

Correct as at 28th April 2026. It may be superseded at any time.

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

## 2-1 External projections

### Reasons for rejection

#### Condition and performance

1. The risk of a component (Note 5) hooking a vehicle, or hooking or grazing a person, has not been minimised, eg a bonnet or bumper has been removed, exposing sharp, moving or hot components.
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 not installed so that the risk of causing injury to a person is minimised, eg the object or fitting:
  - a) is of excessively heavy construction for the purpose for which it has been fitted, or
  - b) has sharp corners, or
  - c) slopes forward, unless this is necessary to fit the contours of the vehicle, or
  - d) has an unnecessarily wide gap between the object or fitting and the front of the vehicle, or
  - e) exceeds the vehicle's width by more than 100mm on either side, other than side mounted glass sheet transport racks and collapsible side mirrors, or
  - f) is a glass sheet transport rack that is not fitted with a front flaring to minimise the risk of injury to a person.
4. A protruding 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.

#### Modifications

6. A modification (Note 4) affects an external projection – including a protruding object or fitting that has a functional purpose and affects the driver's vision or control of the vehicle, and
  - a) is not excluded from the requirements for specialist certification (Table 2-1-1), and
  - b) is missing proof of specialist or accepted overseas certification, ie:
    - i. the vehicle is not fitted with a valid vehicle certification plate (eg low volume vehicle plate or heavy vehicle certification plate/label), or
    - ii. the operator is not able to produce a valid modification declaration or authority card
    - iii. the vehicle has not been certified to an accepted overseas system as described in [Technical bulletin 13](#)

#### Note 1

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

#### Note 2

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

#### Note 3

**Functional object or fitting** means an object or fitting that has a practical purpose, eg panniers, pack racks, spare wheel carriers, and so on.

#### Note 4

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

#### Note 5

Components include damaged, corroded and exposed body panels.

#### Note 6

The following vehicles with a GVM of 2500kg or less must comply with a frontal impact occupant protection standard:

- Class MA motor vehicles manufactured on or after 1 March 1999
- Class MA motor vehicles that were less than 20 years old when they were first registered in New Zealand on or after 1 April 2002
- Class MB and MC motor vehicles manufactured on or after 1 October 2003.

#### Note 7

Rear bumper removal must still meet external projection requirements.

#### Note 8

Heating, drilling, welding or cutting the vehicle structure, modifying a roof bow, or modifying any part of the structure anchorage would be considered to weaken the structure. Cutting a single layer of unstressed panel of sheet metal (ie roof) is not considered to weaken the vehicle structure. Drilling a hole suitable for a child restraint top tether does not require LVV certification.

**Note 9**

A pedestrian trap is any part of a vehicle that may hook, catch or pull/push a pedestrian into or under a vehicle. Vehicle components should be shaped to reduce injury to a pedestrian and to move the pedestrian away from the vehicle in the event of an incident.

**Table 2-1-1. Modifications that do not require specialist certification**

Fitting of or modification to:	Specialist certification is not required provided that:
<p>Body kits and components</p> <p>(including utility canopies, plastic bumper skins and bonnet projections)</p>	<ul style="list-style-type: none"> <li>• the fitting system does not weaken the vehicle structure (Note 8), and</li> <li>• no frontal impact components have been removed where the vehicle is required to comply with a frontal impact occupant protection standard (Note 6)</li> <li>• the kit or components do not present any external projections that could cause injury, to the occupants or pedestrians, or present a snagging/hooks risk to a vehicle or person, and</li> <li>• the performance of any lamps is not affected as a result of the fitting of the kit or components, and</li> <li>• the driver's vision has not been affected.</li> </ul> <p>See also <a href="#">Table 3-1-1</a>.</p>
<p>Side racks (for glass or other sheet materials)</p>	<ul style="list-style-type: none"> <li>• there is no doubt as to the rack's load carrying capacity, and</li> <li>• the rack is secured without weakening the vehicle structure (Note 8) and,</li> <li>• no forward-facing pedestrian traps exist (Note 9), and               <ul style="list-style-type: none"> <li>◦ the rack is designed and protected so that sharp or dangerous cargo cannot face directly forward projecting beyond the outside of the body.</li> </ul> </li> </ul> <p>See also <a href="#">Table 3-1-1</a>.</p>
<p>Bumper bar (removal and change) (Note 7)</p>	<ul style="list-style-type: none"> <li>• the vehicle is not required to comply with a frontal impact occupant protection standard (Note 6), and</li> <li>• does not weaken the vehicle structure (see Note 8), and</li> <li>• any changes to the bumper do not affect the performance of mudguards, or</li> <li>• a rear bumper bar has been replaced by a towbar crossmember.</li> </ul> <p>See also <a href="#">Table 3-1-1</a>.</p>

