

Correct as at 6th June 2026. It may be superseded at any time.

Extract taken from: In-service certification (WoF and CoF) > Heavy trailers > Vehicle exterior

2 Vehicle exterior

2-1 External projections

Reasons for rejection

Condition and performance (Note 1)

1. The risk of a component (Note 2) hooking a vehicle, or hooking or grazing a person, has not been minimised.
2. An ornamental object or fitting (Note 3) protrudes in such a way that it is likely to injure a person.
3. A protruding object or fitting (Note 4) that has a functional purpose is not installed so that the risk of causing injury to a person is minimised, eg the object or fitting:
 - a) is of excessively heavy construction for the purpose for which it has been fitted, or
 - b) has sharp corners, or
 - c) exceeds the vehicle's width by more than 100mm on either side.
4. A protruding component, object or fitting is not securely fitted.
5. A protruding object or fitting adversely affects the driver's vision or control.

Note 1

The external projections requirements relate to the design and maintenance of objects and fittings that protrude from the exterior of the motor vehicle with regard to the safety of other motor vehicles, pedestrians and cyclists. The attachment of such objects and fittings to the vehicle is addressed in the Vehicle structure section of this manual.

Note 3

Ornamental object or fitting means any object or fitting that does not have a practical purpose.

Note 4

Functional object or fitting means an object or fitting that has a practical purpose, eg load restraints.

Summary of legislation

Applicable legislation

- [Land Transport Rule: External Projections 2001](#).

Permitted equipment

1. A motor vehicle may be fitted with a protruding ornamental or functional object or fitting.

Condition and performance

2. A protruding ornamental object or fitting must not be likely to injure a person.
3. A protruding object or fitting that has a functional purpose must be installed so that the risk of the object or fitting causing injury to a person is minimised.
4. Components of a motor vehicle, including damaged or corroded body panels, must be such that the risk of their hooking a vehicle, or hooking or grazing a person, is minimised.
5. A protruding object or fitting must not adversely affect driver vision or driver control.

2-2 Dimensions

The vehicle inspector need only inspect dimensions in detail if there is doubt about the vehicle's compliance.

Reasons for rejection

Mandatory equipment

1. A trailer with a GVM of 3501kg or more exceeds the dimension requirements set out in Table 2-2-3 and is not fitted with the appropriate hazard warning equipment set out in Table 2-2-4.
2. A trailer exceeds the dimensions set out in Table 2-2-3 and is not:
 - a) a specialist overdimension trailer (Note 1), or
 - b) a trailer designed primarily to transport an overdimension load, or
 - c) a trailer operating on a valid permit, exemption or approval, or
 - d) a vehicle presented with a completed *50MAX proforma entry certification and permit application declaration* or *HPMV proforma entry certification and permit application declaration* signed by a heavy vehicle specialist certifier (Note 4) (Figure 2-2-10).

Note 1 Definitions

Specialist overdimension trailer means a trailer where its primary purpose is to carry out a specialist function that requires overdimension equipment, and the dismantling of the equipment would make it unusable for its intended purpose, or it would take more than four hours to dismantle the equipment.

Caravan trailer means a trailer that is permanently equipped with features intended to make the vehicle suitable as a dwelling place, and must include at least one sleeping berth and one table, both of which may be of a design that allows

them to be retracted or folded away.

High-productivity motor vehicle (HPMV) means a heavy motor vehicle or heavy combination vehicle with or without a load:

- a) exceeds a gross mass of 44,000kg, or
- b) varies from a dimension requirement in Table 2-2-3, (other than width, height or ground clearance), or
- c) both (a) and (b), and
- d) operates on an HPMV permit issued by a road controlling authority.

Road controlling authority means the authority, body or person having control of the road (eg the NZTA, a regional council or an authorized delegate).

Note 2

An HPMV that does not comply with a dimension requirement in Table 2-2-3 may comply instead with a variation to that requirement as specified on the HPMV permit. The permit must be produced for inspection if required. Any other conditions specified on the permit are not required to be enforced at CoF.

Note 3

An HPMV is not required to comply with the Hazard warning equipment requirements of Table 2-2-4.

Note 4

The entry certification and permit application declaration forms can be downloaded from the NZTA website:

[50MAX proforma entry certification and permit application declaration](#)

[HPMV proforma entry certification and permit application declaration](#)

Table 2-2-3. Dimension requirements for heavy trailers (see Figure 2-2-9) (Note 2)

