Correct as at 16th June 2026. It may be superseded at any time.

Extract taken from: In-service certification (WoF and CoF) > Unclassified vehicles

Unclassified vehicles

1 Introduction

Inspection and certification of unclassified vehicles: Warrant of fitness requirements

This section specifies the requirements that are applicable to the inspection and certification of unclassified vehicles for the purpose of issuing a warrant of fitness (WoF).

Unclassified vehicles are light and heavy vehicles (including trailers) of the following types:

a) vehicles propelled and supported solely by self-laying tracks

b) motor vehicles exclusively designed and used on a road for driving, carrying or propelling any of the following, which must be permanently attached to the vehicle:

i. aerodrome runway sweepers

ii. electrical substations

iii. filters for transformer oil

iv. log haulers that are stationary when hauling logs

v. aero engine test benches

c) mobile or movable huts, galleys or similar vehicles that are used on a road solely in connection with the construction or maintenance of roads

d) aerodrome crash fire tenders that are used on a road only in emergencies

e) trailers while being drawn by a vehicle as stated in b) to d) above

f) motor vehicles used exclusively in connection with the embarking and disembarking of ships' passengers or for loading and unloading ships' mail, cargo and passengers' baggage, and used on a public highway only when proceeding unladen from one wharf to another wharf or from its usual place of storage to a wharf and returning to that place of storage

g) cable jinkers

h) front-end loaders

i) log skidders

j) tractor cranes

k) rough-terrain cranes

l) mobile crushing and screening plant machines which are mounted on trailers

m) motor graders

n) motor scrapers

o) trailer scrapers

p) plant for servicing oil-filled cables

q) post debarkers

r) saw bench apparatus

s) forestry chippers

t) tree feller bunchers

u) trench diggers and excavators

v) vehicles that are always used unladen on the road and that are designed exclusively for carrying earth or other bulk materials

w) mobile concrete mixers that are mounted on tractors

x) a vehicle that is similar in design, construction or purpose to a vehicle listed above that cannot be categorised by vehicle class

y) **all-terrain vehicles**.

- Tractors for any use and self-propelled machines used solely in agricultural, land management or roading operations are covered in the **Tractors** section. Forklifts are covered in the **Forklifts** section.

General requirements

1. An unclassified vehicle that is operated on the road (ie that is registered) requires a WoF. Therefore, the vehicle inspector may inspect the vehicle only if it has a registration plate attached to it.

2. Unclassified vehicles are required to comply with WoF requirements only as far as is practicable for their design and type. The requirements in this section are what the NZTA considers to be practicable in relation to the inspection and certification of specialist vehicles.

3. Due to the large variety of vehicles covered in this section, some requirements have been kept general, and the vehicle inspector is expected to make a judgement call in line with the general requirements.

4. Modifications that affect a safety requirement do not require low volume vehicle (LVV) or heavy vehicle specialist (HVS) certification. However, if the vehicle inspector has concerns about the modification, he or she must obtain additional information from a relevant person before passing the vehicle for WoF.

5. An unclassified vehicle is not required to have a permanent vehicle identifier. However, if the vehicle has a permanent vehicle identifier, such as the manufacturer's serial number, it must be recorded on the checksheet and on the NZTA computer system.

6. This section applies to both light and heavy unclassified vehicles. Heavy vehicles, that is those with a gross vehicle mass (GVM) greater than 3500kg, may be inspected and certified for WoF only if the inspecting organisation and the vehicle inspector have current 'Heavy Vehicle, Exempt from CoF' authorisation.

7. For the purposes of this section, the GVM can generally be determined by adding the unladen weight of the vehicle (including fuel in the fuel system and any equipment and accessories necessary to operate the vehicle or equipment), crew and any carrying or lifting capacity the vehicle may have.

8. As this section applies to both self-propelled vehicles and trailers, separate requirements have been indicated where appropriate.

Page amended **23 April 2023** (see amendment details).

2 Vehicle exterior

2-1 External projections

Reasons for rejection

Condition and performance

1. The risk of a component (Note 1) hooking a vehicle, or hooking or grazing a person, has not been minimised.

2. An ornamental object or fitting (Note 2) protrudes in such a way that it is likely to injure a person.

3. A protruding object or fitting that has a functional purpose (Note 3) is fitted in a way that does not reduce the risk of injury to a person.

4. A component, object or fitting is not securely attached to the vehicle.

5. A protruding object or fitting adversely affects the driver's vision or control.

Note 1

Components include damaged, corroded and exposed body panels.

Note 2

Ornamental object or fitting means an object or fitting that does not have a practical purpose, for example bonnet emblems. 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.

Note 3

Functional object or fitting means an object or fitting that has a practical purpose.

Summary of legislation

Applicable legislation

- Land Transport Rule: External Projections 2001.

Permitted equipment

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

Condition and performance

2. A protruding ornamental object or fitting (Note 2) must not be likely to injure a person.

3. A protruding object or fitting that has a functional purpose (Note 3) must be installed so that the risk of the object or fitting causing injury to a person is minimised.

4. Components of a 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 rigid vehicle or trailer (Note 1) exceeds the dimension requirements set out in Table 2-2-1 and is not fitted with the appropriate hazard warning equipment set out in Table 2-2-2.

2. A required revolving amber beacon cannot be activated and deactivated.

Note 1

Rigid vehicle means a vehicle with motive power, driver's position and steering system, that does not have any pivot points to allow any part of the chassis of the vehicle to move or rotate in relation to any other part of the chassis of the vehicle; includes a pivot steer vehicle.

Note 2

Front axis means:

a) the centre point of the front axle set of a trailer that has two axle sets and is steered by the front axle set, or

b) the centre of the foremost axle of a rigid vehicle with motive power.

Rear axis:

a) in relation to a vehicle with only one non-steering axle, means that axle

b) in relation to a vehicle with a non-steering axle set of two axles, means

i. midway between those axles, if each axle has an equal number of tyres on it

ii. two-thirds of the distance from the lesser-tyred axle towards the greater-tyred axle, if one axle has twice as many tyres on it as the other axle

c) in relation to a vehicle with a non-steering tri-axle set or a non-steering quad-axle set, or an overdimension vehicle with more than three axles, means midway between the extreme axles of the set

d) except as specified in (e) below, in relation to a vehicle whose rear axle set includes one or more steerable axles in conjunction with one or more non-steering axles, means midway between the extreme non-steering axles of the set

e) in relation to a semi-trailer with two non-steering axles at the front and two steering axles at the rear, means the centre line of the second non-steering axle

f) in relation to a vehicle whose rear axle set includes one or more retracted axles in conjunction with one or more non-retracted axles, means midway between the extreme non-retracted axles of the set

g) in relation to a vehicle that does not have an axle arrangement that is in paragraphs (a) to (f), means a position determined by the NZTA.

Pivot steer vehicle means a vehicle with a chassis that is split into two dependent parts that are connected by a permanent steering pivot.

Wheelbase means the distance from a vehicle's rear axis to its front axis.

Note 3

Full trailer means a trailer with two axle sets, the foremost of which is steered by a drawbar; includes a semi-trailer with non-steering axles coupled to a converter dolly.

Note 5

Semi-trailer means a trailer with only one axle set where the point of attachment to the towing vehicle or leading trailer:

a) is no further rearward than the rearmost axle of the towing vehicle or rearmost axle of the leading trailer, or

b) if the towing vehicle is a rigid vehicle and has more than one axle in its rear axle set, is no more than 300mm rearward of the rear axis of the towing vehicle.

Table 2-2-1. Dimension requirements (see Figure 2-2-4, Figure 2-2-5, Figure 2-2-6)

Dimension	Maximum distance	Comments
Width	2.55m 1.275m from each side of the longitudinal centreline of the vehicle	Measurement does not include: • collapsible mirrors which extend no more than 240mm from the side and 1.49m when measured from the vehicle's longitudinal centre line • direction indicators and side-marker lamps • cab exterior grab rails that extend no more than 1.325m when measured from a vehicle's longitudinal centre-line • the bulge towards the bottom of a tyre • 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	Rigid vehicle without tow coupling: 12.6m Rigid vehicle with tow coupling, full trailer: 11.5m Towing vehicle and semi-trailer combination: 19m (**Note:** A semi-trailer with a quad-axle set that was first registered before 1 February 2017 may have two steering axles if the overall length of the towing vehicles and its trailer does not exceed 18m) Towing vehicle and simple trailer: 22m Any other vehicle combination: 20m	Measurement does not include collapsible mirrors.
Height	4.3m	

Dimension	Maximum distance	Comments
Forward distance	Any trailer (other than a simple trailer): 8.5m Semi-trailer: 9.2m Rigid vehicle with tow coupling: 8.5m Rigid vehicle without tow coupling: 9.5m	Forward distance is measured as follows: • rigid vehicle: from the rear axis (Note 2) to the front of the vehicle (not including collapsible mirrors) • full trailer: from the rear axis (Note 2) to the front of the trailer (excluding the drawbar and front axle set with its associated carriage) • simple trailer: from the rear axis (Note 2) to the centre of the tow coupling • semi-trailer: from the rear axis (Note 2) to the centre of the kingpin.
Rear overhang	Vehicle with GVM 3500kg or less: • 4m Vehicle with GVM greater than 3500 kg: • rigid vehicle with rearmost axle being a non-steering axle: 4m or 70% of wheelbase (whichever is less) • rigid vehicle with rearmost axle being a steering axle: 4.25m or 70% or wheelbase (whichever is less) • simple trailer: 4.0m or 50% of forward distance (whichever is less) • semi-trailer: 4.3m or 50% of forward distance (whichever is less) • full trailer: 4m or 50% of wheelbase (whichever is less) • Vehicle first registered anywhere before 1 December 1989: 4m.	• Rear overhang is measured from the rear axis (Note 2) to the rear of the vehicle.
Front overhang	Rigid vehicle: 3m Simple trailer: 2.04m radius arc ahead of tow coupling centre Full trailer: 2.04m radius arc ahead of turntable centre Semi-trailer: 2.04m radius arc ahead of kingpin centre	Front overhang is measured as follows: • rigid vehicle: from the front edge of the driver's seat in the rearmost position to the front of the vehicle • semi-trailer: from the centre of the kingpin to the front of the trailer • full trailer: from the centre of the turntable to the front of the trailer (excluding the drawbar) • simple trailer: from the centre of the tow coupling to ahead of the trailer.

Table 2-2-2. Hazard warning equipment requirements for vehicles that exceed the dimensions in Table 2-2-1

Vehicle category (see Figure 2-2-4)	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	1. Flags[1] or panels[2] fitted on each side at the front and rear as close as practical to the outside edge 2. OVERSIZE sign[3] if width exceeds 3.1m and vehicle is piloted.
	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 3. Revolving amber beacon fitted so that it is visible to approaching traffic if the vehicle is more than 3.7m 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 3. Revolving amber beacon fitted so that it is visible to approaching traffic if the vehicle is more than 3.7m wide
	Front overhang	10m, or	
	Rear overhang	10m	

Vehicle category (see Figure 2-2-4)	Dimension	Limits (up to and including)	Required hazard warning equipment
Category 4A (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 3. Revolving amber beacon fitted so that it is visible to approaching traffic if the vehicle is more than 3.7m wide
	Front overhang	10m, or	
	Rear overhang	10m	
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

[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 of at least the minimum dimensions and the colours specified in Figure 2-2-2.

[3] OVERSIZE sign:

- must be black lettering on a 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 2-2-1. Hazard panel details

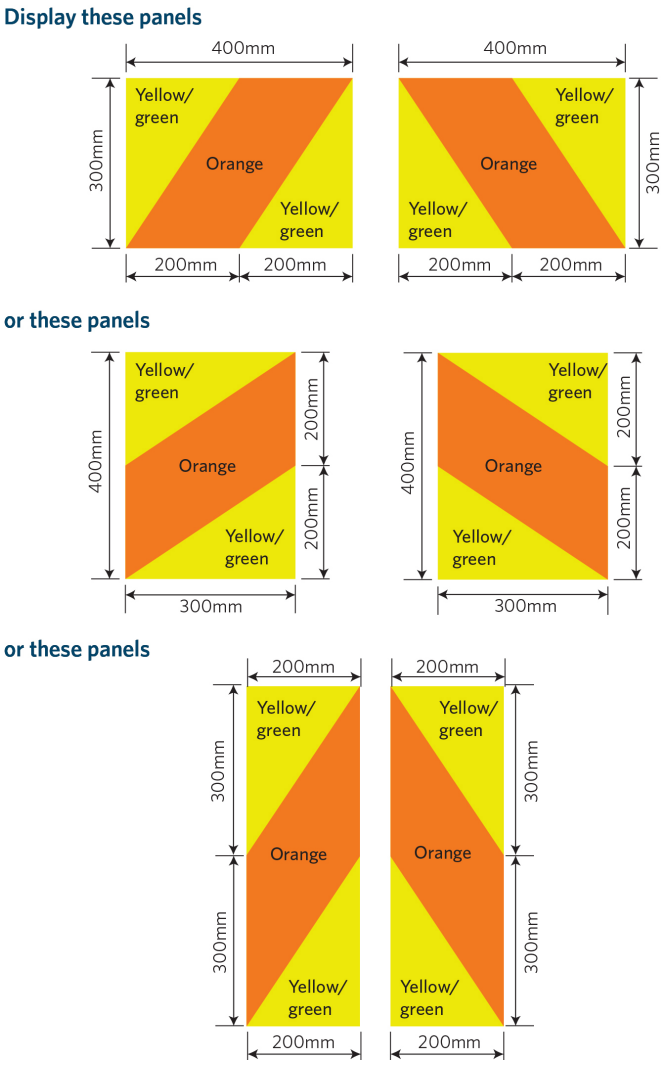


Figure 2-2-2. Hazard panel location and orientation

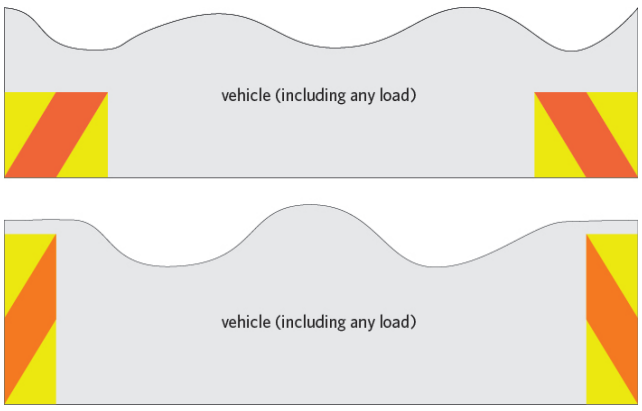
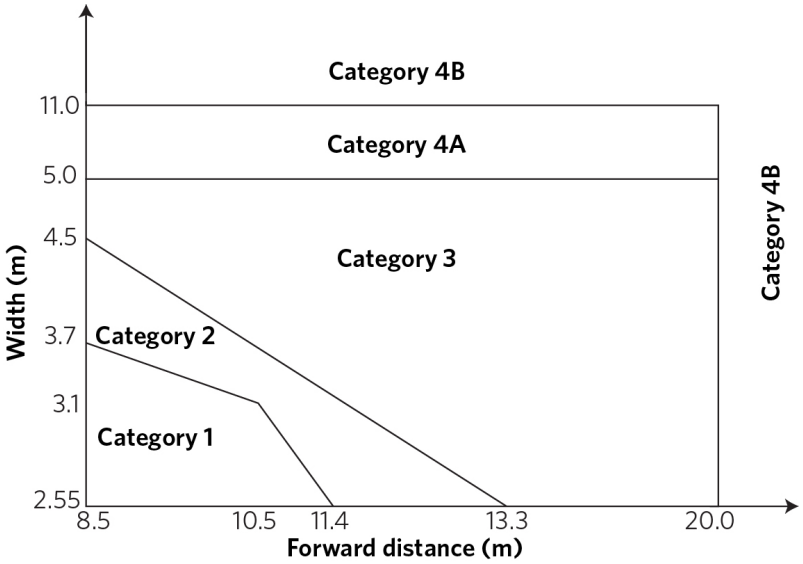


Figure 2-2-3. Overdimension vehicle categories for width/forward distance thresholds

Use this figure to determine vehicle category in Table 2-2-2.



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 2-2-4. Trailer dimensions

(Note: Dimensions in red updated in VDAM 2016)

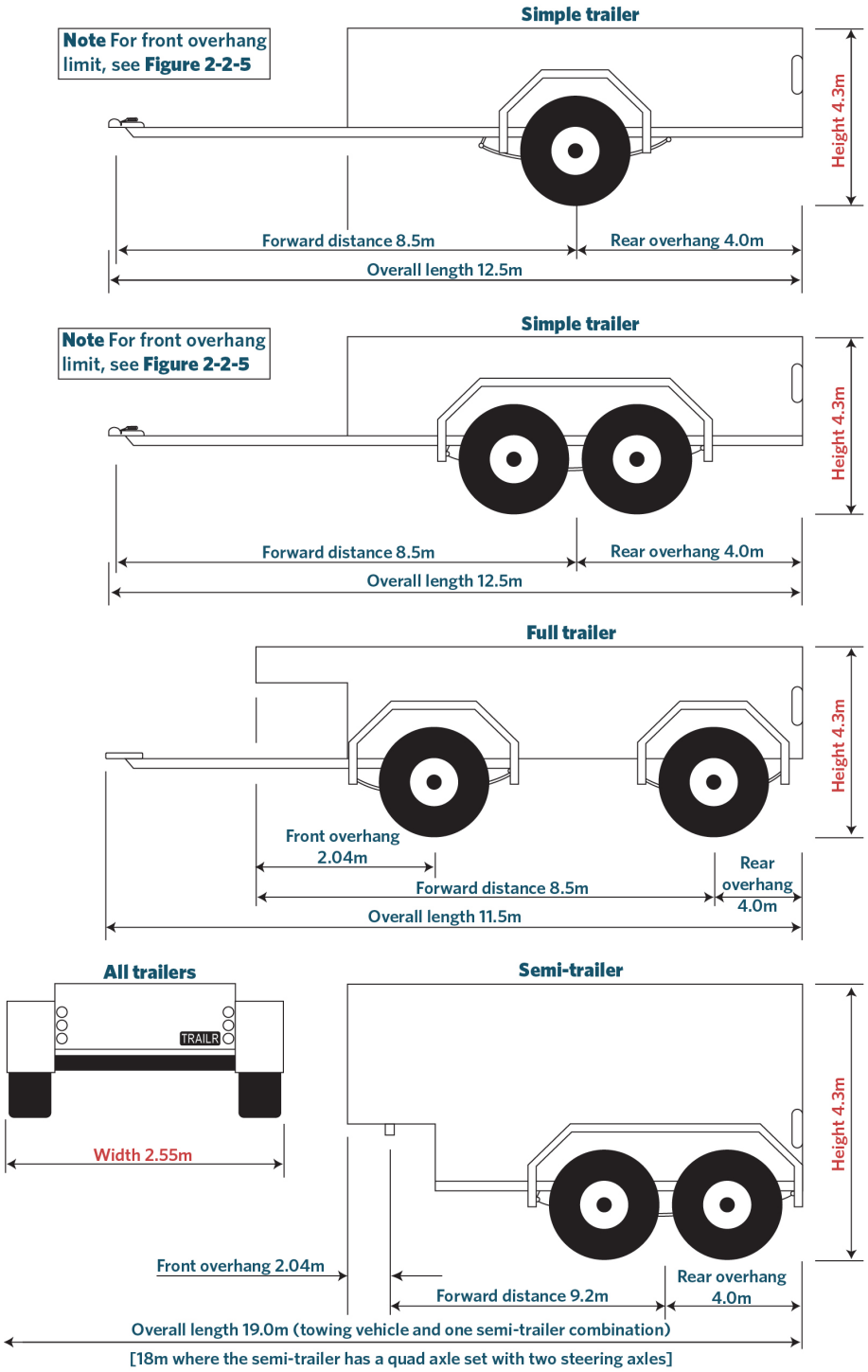

Simple trailer
Note For front overhang limit, see Figure 2-2-5
Height 4.3m
Forward distance 8.5m
Rear overhang 4.0m
Overall length 12.5m
Simple trailer
Note For front overhang limit, see Figure 2-2-5
Height 4.3m
Forward distance 8.5m
Rear overhang 4.0m
Overall length 12.5m
Full trailer
Height 4.3m
Front overhang 2.04m
Forward distance 8.5m
Rear overhang 4.0m
Overall length 11.5m
All trailers
TRAILR
Width 2.55m
Semi-trailer
Height 4.3m
Front overhang 2.04m
Forward distance 9.2m
Rear overhang 4.0m
Overall length 19.0m (towing vehicle and one semi-trailer combination)
[18m where the semi-trailer has a quad axle set with two steering axles]

