

Towing A-frames

Background:

Commercial and leisure vehicle operators sometimes have a need to tow a secondary vehicle behind their main vehicle. Typical operators include motor-caravan owners and commercial operators such as shelter-belt trimmers, and other contractors, who need a small vehicle for normal transportation once they have reached their work site. The towed vehicles typically comprise small 4WD and NA-class utilities.

The question often arises as to whether or not a towing A-frame can be permanently attached to these towed vehicles, so as to minimise inconvenience to the operator. LVVTA has discussed this issue with NZTA in order to achieve some definitive answers, as to which vehicles can have a permanently-mounted towing A-frame fitted, and whether or not any such vehicles require LVV certification.

Which vehicles can have towing A-frames permanently attached:

The introduction of the Land Transport Frontal Impact Rule, and to a lesser extent, the Land Transport External Projections Rule, impacts determines this situation.

Vehicles manufactured to meet a frontal impact standard, & NA-class vehicles with airbag(s)

A vehicle cannot be fitted with a permanently-attached towing A-frame, unless the vehicle owner can prove to the AVI (WoF issuer) through documented evidence that the A-frame has been tested for compatibility with that vehicle, if the vehicle is either:

- a vehicle that is manufactured to meet a frontal impact standard (which includes all modern MA-class and MC-class vehicles), whether an airbag is present or not; and
- an NA-class vehicle with airbag(s).

The likelihood of being presented with an airbag-compatible towing A-frame is very slim.

No LVV certification is required, nor can LVV certification be used as an alternative means of determining compliance, as an LVV certifier cannot make any meaningful judgement on how such a fitting might affect the airbag's triggering systems.

Vehicles that are not manufactured to meet a frontal impact standard

Any other vehicle that is not manufactured to meet a frontal impact standard (old MA and MC-class vehicles, and NA-class vehicles), or a vehicle that is not fitted with airbag(s), must still comply with the general safety requirements (GSRs) of the Land Transport Frontal Impact Rule.

The GSR that is relevant to this situation states that *"...the performance of a motor vehicle in relation to protecting occupants in a frontal impact collision must not be reduced below a safe tolerance of its state when manufactured or modified, by any factors, including the fitting of additional equipment..."*

This makes it quite clear that an object cannot be fitted to the front of a vehicle if there is any possibility that it could adversely affect the performance of the vehicle's frontal impact protection system, in particular the performance of the airbag(s) if fitted.

Specifically, an NA-class vehicle (with or without an airbag) may have a towing A-frame permanently attached, but the installation must not bridge, or affect in any way, any crumple zones (if included in the vehicle's design).

It is expected that an AVI will check this and determine whether or not a WoF can be issued.

Again, LVV certification is not required, and should not be applied.

External projections implications

If a vehicle is of a type that is legally able to be fitted with a towing A-frame despite the frontal impact implications, the towing A-frame will also have to meet the requirements of the Land Transport External Projections Rule. Given that a towing A-frame is there for a functional purpose, it will not breach this rule, provided that:

- the driver's visibility is not obscured; and
- lighting performance is not affected (throughout all required angles of visibility); and
- there are no unreasonably sharp edges or protrusions.

Again, LVV certification is not required, and should not be applied, despite a towing A-frame not being listed as a modification not requiring LVV certification in the LVV Modification Threshold Schedule, and VIRM modification tables.

Finally:

This general area of modification has been deemed to be outside of the domain of LVV certification, and such vehicles do not ever need to be referred to an LVV Certifier. NZ Transport Agency expects the AVIs to be able to interpret and apply the requirements of the relevant VIRM on this subject, without input from the LVV certification system. LVV Certifiers are welcome to provide a copy of this Information Sheet to any AVIs who need assistance with this interpretation.

If you have any queries or require any further clarification relating to this Information Sheet, please feel free to contact one of the technical team in the LVVTA office on (04) 238-4343.