Dimension	Maximum distance	Comments
Width	<p>2.55m, or</p> <p>1.275m from each side of the longitudinal centreline of the vehicle</p>	<p>Measurement does not include:</p> <ul style="list-style-type: none"> • direction indicators and side-marker lamps • the bulge towards the bottom of a tyre • central tyre inflation system hoses that extend not more than 75mm beyond the outside of the tyre on the drive axles • a hubodometer that extends not more than 50mm beyond one side of a vehicle from a non-lifting, non-steering axle whose outer casings are of a light colour, provided the hubodometer is fitted on the axle that causes the least overwidth • cameras or close-proximity monitoring systems mounted on the side exterior of a vehicle that extends not more than 70mm from the side wall of the vehicle • devices for improving the aerodynamic performance of a vehicle that extend not more than 25mm from either side of a vehicle.
Overall length	<p>11.5m (full trailer, pole trailer)</p> <p>12.5m (simple trailer)</p> <p>18m (towing vehicle and semi-trailer with a quad axle-set with two steering axles)</p> <p>19m (towing vehicle and semi-trailer with any axle set other than a quad axle-set with two steering axles)</p> <p>20m (towing vehicle and full trailer (excluding load))</p> <p>22m (towing vehicle and full trailer (including load if load overhanging the rear of the trailer does not exceed 2.3m in width, or 1.15m from the longitudinal centreline of the vehicle))</p> <p>22m (towing vehicle and simple trailer)</p> <p>20m (any other vehicle combination)</p>	<p>Measurement does not include collapsible mirrors.</p>
Height	<p>4.3m</p>	

Dimension	Maximum distance	Comments
Forward distance	<p>8.5m (full trailer, simple trailer, pole trailer with drawbar at full extension)</p> <p>9.2m (semi-trailer)</p>	<p>Forward distance is measured from:</p> <ul style="list-style-type: none"> • full trailer: from the rear axis to the front of the trailer body/chassis (excludes drawbar and front axle set with its associated carriage) or load, whichever is foremost • simple trailer: from the rear axis to the centre point of attachment to the towing vehicle • pole trailer with two axle sets: from the front axis to the centre of the point of attachment to the towing vehicle with the drawbar fully extended. • pole trailer with one axle set: from the rear axis to the point of attachment to the towing vehicle with the drawbar fully extended • semi-trailer: from the rear axis to the centre of the kingpin <p>A vehicle with a retractable axle must meet the dimension requirements whether the axle is in contact with the road or in the retracted position.</p>
Rear overhang	<p>4m (for a trailer first registered anywhere before 1 December 1989)</p> <p>The lesser of 4m or 50% of forward distance (simple trailer, pole trailer with one axle set)</p> <p>The lesser of 4m or 50% of wheelbase (full trailer, pole trailer with two axle sets)</p> <p>The lesser of 4.3m or 50% of forward distance (semi-trailer [other than a class TC caravan trailer])</p> <p>The lesser of 4m or 65% of forward distance (class TC caravan trailer that is a semi-trailer)</p>	<p>Rear overhang is measured from:</p> <ul style="list-style-type: none"> • pole trailer: from the rear axis or centre of bolster to the rear of the vehicle, whichever is the greater. • other trailers: from the rear axis to the rear of the vehicle. <p>A vehicle with a retractable axle must meet the dimension requirements whether the axle is in contact with the road or in the retracted position.</p>
Ground clearance	<p>The greater of 100mm or 6% of the distance from the nearest axle to the point where the ground clearance is measured</p>	<p>Measurement does not include flexible mudflaps, wheels, tyres or devices designed to discharge static electricity.</p>

Dimension	Maximum distance	Comments
Front overhang	2.04m radius arc ahead of: <ul style="list-style-type: none"> • kingpin centre (semi-trailer) • tow coupling centre (simple trailer) • turntable centre (full trailer) • turntable centre on towing vehicle (pole trailer) 	Front overhang is measured to the foremost point of the trailer (except for full trailer), from the following positions: <ul style="list-style-type: none"> • semi-trailer: centre of kingpin • full trailer: centre of turntable to front of trailer body (excludes drawbar) • simple trailer: centre of tow coupling • pole trailer: centre of turntable on towing vehicle.
Rear trailing unit distance	14.5m (A-train, B-train, towing vehicle and two trailers)	Rear trailing unit distance is measured from the centre of the fifth wheel or tow coupling on the towing vehicle to the rear of the combination.
Articulated vehicle point of attachment	No further rearward than the rearmost axle of the leading trailer	Applies to B-train leading trailer only.
Coupling point distance	30% of forward distance of semi-trailer	<ul style="list-style-type: none"> • Applies to A-train only. • Measure from the rear axis of the semi-trailer to the tow coupling centre of the full trailer.
Inter-vehicle spacing	4m (between any two consecutive vehicles in a combination)	<ul style="list-style-type: none"> • Inter-vehicle spacing is the distance between a towing vehicle (excluding the tow coupling shroud) and trailer (excluding the drawbar or tow rope or front dolly). • The inter-vehicle spacing between a towing vehicle and a full trailer must not be less than the greater of 1m or half the width of the foremost point of the trailer (excluding the drawbar and front dolly assembly).
Turning circle	25m outside diameter	<ul style="list-style-type: none"> • The vehicle combination must be able to complete a 360 degree turn in either direction. • No part of the trailer must encroach outside the outside diameter.