Figure 2-2-5. Measurement of front overhang

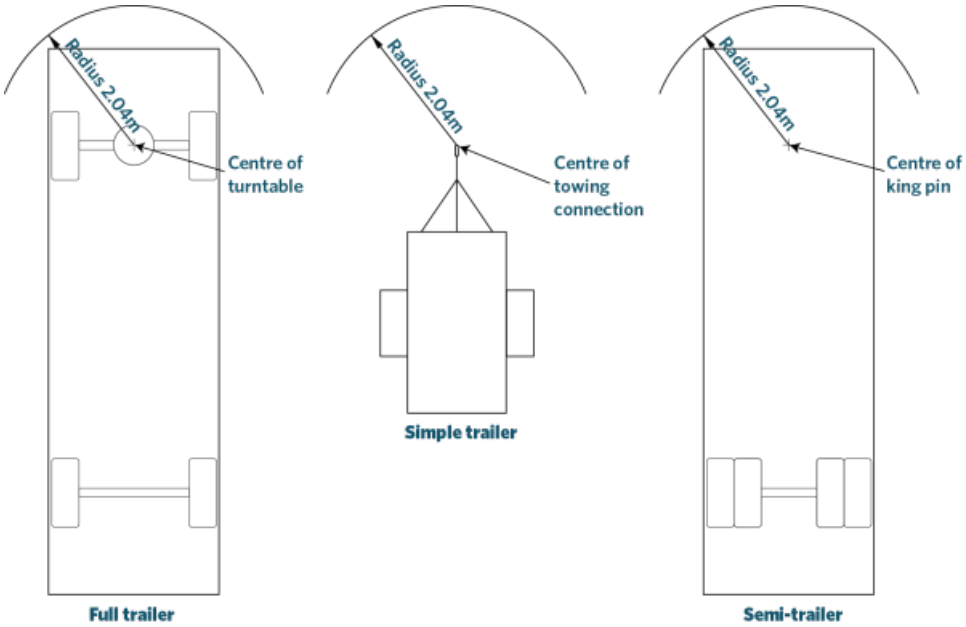
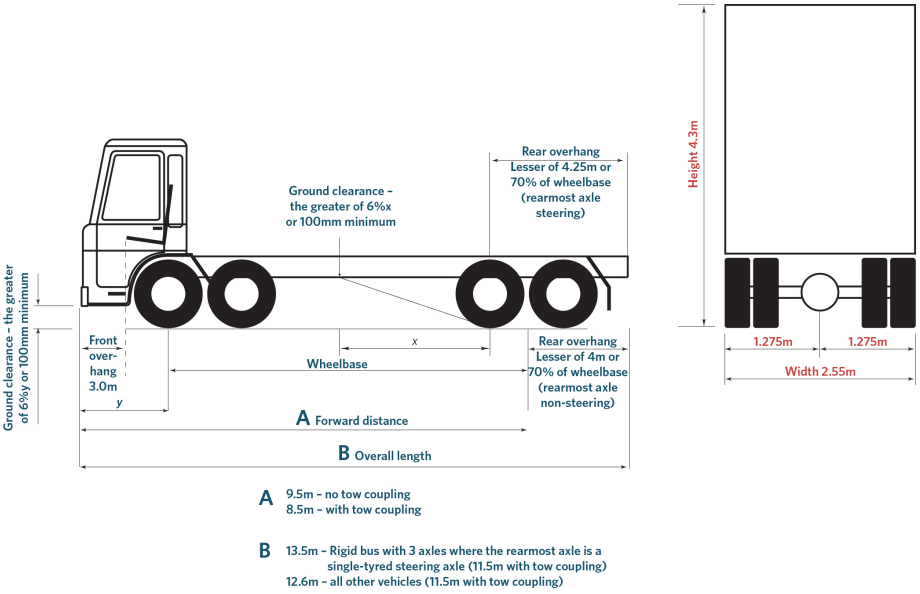


Figure 2-2-6. Dimensions for rigid heavy vehicles

(Note: Dimensions in red updated in VDAM 2016)



Summary of legislation

Applicable legislation

- Land Transport Rule: Vehicle Dimensions and Mass 2016.

Mandatory equipment

1. A rigid vehicle or trailer (Note 1) that exceeds the dimensions in Table 2-2-1 must be fitted with additional equipment set out in Table 2-2-2.

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

3 Vehicle structure

3-1 Vehicle structure

Reasons for rejection

Condition

1. The structure of the vehicle has visible:

    a) deformation from the original shape that has affected the vehicle's structural integrity (Note 1) (Note 3), or

    b) cracking, or

    c) fracture, or

    d) any corrosion, damage or repair that the inspector considers has caused weakening of a load-bearing structure.

2. A protection structure, specialist equipment or a cab is not securely attached to the vehicle body or chassis.

Note 1

The structure of the vehicle includes the chassis, body mounting points and the body frame, but not any specialist equipment or protection structure, except for their attachment to the vehicle.

Note 2

Corrosion damage is where the metal has been eaten away, which is evident by pitting. The outward sign of such corrosion damage is typically displayed by the lifting or bubbling of paint. In extreme cases, the area affected by the corrosion damage will fall out and leave a hole.

Note 3

The vehicle inspector may request additional relevant information from a repairer or other relevant person. The vehicle inspector should withhold the WoF if there is reason to believe that the vehicle has:

a) structural damage, or

b) inadequate structural repair(s), or

c) corrosion damage

to the extent that it could affect the vehicle's structural strength or one of the vehicle's safety requirements. If the owner questions the decision, the vehicle inspector should recommend the vehicle owner obtain further written assessment from the equipment manufacturer or other suitable person.

Summary of legislation

Applicable legislation

- **Land Transport Rule: Vehicle Standards Compliance 2002**, clause 7.4.

Condition

1. The vehicle must be safe to be operated.

2. The components and materials must be fit for their purpose and within safe tolerance of their state when manufactured or modified.

4 Lighting

4-1 Headlamps

Reasons for rejection

Mandatory, permitted and prohibited equipment

1. A self-propelled vehicle is not fitted with either:

    a) one pair of dipped-beam headlamps, or

    b) one pair of forward-facing work lamps.

2. A self-propelled vehicle is fitted with more than:

    a) one pair of dipped-beam headlamps, or

    b) two pairs of main-beam headlamps.

3. A self-propelled vehicle is fitted with a headlamp that is not in a pair.

4. A retrofitted pair of headlamps is not fitted:

    a) symmetrically, or

    b) as far towards each side of the vehicle as is practicable.

5. A self-propelled vehicle is fitted with a dipped-beam headlamp where the maximum intensity of the beam is projected to the right.

6. A trailer is fitted with headlamps.

Condition

7. A lamp is insecure.

8. A lens is missing or has a hole, crack or other damage that allows moisture or dirt to enter.

9. A reflector or reflector is damaged or has deteriorated so that light output is reduced.

10. A mandatory lamp is obscured or contains dirt or moisture in the form of large droplets, runs or puddles.

11. A main-beam headlamp warning device is obscured from the driver's vision.

Performance

12. When switched on, a headlamp emits a light that is:

a) not substantially white or amber, or

b) not approximately equal in colour or intensity to the other lamp in a pair, or

c) not steady, or

d) not bright enough to illuminate the road ahead, eg due to modification, deterioration or an incorrect light source, or

e) too bright, eg due to the fitment of an HID or LED conversion kit (Note 6) or other incorrect light source.

13. When the dipped-beam headlamps are switched on (with wheels pointing straight ahead):

a) a lamp does not operate, or

b) more than two lamps operate on dipped beam, or

c) the light beam produces an incorrect beam pattern, is not focused, or is reduced or altered, or

d) the centreline of the light beam is too far to the left or slopes down too far so that the headlamp is no longer capable of illuminating the road at least 50m ahead (Figure 4–1–1), or

e) the centreline of the light beam:

i. projects to the right of the vehicle's centreline, or

ii. does not dip at an angle specified in Table 4-1-1.

14. When the main-beam headlamps are switched on (with wheels pointing straight ahead):

a) a lamp does not operate, or

b) more than four lamps operate on main beam, or

c) the centreline of the light beam projects to the right of the vehicle's centreline or up from the horizontal (Figure 4-1-2), or

d) the lamps are not capable of being switched to dipped beam or turned off from the driver's seating position, or

e) a main-beam headlamp warning device does not indicate to the driver that the main-beam headlamps are switched on.

15. On a self-propelled vehicle with no headlamps, when the forward-facing work lamps are switched on amandatory lamp does not operate.

16. On a self-propelled vehicle with no headlamps, when the forward-facing work lamps are switched on a lampemits a light that is:

a) not substantially white or amber, or

b) not approximately equal in colour or intensity to the other lamp in a pair, or

c) not steady, or

d) not bright enough to illuminate the road ahead, eg due to modification, deterioration or an incorrectlight source, or

e) dazzling to other road users, eg due to inappropriate alignment (Figure 4-1-2 - Work lamp beam pattern).

Note 1 Definitions

Work lamp means a high-intensity lamp that is not necessary for the operation of the vehicle but is designed to illuminate a work area or scene, and includes a scene lamp, a spot lamp and an alley lamp. In the case of a vehicle without headlamps, forward-facing work lamps must be fitted to illuminate the road ahead during the hours of darkness.

Headlamp means a lamp designed to illuminate the road ahead of a vehicle, and that is:

a) a dipped-beam headlamp (single lamp), or

b) a main-beam (high-beam) headlamp (single lamp), and includes a driving lamp, or

c) a combination of a dipped-beam headlamp and a main-beam headlamp (dual-lamp unit).

Note 2

If the dipped-beam headlamps are able to be adjusted from the driver's seating position, the alignment must be checked with the adjustment at its highest position.

Note 3

If the vehicle is fitted with self-levelling suspension, the alignment must be checked with the suspension at its normal level.

Note 4

If a headlamp is fitted with a readily removable cover, other than a clear protective cover, this must be removed for inspection of the headlamp.

Note 5

A vehicle originally manufactured with a headlamp arrangement that differs from what is required or permitted in this section may retain the original headlamps provided they remain fitted in their original position and perform as intended by the vehicle manufacturer.

Note 6

A high-intensity discharge (HID or Xenon HID) or LED conversion kit consists of an HID or LED bulb which fits into the original headlamp unit in place of the original bulb with no change to the headlamp lens, reflector or housing.

It is illegal to fit an HID or LED conversion kit to a vehicle as it brings the headlamp out of standards compliance by producing poor beam patterns and light that is often far too bright to be safe. The bulbs can also produce light that is noticeably blue and not the required substantially white or amber colour. Vehicle and headlamp manufacturers do not permit this modification, and these kits cannot be LVV certified.

It is permitted to replace a complete halogen headlamp unit with a complete HID or LED headlamp unit. If the vehicle is required to meet an approved safety standard for headlamps, only approved headlamps can be retrofitted.

Table 4-1-1. Allowable dipped-beam headlamp alignment

	Headlamp type	Distance from ground to centre of light source	Dip rate of beam centre: lower and upper limits		
			Percent (%)	mm/3m	Degrees (°)
EITHER	Any headlamp dipped beam	N/A	As specified by the vehicle or headlamp manufacturer		
OR	Headlamp with symmetric dipped-beam pattern	N/A	3.0–3.5	90–105	1.7–2.0
OR	Headlamp with asymmetric dipped-beam pattern and distance from ground to centre of light source	less than 0.8m	1.0–1.5	30–45	0.57–0.85
		0.8–1.2m	1.0–2.0	30–60	0.57–1.15
		more than 1.2m	2.0–2.5	60–75	1.15–1.43

Table 4-1-2. Dipped-beam angle conversions

Percent (%)	mm/3m	Degrees (°)		Percent (%)	mm/3m	Degrees (°)
1.0	30	0.6		2.3	69	1.3
1.1	33	0.6		2.4	72	1.4
1.2	36	0.7		2.5	75	1.4
1.3	39	0.7		2.6	78	1.5
1.4	42	0.8		2.7	81	1.5
1.5	45	0.9		2.8	84	1.6
1.6	48	0.9		2.9	87	1.7
1.7	51	1.0		3.0	90	1.7
1.8	54	1.0		3.1	93	1.8
1.9	57	1.1		3.2	96	1.8
2.0	60	1.1		3.3	99	1.9
2.1	63	1.2		3.4	102	1.9
2.2	66	1.3		3.5	105	2.0

Figure 4-1-1. Minimum illuminated area

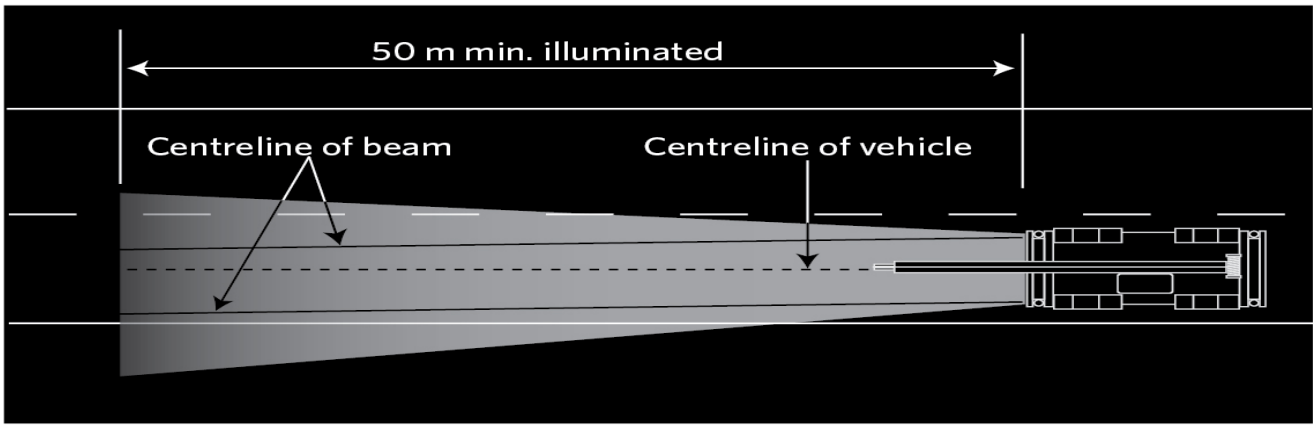
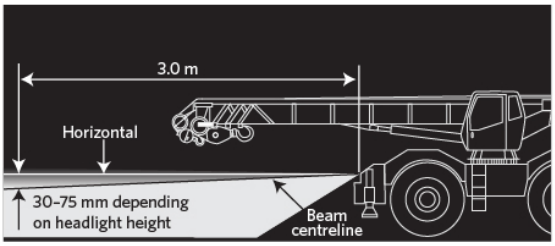
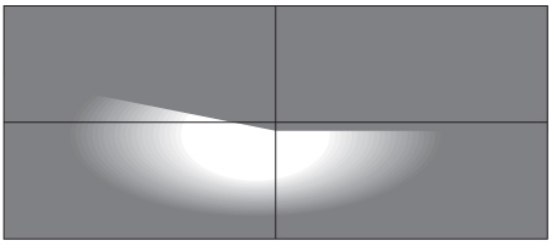


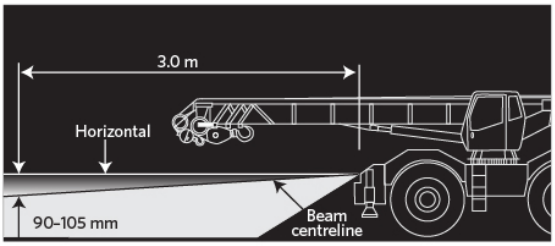
Figure 4-1-2. Dipped beams



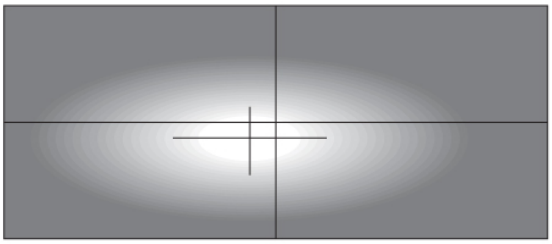
Asymmetric dipped beam



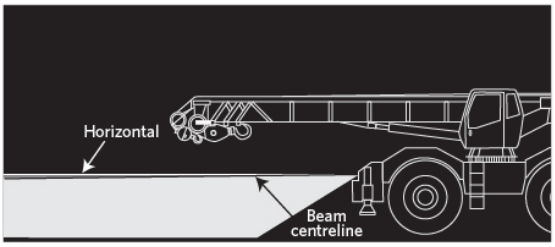
Asymmetric dipped-beam headlamp pattern on light board



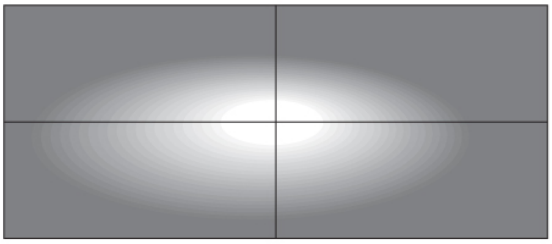
Symmetric dipped beam



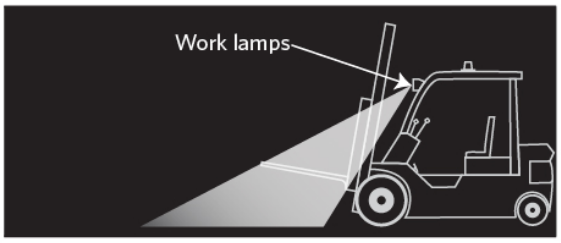
Symmetric dipped-beam headlamp pattern on light board



Main (high) beam



Main- (high-) beam headlamp pattern on light board



Work lamp beam pattern

Summary of legislation

Applicable legislation

- Land Transport Rule: Vehicle Lighting 2004

Mandatory and permitted equipment

1. A self-propelled vehicle must be fitted with one pair of dipped-beam headlamps (Note 1).

2. A self-propelled vehicle may be fitted with one or two pairs of main-beam headlamps.

3. A warning device may be fitted that indicates that the main-beam headlamps are switched on.

4. A retrofitted pair of headlamps must be symmetrically mounted as far towards each side of the vehicle as is practicable.

