



A-frame towing

Factsheet

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If you're thinking about fitting an A-frame to your vehicle, you need to read this factsheet first. It explains the safety concerns and legal requirements for A-frames on vehicles, especially those more modern vehicles that have to comply with frontal impact protection standards.

Fitting an A-frame can affect your safety and the safety of other road users. In many cases it's illegal to fit an A-frame.

A-frames in crashes

These are some of the safety concerns the NZ Transport Agency has about the effect an A-frame may have in a crash:

- If your vehicle is involved in a frontal impact crash, your vehicle may not crumple to absorb energy in the way it was designed to do. This means more crash energy may reach you inside the vehicle and increase the risk of injury to you and your passengers.
- In a crash, an A-frame may reduce the effectiveness of airbags as it may:
 - affect the timing of airbag inflation, that is, inflate them too early or too late to protect you and your passengers, or
 - inflate the airbags when they shouldn't inflate, such as in minor crashes.
- In a crash, A-frames can cause more serious injuries for pedestrians, cyclists and motorcyclists, as they would make contact with the solid metal of the A-frame and its protruding brackets instead of the more flexible and energy-absorbent surfaces of the front bumper and bonnet.

A-frames and frontal impact protection standards

While the Transport Agency wishes to raise awareness for anyone considering fitting an A-frame to their vehicle, our concerns are focused mainly on those vehicles that are required to comply with approved frontal impact protection standards.

Only certain passenger vehicles are required to comply with approved frontal impact protection standards. These are passenger vehicles, primarily constructed for the carriage of passengers with no more than nine seating positions (including the driver's seating position) and a gross vehicle mass not exceeding 2500kg, of the following classes:

- **Off-road passenger vehicle (Class MC):**

SUVs and similar vehicles that have four-wheel drive and other special off-road characteristics such as high ground clearance, manufactured on or after 1 October 2003.

- **Forward control passenger vehicle other than Class MC (Class MB):**

The centre of the steering wheel is in the forward quarter of the vehicle's total length - vehicles manufactured on or after 1 October 2003.

- **Passenger car other than class MB or MC (Class MA):**

Includes sedans, station wagons, sports cars and hatchbacks manufactured on or after 1 March 1999.

For a more detailed description of vehicle classes, visit our website at <http://www.nzta.govt.nz/vehicle/classes-standards/class.html>.

What's the safest option?

The safest option is to **not fit an A-frame to a vehicle**, especially if your vehicle is fitted with airbags.

Safer options are:

- using a trailer to carry the car
- using a towing dolly to tow the car.

If, however, you believe an A-frame is a necessary option, you may be able to find one that:

- has been tested and proven to be compatible with the airbag system in your make and model of vehicle, or
- meets the requirements in the next section.

What are the legal requirements?

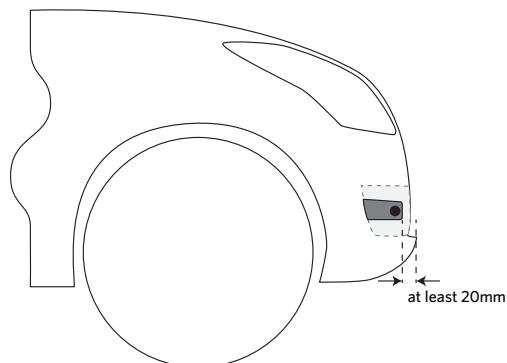
The Land Transport Rule: Frontal Impact (2001) does not allow an A-frame to be fitted to a vehicle if the A-frame would adversely affect the performance of any frontal impact protection features (such as airbags or crumple zones - s2.2(1) of the rule).

A-frames are allowed to be fitted to vehicles that are not required to comply with frontal impact protection standards. Nevertheless, if fitting an A-frame to such a vehicle, it is recommended that the requirements outlined below be taken into account.

For vehicles required to comply with a frontal impact protection standard, an A-frame will be deemed to comply with the Frontal Impact Rule provided that:

- the A-frame is attached to the vehicle's chassis by means other than welding
- the A-frame and associated brackets are fit for purpose

- the brackets remaining on the vehicle when the A-frame is removed are recessed behind the forward surface of the bumper by a distance of not less than 20mm (this is to allow for slight bumper deformation in the event of a pedestrian impact without contact being made with the brackets)
- the brackets are fitted so that they do not bridge the



vehicle's crumple zones or significantly stiffen the front of the vehicle.

Recommended practice for using A-framed vehicles on the road:

- remove the A-frame before driving the vehicle to reduce risk to other road users (the brackets may remain fitted)
- when towing the A-framed vehicle, have safety chains fitted between the A-frame and each connection point (towbar and each bracket) which are of sufficient strength to hold the towed vehicle secure should any of the connection points fail
- if the towed vehicle obscures the rear lights of the towing vehicle, connect the towed vehicle lights so that they work with the towing vehicle lights, or fit a working light board at the rear of the towed vehicle
- display an 'ON-TOW' sign or similar at the rear of the towed vehicle.

The information in this factsheet is a general guide only. It is not the source of the law and should not be used in place of authoritative legal documents. Some factsheets are updated frequently and print versions can quickly become out of date. If the currency of the information you are reading is important, check the factsheet index on our website (www.nzta.govt.nz/factsheets) or call us on 0800 108 809.

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