



# vehicle dimensions and loading

It is the responsibility of the driver to ensure the vehicle does not exceed dimension or mass limits and that the load is appropriately restrained in accordance with the performance standards contained in the load restraint guide.

More information relating to load security can be found in the load restraint guide which can be purchased at MVR offices or downloaded for free at from the National Transport Commission website. It is recommended that drivers read this guide and keep one on hand at all times. There are also load restraint training courses with national recognised competencies which can be done.

## Vehicle dimensions and mass

The *Motor Vehicles Act (MVA)* and *Motor Vehicles (Standards) Regulations (MV(S)R)* – incorporating the *Australian Vehicle Standards Rules (AVSR)* specify the maximum dimensional and mass limits for vehicles which may travel on public roads in the Northern Territory (NT).

These limits are necessary to enhance the free flow of traffic, to control damage of the infrastructure and to promote the safety of all road users. **The limits include any load placed in or on a vehicle.**

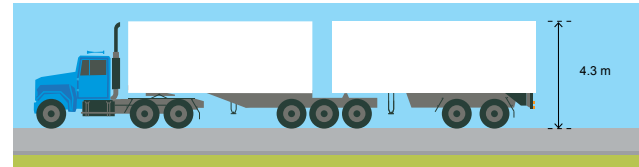
All vehicles travelling on the road network in the NT must comply with the maximum dimensional and mass limits. Some of these limits are described on the following pages.

The MVA does recognise the possibility that sound reason may exist for allowing vehicles and loads that exceed these limits to operate on all or part of the road system by permitting exemptions to be granted by the Registrar of Motor Vehicles.

Information on oversize or overmass vehicles and how to apply for a permit can be found online at [nt.gov.au](http://nt.gov.au). You can also email [mvr.permits@nt.gov.au](mailto:mvr.permits@nt.gov.au)

### Maximum dimensions

The height of a vehicle and its load is limited to a maximum of 4.3 metres except for cattle crates and car carriers, which must not exceed 4.6 metres.



The maximum length of a rigid motor vehicle must not exceed 12.5 metres.

The maximum length of an articulated or rigid motor vehicle and trailer combination other than a road train must not exceed 19 metres.

The maximum length of a road train is 53.5 metres.

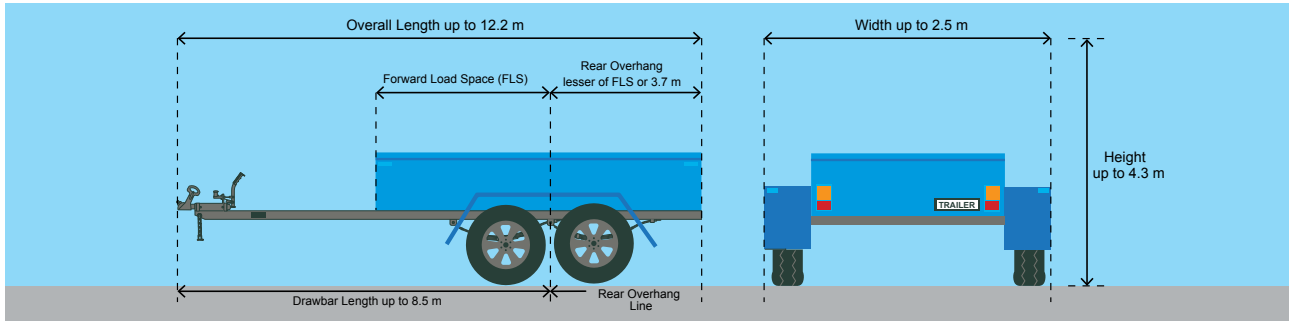
Vehicle Type	Maximum Standard Dimension Limit			
	Width (metres)	Length (metres)	Height (metres)	Rear Overhang (metres)
Rigid Truck	2.5	12.5	4.3	Lesser of 3.7 or 60% of wheelbase
Special Purpose Vehicle (e.g. Mobile Crane)	2.5	12.5	4.3	Lesser of 3.7 or 60% of wheelbase
Rigid Truck and Dog Trailer	2.5	19.0	4.3	Lesser of 3.7 or 60% of wheelbase
Rigid Truck and Pig Trailer	2.5	19.0	4.3	Lesser of 3.7 or front loading space
Articulated Vehicle	2.5	19.0	4.3	Lesser of 3.7 or 60% of "S" dimension
Articulated Vehicle Double Deck Cattle Transporter	2.5	19.0	4.6	As above
Articulated Vehicle Double Deck Car Transporter	2.5	25.0	4.6	4.9 to the rear of the rear most vehicle
Road Train	2.5	53.5	4.3	Lesser of 3.7 or 60% of wheel base
B-double	2.5	*20.6	4.3	As above

All dimensions include vehicle/combinations and its load.