Prohibited equipment

5. A dipped-beam headlamp designed solely for a left-hand drive vehicle, where the maximum intensity of the beam is dispersed to the right, must not be fitted.

6. A trailer must not be fitted with headlamps.

Condition

7. A headlamp must:

a) be in sound condition, and

b) not be obscured.

Performance

8. A lamp must operate in a way that is appropriate for the lamp and the vehicle.

9. A lamp must emit a steady light.

10. A lamp must provide sufficient illumination and light output to illuminate the road ahead.

11. A pair of lamps must emit light that is approximately of equal colour and intensity when switched on.

12. A lamp must emit a beam that is substantially white or amber.

13. A main-beam headlamp must be capable of being dipped or turned off from the driver's position.

14. A warning device that indicates that the main-beam lamps are in operation must be in good working order.

15. When the headlamps are switched on and the vehicle's front wheels are pointing in the straight-ahead position:

a) the centre of a headlamp beam must be either parallel to or to the left of the longitudinal centreline of the vehicle, and

b) the centre of a main-beam headlamp beam must be either parallel to or dipping down from the horizontal and

c) the centre of a dipped-beam headlamp beam must dip at an angle specified in Table 4-1-1.

16. The dipped-beam headlamps must illuminate the road ahead for 50m in normal darkness.

17. A headlamp must be fitted with a light source that is specified by the vehicle manufacturer or the headlamp manufacturer.

Page amended **1 April 2021** (see **amendment details**).

4-2 Front and rear fog lamps

Reasons for rejection

Permitted equipment

1. A self-propelled vehicle is fitted with:

a) only one front fog lamp, or

b) more than one pair of front fog lamps.

2. A trailer is fitted with:

a) a front fog lamp, or

b) more than two rear fog lamps.

3. A vehicle is fitted with more than two rear fog lamps.

4. A retrofitted pair of fog lamps is:

a) not fitted symmetrically, or

b) not fitted as far towards each side of the vehicle as is practicable, or

c) positioned higher than the dipped-beam headlamps.

Condition

5. A lamp is insecure or contains moisture in the form of large droplets, runs or puddles.

6. A lens is missing or has a hole, crack or other damage that allows moisture or dirt to enter.

7. A reflector is damaged or has deteriorated so that light output is reduced.

8. A fog lamp warning device, if fitted, is obscured from the driver's vision.

Performance

9. When switched on, a front fog lamp does not operate.

10. When switched on, a front fog lamp emits light that:

a) is not projected to the front, or

b) produces an incorrect beam pattern (Figure 4-2-1), or

c) is not substantially white or amber to the front, or

d) is not approximately equal in colour or intensity to the other lamp in the pair, or

e) is not steady, or

f) is not bright enough to illuminate the road ahead in conditions of severely reduced visibility, eg due to modification, deterioration, dirt or an incorrect light source, or

g) is too bright, and could dazzle other road users, eg due to an incorrect light source, or

h) has a beam centre to the right of the vehicle's centreline, or

i) has a beam that is not permanently dipped, or

j) has a beam centre that dips at an angle of less than 3% (Figure 4-2-1).

11. When switched on, a rear fog lamp emits light that is not:

a) projected to the rear, or

b) diffuse, or

c) not substantially red, or

d) not approximately equal in colour or intensity to the other lamp in a pair, or

e) steady, or

f) bright enough to indicate the presence of the vehicle from the rear in conditions of severely reduced visibility, eg due to modification, deterioration or an incorrect light source.

12. A fog lamp cannot be switched off from the driver's seating position.

13. Where a fog lamp comprises an array of light sources (eg LEDs), fewer than 75% of these operate.

14. A fog lamp warning device, if fitted, does not operate.

Note 1

Fog lamp means a front or rear lamp designed to aid the driver or other road users in conditions of severely reduced visibility, including fog or snow but not including clear atmospheric conditions under the hours of darkness.

Note 2

A rear fog lamp that does not comply with equipment, condition and performance requirements must be made to comply or be disabled so that it does not emit a light.

Note 3

If a front fog lamp is fitted with a readily removable cover, other than a clear protective cover, this must be removed for inspection of the fog lamp.

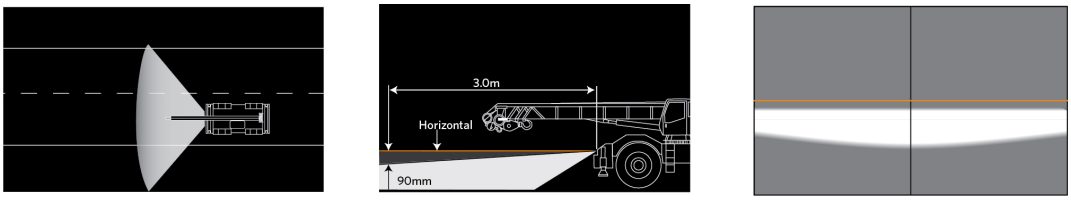
Note 4

A vehicle originally manufactured with a front or rear fog lamp arrangement that differs from what is required or permitted in this section may retain the original front or rear fog lamps provided they remain fitted in their original position and perform as intended by the vehicle manufacturer.

Note 5

A forward-facing permitted lamp that does not comply with the equipment, condition and performance requirements must be made to comply, be removed from the vehicle, or be disabled so that it does not emit a light.

Figure 4-2-1. Front fog lamp characteristics



(a) Pattern on the road (b) Beam dip angle (c) Pattern on light board

Summary of legislation

Applicable legislation

- Land Transport Rule: Vehicle Lighting 2004

Permitted and prohibited equipment

1. A self-propelled vehicle may be fitted with:

    a) one pair of front fog lamps, and

    b) one or two rear fog lamps.

2. A trailer:

    a) may be fitted with one or two rear fog lamps, and

    b) must not be fitted with a front fog lamp.

3. A retrofitted pair of fog lamps must be symmetrically mounted as far as is practicable towards each side of the vehicle.

4. A retrofitted front fog lamp must not be positioned higher than the dipped-beam headlamps.

5. A vehicle may be fitted with a warning device that indicates that a front or rear fog lamp is in operation.

Condition

6. A front fog lamp must be in sound condition.

7. A rear fog lamp must be in sound condition if it emits a light.

Performance

8. A fog lamp must operate in a way that is appropriate for the lamp and the vehicle.

9. A fog lamp must emit a steady light.

10. A front fog lamp must provide sufficient light output to illuminate the road ahead in conditions of severely reduced visibility.

11. A rear fog lamp must provide sufficient light output to indicate the presence of the vehicle on the road in conditions of severely reduced visibility.

12. The light emitted from a front fog lamp must be substantially white or amber.

13. The light emitted from a rear fog lamp must be diffuse and substantially red in colour.

14. A pair of fog lamps must emit light that is approximately equal in colour and intensity.

15. The centre of a front fog lamp beam must be parallel to or to the left of the longitudinal centreline of the vehicle.

16. The centre of a front fog lamp beam must be permanently dipped at an angle of at least 3%.

17. A fog lamp must be able to be turned off from the driver’s seating position.

18. A front or rear fog lamp warning device must be in good working order.

19. Where a fog lamp comprises an array of light sources (eg LEDs), at least 75% of these must operate.

Page amended **1 April 2021** (see **amendment details**).

4-3 Cornering lamps

Reasons for rejection

Permitted and prohibited equipment

1. A self-propelled vehicle is fitted with:

    a) only one lamp, or

    b) more than one pair of lamps, or

    c) a lamp that either:

        i. was not originally fitted by the vehicle manufacturer, or

        ii. is not fitted in the original position.

2. A trailer is fitted with cornering lamps.

Condition

3. A lamp is insecure.

4. A lens is missing or has a hole, crack or other damage that allows moisture or dirt to enter.

5. A lamp's reflector is damaged or has deteriorated so that light output is reduced.

Performance

6. When activated by switching on the direction indicator lamp or by turning the steering wheel, a cornering lamp does not:

    a) operate, or

    b) project in the direction of the turn.

7. A cornering lamp emits light that is:

    a) not substantially white or amber, or

    b) not approximately equal in colour or intensity to the other lamp in a pair, or

    c) not steady, or

    d) not bright enough to illuminate the road ahead in the direction of the turn, eg due to modification, deterioration, dirt or an incorrect light source, or

    e) too bright, causing dazzle to other road users, eg due to an incorrect light source or misalignment.

8. Where a cornering lamp comprises an array of light sources (eg LEDs), less than 75% of these operate.

Note 1

Cornering lamp means a lamp that is designed to emit light at the front of a vehicle to supplement the vehicle's headlamps by illuminating the road ahead in the direction of the turn.

Note 2

An original equipment (OE) lamp is one that is fitted by the vehicle manufacturer in the original position, or is an equivalent replacement or aftermarket lamp suitable for the position provided by the vehicle manufacturer for that lamp. All other lamps are considered retrofitted (ie non-OE).

Note 3

A vehicle originally manufactured with a cornering-lamp arrangement that differs from what is required or permitted in this section may retain the original cornering lamps provided they remain fitted in their original position and perform as intended by the vehicle manufacturer.

Summary of legislation

Applicable legislation

- Land Transport Rule: Vehicle Lighting 2004

Permitted and prohibited equipment

1. A self-propelled vehicle may have one pair of cornering lamps fitted as OE.

2. A trailer must not be fitted with cornering lamps.

Condition

3. A cornering lamp must be in sound condition.

Performance

4. A cornering lamp must operate in a way that is appropriate for the lamp and the vehicle.

5. A cornering lamp must emit light that is substantially white or amber.

6. A pair of cornering lamps must emit light that is approximately equal in colour and intensity.

7. A cornering lamp must emit a steady light.

8. A cornering lamp must provide sufficient light output to illuminate the road ahead in the direction of the turn.

9. A cornering lamp must be correctly aligned.

10. Where a cornering lamp comprises an array of light sources (eg LEDs), at least 75% of these must operate.

4-4 Daytime running lamps

Reasons for rejection

Prohibited equipment

1. A vehicle is fitted with daytime running lamps.

Note 1

Daytime running lamp means a lamp designed to emit a low-intensity light forward of a vehicle to make it more easily seen in the daytime.

Summary of legislation

Applicable legislation

- Land Transport Rule: Vehicle Lighting 2004

Prohibited equipment

1. A vehicle must not be fitted with daytime running lamps.

4-5 Direction indicator lamps

Reasons for rejection

Mandatory and permitted equipment

1. A self-propelled vehicle first registered in New Zealand before 1 January 2006, that is so constructed that the driver's arm signals cannot be seen from behind the vehicle, is not fitted with one pair of rear direction indicator lamps.

2. A self-propelled vehicle first registered on or after 1 January 2006 is not fitted with one pair of rear direction indicator lamps.

3. A trailer that is so constructed that the driver's arm signals cannot be seen from behind the trailer is not fitted with one pair of lamps at the rear.

4. A self-propelled vehicle is fitted with more than:

    a) two pairs of lamps at the rear (other than top-mounted lamps), or

    b) two pairs of lamps at the front, or

    c) two side-facing lamps on each side of the vehicle.

5. A heavy trailer or a self-propelled vehicle is fitted with more than one pair of top-mounted lamps at the rear.

6. A vehicle is fitted with a lamp that is not in a pair.

7. A pair of top-mounted lamps is not fitted as close as is practicable to the top corners of the bodywork.

8. A retrofitted pair of lamps is not:

    a) symmetrically mounted, or

    b) mounted as far towards each side of the vehicle as is practicable.

Condition

9. A lamp is insecure or, if a mandatory lamp, is obscured or contains visible moisture in the form of large droplets, runs or puddles.

10. A lens is missing or has a hole, crack or other damage that allows moisture or dirt to enter.

11. A reflector is damaged or has deteriorated so that light output is reduced.

Performance

12. When switched on, a direction indicator lamp:

a) does not operate, or

b) does not begin flashing within one second of switching on, or

c) flashes:

i. faster than two flashes per second, or

ii. slower than one flash per second, or

iii. at a different rate from other lamps on the same side.

13. When switched on, a direction indicator lamp emits a light that is:

a) not substantially amber or red to the rear, or

b) not substantially white or amber to the front, or

c) not substantially amber to the side, or

d) not approximately equal in colour or intensity to the other lamp in a pair, or

e) not bright enough to be visible from 100m in normal daylight and from 200m in normal darkness, eg due to modification, deterioration, dirt or an incorrect light source, or

f) too bright causing significant dazzle to other road users, eg due to an incorrect light source, or

g) altered, eg due to damage or modification.

14. On a vehicle of American origin fitted with combined stop and indicator lamps, the stop lamp function is not overridden by the indicator function.

15. Where a lamp comprises an array of light sources (eg LEDs), fewer than 75% of these operate.

16. A lamp-failure warning device does not operate.

Note 1

Direction indicator lamp means a lamp designed to emit a flashing light to signal the intention of the driver to change the direction of a vehicle to the right or to the left.

Note 2

A permitted (ie non-mandatory) rear- or side-facing direction indicator lamp that does not comply with equipment, condition and performance requirements must be made to comply or disabled so that it does not emit a light.

Note 3

An original equipment (OE) lamp is one that is fitted by the vehicle manufacturer in the original position, or is an equivalent replacement or aftermarket lamp suitable for the position provided by the vehicle manufacturer for that lamp. All other lamps are considered retrofitted (ie non-OE).

Note 4

Vehicles first registered in New Zealand before 27 February 2005 may have rear direction indicator lamps that also function as reversing lamps.

Note 5

A vehicle originally manufactured with a direction-indicator-lamp arrangement that differs from what is required or permitted in this section may retain the original direction indicator lamps provided they remain fitted in their original position and perform as intended by the vehicle manufacturer.

Summary of legislation

Applicable legislation

- **Land Transport Rule: Vehicle Lighting 2004**

Mandatory and permitted equipment

1. A self-propelled vehicle, first registered in New Zealand before 1 January 2006, must be fitted with one or two pairs of rearward-facing lamps if the vehicle is so constructed that it prevents an arm signal given by the driver from being seen from behind the vehicle.

2. A self-propelled vehicle first registered anywhere on or after 1 January 2006 must be fitted with one or two pairs of lamps to the rear of the vehicle.

3. A self-propelled vehicle may be fitted with one or two pairs of forward-facing lamps.

4. A trailer must be fitted with one or two pairs of lamps at the rear if the trailer is so constructed that it prevents an arm signal given by the driver from being seen from behind the vehicle combination.

5. A trailer may be fitted with:

    a) one or two pairs of lamps at the front, and

    b) one or two pairs of lamps at the rear.

6. A self-propelled vehicle or a heavy trailer may be fitted with an additional pair of lamps at the rear of the vehicle. These must be symmetrically mounted as far towards the top corners of the bodywork of the vehicle as is practicable (top-mounted lamps).

7. A vehicle may be fitted with one or two side-facing lamps on each side.

8. A suitable device may be fitted to a self-propelled vehicle that indicates to the driver the failure of a mandatory lamp.

9. A retrofitted pair of lamps must be mounted:

    a) symmetrically as far towards each side of the vehicle as is practicable, and

    b) at a height from the ground not exceeding 1.5m, or if this is not practicable due to the shape of the bodywork of the vehicle, not exceeding 2.1m.

10. On vehicles of American origin the stop lamp and direction indicator lamp function may be combined in one lamp.

Condition

11. A direction indicator lamp must not be obscured (if a mandatory lamp).

Performance

12. A direction indicator lamp must operate in a way that is appropriate for the lamp and the vehicle.

13. A direction indicator lamp must emit a light that is substantially:

    a) red or amber to the rear, and

    b) white or amber to the front, and

    c) amber to the side.

14. A lamp must flash at a fixed frequency in the range of 1 to 2 Hertz.

15. Each lamp in a pair must, when operated, emit a light of approximately equal intensity, colour and frequency.

16. A lamp-failure indicating device, if fitted, must function.

17. A lamp must emit a light that is visible from 100m during normal daylight and 200m in normal darkness.

18. If a vehicle of American origin is fitted with combined stop and indicator lamps, the indicator lamps may override the stop lamps so that the stop lamps operate as direction indicators.

19. Where a lamp comprises an array of light sources (eg LEDs), at least 75% of these must operate.

4-6 Forward-facing position lamps

Reasons for rejection

Mandatory and permitted equipment

1. A vehicle more than 2m wide is not fitted with one pair of lamps.

2. A self-propelled vehicle first registered in New Zealand on or after 1 January 1978 that is more than 1.5m wide is not fitted with one pair of lamps.

3. A vehicle is fitted with:

    a) more than one lamp or one pair of lamps, or

    b) a single lamp that is on the left side of the vehicle.

4. A retrofitted pair of lamps is not:

    a) symmetrically mounted, or

    b) mounted as far towards each side of the vehicle as is practicable.

5. A pair of top-mounted lamps, if fitted, is not:

    a) symmetrically mounted, or

    b) mounted as far towards the top corners of the bodywork as is practicable.

6. A lamp is not positioned to the front of the vehicle.

Condition

7. A lamp is insecure or, if a mandatory lamp, is obscured or contains visible moisture in the form of large droplets, runs or puddles.

8. A lens is missing or has a hole, crack or other damage that allows moisture or dirt to enter.

9. A lamp's reflector is damaged or deteriorated so that light output is reduced.

Performance

10. When switched on, a forward-facing position lamp does not operate.

11. When switched on, a forward-facing position lamp emits a light that is not:

    a) substantially white or amber, or

    b) diffuse, or

    c) projected to the front, or

    d) approximately equal in colour or intensity to the other lamp in a pair, or

    e) steady, or

    f) bright enough to be visible from 200m in normal darkness, eg due to modification, deterioration, dirt or an incorrect light source.

Note 1

Position lamp means a low-intensity lamp that is designed to indicate to road users the presence and dimensions of a vehicle, being:

    a) a forward-facing position lamp (front side lamp), or

    b) a rearward-facing position lamp (rear side lamp or tail lamp), or

    c) a side-marker lamp, or

    d) an end-outline marker lamp (including cab roof lamp).

Note 2

A vehicle originally manufactured with a forward-facing position lamp arrangement that differs from what is required or permitted in this section may retain the original forward-facing position lamps provided they remain fitted in their original position and perform as intended by the vehicle manufacturer.

Summary of legislation

Applicable legislation

- **Land Transport Rule: Vehicle Lighting 2004**

Mandatory and permitted equipment

1. A vehicle exceeding 2m in width must be fitted with one pair of lamps.

2. A self-propelled vehicle first registered in New Zealand on or after 1 January 1978 that is more that 1.5m wide must be fitted with one pair of lamps.

3. A self-propelled vehicle less than 2m wide or first registered in New Zealand before 1 January 1978, or a trailer less than 2m wide, may be fitted with:

    a) one lamp on the right side of the vehicle, or

    b) one pair of lamps.

4. A retrofitted pair of lamps must be symmetrically mounted as far towards each side of the vehicle as is practicable.

5. A retrofitted lamp must be mounted at a height from the ground not exceeding 1.5m, or if this is not practicable due to the shape of the bodywork of the vehicle, not exceeding 2.1m.