Table 2-2-4. Hazard warning equipment requirements for vehicles that exceed the dimensions in Table 2-2-3 (see Figure 2-2-8 for vehicle category thresholds) (Note 3)

Vehicle category (See Figure 2-2-8)	Dimension	Limits (up to and including)	Required hazard warning equipment
Category 1	Width/forward distance	2.55m /11.4m, or 3.1m/10.5m, or 3.7m/8.5m, or	Flags ¹ or panels ² fitted on each side at the front and rear as close as practical to the outside edge
	Length	25m, or	
	Front overhang	7m, or	
	Rear overhang	7m	
Category 2 (not including category 1)	Width/forward distance	2.55m /13.3m, or 4.5m/8.5m, or	1. Panels ² fitted on each side at the front and rear as close as practical to the outside edge 2. OVERSIZE sign ³ fitted at the front and rear if more than 3.1m wide
	Length	35m, or	
	Front overhang	10m, or	
	Rear overhang	10m	
Category 3 (not including category 2)	Width/forward distance	2.55m /20m 5m/20m 5m/8.5m	1. Panels ² fitted on each side at the front and rear as close as practical to the outside edge 2. OVERSIZE sign ³ fitted at the front and rear
	Front overhang	10m, or	
	Rear overhang	10m	
Category 4 (not including category 3)	Width/forward distance	11m/20m 11m/8.5m	1. Panels ² fitted on each side at the front and rear as close as practical to the outside edge 2. OVERSIZE sign ³ fitted at the front and rear
	Front overhang	10m, or	
	Rear overhang	10m	

Vehicle category (See Figure 2-2-8)	Dimension	Limits (up to and including)	Required hazard warning equipment
Category 4B	Exceeding any limit in Category 4A		1. Panels ² fitted on each side at the front and rear as close as practical to the outside edge 2. OVERSIZE sign ³ fitted at the front and rear 3. Revolving amber beacon fitted so that it is visible to approaching traffic if the vehicle is more than 3.7m wide

Note Additional operational requirements may apply, eg if operated at night.

¹ Flags:

- must be fluorescent yellow
- must be at least 400mm long x 300mm wide.

² Hazard warning panels:

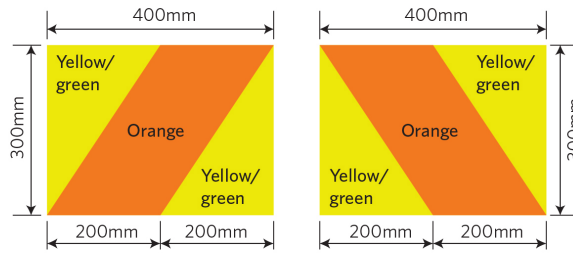
- must be reflective yellow-green with a reflective orange diagonal stripe
- comply with AS/NZS 1906.1:2007
- be frangible for those portions which extend beyond the vehicle's limits (frangible means breakable or readily deformable)
- must be at least of the minimum dimensions and of the colours specified in Figure 2-2-6.

³ OVERSIZE sign:

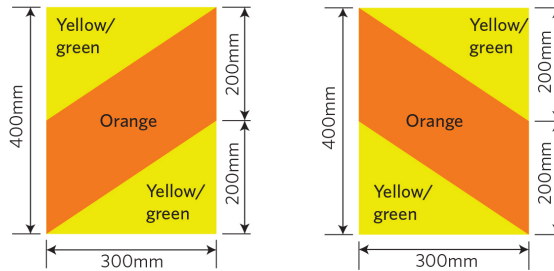
- must be black lettering on yellow-green background
- must be at least 300mm x 1100mm in size
- be frangible if any part of the sign extends beyond the body or load of the vehicle, whichever it is attached to (frangible means breakable or readily deformable)
- may be in two parts: OVER and SIZE.