As dimension limits may change from time to time, it is incumbent on the operator to check the relevant legislation.

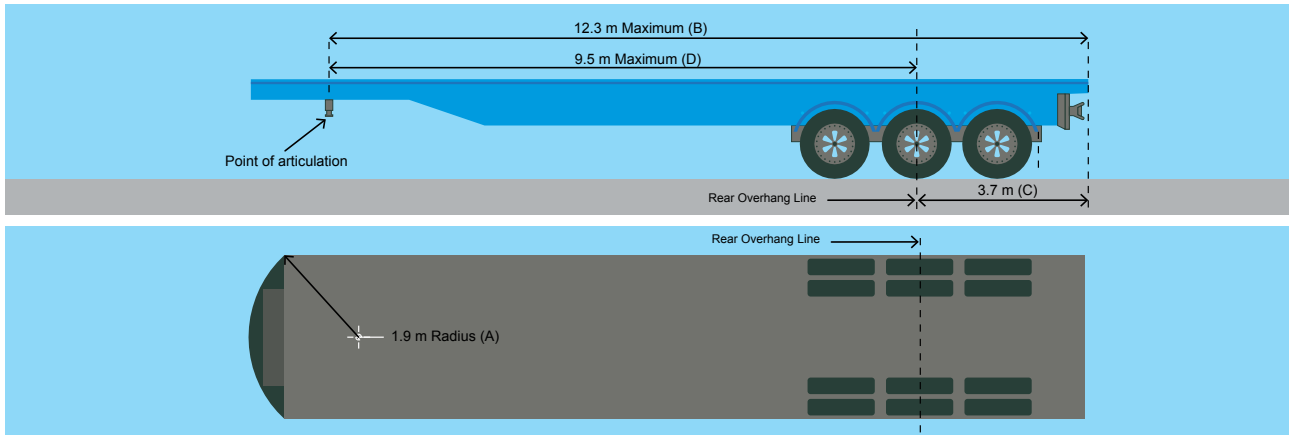
\*20.6 metre B-double length is measured from the kingpin on the lead trailer to the rear. There is no overall length requirement to enable better utilisation of prime mover fleets.

### Length of a Pig Trailer



Note: 1) Rear overhang must not exceed Forward Load Space (FLS).  
 Drawbar length, Forward Load Space (FLS) and rear overhang must be measured from the rear overhang line.

### Length of a semi-trailer



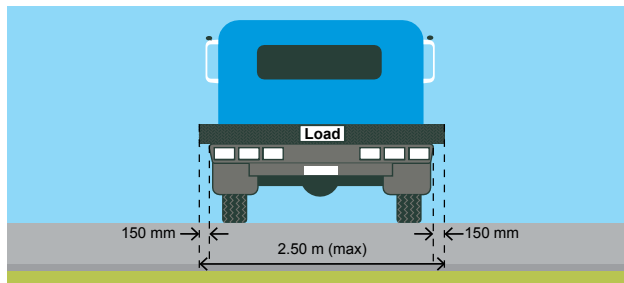
### Maximum standard dimensions of a semi-trailer

DIMENSION	LENGTH (m)	DESCRIPTION
A	1.9	Maximum radius from point of articulation – forward projection
B	12.3	Maximum length from point of articulation to rear of trailer
C	3.7	Maximum rear overhang must not exceed, the lesser of 60% of the wheel base or 3.7 metres
D	9.5	Maximum dimension from point of articulation to the centre of axle group “S” dimension
Livestock Trailer	12.5	Maximum length inside trailer from wall to wall

### Maximum standard front and side projections

The loading or equipment of a vehicle or vehicle combination shall not project more than 1.2 metres to the front or more than 150 millimetres from the outermost part of either side of the vehicle.