6. A self-propelled vehicle or a heavy trailer may be fitted with one additional pair of forward-facing position lamps. These must be symmetrically mounted as far towards the top corners of the vehicle as is practicable (top-mounted lamps).

Condition

7. A forward-facing position lamp must not be obscured (if a mandatory lamp).

Performance

8. A forward-facing position lamp must operate in a way that is appropriate for the lamp and the vehicle.

9. A lamp must emit a light that is:

    a) diffuse, and

    b) substantially white or amber, and

    c) steady, and

    d) sufficient to indicate to other road users the presence and dimensions of the vehicle, and

    e) visible from 200m in normal darkness, and

    f) of approximately equal intensity and colour to the other lamp of a pair.

10. Where a lamp comprises an array of light sources (eg LEDs), at least 75% of these must operate.

4-7 Rearward-facing position lamps

Reasons for rejection

Mandatory and permitted equipment

1. A vehicle first registered in New Zealand on or after 1 January 1978 that is more than 1.5m wide:

    a) is not fitted with one pair of lamps, or

    b) is fitted with more than two pairs of lamps (other than top-mounted lamps), or

c) is fitted with a lamp that is not in a pair.

2. A vehicle first registered in New Zealand before 1 January 1978 or that is less than 1.5m wide is:

a) not fitted with one pair of lamps, or

b) fitted with more than one single lamp, or

c) fitted with more than two pairs of lamps (other than top-mounted lamps).

3. A light trailer is fitted with top-mounted lamps.

4. A self-propelled vehicle or heavy trailer is fitted with:

a) more than one pair of top-mounted lamps, or

b) a top-mounted lamp that is not in a pair.

5. A retrofitted lamp, other than a top-mounted lamp, is mounted at a height from the ground exceeding 1.5m (or 2.1m where fitting below 1.5m is not practicable due to the shape of the bodywork of the vehicle).

6. A single lamp is fitted to the left of the centre of the vehicle.

7. A retrofitted pair of lamps is not:

a) symmetrically mounted, or

b) mounted as far towards each side of the vehicle as is practicable.

8. A pair of top-mounted lamps is not:

a) symmetrically mounted, or

b) mounted as far towards the top corners of the bodywork as is practicable.

9. A lamp is not positioned to the rear of the vehicle.

Condition

10. A lamp is insecure or, if a mandatory lamp, is obscured or contains visible moisture in the form of large droplets, runs or puddles.

11. A lens is missing or has a hole, crack or other damage that allows moisture or dirt to enter.

12. A lamp’s reflector is damaged or has deteriorated so that light output is reduced.

13. A mandatory lamp is obscured.

Performance

14. When switched on, a mandatory lamp does not operate.

15. When switched on, a lamp emits a light that is not:

a) substantially red, or

b) diffuse, or

c) projected to the rear, or

d) approximately equal in colour or intensity to the other lamp in a pair, or

e) steady, or

f) bright enough to be visible from 200m in normal darkness, eg due to modification, deterioration, dirt or an incorrect light source.

16. A non-OE mandatory lamp mounted outside the original position emits a light that is not visible within (Figure 4-7-1):

a) 15° above and below the horizontal, or

b) 45° inboard or 80° outboard.

17. A modification to the vehicle has reduced the visibility angles of a mandatory lamp to less than (Figure 4-7-1):

a) 15° above and below the horizontal, or

b) 45° inboard or 80° outboard.

18. Where a lamp comprises an array of light sources (eg LEDs), fewer than 75% of these operate.

Note 1

Position lamp means a low-intensity lamp that is designed to indicate to road users the presence and dimensions of a vehicle, being:

a) a forward-facing position lamp (front side lamp), or

b) a rearward-facing position lamp (rear side lamp or tail lamp), or

c) a side-marker lamp, or

d) an end-outline marker lamp (including cab roof lamp).

Note 2

A permitted rearward-facing position lamp that does not comply with equipment, condition and performance requirements must be made to comply or be disabled so that it does not emit a light.

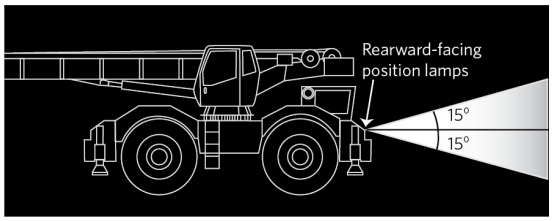
Note 3

An original equipment (OE) lamp is one that is fitted by the vehicle manufacturer in the original position, or is an equivalent replacement or aftermarket lamp suitable for the position provided by the vehicle manufacturer for that lamp. All other lamps are considered retrofitted (ie non-OE).

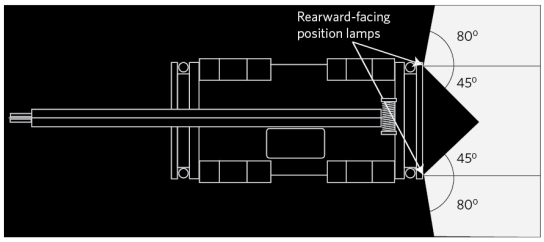
Note 4

A vehicle originally manufactured with a rearward-facing position lamp arrangement that differs from what is required or permitted in this section may retain the original rearward-facing position lamps provided they remain fitted in their original position and perform as intended by the vehicle manufacturer.

Figure 4–7–1. Rearward-facing position lamp beam angles



(a) Vertical beam angles



(b) Horizontal beam angles

Summary of legislation

Applicable legislation

- Land Transport Rule: Vehicle Lighting 2004

Mandatory and permitted equipment

1. A vehicle first registered in New Zealand on or after 1 January 1978 and that is more than 1.5m wide must be fitted with one or two pairs of rearward-facing position lamps.

2. A vehicle that was first registered in New Zealand before 1 January 1978 or that does not exceed 1.5m in width must be fitted with:

    a) one single rearward-facing position lamp in the centre or to the right of the centre of the vehicle, or

    b) one or two pairs of rearward-facing position lamps.

3. A retrofitted pair of lamps, other than top-mounted lamps, must be mounted:

    a) symmetrically as far towards each side of the vehicle as is practicable, and

    b) at a height from the ground not exceeding 1.5m, or is this is not practicable due to the shape of the bodywork of the vehicle, not exceeding 2.1m.

4. A self-propelled vehicle or heavy trailer may be fitted with an additional pair of rearward-facing position lamps symmetrically mounted as far towards each side and top of the bodywork of the vehicle as possible (top-mounted lamps).

5. A lamp must be positioned to the rear of the vehicle.

Condition

6. A rearward-facing position lamp must not be obscured (if a mandatory lamp).

Performance

7. A rearward-facing position lamp must operate in a way that is appropriate for the lamp and the vehicle.

8. A lamp must emit a light that is:

    a) diffuse, and

    b) substantially red, and

c) steady, and

d) sufficient to indicate to other road users the presence and dimensions of the vehicle, and

e) visible from a distance of 200m in normal darkness, and

f) of approximately equal intensity and colour to the other lamp of the pair.

9. A retrofitted mandatory lamp must be visible within angles of 15° above and below the horizontal, and within 45° inboard and 80° outboard.

10. Where a lamp comprises an array of light sources (eg LEDs), at least 75% of these must operate.

4-8 Side-marker lamps

Reasons for rejection

Prohibited equipment

1. A vehicle with a length of less than 6m is fitted with side-marker lamps.

Condition

2. A lamp is insecure.

3. A lens is missing or has a hole, crack or other damage that allows moisture or dirt to enter.

4. A reflector is damaged or has deteriorated so that light output is reduced.

Performance

5. When switched on, a lamp emits a light that is not:

a) diffuse, or

b) substantially red or amber to the rear, or

c) substantially white or amber to the front, or

d) steady.

6. Where a lamp comprises an array of light sources (eg LEDs), fewer than 75% of these operate.

Note 1 Definitions

Side-marker lamp means a position lamp designed to be fitted to the side of a vehicle or its load.

Position lamp means a low-intensity lamp that is designed to indicate to road users the prescence and dimensions of a vehicle being:

a) a forward-facing position lamp (front side lamp), or

b) a rearward-facing position lamp (rear side lamp or tail lamp), or

c) a side-marker lamp, or

d) an end-outline marker lamp (including cab roof lamp).

Note 2

A side-marker lamp that does not comply with the equipment, condition and performance requirements must be made to comply or be disabled so that it does not emit a light.

Summary of legislation

Applicable legislation

- Land Transport Rule: Vehicle Lighting 2004

Permitted and prohibited equipment

1. A vehicle with a length of 6m or more may be fitted with one or more side-marker lamps.

2. A vehicle with a length of less than 6m must not be fitted with side-marker lamps.

Condition

3. A lamp must be in good condition.

Performance

4. A side-marker lamp must operated in a way that is appropriate for the lamp and the vehicle.

5. A side-marker lamps must emit light that is:

    a) diffuse, and

    b) substantially red or amber to the rear, and

    c) substantially white or amber to the front, and

    d) steady.

6. Where a side-marker lamp comprises an array of light sources (eg LEDs), at least 75% of these must operate.

4-9 End-outline marker lamps

Reasons for rejection

Mandatory, permitted and prohibited equipment

1. A vehicle listed in Table 4-9-1:

    a) is not fitted with lamps required in Table 4-9-1, or

    b) is fitted with lamps that exceed the numbers permitted in Table 4-9-1.

2. A vehicle not listed in Table 4-9-1 is fitted with end-outline marker lamps.

3. An end-outline marker lamp is so positioned that it does not indicate the dimensions of the vehicle.

Condition

4. A lamp is insecure.

5. A lens is missing or has a hole, crack or other damage that allows moisture or dirt to enter.

6. A reflector is damaged or has deteriorated so that light output is reduced.

7. A mandatory lamp is obscured or contains visible moisture in the form of large droplets, runs or puddles.

Performance

8. When switched on, a mandatory lamp does not operate.

9. When switched on, a lamp emits a light that is not:

    a) substantially red to the rear, or

    b) substantially white or amber to the front, or

    c) diffuse, or

    d) steady, or

    e) bright enough to be visible from 100m in normal daylight and 200m in normal darkness, eg due to modification, deterioration, dirt or an incorrect light source.

9. Where a lamp comprises an array of light sources (eg LEDs), fewer than 75% of these operate.

Note 1 Definitions

End-outline marker lamp means a position lamp designed to be fitted near the outer extremity of a vehicle in addition to forward-facing and rearward-facing position lamps, and includes a cab roof lamp.

Position lamp means a low-intensity lamp that is designed to indicate to road users the presence and dimensions of a vehicle, being:

    a) a forward-facing position lamp (front side lamp), or

    b) a rearward-facing position lamp (rear side lamp or tail lamp), or

    c) a side-marker lamp, or

    d) an end-outline marker lamp (including cab roof lamp).

Note 2

A permitted end-outline marker lamp that does not comply with equipment, condition and performance requirements must be made to comply or be disabled so that it does not emit a light.

Table 4-9-1. Fitting requirements for end-outline marker lamps

If the vehicle was:	Row	Characteristics of the heavy vehicle	Front		Rear
			Mandatory lamps[3]	**Maximum permitted lamps[1]**	**Maximum permitted lamps[1]**
Vehicle manufactured before 1/4/2011[2]	**A**	• A vehicle with a GVM exceeding 11,300kg • A vehicle with a towing connection where the vehicle combination is likely to have a total length exceeding 9.2m	2	12 (No limit if first registered before 27/2/2005)	6
	B	A vehicle with an overall width of 1.8 m or more (other than a vehicle in row A)	Not required	6	4
Vehicle manufactured from 1/4/2011	**C**	A vehicle with an overall width exceeding 2.1m and with a GVM or GCM exceeding 12,000kg	2	12	6
	D	A vehicle with an overall width exceeding 2.1m (other than a vehicle in row C)	2	6	4
	E	A vehicle with an overall width of 1.8 m or more (other than a vehicle in row C or D).	Not required	6	4

[1] Maximum permitted lamps are the maximum number of lamps allowed to be fitted, including mandatory lamps.

[2] A vehicle manufactured before 1/4/2011 also has the option of complying with the requirements applicable to vehicles manufactured from 1/4/2011.

[3] Mandatory lamps must be positioned at a height no lower than the top edge of the windscreen.

Summary of legislation

Applicable legislation

- Land Transport Rule: Vehicle Lighting 2004

Mandatory, permitted and prohibited equipment

1. A vehicle in Table 4-9-1 must or may be fitted with end-outline marker lamps as specified in the table.

2. A vehicle not listed in Table 4-9-1 must not be fitted with end-outline marker lamps.

3. The position of the lamps must be such that it gives an indication of the vehicle's dimensions.

Condition

4. A end-outline marker lamp must be:

    a) in good condition, and

    b) not obscured (if a mandatory lamp).

Performance

5. An end-outline marker lamp must operate in a way that is appropriate for the lamp and the vehicle.

6. Cab roof lamps must emit a light that is visible from 100m in normal daylight and from 200 in normal darkness.

7. A lamp must emit a light that is diffuse and substantially red to the rear and white or amber to the front.

8. A lamp must provide sufficient light output so that the vehicle's dimensions are easily indicated to other road users.

9. Where an end-outline marker lamp comprises an array of light sources (eg LEDs), at least 75% of these must operate.

4-10 Stop lamps

Reasons for rejection

Mandatory and permitted equipment

1. A self-propelled vehicle first registered in New Zealand before 1 January 1978:

    a) is not fitted with one lamp, or one pair of lamps, if the vehicle is so constructed that the driver's arm signals cannot be seen from behind the vehicle, or

    b) is fitted with more than two pairs of lamps.

2. A self-propelled vehicle first registered in New Zealand on or after 1 January 1978:

    a) is not fitted with one pair of lamps, or

    b) is fitted with more than two pairs of lamps, or

    c) is fitted with a lamp that is not in a pair.

3. A trailer:

a) is not fitted with one pair of stop lamps, or

b) is fitted with more than two pairs of stop lamps, or

c) is fitted with a stop lamp that is not in a pair.

4. A retrofitted stop lamp, other than a top-mounted lamp, is fitted at a height from the ground exceeding 1.5m (or 2.1m where fitting below 1.5m is not practicable due to the shape of the bodywork of the vehicle).

5. A retrofitted pair of lamps is not:

a) symmetrically mounted, or

b) mounted as far towards each side of the vehicle as is practicable.

6. A top-mounted stop lamp is:

a) fitted to a light trailer, or

b) not mounted as far as is practicable to the top of the bodywork of the vehicle, or

c) not fitted in a pair, or

d) fitted additional to the maximum of one pair of top-mounted lamps.

Condition

7. A lamp is insecure.

8. A lens is missing or has a hole, crack or other damage that allows moisture or dirt to enter.

9. A reflector is damaged or deteriorated so that light output is reduced.

10. A mandatory lamp is obscured or contains visible moisture in the form of large droplets, runs or puddles.

Performance

11. When the service brake is activated:

a) a mandatory lamp does not operate, or

b) a lamp does not remain steadily illuminated.

12. A lamp operates when the service brake is not applied.

13. A lamp emits a light that is not:

a) substantially red, or

b) diffuse, or

c) projected to the rear, or

d) approximately equal in colour or intensity to the other lamp in a pair, or

e) bright enough to produce a light that is visible from 100m in normal daylight, eg due to modification, deterioration, dirt or an incorrect light source.

14. A non-OE mandatory lamp mounted outside the original position emits a light that is not visible within (Figure 4-10-1):

a) 15° above and below the horizontal, or

b) 45° inboard and outboard.

15. A modification to the vehicle has reduced the visibility angles of a mandatory lamp to less than (Figure 4-10-1):

a) 15° above and below the horizontal, or

b) 45° inboard and outboard.

16. Where a lamp comprises an array of light sources (eg LEDs), fewer than 75% of these operate.

17. On a vehicle of American origin fitted with combined stop and direction indicator lamps, the stop lamp function is not overridden by the indicator function.

Note 2

A permitted stop lamp that does not comply with condition and performance requirements must be made to comply or be disabled so that it does not emit a light.

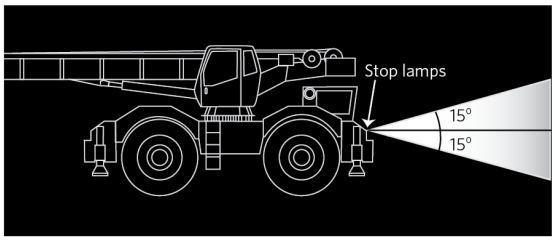
Note 3

An original equipment (OE) lamp is one that is fitted by the vehicle manufacturer in the original position, or is an equivalent replacement or aftermarket lamp suitable for the position provided by the vehicle manufacturer for that lamp. All other lamps are considered retrofitted (ie non-OE).

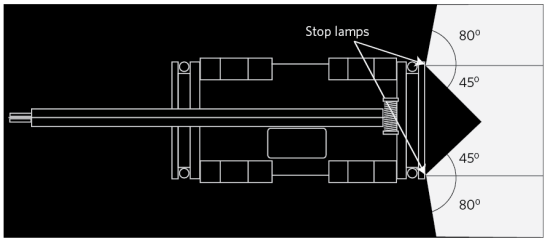
Note 4

A vehicle originally manufactured with a stop lamp arrangement that differs from what is required or permitted in this section may retain the original stop lamps provided they remain fitted in their original position and perform as intended by the vehicle manufacturer.

Figure 4-10-1. Stop lamp visibility angles



(a) Vertical angles



(b) Horizontal angles

Summary of legislation

Applicable legislation

- Land Transport Rule: Vehicle Lighting 2004

Mandatory and permitted equipment

1. A self-propelled vehicle first registered in New Zealand before 1 January 1978:

a) must have one lamp, or one or two pairs of lamps, if the vehicle is so constructed that the driver's hand signals cannot be seen from behind the vehicle, and

b) may have one lamp, or one or two pairs of lamps, fitted.

2. A self-propelled vehicle first registered in New Zealand on or after 1 January 1978 must be fitted with one or two pairs of lamps.

3. A trailer:

a) may be fitted with one or two pairs of lamps, and

b) must be fitted with one or two pairs of lamps if the driver's arm signals cannot be seen from behind the vehicle combination.

4. A retrofitted pair of stop lamps must be symmetrically mounted as far towards each side of the vehicle as is practicable.

5. A retrofitted stop lamp must be fitted at a height from the ground not exceeding 1.5m, or if this is not practicable due to the shape of the bodywork of the vehicle, not exceeding 2.1m.

6. A self-propelled vehicle or heavy trailer may be fitted at the rear with an additional pair of stop lamps provided they are positioned as close as is practicable to the top of the bodywork of the vehicle (top-mounted stop lamps).

Condition

7. A stop lamp must not be obscured (if a mandatory lamp).

Performance

8. A stop lamp must operate in a way that is appropriate for the lamp and the vehicle.

9. The light emitted from a stop lamp must be diffuse light that is substantially red.

10. A required stop lamp must operate when a service brake is activated.

11. A required stop lamp must provide sufficient light output to fulfil its intended purpose and be visible in daylight from 100m away.

12. A stop lamp must emit a steady light.

13. A mandatory stop lamp must emit a light that is visible within the angles of 15° above and below the horizontal, and 45° inboard and outboard.

