
cl 2(7)	inserted by 122/2001 r 3(c)	7.6.2001
<i>ultra low floor bus</i>	<i>deleted by 194/2005 r 4(2)</i>	8.9.2005

low floor bus	inserted by 194/2005 r 4(2)	8.9.2005
Table 1	varied by 122/2001 r 3(d)	7.6.2001
	varied by 194/2005 r 4(3)	8.9.2005
cl 3		
cl 3(1)	substituted by 44/2007 r 5(1)	30.4.2007
cl 3(3a)	inserted by 44/2007 r 5(2)	30.4.2007
cl 4		
cl 4(4)	substituted by 44/2007 r 5(3)	30.4.2007
Dictionary		
complying bus	varied by 44/2007 r 6(1)	30.4.2007
GCM	substituted by 44/2007 r 6(2)	30.4.2007
GTM	inserted by 122/2001 r 4	7.6.2001
	varied by 44/2007 r 6(3)	30.4.2007
GVM	substituted by 44/2007 r 6(4)	30.4.2007
load	substituted by 44/2007 r 6(4)	30.4.2007
vehicle	<i>deleted by 44/2007 r 6(5)</i>	30.4.2007
vehicle registration authority	<i>deleted by 44/2007 r 6(5)</i>	30.4.2007

Historical versions

Reprint No 1—7.6.2001

8.9.2005

30.4.2007