#### Side Projections



#### Rear projections

The rear of a load on a vehicle is to carry a warning signal if the load:

1. Projects more than 1.2 metres behind the vehicle;
2. Projects to the rear of the vehicle so that the end of the load cannot be seen easily from behind; or
3. Is on a pole-type trailer.

Note:

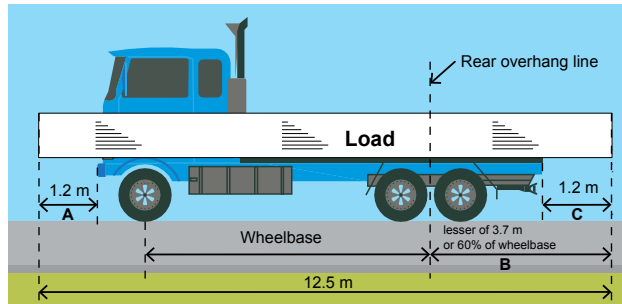
4. In daylight, the warning signal referred to is to be a brightly coloured flag or piece of material with each side at least 300 millimetres long.
5. At night, the warning signal referred to is to be a red light that can be seen for 200 metres.
6. Any rear projections must not exceed legal rear overhang dimension.

## Rear overhang

Rear overhang is the distance measured at right angles between the rear overhang line of a vehicle and the rear of the vehicle or any load it is carrying.

The rear overhang of a vehicle shall not exceed the lesser of 60% of the shortest distance between the centre of the foremost front axle and the rear overhang line (wheelbase) or 3.7 metres.

## Rear overhang, forward and rearward projecting load limits



Note:

- A: Front projection limit
- B: Rear overhang limit
- C: Maximum rear projection of a load allowed without a warning signal (provided rear overhang is not exceeded)

## Dangerous projections

A load on a vehicle is not to project in a way that is dangerous to a person or to property - even if all dimension and warning requirements are met.

## Maximum standard dimensions of a loaded car carrier

### Height

The height of a vehicle that is carrying vehicles on more than one deck and its load is not to exceed 4.6 metres.

### Rear overhang

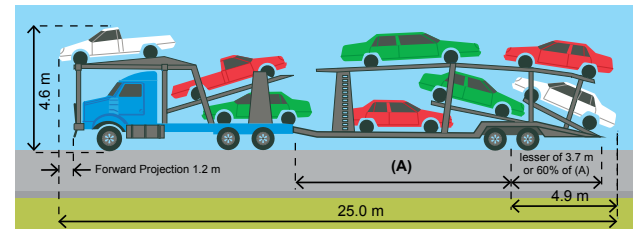
The distance measured at right angles between the rear overhang line of a trailer carrying vehicles on more than one deck and the rear of the rear-most vehicle on the trailer is not to exceed 4.9 metres.

### Forward projection

The load on a car carrier must not project more than 1.2 metres to the front of the vehicle.

### Length

The overall length for a combination, except a road train, designed to carry vehicles on two or more partly or completely overlapping decks is not to exceed 25 metres.



## Legal maximum mass limits

### Maximum mass limits

Description of axle or axle group <i>(axle spacing not greater than 1.2 m apart)</i>	Mass limit <i>(tonnes)</i>
<b>Single axles and single axle groups</b> <i>(min 1 axle with 1 m max distance between extreme axles)</i>	
Single steer axle on a motor vehicle	6.0
Single axle or single axle group fitted with single tyres with section width of:	
(a) less than 375 millimetres	6.0
(b) at least 375 millimetres but less than 450 millimetres	6.7
(c) at least 450 millimetres	7.0
Single axle or single axle group fitted with dual tyres on:	
(a) a Pig Trailer	8.5
(b) a bus licensed to carry standing passengers	10.0
(c) any other vehicle	9.0
<b>Twin steer axle groups</b>	
Twin steer axle group without a load-sharing suspension system	10.0
Twin steer axle group with a load-sharing suspension system	11.0
<b>Tandem axle groups</b> <i>(min 2 axles with max distance between extreme axles &gt; 1 m &amp; ≤ 2 m)</i>	
Tandem axle group fitted with single tyres with section width of:	
(a) less than 375 millimetres	11.0
(b) at least 375 millimetres but less than 450 millimetres	13.3
(c) at least 450 millimetres	14.0