14. If a vehicle of American origin is fitted with combined stop and direction indicator lamps, the indicator lamps may override the stop lamps so that the stop lamps will operate as direction indicators.

15. Where a stop lamp comprises an array of light sources (eg LEDs), at least 75% of these must operate.

4-11 High-mounted stop lamps

Reasons for rejection

Permitted equipment

1. A vehicle is fitted with more than two high-mounted stop lamps.

2. A lamp is not fitted in a central high-mounted position.

Condition

3. A lamp is insecure.

4. A lens is missing or has a hole, crack or other damage that allows moisture or dirt to enter.

5. A reflector is damaged or has deteriorated so that light output is reduced.

Performance

6. When the service brake is activated a lamp does not remain steadily illuminated.

7. A lamp operates when the service brake is not activated.

8. A lamp emits a light that is not:

    a) substantially red, or

    b) diffuse, or

    c) projected to the rear, or

    d) bright enough to be visible from 100m in normal daylight, eg due to modification, deterioration, dirt or an incorrect light source.

9. Where a lamp comprises an array of light sources (eg LEDs), fewer than 75% of these operate.

Note 1 Definitions

High-mounted stop lamp means a stop lamp that is designed to be fitted in a central, high-mounted position at the rear of a vehicle.

Stop lamp means a lamp that is designed to operate when the service brake is activated.

Note 2

A high-mounted stop lamp that does not comply with equipment, condition and performance requirements must be made to comply or be disabled so that it does not emit a light.

Note 3

A vehicle originally manufactured with a high-mounted-stop-lamp arrangement that differs from what is required or permitted in this section may retain the original high-mounted stop lamps provided they remain fitted in their original position and perform as intended by the vehicle manufacturer.

Summary of legislation

Applicable legislation

- Land Transport Rule: Vehicle Lighting 2004

Permitted equipment

1. A vehicle may be fitted with one or two high-mounted stop lamps.

2. A lamp must be fitted in a central high-mounted position at the rear of the vehicle.

Condition

3. A high-mounted stop lamp must be in good condition.

Performance

4. A high-mounted stop lamp must operate in a way that is appropriate for the lamp and the vehicle.

5. The light emitted from a high-mounted stop lamp must be diffuse light that is substantially red.

6. A high-mounted stop lamp must emit a steady light.

7. Where a high-mounted stop lamp comprises an array of light sources (eg LEDs), at least 75% of these must operate.

4-12 Rear-reg-plate illumination lamps

Reasons for rejection

Mandatory equipment

1. A vehicle is not fitted with at least one rear-registration-plate illumination lamp.

Condition

2. A lamp is insecure.

3. A lens is missing, or has a hole, crack or other damage that allows moisture or dirt to enter.

4. A reflector, or lens, is damaged or has deteriorated so that light output is reduced.

Performance

5. The lamp emits a light that is not:

    a) substantially white, or

    b) steady, or

    c) diffuse.

6. The lamp does not illuminate the registration plate (eg either the lamp or plate have been moved, or the lamps orientation has been changed).

7. The light source of a lamp is visible from the rear of the vehicle.

Note 1

Rear-registration-plate illumination lamp means a lamp designed to illuminate the rear registration plate of a vehicle.

Note 2

A vehicle originally manufactured with a rear-registration-plate-illumination-lamp arrangement that differs from what is required or permitted in this section may retain the original rear-registration-plate illumination lamps provided they remain fitted in their original position and perform as intended by the vehicle manufacturer.

Summary of legislation

Applicable legislation

- Land Transport Rule: Vehicle Lighting 2004

Mandatory equipment

1. A vehicle must be fitted with one or more rear-registration-plate illumination lamps.

Performance

2. A rear-registration-plate illumination lamp must operate in a way that is appropriate for the lamp and the vehicle.

3. A lamp must emit a diffuse light that is substantially white.

4. A rear-registration-plate illumination lamp must emit a steady light.

5. The light source of the lamp must not be visible from the rear of the vehicle.

6. A lamp must illuminate the figures and letters of the plate so that they are visible from 20m during normal darkness.

7. Where a lamp comprises an array of light sources (eg LEDs), at least 75% of these must operate.

Page amended **1 October 2021** (see amendment details).

4-13 Rear reflectors

Reasons for rejection

Mandatory equipment

1. A vehicle is:

    a) not fitted with at least one rearward-facing reflector on each side, or

    b) fitted with a rearward-facing reflector that is not in a pair.

2. A retrofitted reflector is fitted at a height from the ground exceeding 1.5m (or 2.1m where fitting below 1.5m is not practicable due to the shape of the bodywork of the vehicle).

3. A reflector is not positioned to the rear of the vehicle.

4. A retrofitted pair of reflectors is not:

    a) symmetrically mounted, or

    b) mounted as far towards each side of the vehicle as is practicable.

Condition

5. A mandatory reflector's ability to reflect light is affected by excessive:

    a) fading, or

    b) scratching or other damage.

6. A mandatory reflector is obscured.

Performance

7. The reflected light from a mandatory reflector is not visible from 100m.

8. The reflected light from a reflector is not red.

Note 1 Definitions

Reflector means a discreet item of lighting equipment that is designed to reflect incident light back towards the light source, but does not include reflective material (such as reflective tape).

Reflective material means any material that is designed to reflect incident light back towards the light source, and includes reflective tape, but does not include a reflector.

Note 2

A vehicle originally manufactured with a rear reflector arrangement that differs from what is required or permitted in this section may retain the original rear reflectors provided they remain fitted in their original position and perform as intended by the vehicle manufacturer.

Summary of legislation

Applicable legislation

- Land Transport Rule: Vehicle Lighting 2004

Mandatory equipment

1. A vehicle must be fitted with one or more pairs of rearward-facing reflectors at a height from the ground not exceeding 1.5m, or if this is not practicable due to the shape of the bodywork of the vehicle, not exceeding 2.1m.

2. A rearward-facing reflector must be positioned to the rear of the vehicle.

3. A reflector must be of an area that allows it to reflect light to improve the visibility of the vehicle to other road users, but it must not cause them undue dazzle or discomfort.

4. A retrofitted pair of reflectors must be symmetrically mounted as far towards each side of the vehicle as is practicable.

Condition

5. A mandatory reflector must be in good condition and not be obscured.

Performance

6. A reflector must operate in a way that is appropriate for the reflector and the vehicle.

7. A reflector must reflect white light as substantially red light.

8. A reflector must provide sufficient light reflection to fulfil its intended purpose.

4-14 Reversing lamps

Reasons for rejection

Permitted equipment

1. A vehicle is fitted with more than two reversing lamps at the rear of the vehicle.

2. A retrofitted pair of reversing lamps is not:

    a) symmetrically mounted, or

    b) mounted as far towards each side of the vehicle as is practicable.

Condition

3. A lamp is insecure.

4. A lens is missing or has a hole, crack or other damage that allows moisture or dirt to enter.

5. A reflector is damaged or has deteriorated so that light output is reduced.

Performance

6. A lamp controlled by gear engagement continues to display a light to the rear when the reverse gear is disengaged.

7. A lamp controlled by a manual switch continues to display a light to the rear while the headlamps are switched on.

8. When engaged, a lamp emits light that is not:

    a) substantially white (Note 3), or

    b) steady, or

    c) diffuse or a dipped beam.

9. Where a lamp comprises an array of light sources (eg LEDs), fewer than 75% of these operate.

Note 1

Reversing lamp means a lamp designed to illuminate the area behind the vehicle while it is reversing and to warn other road users that the vehicle is reversing or about to reverse.

Note 2

A reversing lamp that does not comply with equipment, condition and performance requirements must be made to comply or be disabled so that it does not emit a light.

Note 3

Vehicles first registered in New Zealand before 27 February 2005 were allowed to use rear indicator lamps as reversing lamps. Although the light emitted is amber rather than white, this arrangement is still permitted for these vehicles.

Note 4

A vehicle originally manufactured with a reversing lamp arrangement that differs from what is required or permitted in this section may retain the original reversing lamps provided they remain fitted in their original position and perform as intended by the vehicle manufacturer.

Summary of legislation

Applicable legislation

- Land Transport Rule: Vehicle Lighting 2004

Permitted equipment

1. A vehicle may be fitted with one or two reversing lamps fitted at the rear of the vehicle.

2. A retrofitted pair of reversing lamps must be symmetrically mounted as far towards each side of the vehicle as is practicable.

Condition

3. A reversing lamp must be in good condition.

Performance

4. A reversing lamp must operate in a way that is appropriate for the lamp and the vehicle.

5. A reversing lamp, when operated, must emit a diffuse light or a dipped beam of light that is substantially white (Note 3).

6. A reversing lamp must emit a steady light.

7. A reversing lamp may operate only when the reverse gear is engaged or the headlamps are turned off.

8. Where a reversing lamp comprises an array of light sources (eg LEDs), at least 75% of these must operate.

4-15 Cosmetic lamps

Reasons for rejection

Permitted equipment

1. A cosmetic lamp (ie one not listed in Table 4-15-1) that is fitted to a vehicle:

    a) has a part of its light-emitting surface positioned within 250mm of any mandatory lamp, or

    b) is not mounted in a fixed position, or

c) is positioned so that its light-emitting surface is visible within the shaded areas in Figure 4-15-1.

Performance

2. When switched on, a cosmetic lamp with a light-emitting surface not visible within the shaded areas in Figure 4-15-1 emits a light that:

a) is not diffuse, or

b) flashes or otherwise varies in intensity or colour, or

c) revolves, rotates or otherwise moves, or

d) is too bright and likely to dazzle other road users, or

e) is likely to cause confusion about the orientation of the vehicle, or

f) is red when seen directly from the front, or

g) is not red or amber when seen directly from the rear.

Note 1

A rear or side cosmetic lamp that does not comply with requirements for condition or performance must be made to comply, or be disabled so that it does not emit a light.

Note 2 Definitions

Lamp means a device designed to emit light, and includes an array of separate light sources that appear as a continuous illuminated surface.

Cosmetic lamp means any lamp that is not listed in Table 4-15-1.

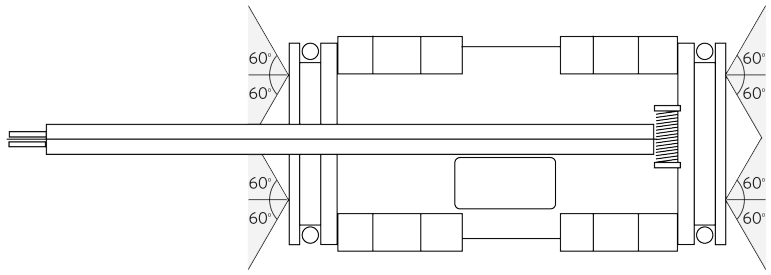
Note 3

A forward-facing cosmetic lamp that does not comply with the equipment, condition and performance requirements must be made to comply or be removed from the vehicle.

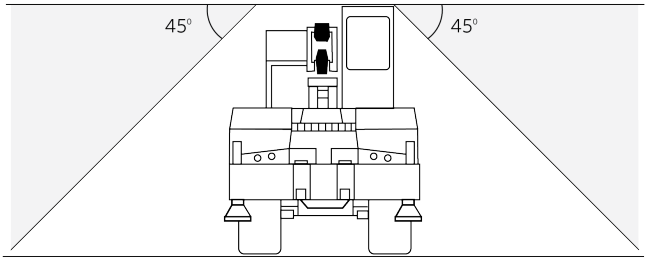
Table 4-15-1. Lamps that are not cosmetic lamps

Lamps covered in the VIRM	Other lighting equipment not requiring inspection
Headlamps	Reflective material
Stop lamps	Interior lamps
High-mounted stop lamps	*Designed to illuminate the interior of the vehicle for the convenience of passengers*
Direction indicator lamps	
Position lamps	Work lamps
(includes side-marker lamps and end-outline marker lamps)	*White or amber high-intensity lamps that are not necessary for the operation of the vehicle but are designed to illuminate the area around the vehicle or the vehicle itself*
Rear-registration-plate illumination lamps	Scene lamps
Rear reflectors	*Work lamps designed to provide a fixed or movable beam of light to illuminate the area around the vehicle or the vehicle itself*
Fog lamps	
Daytime running lamps	Alley lamps
Cornering lamps	*Work lamps designed primarily to provide a fixed or movable beam of light to the side of the vehicle it is fitted to*
Reversing lamps	
PSV interior lamps	Flashing or revolving beacons (except a mandatory beacon required for some overdimension vehicles)
	Illuminated vehicle-mounted signs
	Includes PSV destination signs, taxi signs, and variable message signs operated by enforcement officers, under a traffic management plan or permitted by other legislation

Figure 4-15-1. Visibility angles for cosmetic lamps



Light sources must not be directly visible from shaded areas



Summary of legislation

Applicable legislation

- Land Transport Rule: Vehicle Lighting 2004

Permitted equipment

1. A vehicle may be fitted with one or more lamps not specified in Table 4-15-1, provided they are fitted so that light sources are not visible in those regions specified in Figure 4-15-1.

2. A lamp must be fitted in a fixed position on the vehicle and positioned so that no part of the light source is situated within 250mm of a mandatory lamp.

Performance

3. A lamp must:

a) only emit light that is diffuse, and

b) not emit light that flashes or otherwise varies in intensity or colour, and

c) be fitted in a way, and be of a luminance that ensures, that it does not dazzle, confuse or distract other road users, and

d) not emit a light that revolves, rotates or otherwise moves, and

e) not cause confusion as to the orientation of the vehicle, and

f) not emit a red light that is directly visible from the front of the vehicle, and

g) not emit a light other than red or amber if the light is directly visible from the rear of the vehicle.

5 Vision

5-1 Glazing

Reasons for rejection

Glazing condition

1. A piece of glazing is not mechanically sound, or is not securely affixed to the vehicle.

2. A windscreen or front side window is so dirty or obstructed that the driver's vision is unreasonably impaired.

3. A windscreen has damage that prevents the wiper blades from working properly.

4. A windscreen has scratches, discouloration or other defects that unreasonably impair the driver's vision or compromise the strength of the windscreen.

5. A modification:

    a) unreasonably impairs the driver's vision through the windscreen or a front side window, or

    b) adversely affects the strength or mechanical performance of the glazing.

Glazing performance

6. The overall visible light transmittance (VLT) (Note 4) of a windscreen is less than 70%.

7. The overall VLT of a front side window is less than 35%.

8. Glazing has a mirrored effect sufficient to dazzle other road users.

Permitted modifications

9. A modification that affects glazing is not within the limits in Table 5-1-1.

Note 1 Definitions

Windscreen means all glazing extending across the front of a vehicle that is not parallel to the vehicle's centreline but does not include a wind deflector. No fitting of overlays or stickers are permitted to the windscreen except those previously mentioned.

Overlay means a transparent, translucent or opaque self-adhesive or clinging film that is applied to large areas, or the whole, of a piece of glazing, including anti-glare band overlays and stoneguard overlays.

Sticker means a self-adhesive or clinging film, with or without print on it, that is applied for purposes such as advertising, identification, information, decoration or legal reasons.

Anti-glare band overlay means a tinted overlay that is transparent and that is applied along the top edge of the windscreen for the purpose of reducing glare from the sun.

Note 3

Visible light transmittance (VLT) is the proportion of visible light that passes through glazing, measured perpendicular to the glazing. Overall VLT is the VLT of the glazing together with any overlays.

Note 4

Any OE opaque edging (usually black) is not considered part of the windscreen when determining the boundaries permitted for stickers, print on an anti-glare band or radio antennae.

Table 5-1-1. Permitted modifications

Fitting of or modification to:	Modification permitted provided that:
Windscreens	
Stickers	• stickers are wholly within 100mm of the top or bottom edge, or 50mm of the side edges, unless required or permitted by legislation, eg: • a licence label • a road user licence label • a WoF label • an alternative fuel sticker • a parking permit or other document issued by the local authority • learner L-plates (in sticker format) provided the driver's vision is not unreasonably affected.
Anti-glare band overlay	• the overlay is transparent, and • the overlay does not extend below the bottom edge of the vehicle's OE sun visors when they are folded down as far as possible towards the windscreen, and • the overlay does not contain print below a line that is 100mm below and parallel to the top edge of the windscreen.
Radio antennae	• antennae are wholly within 100mm of any edge.
Front side windows	
Transparent overlays	• the overall visible light transmittance (VLT) is not reduced to below 35%.
Stickers	• stickers are wholly within 100mm of the bottom edge, or 50mm of any other edge, unless required or permitted by legislation • manufacturer's operating instructions may be applied to or incorporated in the glazing.
Radio antennae	• antennae are wholly within 100mm of any edge.
Rear and rear side windows (behind the driver's seat)	

Overlays and other modifications	• the vehicle is equipped on both sides with external rear-view mirrors.
Stickers	• stickers may be applied anywhere on the glazing, but if not wholly within 100mm of any edge, the vehicle must be equipped on both sides with external rear-view mirrors.
Radio antennae	• in-service requirements for condition and performance are met.

Fitting of or modification to:	Modification always permitted:
Monsoon shields	• in-service requirements for condition and performance must be met.
Electric demisters	
Sunroofs (overlays and stickers applied anywhere on the glazing, radio antennae, and electric demisters)	

Summary of legislation

Applicable legislation

- **Land Transport Rule: Glazing, Windscreen Wipe and Wash, and Mirrors 1999**.

Glazing condition

1. Glazing must be mechanically sound, strong and securely affixed to the vehicle.

2. A windscreen and front side windows must be clean and free of obstruction to ensure the driver has sufficient vision through the glazing to operate the vehicle safely.

3. A windscreen must not have scratches and other defects that:

    a) unreasonably impair vision, or

    b) compromise its strength.

4. A laminated windscreen must not show signs of discolouration that could unreasonably impair the driver's vision.

5. Glazing in roof panels may be tinted.

Glazing performance

6. A windscreen must have an overall visible light transmittance (VLT) of at least 70%.

7. A front side window must have an overall VLT of at least 35%.

8. Glazing must not have a mirrored effect sufficient to dazzle other road users.

9. A modification must not:

a) unreasonably impair vision through a windscreen or a front side window, or

b) adversely affect the strength or mechanical performance of the glazing or the vehicle.

Permitted modifications

10. A modification that affects glazing is permitted if within the limits in Table 5-1-1.

5-2 Sun visors

Reasons for rejection

Condition

1. A sun visor (Note 1):

a) is insecurely mounted, or

b) for the driver, cannot be adjusted from the normal driving position, or

c) cannot maintain its adjusted position, or

d) has been modified or has deteriorated, and the likelihood of injury to vehicle occupants has not been minimised.

Performance

2. A driver's sun visor does not effectively aid the driver's vision by intercepting the glare from the sun.

Note 1

Sun visor means any attachment mounted above the inside of the windscreen and provided for the purpose of shielding the eyes of the driver and other front passengers from solar glare.

