



## Section 16

# Vehicle Dimensions

### Objective:

To ensure that vehicles do not exceed the legislative dimension requirements as prescribed in the *Heavy Vehicle (Mass, Dimension and Loading) National Regulation*.

### Australian Design Rules relevant to this section

ADR 43 Vehicle configuration and dimensions

#### 16.1. Width

a. The width exceeds 2.5m or 2.55m for a Safer Freight Vehicle.

➤ A Safer Freight Vehicle is a motor vehicle which complies with the following requirements, so far as they are applicable (excluding buses)—

- (a) ADR 14/03 - Indirect vision devices or a later version;
- (b) ADR 35/07 – Heavy Vehicle Braking or a later version;
- (c) ADR 97/00 - Advanced Emergency Braking or a later version;
- (d) ADR 99/00 – Lane Departure Warning System or a later version;
- (e) ADR 105/00 Blind Spot Information Systems) or a later version (vehicles manufactured after November 2025 has a GVM of more than 8t and only vehicle from November 2025)
- (f) ADR 106/00 - Side Underrun Protection or a later version; (N/A for cab chassis and prime movers) or a later version;

(g)ADR 13/00 – Installation of Lighting and Light-signalling Devices on other than L-Group Vehicles (Conspicuity markings) or a later version.

➤ Width is to be measured without taking into account any items listed in Table 16.1.

Table 16.1 Summary of items excluded from width

Item	Limit (Component)	Limit (Grouped)
ADR indirect vision device (i.e. rear vision mirror, rear vision camera, Class V mirror)	each component	N/A
Blind Spot Information System	Max width across vehicle inc. sensors - 2.60m.	N/A
Signalling devices, side marker lights and reflectors	ADRs set limit for each component	N/A
Removable load restraint	Max width across vehicle inc. device - 2.55m.	N/A
Load induced tyre bulge	Nil.	N/A

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Central tyre inflation systems#	100mm	N/A
Non-ADR indirect vision device (i.e. 360° cameras)	100m	
Cross-view mirror	100mm	
Automated driving system devices	100mm	Any combination of devices fitted in this group cannot increase the overall width of the vehicle by more than 100m
Permanently affixed webbing assembly-type devices	Max width across vehicle inc. devices - 2.55m.	
Tyre pressure gauges	100mm#	
Wheel-mounted anti-skid devices	100mm#	

# No limit for vehicles built prior to 1 October 2023.

### 16.2. Height

#### Reasons for rejection

- The height of a double deck bus exceeds 4.4 metres
- The height of any of the following types of trailer exceeds 4.6 metres:
  - a livestock carrier
  - a vehicle built with at least two decks for carrying vehicles
  - a specified semitrailer

⚠ A livestock carrier is a vehicle that operates under a Notice issued under the Heavy Vehicle National Law which allows a heavy vehicle, that is higher than 4.3 metres but not higher than 4.6 metres and is built to carry prescribed livestock, to operate.

A specified semitrailer is a trailer with a maximum deck height of 1.2m (for at least half of the overall deck length), air suspension and is not a PBS trailer.

- The height of a vehicle built with at least two decks for carrying vehicles exceeds 4.6 metres
- The height of any other vehicle exceeds 4.3 metres.

### 16.3. Length

#### Reasons for rejection

##### Heavy motor vehicle

- The length of an articulated bus exceeds 18 metres
- The length of a non-articulated bus exceeds 14.5 metres
- The length of any other vehicle exceeds 12.5 metres.

⚠ This is to be measured without taking into account any items listed in Table 16.2.

Table 16.2 Summary of items excluded from length

Item	Limit
Cross-view mirrors	250mm
ADR indirect vision device (i.e. rear vision mirror, rear vision camera, Class VI mirror)	ADRs set limit for each component

Non-ADR indirect vision device (i.e. 360° cameras)	250mm
Automated driving system devices	250mm

#### Semitrailer and dog trailers

- The distance from the point of articulation to the rear overhang line exceeds:
  - for a refrigerated semitrailer not used in a road train or B-double combination— 9.9 metres; or
  - for another semitrailer or dog trailer—9.5 metres
- The distance from the point of articulation to the rear of a trailer exceeds:
  - for a refrigerated semitrailer not used in a road train or B-double combination—13.6 metres; or
  - for a semitrailer not used in a road train or B-double combination—13.2 metres; or
  - for another semitrailer or dog trailer—12.3 metres



Figure 16.2 Refrigerated trailer



Figure 16.1 Semitrailer

- For a semitrailer, if any part forward of the trailers front articulation point protrudes outside a 1.9 metre arc when measured from the front articulation point
- For a dog trailer or converter dolly, the drawbar exceeds 5.0 metres from the centre of the coupling to the front articulation point.