Figure 2-2-6. Hazard panel details

Display these panels



or these panels



or these panels

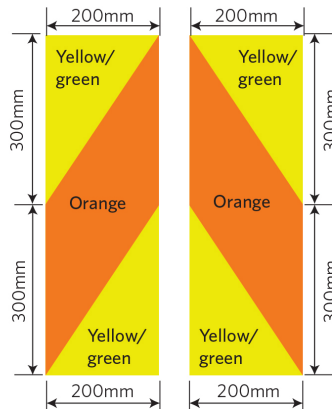


Figure 2-2-7. Hazard panel location and orientation

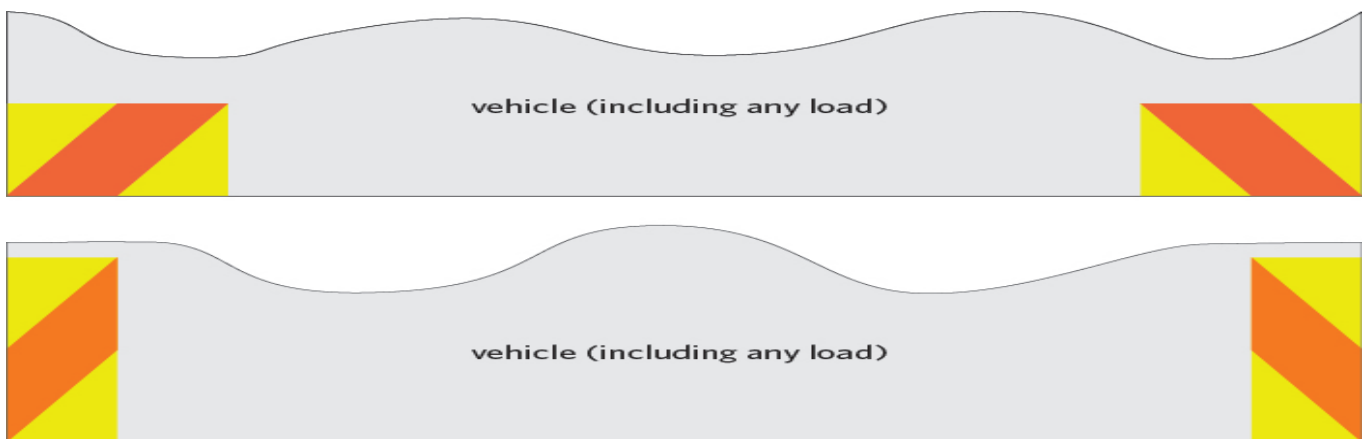


Figure 2-2-8. Vehicle categories and width/forward distance thresholds.

Use this figure to determine the correct category referred to in Table 2-2-4.