Summary of legislation

Applicable legislation

- Land Transport Rule: Vehicle Equipment 2004
- Land Transport Rule: Interior Impact 2001

Permitted equipment

1. A vehicle may be fitted with sun visors (Note 1).

Performance

2. The condition of sun visors must be such that the likelihood of injury to occupants is minimised.

3. A driver’s sun visor must be effective.

5-3 Windscreen wipe and wash

Reasons for rejection

Mandatory equipment

1. A vehicle that has a windscreen is not fitted with a windscreen wipe system.

2. A vehicle manufactured on or after 1 January 1960 is fitted with wipers that are not power driven.

Condition

Windscreen wipe system

3. The wiper operating device is missing.

4. A wiper arm or wiper blade is:

    a) missing, or

    b) insecure, or

    c) damaged so as to affect the performance of the wipers.

5. The wiper operating mechanism is:

    a) missing, or

    b) insecure, or

    c) damaged so as to affect the performance of the wipers.

Windscreen wash system

6. A wash system component is missing or insecure.

7. The wash operating device is missing.

Performance

Windscreen wipe system

8. A windscreen wiper does not wipe the windscreen effectively, preventing adequate forward vision by the driver.

9. The wipe operating device is unable to activate the wipe system.

Windscreen wash system

10. A windscreen wash nozzle does not discharge washer liquid directly onto the windscreen.

11. The wash operating device is unable to activate the wash system.

Summary of legislation

Applicable legislation

- **Land Transport Rule: Glazing, Windscreen Wipe and Wash, and Mirrors 1999**.

Mandatory equipment

1. A vehicle that is fitted with a windscreen must have a windscreen wipe system.

2. Windscreen wipers must be power driven, unless they follow OE specifications in a vehicle manufactured before 1 January 1960.

Permitted equipment

3. A vehicle may be fitted with a wash system.

Condition

4. A vehicle's windscreen wipe and wash system must be efficient and within the vehicle manufacturer's operating limits.

Performance

5. The equipment fitted must be capable of keeping an adequate area of the windscreen clean and clear so that the vehicle may be operated safely under all reasonably foreseeable conditions.

5-4 Rear-view mirrors

Reasons for rejection

Mandatory equipment

1. A vehicle is not fitted with at least one rear-view mirror.

Condition

2. A rear-view mirror:

a) is not mounted securely, or

b) cannot be adjusted, or

c) cannot maintain its adjusted position, or

d) is corroded or dirty, or

e) is damaged so that it increases the risk of injury to vehicle occupants.

Performance

3. A rear-view mirror:

a) does not provide a clear view to the rear of the vehicle, or

b) is not sufficiently isolated from vibrations.

Summary of legislation

Applicable legislation

- Land Transport Rule: Glazing, Windscreen Wipe and Wash, and Mirrors 1999.

Mandatory equipment

1. A vehicle must be fitted with a rear-view mirror.

Permitted equipment

2. Additional rear-view mirrors may be fitted.

Condition

3. A rear-view mirror must be:

    a) securely attached so that the risk of injury is minimised, and

    b) mounted so that vibration does not inhibit the driver's required clear view to the rear, and

    c) sufficiently adjustable, and able to maintain its position.

Performance

4. A rear-view mirror must provide a clear view to the rear of:

    a) the vehicle itself, and

    b) the vehicle's load, and

    c) any towed trailer and its load.

5. A rear-view mirror must be sufficiently isolated from vibrations.

6 Entrance and exit

6-1 Door and hinged panel retention systems

Reasons for rejection

Mandatory equipment

1. A vehicle fitted with doors used by the driver or passengers for entrance and exit of the vehicle does not have a door retention system.

Condition

2. A hinge for a door or other hinged panel is not securely attached to both the vehicle body and to the door or other hinged panel, eg due to loose connections, corrosion or other damage.

3. A door used for entrance and exit of the driver or passengers cannot be opened from the inside.

Performance

4. A door used for entrance and exit of the driver or passengers does not open or close easily, eg a door is sticking or requires unreasonable force to open.

5. A door or other hinged panel does not remain secure in a closed or locked position.

Note 1

Corrosion damage is where the metal has been eaten away, which is evident by pitting. The outward sign of such corrosion damage is typically displayed by the lifting or bubbling of paint. In extreme cases, the area affected by the corrosion damage will fall out and leave a hole.

Summary of legislation

Applicable legislation

- Land Transport Rule: Door Retention Systems 2001
- Land Transport Rule: Vehicle Standards Compliance 2002, section 7.4.

Mandatory equipment

1. A vehicle fitted with doors used by the driver or passengers for entrance and exit of the vehicle must have a door retention system.

Condition

2. A door retention system and its mountings must be safe and structurally sound.

3. A door used for the entrance and exit of the driver or passengers must be operable by any occupant seated by the door from inside the vehicle.

4. The vehicle must be designed and constructed using components and materials that are fit for their purpose, and within safe tolerance of their state when manufactured or modified.

Performance

5. A door retention system must be in good working order.

6. A door used for entrance and exit must open and close easily.

7. A door used for entrance and exit must remain secure in a closed position during the operation of the vehicle.

7 Vehicle interior

7-1 Seats and seat anchorages

Reasons for rejection

Mandatory equipment

1. A driver’s seat is not fitted in a vehicle that was originally fitted with a driver’s seat.

2. A seat in a self-propelled vehicle is not attached to the vehicle structure by seat anchorages.

Condition and performance

3. A seat frame or structure has been weakened, eg due to damage, corrosion or excessive wear.

4. The adjustment mechanism of a driver's seat:

    a) does not operate, or

    b) is worn, causing excessive movement of the seat.

5. The attachment of the seat to the seat anchorage is loose or weakened by damage.

6. The attachment of the seat anchorage to the vehicle structure is loose or weakened by damage.

7. The driver's seat is in such a condition that it does not allow the driver to have proper control of the vehicle.

Note 1

A seat may be capable of being rotated or placed to face in different directions.

Note 2

Corrosion damage is where the metal has been eaten away, which is evident by pitting. The outward sign of such corrosion damage is typically displayed by the lifting or bubbling of paint. In extreme cases, the area affected by the corrosion damage will fall out and leave a hole.

Summary of legislation

Applicable legislation

- **Land Transport Rule: Seats and Seat Anchorages 2002**.

Mandatory equipment

1. A driver's seat in a vehicle must remain fitted.

2. A seat in a self-propelled vehicle must be fitted to the vehicle structure by means of seat anchorages.

Condition and performance

3. Seats and seat anchorages must be safe, strong, in sound condition and compatible in strength with each other and with the vehicle structure.

4. The driver's seat and its anchorages must be designed, constructed and maintained to enable the driver to have proper control of the vehicle.

5. Seats and seat anchorages must be securely attached to the vehicle structure.

6. When a seatbelt or any part of the seatbelt is integral to a seat, the seat and seat anchorages must be compatible in strength with the seatbelt or with that part of the seatbelt attached to the seat.

7-3 Head restraints

Reasons for rejection

Condition and performance

1. The external surfaces and padding of a head restraint have deteriorated to the extent that they are likely to injure a vehicle occupant.

2. An adjustable head restraint is unable to remain locked in its adjusted position.

Summary of legislation

Applicable legislation

- Land Transport Rule: Head Restraints 2001.

Permitted equipment

1. A vehicle may be fitted with head restraints.

Condition and performance

2. The external surfaces and padding of a head restraint must not have deteriorated to the extent that the likelihood of injury to an occupant of the vehicle is increased.

3. An adjustable head restraint must remain able to be adjusted and locked into position.

7-5 Seatbelts and seatbelt anchorages

Reasons for rejection

Condition

Seatbelts (on vehicles capable of exceeding a speed of 50km/h)

1. The seatbelt assembly is not securely attached to a seatbelt anchorage.

2. A seatbelt component (eg protective plastic cover on buckle, tongue or retractor system) is damaged so that foreign objects may enter the interior components, or cause damage to the interior components, mechanisms or webbing.

3. The seatbelt webbing (including webbing attached to the buckle) has:

   a) damage such as a cut, including a cut on the surface, a rip or tear, fraying, stretching (eg the webbing is deformed) or damaged or loose stitching, or

   b) damage such as excessive fading (with chalking or stiffness) or contamination from grease, solvents or other damaging products, or

   c) signs of ‘home’ repairs, eg stapling, hand stitching, or rivets.

4. A buckle and tongue:

a) are mismatched, or

b) do not lock, or

c) do not remain locked, or

d) do not release easily, or

e) are insecure when coupled.

5. A component is missing, cracked, distorted or damaged in such a way that:

a) its strength or integrity is reduced, or

b) it may damage another component or the webbing.

6. A seatbelt stalk:

a) (wire-cable type) shows broken wires, or

b) (plastic-covered webbing type) webbing has deteriorated, frayed, cut or faded, or

c) (solid metal type) is corroded, cracked or buckled.

Seatbelt anchorages

7. A seatbelt anchorage:

a) is not securely fixed to the vehicle structure, or

b) is not securely fixed to the seat if the seatbelt is an integral part of the seat, or

c) is corroded, damaged or shows signs of tampering, or

d) has evidence of corrosion damage or structural damage within 300mm of the seatbelt anchorage.

Performance (on vehicles capable of exceeding a speed of 50km/h)

8. The seatbelt webbing of a retractor-type seatbelt does not easily pull out from the retractor.

9. The seatbelt webbing of a retractor-type seatbelt has difficulty retracting, eg is slow or intermittent, or does not fully retract.

10. A static seatbelt cannot be adjusted to fit a variety of persons.

11. The seatbelt is not of sufficient length to fit a variety of persons.

12. A seatbelt is located so that it cannot be readily fastened or released by the wearer.

13. The web and/or vehicle sensitivity of a dual-sensitive retractor type seatbelt fitted in a front outer seating position does not function correctly.

14. The vehicle sensitivity of a single-sensitive retractor-type seatbelt fitted in a front outer seating position does not function correctly.

Note 1

Seatbelt means an assembly of straps made of webbing or metal with a securing buckle, adjusting devices and attachments, including any device for absorbing energy or for retracting the webbing, that is:

a) able to be anchored to the interior of a vehicle, and

b) designed to diminish the risk of injury to its wearer in the event of a collision or abrupt deceleration of the vehicle by

limiting the mobility of the wearer's body.

- Safety belts designed to protect a person in case of rollover are not seatbelts for the purpose of WoF inspections, but any defects should be brought to the operator's attention.

Note 2

Retractor means a device to accommodate parts of, or all of the webbing of a seatbelt.

Single sensitive means a seatbelt retractor that, during normal driving conditions, allows freedom of movement by the wearer of the seatbelt by means of length-adjusting components that automatically adjust the seatbelt to the wearer, and that comprises a locking mechanism activated in an emergency by deceleration of the vehicle (ie the seatbelt is vehicle sensitive).

Dual sensitive means a seatbelt retractor that, during normal driving conditions, allows freedom of movement by the wearer of the seatbelt by means of length-adjusting components that automatically adjust the strap to the wearer, and that is activated by two or more of the following:

a) deceleration of the vehicle, or

b) acceleration of the strap from the retractor, or

c) other means of activation.

Seating position means a seat or part of a seat that is of a suitable size and shape for one person.

Outer seating position means a seating position next to a sidewall of a vehicle where there is no more than 500mm between the longitudinal centre of the seat and the sidewall.

Middle seating position means a seating position in a vehicle that is not an outer seating position.

Rear seating position means a seating position in a vehicle behind the driver.

Monocoque in relation to a motor vehicle, means that the chassis of the vehicle is integral to the body.

Retrofit, in relation to a seatbelt or seatbelt anchorage in a motor vehicle, means to fit a seatbelt or seatbelt anchorage in a location where a seatbelt or seatbelt anchorage has not been fitted before.

Seatbelt anchorage means the parts of a vehicle structure, seat structure or any other part of the vehicle to which a seatbelt assembly is attached.

Modify means to change a vehicle from its original state by altering, substituting, adding or removing a structure, system, 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 undamaged or new structures, systems, components or equipment.

Specialist seatbelt means a seatbelt designed for specialist purposes, and includes a full harness seatbelt used for motorsport activities.

Permanent structure means a non-removable structure capable of sustaining loads associated with seatbelts and seatbelt anchorages.

Note 3

Corrosion damage is where the metal has been eaten away, which is evident by pitting. The outward signs of such corrosion damage is typically displayed by the lifting or bubbling of paint. In extreme cases the area affected by the corrosion damage will fall out and leave a hole.

Summary of legislation

Applicable legislation

- **Land Transport Rule: Seatbelts and Seatbelt Anchorages 2002**.

Permitted equipment

1. A vehicle may be fitted with seatbelts of any type.

Condition

Seatbelts (Note 1)

2. A seatbelt must be of a design that is suitable for the vehicle and must be strong, secure and in sound condition.

3. Seatbelt webbing must not be cut, stretched, frayed or faded, or have otherwise deteriorated so as to reduce the performance of the seatbelt.

4. Seatbelt webbing must be securely attached to the tongue or the adjusting buckle and to any fittings that secure a seatbelt to the seatbelt anchorages.

5. The strands of the steel cables of a seatbelt stalk must not be damaged or have deteriorated, and the seatbelt stalk must not have any other weaknesses that could reduce its performance.

6. Seatbelt buckles, retractor mechanisms or any other fittings intended to ensure the safe use of the seatbelt, must not have deteriorated below safe tolerance.

Seatbelt anchorages

7. A seatbelt anchorage and its mounting location must:

a) be of a strength appropriate to both the motor vehicle and the attached seatbelt, and

b) be structurally sound and free of corrosion, and

c) not be damaged or distorted.

8. When a seatbelt or part of a seatbelt is integral to a seat, the seat and seat anchorages must be compatible in strength with the seatbelt or with that part of the seatbelt attached to the seat.

Performance

9. A seatbelt must be in good working order.

10. A seatbelt must be able to be adjusted by the wearer.

11. A seatbelt must be able to be readily fastened and released by the wearer.

7-7 Interior impact

Reasons for rejection

Condition and performance

1. Where an interior fitting, control or surface has been modified or has deteriorated, the likelihood of injury to occupants has not been minimised.

Summary of legislation

Applicable legislation

- Land Transport Rule: Interior Impact 2001.

Condition and performance

1. Interior fittings, controls and surfaces in the passenger compartments must be such that the likelihood of injury to occupants is minimised.

7-12 Speedometer

Reasosn for rejection

Mandatory equipment

1. A self-propelled vehicle first registered in New Zealand on or after 1 December 1951, that is capable of a speed exceeding 50km/h is not fitted with a speedometer, and the vehicle operator cannot produce acceptable written evidence (Note 2) that:

a) the speedometer has been removed for repair, or

b) there are no undue delays by the vehicle owner in having the speedometer replaced.

Condition and performance

2. The speedometer:

a) does not operate as intended when the vehicle is moving forward (Note 3), or

b) is obscured from the driver's vision, or

c) does not indicate the vehicle's speed in km/h or mph.

3. Reason for rejection 2(a), 2(b) or 2(c) applies and the vehicle operator cannot produce acceptable written evidence (Note 2) that repair of the speedometer or associated equipment is impracticable or that a suitable replacement is not available.

Note 1

Speedometer means an instrument in a motor vehicle that is used to determine forward speed of the vehicle in kilometres per hour (km/h) or miles per hour (mph).

Note 2

Acceptable written evidence is documentation provided by the speedometer repairer or supplier. A copy of the documentation must be kept on file with the checksheet.

Note 3

If an odometer is not fitted, not working or unable to be read an appropriate note must be entered into the ‘Comments’ section of the check sheet and '000001' entered into the odometer field of the check sheet and '000001' entered into VIC or LANDATA. This may display as “1” on some screens.

Summary of legislation

Applicable legislation

- Land Transport Rule: Vehicle Equipment 2004.

Mandatory equipment

1. A self-propelled vehicle first registered in New Zealand on or after 1 December 1951, that is capable of a speed exceeding 50km/h, must be fitted with a speedometer (Note 1).

2. A self-propelled vehicle is not required to have a speedometer if:

a) the speedometer or associated equipment has been removed for repair and there are no undue delays by the vehicle owner in having it replaced, or

b) the speedometer or associated equipment is out of repair, repair is impracticable and a suitable replacement is not available.

Performance

3. The speedometer must be in good working order and operate while the vehicle is moving forward.

Page amended **1 October 2022** (see amendment details)

7-13 Audible warning devices

Reasons for rejection

Mandatory equipment

1. A self-propelled vehicle is:

a) not fitted with a horn, or

b) fitted with a bell, whistle or siren that is not part of an anti-theft car alarm, personal security alarm or a reversing warning device.

Performance

2. The horn does not operate when activated.

3. The horn operates when not activated.

4. The sound from the horn is not steady and continuous, eg the horn plays a tune.

5. The horn is not audible at a distance of 100m.

Summary of legislation

Applicable legislation

- Land Transport Rule: Vehicle Equipment 2004.

Mandatory equipment

1. A self-propelled vehicle must be fitted with a device (horn) that is audible to other road users.

Permitted equipment

2. A self-propelled vehicle may be fitted with a bell, whistle or siren that is part of an anti-theft car alarm, personal security alarm or a reversing warning device.

Performance

3. The device must be in good working order.

4. The device must be capable of giving a warning that is audible under normal traffic conditions from a distance of at least 100m.

8 Brakes

8-1 Service brake and parking brake

Reasons for rejection

Mandatory equipment

1. A self-propelled vehicle does not have a service brake or parking brake.

2. A self-propelled vehicle with a brake system that uses compressed air is not fitted with:

    a) an air compressor, or

    b) an air reservoir, or

    c) a pressure gauge, or

    d) a pressure warning device.

3. A trailer does not have a required service brake, parking brake or breakaway brake as set out in Table 8-1-1.

Condition

Service brake

4. There is corrosion damage (Note 3) within 150mm of a brake component mounting point.

5. The **service brake pedal**:

    a) is insecure, or

    b) is spongy (indicating air in the system), or

    c) creeps, or

    d) has non-slip surface which has deteriorated to such an extent that the brake cannot be safely applied, or

    e) has excessive travel.

6. A **vacuum hose or pipe** (including connections) is:

    a) insecure, or

    b) leaking, or

    c) damaged (cracked, chafed, twisted, stretched or corroded, eg showing signs of pitting or a noticeable decrease in the pipe's outside diameter).

7. The **brake vacuum servo** (brake booster) is:

    a) not functioning fully or adequately, or

    b) leaking, or

    c) insecure.

8. The **brake master cylinder** is:

    a) leaking brake fluid, or

    b) insecure, or

    c) excessively corroded.

9. A **brake valve** is:

    a) not operating (eg has a seized load-sensing valve), or

    b) leaking brake fluid, or

    c) insecure, or

    d) excessively corroded.

10. A **brake pipe** (including connections) is:

    a) leaking brake fluid, or

    b) insecure, or

    c) deformed from its original shape, or

    d) chafed, or

    e) corroded, eg there are signs of pitting or a noticeable increase in the pipe's outside diameter.

11. A **flexible hydraulic brake hose** (including connections):

    a) is leaking brake fluid, or

    b) is insecure, or

    c) bulges under pressure, or

    d) is twisted, stretched or chafed, or

    e) has an external sheathing that is cracked to the extent that the reinforcing cords are exposed, or

    f) has metal connections that are excessively corroded, or

    g) has an end fitting that is not attached to the hose by means of swaging, machine crimping or a similar process (Note 3).

12. A **brake calliper**:

    a) shows visible signs of leaking, or

    b) is insecure.

13. A **brake backing plate** is:

    a) insecure, or

    b) severely corroded, or

    c) deformed from its original shape, or

    d) cracked, or

    e) contaminated by brake fluid, oil or grease.