⚠ The front articulation point for a dog trailer is the vertical axis of rotation of the front axle group, or single axle, of the trailer.

#### Pig trailers

- The drawbar exceeds 8.5 metres from the centre of the coupling to the rear overhang line.

#### Road train trailers

- For a trailer used in a road train, the drawbar is not at least 3.0m long from the centre of the coupling to the front articulation point.

### 16.4. Rear overhang

'Rear overhang' of a vehicle, means the distance between the rear overhang line and the rear of the vehicle, inclusive of any load.

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### Rear overhang line

- For a vehicle with an axle group at the rear comprising only one axle, a line running along the centreline of the axle.
- For a vehicle with an axle group at the rear comprising two axles, one of which is fitted with twice the number of tyres as the other, a line running parallel to the axles that is:
  - closer to the axle carrying the greater number of tyres than it is to the other axle; and
  - located at one-third of the distance between the two axles.
- For a vehicle with any other axle group at the rear, a line running along the centre of the axle group.

⚠ If an axle or axle group includes at least one steerable axle, steerable axles are to be disregarded except when all the axles are steerable.

### Reasons for rejection

#### Heavy motor vehicle

- The rear overhang exceeds either 60% of the distance from the front axle to the rear overhang line or 3.7 metres, whichever is the lesser.

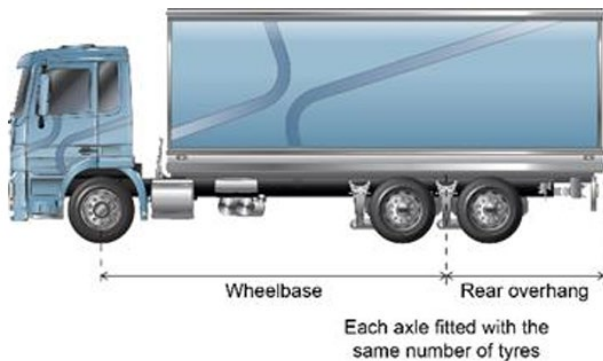


Figure 16.3 Rigid truck

#### Dog trailer

- The rear overhang exceeds either 60% of the distance from the front articulation point to the rear overhang line or 3.7 metres, whichever is the lesser.

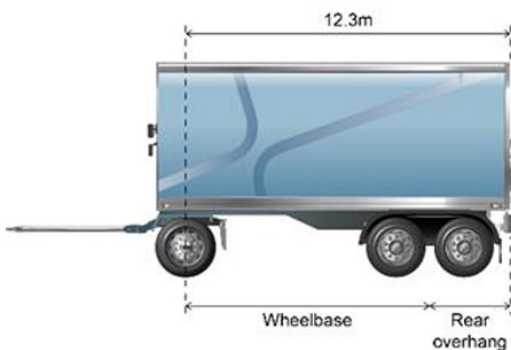


Figure 16.4 Dog trailer

#### Pig trailer

- The rear overhang exceeds either the distance between the front of the trailers body or load carrying area and rear overhang line or 3.7 metres, whichever is the lesser.

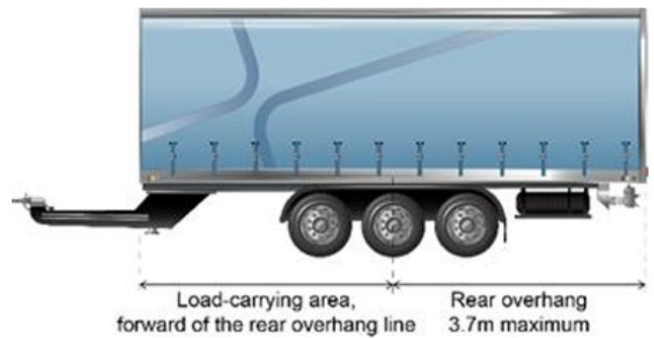


Figure 16.5 Pig trailer

#### Semitrailer

- The rear overhang exceeds either 60% of the distance from the front articulation point to the rear overhang line or 3.7 metres, whichever is the lesser.

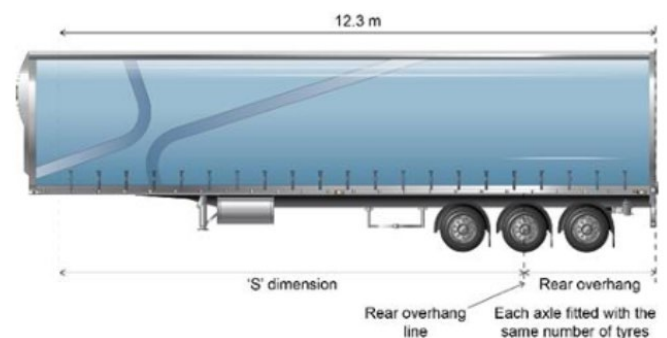


Figure 16.6 Semitrailer