For the purposes of this figure, vehicles with a width less than 2.55m are deemed to have a width of 2.55m and vehicles with a forward distance of less than 8.5m are deemed to have a forward distance of 8.5m

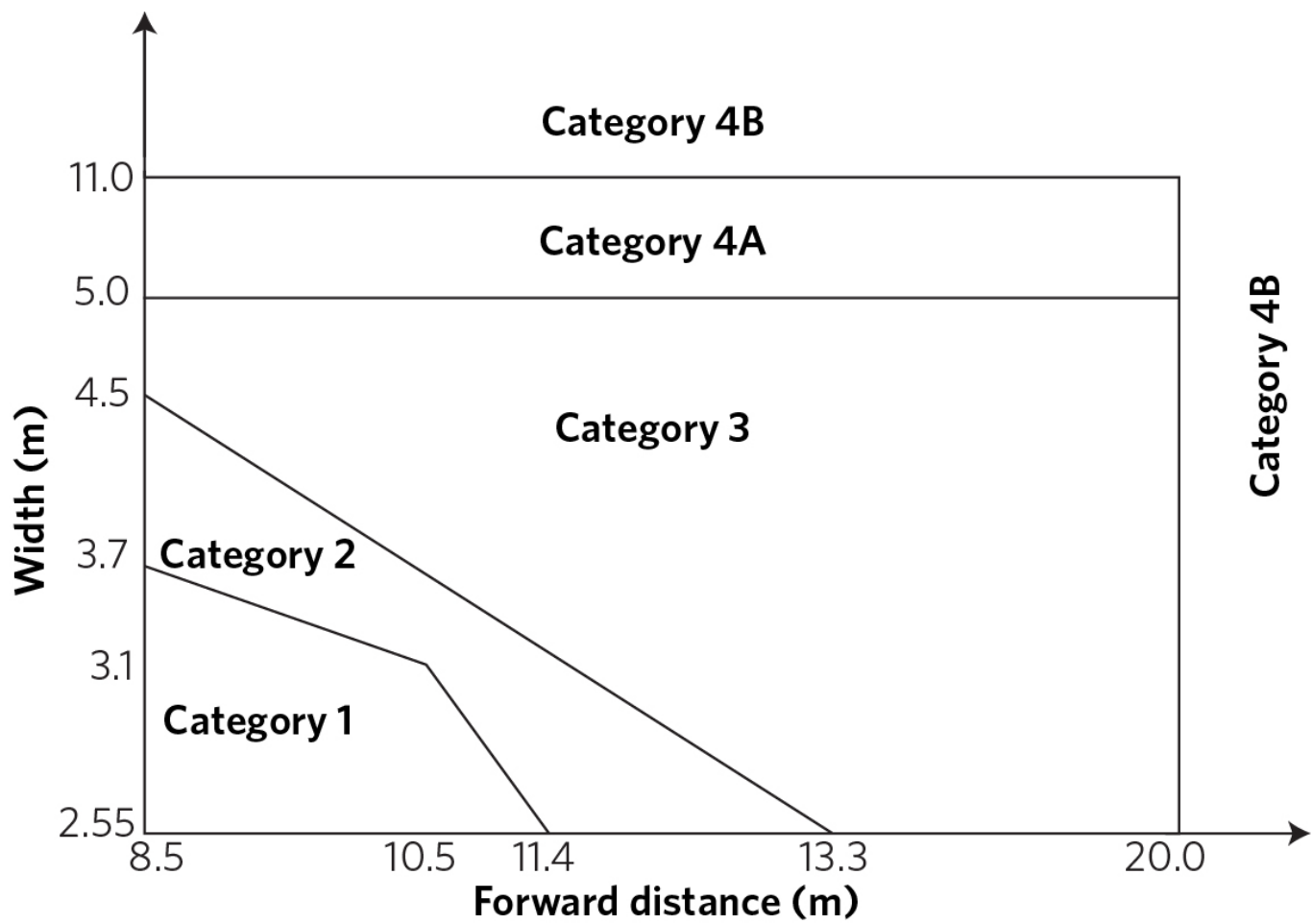
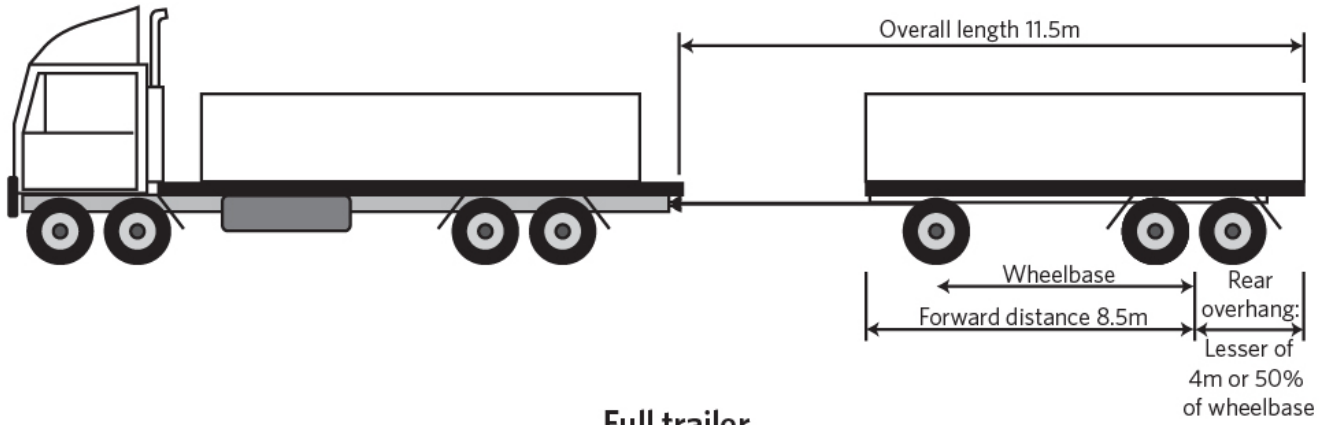
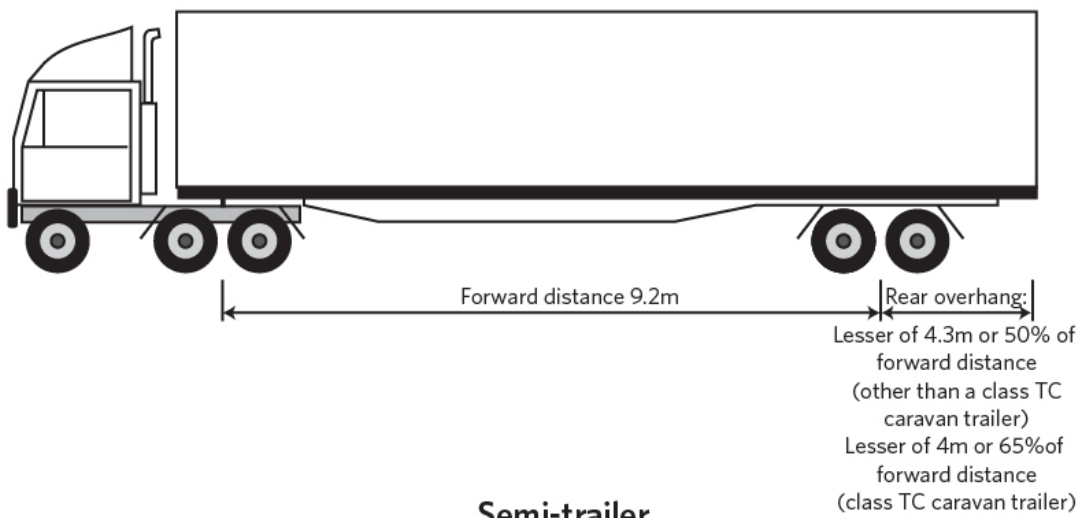