14. A **wheel cylinder**:

    a) shows visible signs of leaking, or

    b) is insecure, or

    c) is seized.

15. An **ABS system component** is damaged, insecure or missing.

16. A **brake disc or drum** is:

    a) worn beyond manufacturer’s specifications (where visible without removing vehicle components), or

    b) fractured or otherwise damaged (where visible without removing vehicle components), or

    c) contaminated by brake fluid, oil or grease.

17. **Brake friction material** (where visible without removing vehicle components) is:

    a) worn below manufacturer’s specifications, or

    b) separating from the brake pad backing plate or brake shoe, or

    c) contaminated by brake fluid, oil or grease.

18. A **service brake component** shows signs of heating or welding after original manufacture.

19. A **compressed air brake component**:

a) is missing, or

b) is damaged or has deteriorated, or

c) is seized or has wear beyond manufacturer's wear limits, or

d) is leaking, or

e) does not operate correctly or as intended by the vehicle manufacturer.

Parking brake

20. The **parking brake lever**:

a) has excessive travel, or

b) is insecure, or

c) mounting is damaged, corroded, distorted or fractured within 150mm of the lever mounting, or

d) mechanism or lever pivot bearing is worn or damaged so that the parking brake could be easily released by accident.

21. The **parking brake cable**:

a) is knotted, frayed or excessively corroded, or

b) has an auxiliary tensioner fitted, or

c) has otherwise deteriorated so that it may affect the parking brake performance.

22. A **parking brake actuating rod or guide**:

a) is excessively corroded, or

b) is excessively worn, or

c) has otherwise deteriorated so that it may affect the parking brake performance.

23. A **parking brake component** shows signs of heating or welding after original manufacture.

Performance

Service brake

24. The service brake cannot be applied in a controlled and progressive manner.

25. When the service brake is applied without assistance from the engine:

a) the self-propelled vehicle does not stop within 7m from a speed of 30 km/h (average brake efficiency of 50%), or

b) the combined effort of the trailer and towing vehicle brakes does not stop the vehicle combination within 7m from a speed of 30km/h (average braking efficiency of 50%), or

c) the vehicle or vehicle combination does not stop within a distance from 30km/h (or the vehicle's maximum speed if this is less than 30km/h) that is appropriate for the vehicle's design, taking into account the vehicle manufacturer's operating limits.

26. When the service brake is applied:

a) the vehicle vibrates under braking to the extent that the control of the vehicle is adversely affected, or

b) the brake fails to release immediately after the brake pedal has been released, or

c) the directional control is affected (eg there is swerving to one side, or the brakes on one side apply more slowly than on the other side).

27. The brake system warning lamp or self-check system, if fitted, indicates a defect in the brake system (this does not apply to brake pad wear warning systems).

Parking brake

28. When the parking brake is applied:

a) it does not hold the vehicle at rest on a slope of one in six (ie a 17% or 9o slope), or

b) it does not hold all the wheels on a common axle stationary against attempts to drive the vehicle away.

Breakaway brake

29. The breakaway brake does not automatically and immediately apply when the trailer is disconnected from the vehicle.

Note 1 Definitions

Service brake means a brake for intermittent use that is normally used to slow down and stop a vehicle. The service brake of a vehicle which acts directly on the transmission or the rear wheels only is considered to act on all wheels if the transmission shifts automatically from two-wheel drive to four-wheel drive when the service brake is applied. Lever-operated vehicles do not normally have a dedicated service brake, but the vehicles slow down as the lever is operated, and stop when it is in neutral position.

Parking brake means a brake readily applicable and capable of remaining applied for an indefinite period without further attention. A parking brake may be lever operated, or may be a transmission lock or a service brake that is capable of being locked in the applied position.

Breakaway brake means a service brake or parking brake fitted to a trailer that ensures, under all conditions of use, that, if the trailer is unintentionally disconnected from its towing vehicle, the brake will automatically and immediately apply and will remain applied for at least 15 minutes.

Direct trailer service brake means a service brake fitted to a trailer that allows the driver of a towing vehicle, from their driving position, to directly and progressively regulate the trailer brake effort.

Indirect trailer service brake means a service brake fitted to a trailer where the action of the driver of a towing vehicle applying the brakes of that vehicle results in a reaction by the trailer that is used to progressively regulate the trailer brake effort.

Laden weight means the weight of the vehicle and its load for the time being carried.

Note 2

Corrosion damage is where the metal has been eaten away, which is evident by pitting. The outward sign of such corrosion damage is typically displayed by the lifting or bubbling of paint. In extreme cases, the area affected by the corrosion damage will fall out and leave a hole.

Note 3

Hose end fittings that can be undone using hand tools are unacceptable.

Note 4

If a brake is fitted with an inspection port plug, this must be removed for inspection of the brake components.

Table 8-1-1. Trailer brake requirements

Type of brake required	Laden weight of the trailer		
	2000kg or less	**2001–2500kg**	**2501kg or more**
Service brake	Not required, but if fitted must act on each wheel of at least one axle	Required: either direct or indirect service brake that must act on each wheel of at least one axle	Required: direct service brake that must act on each wheel of at least one axle
Parking brake	Not required	Not required	Required, acting on at least one complete axle
Breakaway brake	Not required	Required, unless fitted with an appropriate coupling and two safety chains	Required

Summary of legislation

Applicable legislation

- Land Transport Rule: Light-vehicle Brakes 2002
- Land Transport Rule: Heavy-vehicle Brakes 2006.

Mandatory equipment

1. A self-propelled vehicle must have a service brake and a parking brake.

2. A trailer must have a service brake, a parking brake and a breakaway brake, as specified in Table 8-1-1.

3. A vehicle with a brake system that uses compressed air must be fitted with an air compressor, air reservoir, pressure gauge and pressure warning device.

Permitted equipment

4. A vehicle may be fitted with a warning system that is part of, or associated with, the use of a brake component or system.

5. A trailer may be fitted with a type of brake that is not required to be fitted to the trailer.

Condition

6. A brake must be in good condition and within safe tolerance of its state when manufactured.

7. The brake friction surfaces must be within safe tolerance of their state when manufactured, and must not be scored, weakened or damaged to the extent that the safety performance of the brake is adversely affected.

Performance

8. The service brake must be able to be applied in a controlled and progressive manner.

9. When the brake is applied:

a) the vehicle or its controls must not vibrate to the extent that control of the vehicle is adversely affected, and

b) the braking effort on each wheel must provide stable and efficient braking without adverse effect on the directional control of the vehicle, and

c) if the vehicle is equipped with an anti-lock braking system (ABS), the wheels must not lock, other than when the speed of the vehicle falls below the ABS activation parameters set by the vehicle manufacturer.

10. A brake warning system must function correctly (does not apply to a brake pad wear warning system).

Service brake

11. The service brake of a vehicle that is operated on a hard, dry, level surface that is free of loose material and without assistance from the compression of the engine or other retarders must operate in the following manner:

a) the service brake must stop the vehicle or vehicle combination within a distance of 7m from a speed of 30km/h (average brake efficiency of 50%), or

b) the service brake must stop the vehicle or vehicle combination within a distance from 30km/h (or if the vehicle's maximum speed if this is less than 30 km/h) that is appropriate for the vehicle's design, taking into account the manufacturer's operating limits.

Parking brake

12. A parking brake must hold the vehicle at rest on a slope of 1 in 5 or as appropriate for the vehicle's design taking into account the manufacturer's operating limits.

13. A trailer breakaway brake must automatically and immediately apply when the trailer unintentionally disconnects from the towing vehicle, and must remain applied for at least 15 minutes.

9 Steering and suspension

9-1 Steering and suspension systems

Reasons for rejection

Mandatory equipment

1. A self-propelled vehicle capable of exceeding a speed of 50 km/h and equipped with a modified or aftermarket steering system with no direct mechanical connection between the driver's means of control and the wheels, or other means of changing the vehicle's direction, does not have at least one additional means of steering.

Condition

2. The steering wheel or a control lever:

    a) is insecurely attached to the steering shaft, or

    b) shows excessive movement, eg due to unacceptable wear or looseness in the steering box or rack or steering column bearings, or

    c) rim covering is insecure so that the directional control of the vehicle is affected.

3. The steering column is insecure.

4. The power steering:

    a) has been disconnected, or

    b) system does not operate correctly, eg requiring unreasonable force to steer the vehicle, or

    c) has a hose, pump drive, drive belt or pump mounting that is insecure, damaged, has significantly deteriorated, or

    d) has a significant fluid leak.

5. The hydrostatic steering system:

    a) has been disconnected, or

    b) does not operate correctly, eg requiring unreasonable force to steer the vehicle, or

    c) has a hose, pump drive, drive belt or cylinder, including their mountings, that is insecure, damaged or has significantly deteriorated, or

    d) has any fluid leakage, except for minor seepage.

6. A linkage or joint between the steering column shaft and steering box or rack:

    a) is insecure, or

    b) is damaged, significantly corroded, distorted or cracked, or

    c) shows signs of welding or heating after original manufacture, or

    d) has play beyond manufacturer's specifications, or does not operate smoothly without roughness or stiffness, or

    e) is fouling on the vehicle structure, wheel, tyre or brake system component.

7. The steering box or rack:

    a) is insecure, or

b) is damaged, significantly corroded, distorted or cracked, or

c) shows signs of welding or heating after original manufacture, or

d) has play beyond manufacturer’s specifications, or

e) does not operate smoothly without roughness or stiffness, or

f) has an excessive fluid leak.

8. A steering rack gaiter is missing, insecure or split.

9. A steering linkage or joint (Note 2):

a) is insecure, or

b) is damaged, significantly corroded, distorted or cracked, or

c) shows signs of welding or heating after original manufacture, or

d) has play beyond manufacturer’s specifications, or

e) does not operate smoothly without roughness or stiffness, or

f) is fouling on the vehicle structure, wheel tyre or brake system component, or

g) shows signs of plastic injection.

10. A steering arm or associated component:

a) is insecure, or

b) is damaged, significantly corroded, distorted or cracked, or

c) shows signs of welding or heating after original manufacture.

11. A kingpin or suspension joint (Note 2):

a) is insecure, or

b) is damaged, significantly corroded, distorted or cracked, or

c) shows signs of welding or heating after original manufacture, or

d) has play beyond the manufacturer’s specifications, or

e) does not operate smoothly without roughness or stiffness, or

f) shows signs of plastic injection.

12. A lock stop is loose or damaged.

13. A steering or suspension component mounting point:

a) is insecure, or

b) has corrosion damage, buckling or fractures within 150mm of a mounting point.

14. Any other suspension component:

a) is insecure or missing, or

b) is damaged, significantly corroded, distorted or cracked, or

c) shows signs of welding or heating after original manufacture, or

d) has play beyond manufacturer's specifications, or

e) does not operate smoothly without roughness or stiffness, or

f) has excessive leakage of damping fluid (**Technical bulletin 9**) , or

g) shows excessive play, roughness or stiffness in a strut upper support bearing, or

h) is a replacement urethane suspension bush that is not voided or shaped to allow for similar movement to an OE bush.

15. There is corrosion damage (Note 3) within 150mm of a suspension component mounting point.

16. A ballrace turntable is:

a) not securely fastened, eg bolts or fasteners are loose, or

b) worn beyond manufacturer's tolerances, or

c) cracked or distorted, or

d) corroded or has deteriorated so that it is no longer safe.

Performance

17. During operation the vehicle cannot be controlled in a safe, efficient, convenient and sensitive manner, eg:

a) the vehicle veers significantly to one side, or

b) the vehicle requires unreasonable force to steer, or

c) the steering is unreasonably stiff, rough or light, or

d) the vehicle does not handle safely under normal conditions of road use, eg the suspension is excessively hard or soft, or there is excessive body roll.

Note 1 Definitions

Steering system means those components, parts and systems that connect the driver's controls to a vehicle's wheels or tracks by means of which the direction of motion of a vehicle is controlled.

Ballrace turntable means a device incorporating a low friction ball bearing fitted between two substantial structural components of a vehicle to enable rotational motion between those components about a vertical axis.

Note 2

A damaged boot on a steering or suspension joint is not a ground for rejection; however, the vehicle's owner should be advised.

Note 3

Corrosion damage is where the metal has been eaten away, which is evident by pitting. The outward sign of such corrosion damage is typically displayed by the lifting or bubbling of paint. In extreme cases, the area affected by the corrosion damage will fall out and leave a hole.

Summary of legislation

Applicable legislation

- Land Transport Rule: Steering Systems 2001.

Mandatory equipment

1. A self-propelled vehicle capable of a speed of more than 50 km/h and equipped with a modified or aftermarket steering system with no direct mechanical connection between the driver's means of control and the wheels, or other means of changing the vehicle's direction, must have at least one additional means of steering.

Condition

2. The steering system and associated systems and components that directly or indirectly affect the directional control of the vehicle must be:

a) sound and in good condition, and

b) strong, durable and fit for their purpose, taking into account whether adverse effects have resulted from a loss of integrity of any protective system used by a relevant component.

Performance

3. The steering system and associated systems and components that directly or indirectly affect the directional control of the vehicle must provide the vehicle with safe, efficient, convenient and sensitive control.

Page amended **23 April 2023** (see amendment details).

10 Tyres, wheels and hubs

10-1 Tyres and wheels

Reasons for rejection

Mandatory equipment (Note 2)

Tyres

1. Tyres on the same axle are not of the same:

a) size designation, or

b) construction type (ie mixed steel ply, fabric radial ply, bias/cross ply), or

c) tread pattern type (mixed asymmetric, directional, normal highway, traction).

2. An asymmetric tyre is fitted to a vehicle with the 'inside' tyre wall facing outwards.

3. A unidirectional tyre is fitted contrary to its correct direction of rotation.

4. A tyre has a speed category (Table 10-1-1) that is less than the speed limit for the vehicle or less than the vehicle's maximum speed if this is less than the speed limit (Note 3) (Note 4).

5. The vehicle has one or more of the following types of tyre fitted (Note 1):

a) a space-saver tyre, or

b) a metal tyre, or

c) a tyre with studs, cleats, lugs or other gripping devices.

6. A tyre is not compatible with the vehicle to which it is fitted, eg a tyre that is marked with any of the following:

a) ‘FOR TRAILER USE ONLY’

b) ‘ADV’ (Agricultural Drawn Vehicle)

c) ‘RACING PURPOSES ONLY’.

Wheels

7. A wheel is not compatible with the tyre fitted to it for rim profile, flange height or valve fitment.

8. A wheel is:

a) not compatible with the vehicle to which it is fitted. or

b) not correctly attached to the vehicle.

Condition

Tyres (excluding spare tyres)

9. There are signs that a tyre is fouling on another part of the vehicle.

10. A pneumatic tyre shows damage that is likely to compromise its ability to operate in a safe manner or lead to premature tyre failure, such as:

a) a lump or bulge that is likely to be caused by separation of the tyre structure, or

b) a cut or crack in a side wall or tread more than 25mm long that reaches the cords (see Note 5 for visible cords in the tread area of heavy vehicle radial-ply tyres), or

c) exposed or cut cords (see Note 5 for visible cords in the tread area of heavy vehicle radial-ply tyres), or

d) the tread of a retreaded tyre shows signs of separation, or

e) nails or other sharp objects embedded in the tyre, or

f) significant perishing, eg due to age, moisture or exposure.

11. A pneumatic tyre has a string-type repair visible from the outside.

12. A tyre is noticeably under- or over-inflated.

13. A non-pneumatic tyre has significantly disintegrated or shows signs that are likely to be the result of separation or partial failure of the tyre structure.

14. Tyre repairs have not been carried out in accordance with acceptable industry practice.

15. A tyre does not have a tread pattern depth (**Technical bulletin 7**) of at least 1.5mm (excluding any tie-bar or tread-depth indicator strip) around the whole circumference of the tyre:

a) within all the principal grooves that normally contain moulded tread depth indicators, or

b) if the tyre does not normally have moulded tread-depth indicators (such as some retreaded or vintage tyres), across at least three-quarters of the tread width.

Spare tyres

16. A spare tyre, if carried, is not securely attached to or stored in the vehicle.

Wheels

17. There are signs that a wheel is fouling on another part of the vehicle.

18. A wheel is:

a) cracked, or

b) significantly damaged, distorted or has deteriorated, or

c) not securely attached to the hub.

19. A wheel nut is:

a) missing, or

b) loose, or

c) deteriorated, or

d) the incorrect type, or

e) has insufficient thread engagement to the wheel stud, or

f) is an aftermarket wheel nut made from aluminium.

Self-laying tracks

20. Track plates:

a) are not securely fitted, or

b) are missing, or

c) have missing bolts, or

d) show excessive damage.

20. Track links, pins and bushes are damaged or worn beyond manufacturer's wear limits.

21. Drive sprockets are not securely fitted or are damaged or worn beyond manufacturer's wear limits.

22. Rollers are not securely fitted or are damaged or worn beyond manufacturer's wear limits.

Note 1

A vehicle may be fitted with non-pneumatic tyres such as solid rubber tyres or tyres filled with polyurethane.

Note 2 Definitions

Asymmetric tyre means a tyre which, through tread pattern or construction, is required to be fitted to a vehicle so that one particular sidewall faces outwards.

Construction, in relation to a tyre, means:

a) for a pneumatic tyre, the type of carcass (including ply orientation and ply rating or load index)

b) for any other tyre, characteristics relating to size, shape and material.

Cross ply means a pneumatic tyre structure in which the ply cords in the tyre carcass extend to the beads and are laid at alternate angles, which are substantially less than 90 degrees, to the centreline of the tread. This tyre structure is also referred to as ‘bias ply’ or ‘diagonal ply’.

Directional tyre means a tyre with a tread pattern designed to operate in one direction only, and marked accordingly.

Pneumatic tyre means a tyre that, when in use, is inflated by air or gas introduced from time to time under pressure so as to enclose under normal inflation a cushion of air or gas forming altogether at least half of the total area of an average cross-section of a tyre so inflated.

Principal grooves means the wide grooves in the tyre tread which have the tread-wear indicators located inside them. Any other grooves are secondary grooves which may wear out during the service life of the tyre.

Radial ply means a pneumatic tyre structure in which the ply cords, which extend from bead to bead, are laid at approximately 90 degrees to the centreline of the tread, the carcass being stabilised by an essentially inextensible circumferential belt.

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 undamaged or new structures, systems, components or equipment.

Rim means that part of the wheel on which the tyre is mounted and supported.

Speed category means a code allocated to a tyre by a tyre manufacturer that indicates the maximum vehicle speed for which the use of the tyre is rated. It is either marked on the tyre, or can be obtained from the tyre manufacturer or a reference guide.

Tread means that part of a pneumatic tyre which comes into contact with the ground.

Tread-depth indicator (or tread-wear indicator) means the projections within the principal grooves designed to give a visual indication of the degree of wear of the tread. To help locate these on a tyre, inspectors should look for a ‘’ or ‘TWI’ mark on the outer edge of the tyre side wall (most tyres have these marks).

Tube means an inflatable elastic liner, in the form of a hollow ring fitted with an inflation valve assembly, designed for insertion into certain tyre assemblies to provide a cushion of air or gas, that, when inflated, supports the wheel (also known as an ‘inner tube’).

