Unrestrained cargo in a vehicle can pose a significant safety risk to vehicle occupants, particularly in a frontal impact crash or a vehicle rollover.

This risk can be reduced by fitting a cargo barrier. It will provide a physical barrier that separates the passengers from the cargo.

Some examples of unrestrained cargo often found in vehicles include:

- heavy cargo in a goods van
- camping gear, car fridges and loose spare wheels in the rear of a 4WD wagon
- luggage, sporting equipment, office equipment, laptops or groceries in the rear of an SUV or a station wagon
- tools, hardware and gas cylinders in the tray of a utility.

The safest outcomes will be achieved by positioning cargo against the barrier or as close to it as possible. Placing the cargo well away from the cargo barrier will increase the impact energy that the barrier must dissipate in a crash.

Consider this example

In the event of a 48 km per hour frontal impact, a 20 kg suitcase positioned hard against a wagon’s cargo barrier will strike the cargo barrier with a collision mass of 400 kg.

The collision mass increases proportionately with both increased vehicle speed and with increased storage distance from the cargo barrier. If a cargo barrier was not fitted, the suitcase could strike a passenger with a force of 400 kg and a fatality or serious injury would likely occur.

The fitting of a cargo barrier does not negate the need for good load restraint practices. For a cargo barrier to provide the best protection, heavy objects should still be restrained and loaded against the barrier. For maximum occupant protection it is recommended that the cargo barrier is:

- manufactured to comply with AS/NZS4034.1:2008 – Motor Vehicles – Cargo barriers for occupant protection
- installed by a suitably qualified person approved by QFleet
- not modified or transferred to another vehicle
- not used as a hanging rack and not fitted with other items of equipment
- used in accordance with the safety information on the plaque(s) fitted to it.

Be aware

Each cargo barrier has a load limit, which is usually 60 kg. Information about the load limit and other safety advice can be found on the user instruction plaque which is fitted to the barrier. Take the time to read it.

The safest outcomes will be achieved by positioning cargo against the barrier or as close to it as possible. Placing the cargo well away...
Cargo barriers and side curtain airbags

It may not be possible to fit a cargo barrier to some new vehicles because the cargo barrier may interfere with the operation of the vehicle’s side curtain airbags (and sun roof in some cases). The vehicles most affected are usually seven seat SUVs fitted with side curtain airbags. Cargo barrier manufacturers are working to overcome these problems. However, there may be some instances where an engineered solution is not possible and an approved cargo barrier may not be available for a particular vehicle.

Where a cargo barrier is fitted to an SUV or station wagon with side curtain airbags it is usual for the cargo barrier to have clearance gaps in the uppermost corners. The gaps are there to provide clearance for airbag deployment. Extra care must be exercised when loading this type of vehicle to ensure that no small items are placed adjacent to the gap. The instruction plaque should provide further information about this.

Please note: QFleet now mandates the fitting of cargo barriers to many vehicle variants including station wagons, SUVs and vans. The availability of a cargo barrier should still be clarified with QFleet before a vehicle is ordered. There may be cases where some new vehicles may not be able to be fitted with a cargo barrier due to the reasons outlined above.

Cargo barriers and passengers

The purpose of a cargo barrier is to provide a physical barrier to separate passengers from cargo. It is for this reason that passengers should never be seated behind a cargo barrier. There are also other safety issues relating to the safe egress of passengers, particularly in the event of a rear end crash. It is extremely unwise to seat passengers behind a cargo barrier.

Remember: Improper load restrain impacts on both your safety and the safety of other road users.

Cargo safety in utilities

It is just as important to ensure that the cargo carried in the tray of a utility cannot injure the vehicle’s occupants or other road users. The occupants are protected to a certain extent by the sheet metal which forms the rear panels of the utility’s cabin. The key areas of risk are:

- impact damage to the tray headboard and to the rear of the cabin from unrestrained heavy objects loaded in the tray
- impact injury to the occupants from unrestrained objects which can smash through the cabin’s rear window glass
- danger to other road users from cargo falling from utility trays.

These risks can be managed by:

- ensuring that the loads carried in the utility tray are properly restrained to prevent their movement
- fitting the utility tray headboard with approved mesh infill panels to prevent unrestrained objects from smashing through the cabin’s rear window glass.

Please note: The approved mesh infill panels are available as an optional accessory on the majority of replacement tray bodies and QFleet mandates their fitting on drop-side trays.

More information

Further information about load security, long and projecting loads and the safe use of vehicle trays is available from the Department of Transport and Main Roads website.

A useful publication Load Restraint Guide is also available from the National Transport Commission.

For the full suite of QFleet Driver Safety Fact sheets visit qfleet.qld.gov.au