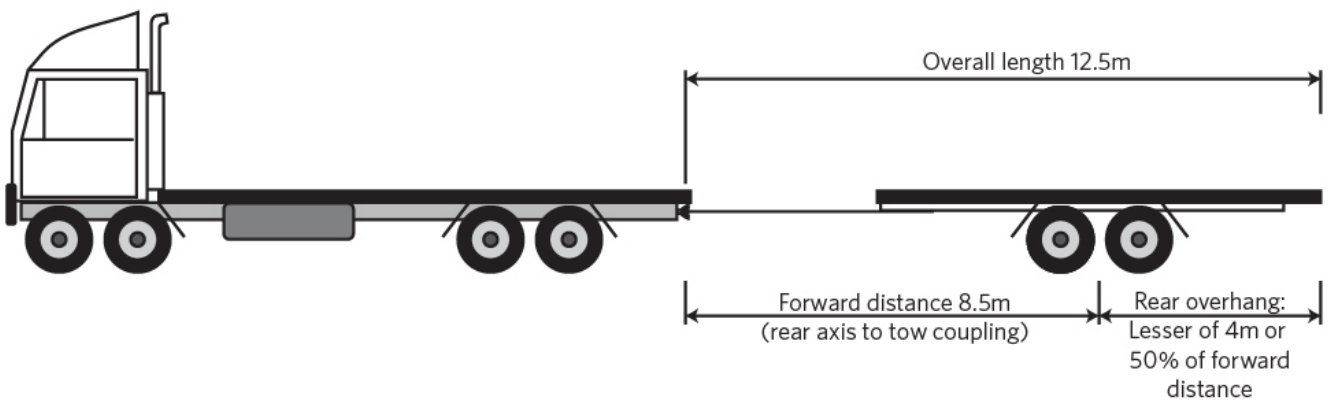
Figure 2-2-9. Heavy trailer dimensions



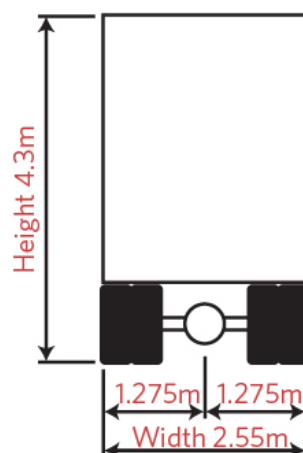
Full trailer

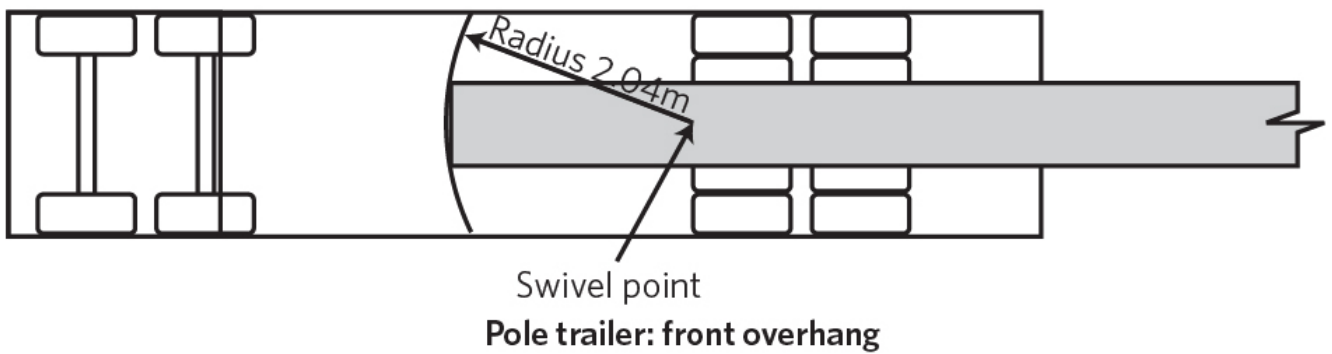
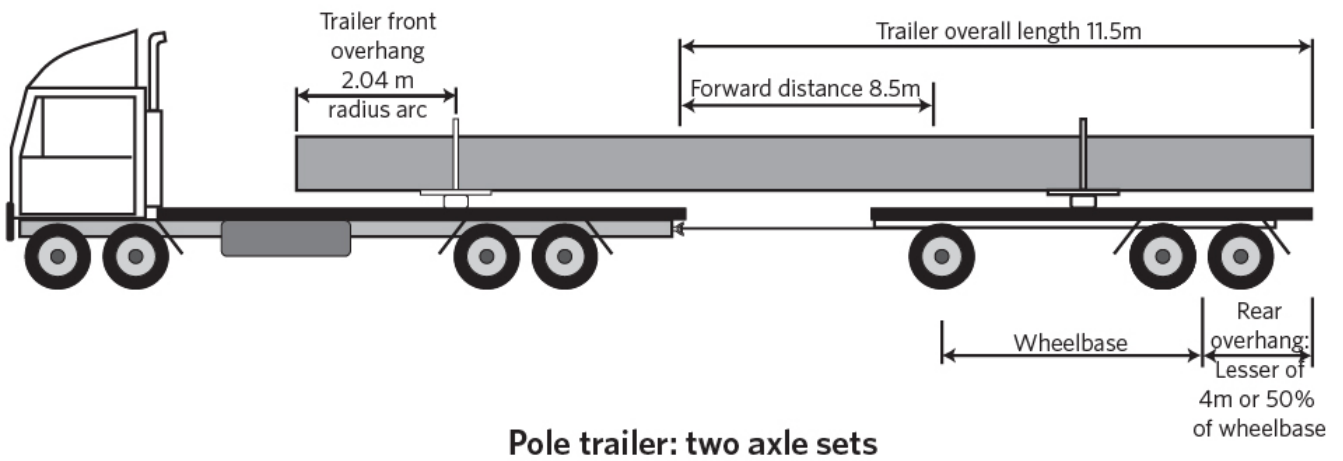
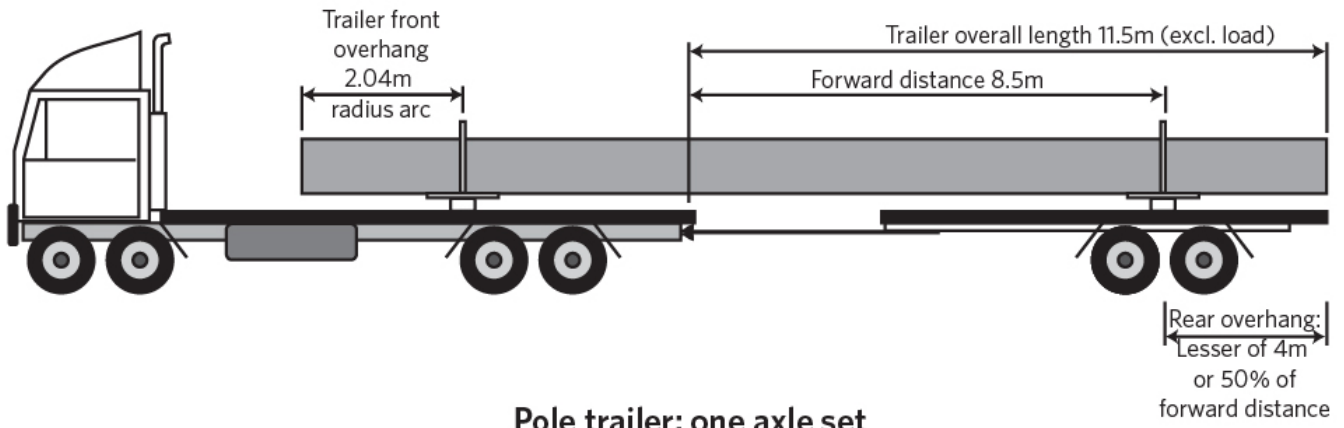