Tyre carcass means that structural part of a pneumatic tyre other than the tread and outermost rubber of the sidewalls that, when inflated, contains the gas that supports the load.

Tyre load rating means the maximum load a tyre can carry at the corresponding cold inflation pressure prescribed by the tyre manufacturer and the speed indicated by its speed category symbol.

Wheel means a rotating load-carrying member between the tyre and the hub, which usually consists of two major parts, the rim and the wheel disc, and which may be manufactured as one part, permanently attached to each other or detachable from each other.

Wheel centre-disc means that part of the wheel that is the supporting member between the hub and the rim.

Note 3

The tyre load index and speed category are usually marked on the tyre. Where the tyre is not marked, the load and speed rating information must be obtained from the tyre manufacturer or a reference guide of tyre ratings before the tyre can be passed.

Note 4

Sometimes a retreaded or repaired tyre has had its speed rating removed. Where a tyre has been repaired or retreaded in accordance with standard NZS 5423 (Repairing and retreading car, truck and bus tyres), the tyre must be marked with NZS 5423 and, if a car tyre, have the speed rating removed. In such a case, a missing speed rating is acceptable for WoF/CoF (unless the inspector believes on reasonable grounds that the tyre would not have had the required minimum speed rating for the vehicle in the first place).

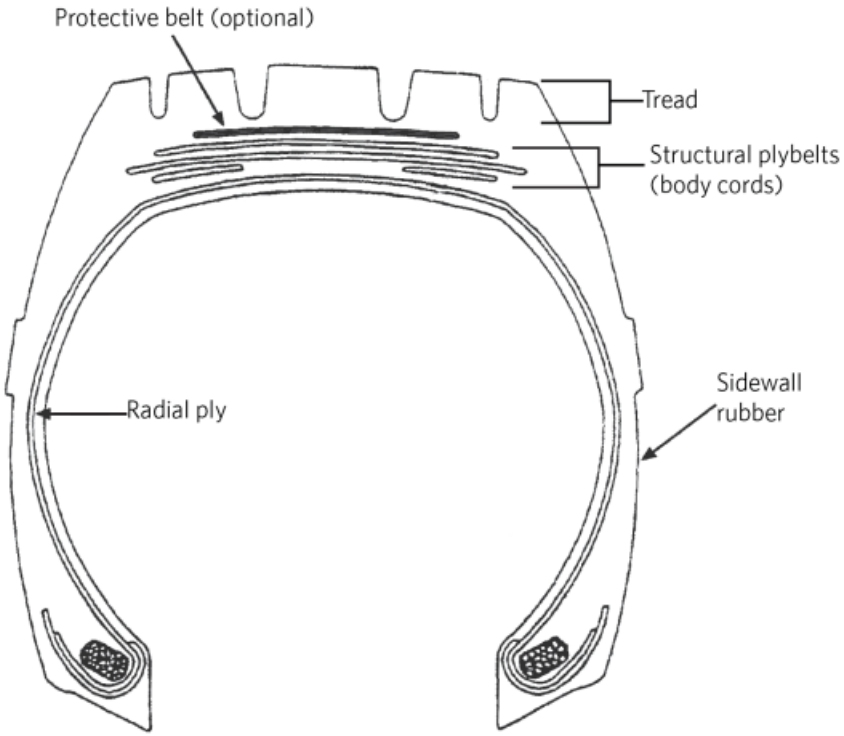
Note 5

Where a heavy vehicle radial-ply tyre has visible cords in the tread area, the vehicle inspector may pass such a tyre for CoF provided the tyre is in a safe condition, eg only the protective cord layer (protective belt, see Figure 10-1-1) is visible. When determining whether such a tyre is in a safe condition, the vehicle inspector may take into account written evidence from a person who has current specialist tyre knowledge and experience, particularly in heavy vehicle tyre inspection.

Table 10-1-1. Tyre speed symbol categories

Speed symbol – speed category (km/h)							
A1 – 5	A5 – 25	B – 50	F – 80	L – 120	Q – 160	U – 200	Y – 300
A2 – 10	A6 – 30	C – 60	G – 90	M – 130	R – 170	H – 210	ZR – over 240
A3 – 15	A7 – 35	D – 65	J – 100	N – 140	S – 180	V – 240	
A4 – 20	A8 – 40	E – 70	K – 110	P – 150	T – 190	W – 270	

Figure 10-1-1. Cross-sectional representation of a heavy vehicle radial-ply tyre



Summary of legislation

Applicable legislation

- Land Transport Rule: Tyres and Wheels 2001.

Mandatory equipment

Tyres

1. Tyres must be compatible with the vehicle to which they are fitted.

2. Tyres on the same axle must be of the same size designation and construction, and of the same tread pattern type.

3. Asymmetric tyres must be fitted in axle sets in accordance with manufacturer's instructions.

4. A unidirectional tyre must be fitted to a wheel position corresponding to its direction of rotation.

5. The speed category of a tyre must be compatible with the maximum legal speed limit for the vehicle, or the vehicle's maximum speed.

6. A vehicle must not be fitted with a metal tyre or other non-pneumatic tyre, or with a tyre with studs, cleats, lugs or other gripping devices.

Wheels

7. A wheel must be:

a) sufficiently strong for the type of vehicle to which it is fitted, and

b) compatible with the vehicle to which it is fitted, and

c) compatible with the tyre rim profile, flange height and valve fitment.

8. There must be adequate clearance for the brake, hub, body parts and suspension and steering mechanism.

Permitted equipment

9. A vehicle may be fitted with retreaded tyres.

Condition

Tyres (excluding spare tyres and space-saver tyres)

10. A tyre must be of good quality and construction, fit for its purpose and maintained in a safe condition.

11. A tyre must not have worn, damaged or visible cords apparent by external examination.

12. A heavy vehicle radial-ply tyre may have visible cords in the tyre tread area provided the tyre is in a safe condition. To assess whether such a tyre is in a safe condition, the vehicle inspector may take into account written evidence from a person who has current specialist tyre knowledge and experience, particularly in heavy vehicle tyre inspection.

13. A tyre must have a tread pattern depth of not less than 1.5mm (excluding any tie-bar or tread-depth indicator strip) around the whole circumference of the tyre:

a) within all principal grooves that contain tread-depth indicators, or

b) if the tyre does not normally have tread-depth indicators, across at least three-quarters of the tyre tread width.

14. The regrooving of a tyre is permitted only if the tyre is identified as having been specifically designed for regrooving after manufacture.

15. A tyre that is fitted to a vehicle must be maintained at a safe inflation pressure.

Spare tyre

16. If the vehicle carries a spare tyre, the tyre must be securely attached on or in the vehicle.

Wheels

17. The components of the wheel assembly must be in good condition.

18. The wheel must be securely attached to the hub.

Page amended **1 November 2015** (see **amendment details**).

10-2 Hubs and axles

Reasons for rejection

Condition

1. A hub (Note 1):

    a) is not securely attached to the vehicle, or

    b) has a visible crack, or

    c) is significantly damaged, distorted or has deteriorated, or

    d) has a broken or missing wheel stud.

2. A wheel bearing:

    a) has play beyond the manufacturer's specifications, or

    b) is over-tight or binding, or

    c) feels/sounds rough when rotated.

3. An axle:

    a) is insecure, eg has loose U-bolts, or

    b) is visibly cracked, or

    c) is significantly damaged, distorted or has deteriorated, or

    d) shows signs of welding or heating after original manufacture, or

    e) shows signs of fouling the vehicle structure or a brake, suspension or steering component.

Note 1

Hub means that part of a vehicle that is attached to the axle and rotates on, or with, the axle, and to which the wheel is attached, and includes any bearings.

Summary of legislation

Applicable legislation

- Land Transport Rule: Tyres and Wheels 2001

Condition

1. The components of the assembly must be in good condition.

2. The hub and axle must be sufficiently strong for the type of vehicle to which they are fitted.

3. The hub and axle must have a suitable and correctly adjusted geometry.

Page amended **1 April 2024** (see amendment details).

10-3 Mudguards

Reasons for rejection

Mudguard condition

1. A mudguard is not securely fixed to the vehicle.

2. A mudguard is so constructed or damaged that it is likely to present a hazard to road users.

Note 1

Mudguard means a fitting, inclusive of any portion of the vehicle and of any mudflaps attached, that serves to intercept material thrown up by a wheel more or less on the plane of the wheel.

Summary of legislation

Applicable legislation

- Land Transport Rule: Vehicle Equipment 2004.

Permitted equipment

1. A vehicle may be fitted with mudguards.

Condition

2. A mudguard must be securely fixed to the vehicle and must be constructed so that it does not present a hazard to road users.

11 Exhaust

11-1 Exhaust system

Reasons for rejection

Mandatory equipment

1. A vehicle is not fitted with an exhaust system that includes a means of sound reduction (Note 1).

Condition

2. The exhaust system is not securely mounted.

3. The exhaust system is so constructed or modified that its operation or effectiveness can be readily interfered with.

4. The exhaust system is so constructed that emitted heat or fumes are likely to harm vehicle occupants, eg the exhaust gases are not directed away from the perimeter of the vehicle’s passenger compartment.

Performance

5. There is a leak of exhaust fumes from the exhaust system.

6. The noise output is noticeably and significantly louder than it would have been when the vehicle was manufactured with its original exhaust system.

Note 1

Exhaust system means a pipe assembly through which the engine exhaust gases pass to the atmosphere and includes some means of sound reduction such as a silencer or resonator.

Note 2

A spark arrestor is not required to be checked.

Summary of legislation

Applicable legislation

- Land Transport Rule: Vehicle Equipment 2004.

Mandatory equipment

1. A vehicle with an internal combustion engine must be fitted with an exhaust system (Note 1).

Condition

2. An exhaust system must not be constructed or modified in a way that allows a person to interfere readily with its operation or reduce its effectiveness.

3. An exhaust system must be designed, constructed, positioned and maintained in a way that minimises the risk of heat or fumes emitted from the system harming the vehicle's occupants.

Performance

4. An exhaust system must be effective and in good working order.

5. Noise from an exhaust system must not be noticeably and significantly louder than it would have been when the vehicle was manufactured with its original exhaust system.

11-2 Visible exhaust smoke

Reasons for rejection

1. A vehicle with the engine at normal operating temperature (Note 1), other than a vehicle in Reason for rejection 2, emits clearly visible smoke (Technical bulletin 8) from the exhaust tail pipe (Note 2):

a) for a continuous period of five seconds when the engine is idling, or

b) as the engine is being rapidly accelerated to approximately 2500 rpm or approximately half the maximum engine speed (whichever is lower) (Note 3).

2. A vehicle fitted with an engine that is designed in a way that the vehicle cannot reasonably comply with Reason for rejection 1 emits smoke that is noticeably and significantly more visible than it would have been when the vehicle was manufactured and supplied with the recommended fuel (Note 4).

Note 1

Test procedure:

a) Carry out the idling and acceleration tests in Reason for rejection 1. A vehicle that passes both tests with the engine below normal operating temperature is deemed to have passed with the engine at normal operating temperature.

b) If the vehicle has failed either test, ensure the engine is at normal operating temperature. Then purge the system by increasing the engine speed to 2500 rpm (or half the maximum engine speed if this is lower) and holding it there for about five seconds. Repeat the idling and acceleration tests in Reason for rejection 1.

Note 2

Visible emissions caused by the condensation of water vapour do not count as smoke.

Note 3

During the acceleration test, a diesel-powered vehicle may emit a moderate amount of smoke if this is caused by turbo lag.

Note 4

The vehicle inspector may need to take into account information from the vehicle manufacturer or their representative or other appropriate expert, eg about older or unusual vehicles.

Summary of legislation

Applicable legislation

- **Land Transport Rule: Vehicle Exhaust Emissions 2007**.

Performance

1. A self-propelled vehicle must not emit clearly visible smoke (Note 2) when the engine is running at its normal operating temperature, under either of the following conditions:

a) for a continuous period of five seconds when the engine is idling, or

b) as the engine is being accelerated rapidly to approximately 2500 revolutions per minute or approximately half the maximum engine speed (whichever is lower).

2. Requirement 1 above does not apply if the driver of the vehicle produces documentation that proves that the engine is original equipment for the vehicle and the engine's design does not allow the vehicle to reasonably comply.

12 Towing connections

12-1 Towing connections

Reasons for rejection

Condition

1. A towing connection component:

    a) is not securely attached, or

    b) is missing, or

    c) is cracked, distorted or significantly corroded, or

    d) is worn beyond manufacturer's specifications.

2. A coupling mechanism or safety locking device does not operate smoothly or effectively, or fasten securely.

3. A coupling pin or towing hook is:

    a) welded or repaired, or

    b) is worn beyond the coupling manufacturer's wear limits or, if these are not available, by more than 5% of the original dimensions.

Note 1

Corrosion damage is where the metal has been eaten away, which is evident by pitting. The outward sign of such corrosion damage is typically displayed by the lifting or bubbling of paint. In extreme cases, the area affected by the corrosion damage will fall out and leave a hole.

Note 2

Coupling means that part of a vehicle that is specifically designed to enable it to be connected to another vehicle; it does not include a structural member of the towing or towed vehicle.

Towing connection means the combination of components that enables one vehicle to tow or be towed by another vehicle, and includes a towbar, drawbar, drawbeam and coupling.

Summary of legislation

Applicable legislation

- **Land Transport Rule: Heavy Vehicles 2004**
- **Land Transport Rule: Vehicle Standards Compliance 2002**, section 7.4.

Permitted equipment

1. A vehicle may be fitted with a towing connection.

Condition

2. Towing connection components fitted to a vehicle must ensure that a secure connection can be maintained between the towing and towed vehicles under all conditions of loading and operations for which the vehicle was constructed.

3. A vehicle must:

a) be safe to be operated, and

b) have been constructed using components and materials that are fit for purpose, and

c) be within safe tolerance of their state when manufactured.

13 Miscellaneous items

13-1 Engine and drive train

Reasons for rejection

Condition

1. An engine, gearbox, transfer case, differential or other driveline mounting is insecure.

2. A driveshaft is bent or severely damaged.

3. A driveshaft flange:

    a) is insecure, or

    b) has a bolt or nut missing.

4. A driveshaft support bearing is:

    a) insecure, or

    b) worn beyond manufacturer's specifications.

5. A driveshaft universal joint spider (cross) bearing:

    a) is worn so that the movement in the joint is beyond manufacturer's specifications, or

    b) caps have loose or missing cap bolts or circlips, or

    c) is damaged, displaced or the seals on the spider journals are missing.

6. A rubber doughnut-type driveshaft coupling:

    a) is worn or damaged beyond manufacturer's specifications, or

    b) is split or delaminated so that its mechanical integrity is affected, or

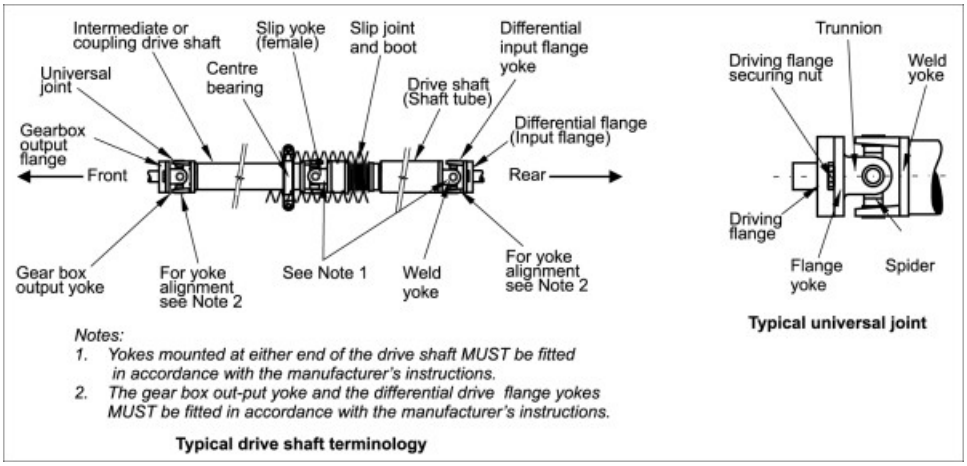
    c) the securing bolt is loose or missing.

7. A driveshaft slip joint (spline) is worn beyond manufacturer's specifications.

8. The universals in the driveshaft are not fitted in accordance with manufacturer's specifications.

See also Figure 13-1-1.

Figure 13-1-1. A typical driveshaft assembly



Summary of legislation

Applicable legislation

- Land Transport Rule: Vehicle Standards Compliance Rule 2002, section 7.4.

Condition and performance

1. The vehicle must be safe to be operated.

2. The components and materials must be fit for their purpose and within safe tolerance of their state when manufactured or modified.

Page amended **1 April 2024** (see amendment details).

13-2 Fuel system

Reasons for rejection

Condition

1. There is a noticeable fuel leak from the fuel system.

2. The security of the fuel tank is affected by:

    a) corrosion damage (Note 1), or

    b) cracking or other damage, or

    c) insecure or loose tank mountings.

3. A fuel line is insecure or loose so that it is likely to be damaged during normal use of the vehicle.

4. A fuel pipe is severely damaged or excessively corroded.

5. A fuel hose is damaged or perished.

6. The fuel pump is insecure.

7. The fuel filler cap is missing, insecure or likely to allow fuel spillage when the vehicle is in normal use.

8. The fuel tank is fitted with a ‘temporary use’ fuel filler cap.

Note 1

Corrosion damage is where the metal has been eaten away, which is evident by pitting. The outward sign of such corrosion damage is typically displayed by the lifting or bubbling of paint. In extreme cases the area affected by corrosion damage will fall out and leave a hole.

Summary of legislation

Applicable legislation

- Land Transport Rule: Vehicle Equipment 2004.

Condition and performance

1. Fuel tanks, fuel lines and associated components must be:

    a) securely mounted, and

    b) made of suitable materials, and

    c) in good condition, and

    d) free from significant leaks, and

    e) positioned so that the risk of mechanical damage or heat gain is minimised.

13-3 LPG/CNG fuel system

Reasons for rejection

Condition

1. An LPG or CNG fuel system component is:

    a) loose, or

    b) significantly corroded, distorted or cracked.

2. A gas line:

    a) shows signs of corrosion damage (Note 1), such as pitting, or

    b) is bulging, or

    c) is insecure, or

    d) is damaged, eg it is cut or crimped.

3. There is a noticeable gas leak.

4. There is corrosion damage, distortion or fracture within 300mm of a tank mounting (this requirement is not applicable where the tank is mounted on the counterweight).

Note 1

Corrosion damage is where the metal has been eaten away, which is evident by pitting. The outward sign of such corrosion damage is typically displayed by the lifting or bubbling of paint. In extreme cases, the area affected by the corrosion damage will fall out and leave a hole.

Note 2

LPG/CNG fuel system means a fuel storage and conducting system that is used to provide liquid petroleum gas (LPG) or compressed natural gas (CNG) for the purpose of propulsion of a vehicle.

Summary of legislation

Applicable legislation

- **Land Transport Rule: Vehicle Standards Compliance 2002**
- **Land Transport Rule: Vehicle Equipment 2004**.

Permitted equipment

1. A vehicle may be fitted with an LPG or CNG fuel system.

Condition

2. An LPG or CNG fuel system must be in safe working condition.