Description of axle or axle group (axle spacing not greater than 1.2 m apart)	Mass limit (tonnes)
Tandem axle group fitted with single tyres on one axle and dual tyres on the other axle	13.0
Tandem axle group fitted with dual tyres on:	
(a) a Pig Trailer	15.0
(b) any other vehicle	16.5
<b>Tri-axle groups</b> (min 3 axles with max distance between extreme axles > 2 m & ≤ 3.2 m)	
Tri-axle group on a vehicle fitted with single tyres with section width of less than 375 millimetres on all axles or single tyres on one or 2 axles and dual tyres on the other axle or axles	15.0
Tri-axle group on a pig trailer with either single tyres with section width of at least 375 millimetres, dual tyres on all axles or a combination of those tyres	18.0
Tri-axle group on a vehicle, other than a pig trailer, with either single tyres with section width of at least 375 millimetres, dual tyres, or a combination of those tyres	20.0
<b>Quad axle groups</b> (min 4 axles with max distance between extreme axles > 3.2 m & ≤ 4.9 m)	
Quad-axle group fitted with single tyres with section width of less than 375 millimetres	15.0
Quad-axle group fitted with single tyres with section width of at least 375 millimetres or dual tyres	20.0
<b>Other axle groups</b>	
Any other axle group not specifically referred to in this Schedule	20.0
<b>Axle groups fitted with complying road friendly suspension –</b> (each axle group fitted with dual tyres)	
Tandem axle group	17.0
Tri-axle group	22.5



## Load shift

When moving, a vehicle's load can shift from forces caused by changes of speed, braking, accelerating, cornering, travelling over uneven road surfaces, and slopes. Load shift needs to be managed to prevent danger to any person or damage to any property.

### How to carry a load safely

To carry a load safely and prevent danger to any person, or damage any property you must:

- choose a suitable vehicle
- position the load correctly
- use suitable and adequate restraint equipment
- use appropriate driving methods
- ensure loose bulk loads i.e. quarried material such as sand, rocks and gravel are adequately covered.

## The right vehicle

To carry a load safely you must make sure the size of the load space and the condition of the platform are suitable for the job you want to do.

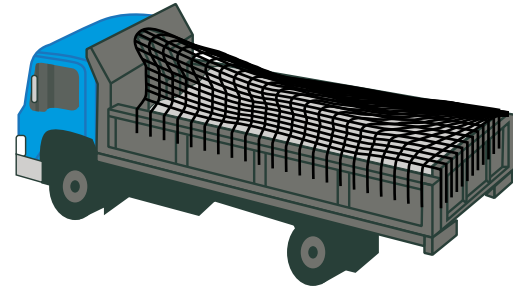
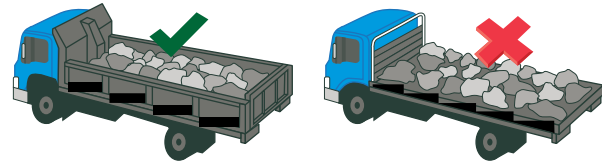
Vehicles carrying:

- long loads should be long enough to avoid excessive overhang and ensure good weight distribution for vehicle stability
- liquids and loose bulk material must be designed to completely contain the load and to minimise the effect of load movement.

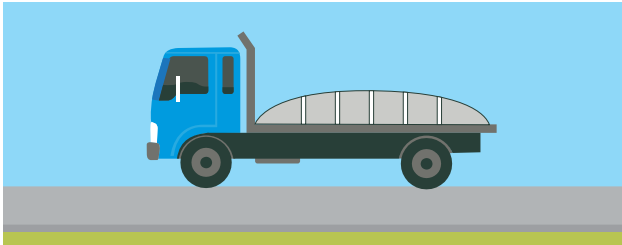
To carry a load safely you must make sure the size of the load space and the condition of the platform are suitable for the job you want to do.

### Contained loads

Tipper bodies are best to contain loose loads such as rock, sand, gravel etc. The most suitable vehicles for these loads have solid sides and tailgates such as tippers. The solid sides prevent the load from spilling. Sheets or tarpaulins must be used to cover loose loads to prevent them from being blown out of the truck. Liquid loads or 'fine powder loads' such as cement powder, flour etc. are best contained in tankers.