Semi-trailer



Simple trailer





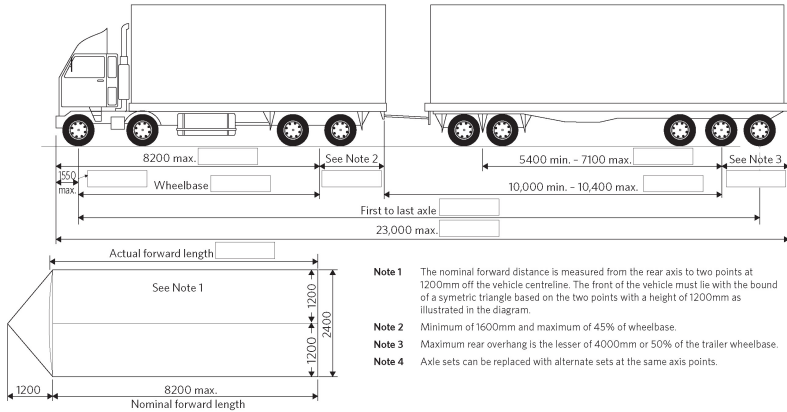
See also to Table 2-2-4.

Figure 2-2-10. Sample 50MAX proforma entry certification and permit application declaration and HPMV proforma entry certification and permit application declaration

HPMV PROFORMA ENTRY CERTIFICATION AND PERMIT APPLICATION DECLARATION

02/21

HPMV 23M TRUCK AND FULL TRAILER



Note 1 The nominal forward distance is measured from the rear axis to two points at 1200mm off the vehicle centreline. The front of the vehicle must lie with the bound of a symmetric triangle based on the two points with a height of 1200mm as illustrated in the diagram.

Note 2 Minimum of 1600mm and maximum of 45% of wheelbase.

Note 3 Maximum rear overhang is the lesser of 4000mm or 50% of the trailer wheelbase.



Note 4 Axle sets can be replaced with alternate sets at the same axis points.

The information requested is required to confirm that the vehicle meets the dimension thresholds provided in Waka Kotahi NZ Transport Agency-approved proforma designs for high productivity motor vehicles and to support an application for a High Productivity Motor Vehicle Permit under the Land Transport Rule: Vehicle Dimensions and Mass 2016. Waka Kotahi (and its agents) will hold, store, use and disclose any personal information collected on this form in accordance with the Privacy Act and the Land Transport Act. You are entitled to access, and request the correction of, any readily retrievable personal information held about you by Waka Kotahi. You can do so by writing to us at Private Bag 11777, Palmerston North 4442 or by emailing: info@nzta.govt.nz

Truck/ Trailer	Plate number <input type="text"/>	VIN/chassis number <input type="text"/>	Make <input type="text"/>	Model <input type="text"/>	Year <input type="text"/>
Trailer 1	Plate number <input type="text"/>	VIN/chassis number <input type="text"/>	Make <input type="text"/>	Model <input type="text"/>	Year <input type="text"/>

Name of heavy vehicle specialist certifier Signature of heavy vehicle specialist certifier Date

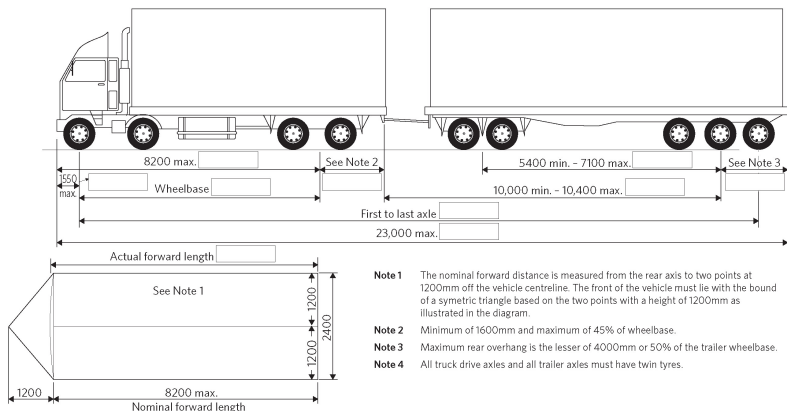
I state that, to the best of my knowledge and belief, all the information given for this application is true and correct.
Warning: It is an offence under the Land Transport Act 1998 to provide information that is known to be false or misleading.