<p>Auxiliary bars (including bull bars, nudge bars, external roll cages and A-frames [or similar])</p>	<ul style="list-style-type: none"> <li>• the vehicle is not required to comply with a frontal impact occupant protection standard (Note 6)</li> <li>• the auxiliary bar: <ul style="list-style-type: none"> <li>◦ presents no pedestrian traps (Note 9), and</li> <li>◦ is not angled forward except where necessary to clear the contours of the vehicle, and</li> <li>◦ presents no sharp edges or an external radius of less than 3mm</li> </ul> </li> <li>• the winch either: <ul style="list-style-type: none"> <li>◦ does not protrude forward of the front face of the bumper, or</li> <li>◦ does project forward of the bumper line but is fitted with 'pedestrian-friendly' shrouds to reduce trapping risk and present a larger forward-facing surface area</li> </ul> </li> <li>• the vehicle is required to comply with a frontal impact occupant protection standard and the auxiliary bar: <ul style="list-style-type: none"> <li>◦ is a vehicle manufacturer supplied component for that vehicle, or</li> <li>◦ has been certified by the auxiliary bar manufacturer as frontal impact compliant (as may be indicated by a label).</li> </ul> </li> </ul> <p><b>Note</b> that an auxiliary bar that does not meet the above minimum requirements is unlikely to meet LVV requirements and so cannot be certified.</p> <p>See also <a href="#">Table 3-1-1</a>.</p>
<p>A-frames</p>	<ul style="list-style-type: none"> <li>• the A-frame meets all of the following requirements: <ul style="list-style-type: none"> <li>◦ is attached to the chassis by means other than welding, and</li> <li>◦ the components are fit for purpose, and</li> <li>◦ the brackets remaining on the vehicle when the A-frame is removed are recessed behind the forward surface of the bumper by no less than 20mm, and</li> <li>◦ the brackets are fitted so that they do not bridge the vehicle's crumple zones, and</li> <li>◦ the brackets are fitted so that they do not significantly stiffen the front of the vehicle.</li> </ul> </li> </ul> <p>See also <a href="#">Table 3-1-1</a>.</p>
<p>Bonnet emblems or badges</p>	<ul style="list-style-type: none"> <li>• the emblem or badge is designed and attached in such a way that it will fold back or break off in the event of contact, without leaving any sharp edges, or</li> <li>• the emblem or badge has no sharp edges, and is fitted flat to the bonnet with a thickness no more than 10mm.</li> </ul>
<p>Bonnet pins</p>	<ul style="list-style-type: none"> <li>• the vehicle is not required to comply with a frontal impact occupant protection standard (Note 6); and <ul style="list-style-type: none"> <li>◦ the pins: <ul style="list-style-type: none"> <li>▪ have no sharp edges/are rounded with radius more than 3mm, and</li> <li>▪ do not present any external projections that could cause injury, to the occupants or pedestrians, and</li> <li>▪ do not present a snagging risk</li> </ul> </li> </ul> </li> </ul>

Ute trays	<p>For vehicles first registered in New Zealand <b>before 1 January 2021</b>:</p> <ul style="list-style-type: none"> <li>• in-service requirements</li> </ul> <p>For vehicles first registered in New Zealand <b>on or after 1 January 2021</b>:</p> <ul style="list-style-type: none"> <li>• the tray has no sharp edges and radiuses of not less than 3mm on every external edge, and</li> <li>• no forward-facing pedestrian traps exist (Note 2), and</li> <li>• the tray protrudes no more than 100mm from the widest part of the vehicle cab/body structure (excluding mirrors), or</li> <li>• the forwards edges of the tray are tapered rearwards at an angle of no less than 30 degrees from the tray's front edge or have an equivalent, or better, form of pedestrian protection.</li> </ul> <p>See also <a href="#">Table 3-1-1</a>.</p>
Fitting of or modification to:	Specialist certification is never required:
Aerials	<ul style="list-style-type: none"> <li>• in-service requirements for conditions and performance must be met.</li> </ul>
Roof-mounted solar panels	
Trunk racks	
Roof-mounted wheelchair winch	
Roof racks (except heavy PSVs)	
Additional or substituted rear-view mirrors	
Any modification for the purposes of law enforcement or the provision of emergency services	

## Summary of legislation

### Applicable legislation

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

### Permitted equipment

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

### **Condition and performance**

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

### **Modifications**

6. A modification that affects an external projection must be inspected and certified by a specialist certifier, unless the vehicle:
  - a) is excluded from the requirement for specialist certification (Table 2-1-1), and
  - b) has been inspected in accordance with the requirements in this manual, including those for equipment, condition and performance.

Page amended **29 April 2020** (see [amendment details](#)).