



## SAFETY BULLETIN

# GLASS AND PANEL CARRYING VEHICLES

## BULLETIN #1 – FRAME AND LOAD REQUIREMENTS

This fact sheet outlines the regulations for standard light utilities, and up to 4.5 tonne cab chassis' converted to glass carrying vehicles by adding internal and/or external frames.

[This instruction outlines the requirements for permanently attached frames only.](#)

Loading frames (once permanently attached and requiring the use of tools to remove) become an integral part of the vehicle and do not qualify as a load.

### SUMMARY

- Any attachment to a vehicle must be designed to minimise the risk of an injury to a person coming into contact with the vehicle.
- The total width of the glass and panel carrying A-frame must be no more than 2.5 metres wide.
- A-Frames must have front bolster panels, at least the width of the foot or base section of the frame and must cover sharp edges.
- Any sharp or protruding edges of the rack and clamps must be modified to minimise (as much as is reasonable) the injury risk of a pedestrian or cyclist.
- Any protruding edges should have increased visibility by the installation of reflectors to alert passers-by to the potential of injury if they pass too close.
- T-handle clamp adjusters located lower than 2 metres from ground level will not be accepted in SA after 1 January 2022.

All bodies must comply with current State Authority regulations, including dimensions, fitting to chassis, end outline marker lamps, etc. External racks should be engineered to carry the maximum specified load to suit the vehicle.

### Loading Frame

When installing the frames, they must comply with the following:

The total width of vehicle, including the A-frame, must be no more than 2.5 metres wide.

The A frame must be as close as possible to the outside of rear tyres (ORT) of the vehicle (ideally no more than 250mm maximum each side).

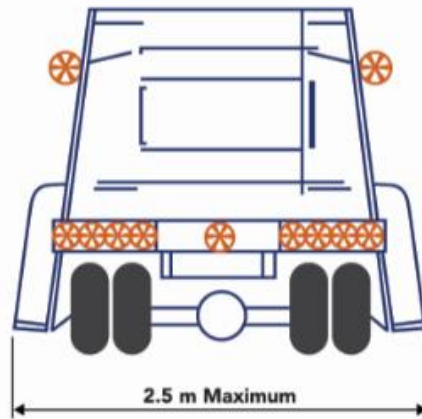


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The total height of the vehicle cannot exceed 4.3 metres

The A-Frame must angled inward and should maintain an inclination to ensure safe carriage of glass (approximately 6-9 degrees)

The tray top should be as narrow as possible, and the foot dimensions should be kept as small as possible.



All leading edges must either be radiused (minimum of 2.5 mm radius), returned, finished with a round rod, or protected by a suitably shaped moulding. All open hollow sections shall be plugged.

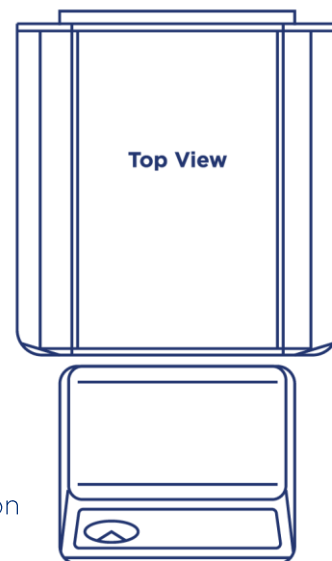
A Frames must have front bolster panels, at least the width of the foot or base section of the frame and must cover all sharp edges

The bolster should be of sufficient height to render it clearly visible (bolsters will need to be at least 800 mm in height from the base of the frame).

Shield panels must begin as close as possible to the vehicle bodywork and be rounded or angled backwards by at least 15° (see picture)

Bolster panels should be painted the same colour as the cab panels, to indicate the vehicles full width more readily.

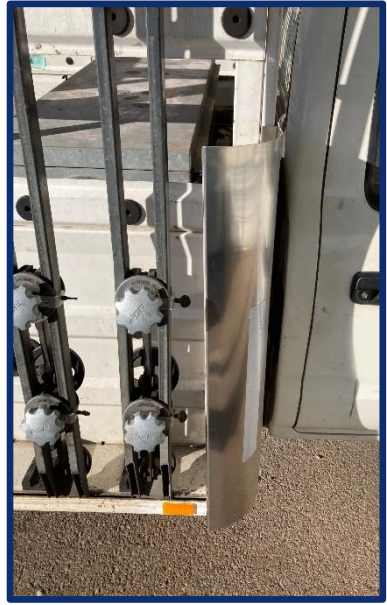
Frames should be designed (or modified) to provide protection to pedestrians in the event of a collision, i.e., a formed, or curved front deflector/end stop.



**No sharp protrusions permitted**

**Front corners to be rounded or angles and to be fitted with shield panels**





*Acceptable Bolster Panel Examples*

All parts of the rack coming into contact with glass must have rubber or similar material facings.





White reflectors must be attached to the extremities of these forward-facing panels.

Red reflectors must be attached to the extremities of these rearward-facing panels.

Yellow/Amber/ Orange reflectors must be attached to the extremities of the side-ward facing panels.



The manufacture of the racks should include suitably designed vertical glass securing clamps/poles with a choice of locating points along the racks length to accommodate varying size pieces of glass. It is unsatisfactory to depend on lashings (rope) as the only means of securing the glass to a rack whilst it is in transit.

## Clamps/ Brackets

Clamps must be designed with shortest possible bolt length to reduce the likelihood of injury resulting from dangerous projections.

T-handle clamp adjusters must not be located below 2 metres from ground level.

T-handle clamp adjusters located lower than 2 metres from ground level will not be accepted in SA after 1 January 2022.

While turn wheels may be used in place of T-handles, other clamping devices may be used, provided that they are designed to minimise the risk of injury to any person.

Where any restraints are used, e.g. clamps or brackets, they must be fitted in a manner so as not to increase the risk of injury to any person.

All restraints (e.g. clamps and brackets) must fall within the 2.5 metre maximum width limit.







The restraints (e.g. clamps and brackets) must comply with the performance standards required by the Load Restraint Guide published by the National Transport Commission, as in force from time to time.

With conventional J-bracket clamp bars the recommended procedure is to wind the turn wheel or T-bar until the pad contacts the glass, then turn the handle a further half turn. Overtightening risks bowing the bar or breaking the load.

All thrust arms must be engaged to ensure even pressure along the bar.

When not in use the restraints it is suggested that they are removed or retracted as much as possible to minimise protrusion.

## Loading/ unloading glass.

Correct loading and load restraining techniques are vital to the safe operation of these vehicles.

The glass (cased or otherwise) must be adequately secured.

A-Frame loads must be balanced both laterally and longitudinally.

The mass of a vehicle and its load must not exceed the GVM specified by the vehicle manufacturer or the GVM specified on the vehicle's registration certificate, whichever is the lesser.

Before removing the glass retention clamps/poles, attention must be paid to the road camber and angle of glass. If an unsafe condition is likely to occur, steps must be taken to unload the racks in a safe manner.

Before moving a glass carrying vehicle or setting out on a journey the driver must check the security of the load.

Care should be taken that once part of a load has been removed the vehicle remains evenly loaded for continuing deliveries.

Suppliers have a responsibility to inform customers of any potential hazards from the products they have purchased and to ensure that the limitations of use for that product are identified.

Advice should be made available to customers who collect glass and provide their own transport. They should be made aware that their load must be in a safe condition for transporting it on the public highway.

**CAUTION:-** Do not over tension winders so the Clamp Bar bows.

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