A correctly contained loose load.



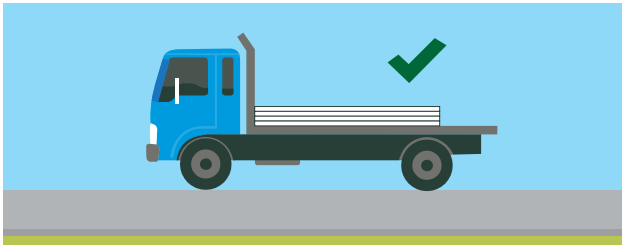
Loose loads need to be safely restrained as shown above.

Load nets and tarpaulins can also be used effectively for containing loose bulk loads.

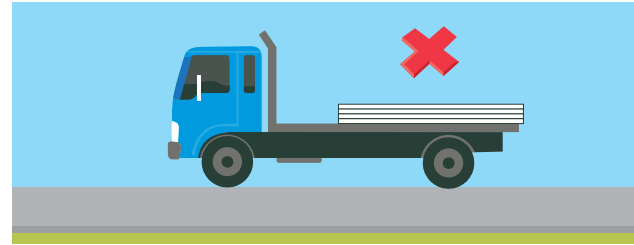
### Heavy loads

A long, heavy load can make your vehicle difficult to handle. You can overcome this by using the right vehicle for the job.

An incorrectly loaded heavy load can take weight from the front wheels and make steering difficult. In some situations an incorrectly loaded vehicle may pivot on its rear wheels, lifting the front wheels entirely off the road.



The load weight is well positioned and evenly distributed.

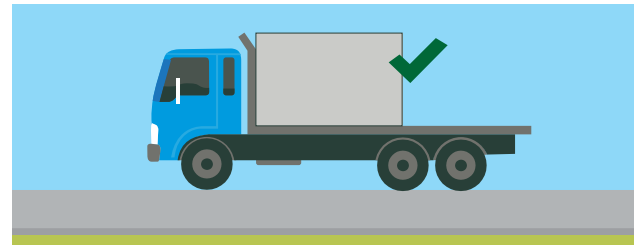


The load is dangerously positioned.

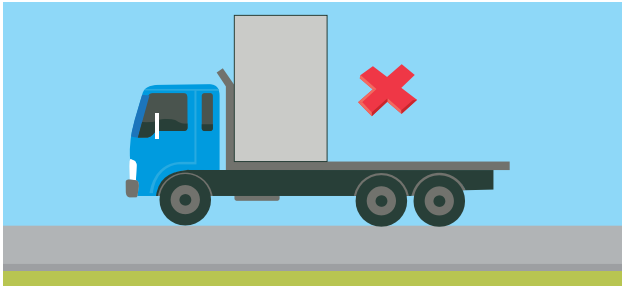
### High loads

High loads, and loads with a high centre of gravity may become unstable, shift or tip over when cornering if not correctly loaded and restrained. High loads should be carried on vehicles with a low platform whenever possible such as a drop frame trailer or low loader.

The overall height of a loaded vehicle must be checked to make sure that it clears any overhead bridge or other obstruction on your route.



The load weight is well positioned and evenly distributed.



The load is dangerously positioned with the centre of gravity too high.

### Clearance signs and low clearance signs

You must always obey clearance and low clearance signs.



### Low clearance sign indicating clearance height

You should ensure that you know the total height of your vehicle and its load before driving it on a road. You must also obey clearance signs and low clearance signs that impose restrictions on the height of vehicles that can travel near, under or through an asset e.g. under a bridge, overpass or through a tunnel.

If your vehicle exceeds 4.3 metres in height you should also ensure that prior to any journey you plan your trip to identify any restrictions that may affect your proposed route.

### Tankers

Bulk liquid loads should be carried in tankers and have the same problems of weight distribution as other loads as well as the special problems of a fluid load.

Avoid swerving and slow down before any curve or corner.

The tank is divided into compartments which are filled separately. Be aware that difficulties can be caused by the partial filling of compartments. A part-filled compartment allows the liquid to move from side to side (cornering) and rear to front (braking). The shift of the cargo's centre of gravity is a safety concern because it makes the vehicle easier to rollover. Try to empty one compartment completely before you start to empty another one.

