

VMCM - A-Frame – Light Vehicle Certification Requirements

Minimum Technical Requirements

Where the A-Frame device is a proprietary item that has been designed and appropriately marked as being suitable for the particular make, model and year of vehicle, has a unique production or serial number stamped or otherwise marked on a substantial component of the device, specifies the rated capacity in kilograms or tonnes and is fitted in accordance with the manufacturer's fitting/instruction manual that is specific to the vehicle, no certification is required.

For all other instances, or where the A-Frame device has been modified, the following certification requirements apply:

The fitment, construction and mountings of an A-Frame device must be certified by an Approved Vehicle Certifier (AVC) to the requirements of the Tasmanian modification code "A-FRAME"

Where the A-Frame device complies with those requirements the AVC is to affix a modification plate to the A-Frame identifying the Vehicle Identification Number (VIN) of the towed vehicle and, in the modification code section "A-Frame – *(followed by)* A-Frame serial or production number"

In addition to the above, the A-Frame must be marked with the following;

- manufacturers name or recognised trade mark; and
- unique serial or production number; and
- rated capacity in kilograms of the A-Frame (including the connection hardware).

A-Frame Device

The A-Frame device must be designed to withstand the forces prescribed in Australian Design Rule 62/00, clause 7 – Drawbar Requirements with clauses 7.1 and 7.2 replaced with;

- 7.1 The 'Drawbar' must withstand the following forces applied at the centreline of the intended 'Coupling' without incurring loss of attachment or any distortion or failure which will affect the safe drawing of the towed motor vehicle:
- 7.2 The 'Drawbar' must be securely attached to a substantial portion of the towed motor vehicle.

Coupling

The coupling fitted to the A-Frame device must comply with the relevant coupling requirements specified in Australian Design Rule 62/02 or a later version.

Lighting

The rear lighting specified below must operate in conjunction with the lead vehicle:

- Indicators;
- Brake lamps;
- Tail lamps; and
- Number plate light.

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Safety Chains and Shackles

The A-Frame device must be equipped with safety chains/cables for connection to the leading vehicle as detailed below:

- To comply with the 3.5:1 tow mass ratio and enable a vehicle with a loaded mass up to 1280 kg to be towed, the A-Frame shall be equipped with at least one safety chain (*of size detailed in Table 2*) complying with AS 4177.4-2004 “Caravan and light trailer towing components Part 4: Safety chains up to 3500kg capacity”, or as amended.
- Safety cables (where fitted in lieu of safety chains) must have a certified load capacity not less than that of a chain complying with AS 4177.4 – 2004 for the loaded mass of the vehicle.

Table 2

Total mass of towed vehicle in kg	Nominal Material Size in mm	Chain markings
0 to 1000	6.3	4177-10
Up to 1600	8.0	4177-16

Note: Safety chain(s) or cables are to be fitted in such a manner as to support the A-Frame device and prevent it dropping to the ground in the event the trailer coupling accidentally becomes detached from the tow vehicle.

Braking

Where the towed vehicles mass exceeds 750kg or has a GVM greater than 750kg, the brakes must work in conjunction with the towing vehicles braking. An overrun braking system is acceptable in these instances.

Note: It is important to know the details of the vehicle intended to be used as the tow vehicle as the manufacturer may have applied a lesser un-braked tow capacity. The lead vehicles tow capacity must take precedence in these instances.

Additional Requirements

- A completed report must be provided identifying the type of A-Frame installed.
- The report must also include:
 - if the fitment of the A-Frame device, affects the vehicles compliance with relevant ADRs;
 - If a braking system has been fitted, include the method of application;
- A modification plate (to be affixed to the vehicle), and modification certificate issued. The modification code “A-Frame – (*followed by*) A-Frame serial or production number” is to be used for certification. Currently this will require manual certification. A request has been made for the Portal to include a process to allow the AVC to input the A-Frames serial number. Further advice will be provided when available;
- A completed checklist (located at the end of this attachment).

Checklists A-FRAME (TAS)

CODE 'A_FRAME'

(N/A=Not Applicable, Y=Yes, N=No)

I	General		
1.1	A-Frame device: <div style="display: flex; justify-content: space-between;"> <div>Make:</div> <div>Model:</div> </div> <div style="margin-top: 5px;">Serial or Production number:</div>		
2	A-Frame		
2.1	The design and fitment of the A-Frame device complies with the requirements of Australian Design Rule 62/00 excluding coupling and safety chain/s.	Y	N
2.2	The A-Frame device is designed to maintain a distance not exceeding 2 metres between the combination.	Y	N
3	Safety Chains / Cables		
3.1	Safety chains/cables meet the requirements specified in Australian Design Rule 62/02	Y	N
4	Coupling		
4.1	Coupling meets the requirements specified in Australian Design Rule 62/02	Y	N
5	Mounting Brackets		
5.1	The design, construction and mounting of the brackets comply with Australian Design Rule 62/00	Y	N
6	Lighting / Delineation		
6.1	The vehicles Brake, tail, number plate lights and rear indicators have been modified to operate in conjunction with the towed vehicles lighting.	Y	N
6.2	Rear retro-reflectors (red) are fitted in accordance with ADR 13/00	Y	N
7	Brakes		
7.1	For a towed vehicle with a mass greater than 750 kg, the vehicle is fitted with an efficient braking system (over-run or other) that applies the vehicles brakes when the tow vehicle is in a braking condition.	Y	N
8	Fasteners		
8.1	Do all fasteners comply with the applicable requirements of Vehicle Standards Bulletin (VSB) - Section LZ Appendices, Appendix A Fasteners.	Y	N
9	Workmanship		
9.1	Has all the work including the mounting been performed in accordance with recognised engineering standards?	Y	N
10	Compliance with ADRs		
10.1	Does the design and fitment allow the vehicle to continue to comply with the ADRs to which it was originally built?	Y	N
11	Records		
11.1	Have completed records for the design and fitment been retained in a manner suitable for auditing?	Y	N

Checklists A-FRAME (TAS)

CODE 'A_FRAME'

CERTIFICATION DETAILS																
Make						Model						Year of Manufacture				
VIN																
Chassis Number (If applicable)																
Brief Description of Modification/s																
Vehicle Modified By																
AVC Number																
Vehicle Certified By (<i>Print name</i>)																
AVC Signature												Date				

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VMCM Attachment C additions; Non VSB modifications

Non VSB	Modification Code	Modification	Description	AVC 1	AVC2	AVC3	AVC4	AVC4a
A-FRAME	A-FRAME	A-Frame device construction and modification	The design and fitment of an A-Frame device for the purpose of flat towing a motor vehicle behind another motor vehicle	y	y			