50MAX PROFORMA ENTRY CERTIFICATION AND PERMIT APPLICATION DECLARATION

02/21

50MAX 23M TRUCK AND FULL TRAILER



Note 1 The nominal forward distance is measured from the rear axis to two points at 1200mm off the vehicle centreline. The front of the vehicle must lie with the bound of a symmetric triangle based on the two points with a height of 1200mm as illustrated in the diagram.

Note 2 Minimum of 1600mm and maximum of 45% of wheelbase.

Note 3 Maximum rear overhang is the lesser of 4000mm or 50% of the trailer wheelbase.



Note 4 All truck drive axles and all trailer axles must have twin tyres.

The information requested is required to confirm that the vehicle meets the dimension thresholds provided in Waka Kotahi NZ Transport Agency-approved proforma designs for high productivity motor vehicles and to support an application for a High Productivity Motor Vehicle Permit under the Land Transport Rule: Vehicle Dimensions and Mass 2016. Waka Kotahi (and its agents) will hold, store, use and disclose any personal information collected on this form in accordance with the Privacy Act and the Land Transport Act. You are entitled to access, and request the correction of, any readily retrievable personal information held about you by Waka Kotahi. You can do so by writing to us at Private Bag 11777, Palmerston North 4442 or by emailing: info@nzta.govt.nz

Truck/ Trailer	Plate number <input type="text"/>	VIN/chassis number <input type="text"/>	Make <input type="text"/>	Model <input type="text"/>	Year <input type="text"/>
Trailer 1	Plate number <input type="text"/>	VIN/chassis number <input type="text"/>	Make <input type="text"/>	Model <input type="text"/>	Year <input type="text"/>

Name of heavy vehicle specialist certifier Signature of heavy vehicle specialist certifier Date

I state that, to the best of my knowledge and belief, all the information given for this application is true and correct.
Warning: It is an offence under the Land Transport Act 1998 to provide information that is known to be false or misleading.

Summary of legislation

Applicable legislation

- [Land Transport Rule: Vehicle Dimensions and Mass 2016](#).

Mandatory equipment

1. A trailer with a GVM of 3501kg or more that exceeds the dimensions in Table 2-2-3 must meet the requirements in Table 2-2-4.
2. A trailer with a GVM of 3501kg or more may exceed the dimensions in Table 2-2-3 only if it is:
 - a) a specialist overdimension trailer (Note 1), or
 - b) a trailer designed primarily to transport overdimension loads, or
 - c) a vehicle operating on a valid permit, exemption or approval.

Page amended **1 June 2019** (see [amendment details](#)).

2-3 Glazing

Reasons for rejection

Glazing condition

1. Glazing is damaged (Note 1), has deteriorated or is modified (Note 2) so that its strength or mechanical performance is adversely affected.
2. Glazing is not securely affixed to the vehicle.
3. Glazing has a mirrored effect sufficient to dazzle other road users.

Note 2 Definitions

Modify means to change a vehicle from its original state by altering, substituting, adding or removing any structure, component or equipment, but does not include repair.

Repair means to restore a damaged or worn vehicle, its structure, systems, components or equipment to within safe tolerance of its condition when manufactured, including replacement with equivalent undamaged new structures, systems, components or equipment.

Summary of legislation

Applicable legislation

- [Land Transport Rule: Glazing, Windscreen Wipe and Wash, and Mirrors 1999](#).

Permitted glazing

1. Trailers may be fitted with any type of glazing, including plastic glazing.

Glazing condition

2. Glazing must be mechanically sound, strong and securely affixed to the vehicle.
3. Glazing must not have a mirrored effect sufficient to dazzle other road users.

2-4 Heavy trailer equipment

Reasons for rejection

Mandatory equipment

1. An outrigger fitted to a vehicle does not have a locking device to prevent its inadvertent extension or separation.

Condition and performance

2. An outrigger locking device is bent, worn or otherwise damaged or has deteriorated so that it is not effective.
3. An outrigger locking device does not lock the outrigger in its locked position.

Note 1

Outrigger, *in relation to a vehicle fitted with a crane or a hoist*, means a device fitted to the vehicle that extends and stabilises the vehicle while the crane or hoist is in use.

Summary of legislation

Applicable legislation

- [Land Transport Rule: Heavy Vehicles 2004](#).

Mandatory equipment

1. An outrigger fitted to a vehicle must have a locking device to prevent its inadvertent extension or separation.

Condition

2. An outrigger locking device must be effective.