Always empty the centre compartments first and work outwards to keep weight evenly balanced over the front and rear axles of the vehicle.

There is still some space left when the compartment registers full – this reduces spillage and allows for expansion of the fluid.

This small space also allows the fluid to move but much less than if the compartment has been partly emptied. Even minor movements are sometimes enough to make your vehicle unstable and perhaps cause a rollover.

## Loading

The limits on the mass or weight of your vehicle (including the load) are set to reduce wear on roads and bridges, and to increase safety. Vehicle manufacturers set gross mass (GVM/GCM) limits for each vehicle model.

A vehicle must not be operated at a mass limit that will exceed the:

- manufacturer's GVM/GCM
- manufacturer's individual component rating (i.e. axles, springs, tyres etc.)
- statutory mass limits or overall axle spacings.

It is the operator's responsibility to make sure these limits are not exceeded.

Millions of dollars are spent every year to repair damaged roads and bridges.

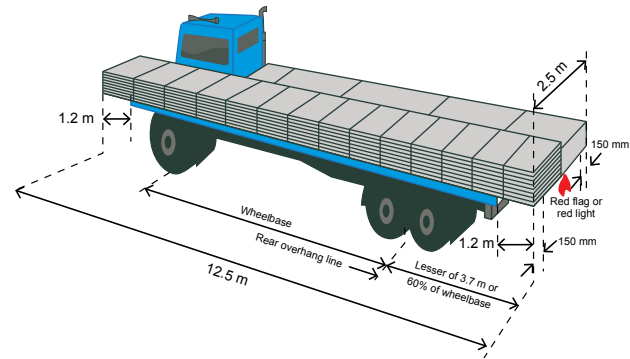
Even a little overloading causes damage to roads and bridges. It is very important for the future of NT roads, the heavy vehicle industry and public safety that you do not overload your vehicle

## Projecting loads

A load on a vehicle must not project more than 1.2 metres in front of the vehicle, or more than 150 millimetres from the side of a vehicle. The vehicle width, including the load, must not be greater than 2.5 metres.

A warning signal must be attached to the rear of the load in daytime if it:

- projects more than 1.2 metres behind the vehicle
- projects from the rear of the vehicle (irrespective of length) and is such that the end of the load cannot be seen easily from behind e.g. sheet metal, pipes, rods etc
- is on a pole type trailer.



This diagram shows the allowable projected load limits.

The warning signal must be a brightly coloured flag or piece of material with each side at least 300 millimetres long.

At night time the warning signal must be a red light which can be seen for 200 metres.

A load on a vehicle must not project in a way that is dangerous to any person or likely to cause property damage, even if all dimension and warning requirements are met.

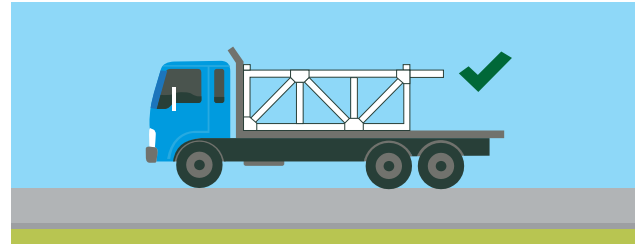
The rear overhang, including the load, measured from the centre of the rear axle group, must not exceed 60% of the vehicle's wheelbase or 3.7 metres, whichever is less.

The maximum allowable length for a rigid vehicle including any overhanging load front or rear is 12.5 metres. The maximum allowable length for a single articulated or heavy trailer combination, including any overhanging load, is 19 metres. See vehicle dimensions and axle loads in this section.

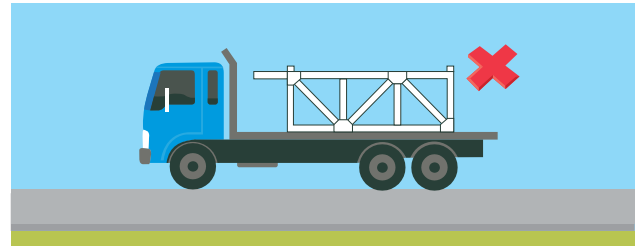
If the size of the vehicle, or vehicle with load, is more than the allowable length, you must get a permit from MVR and/or the National Heavy Vehicle Regulator.

## Dangerous projections

A load with any potentially dangerous projection should be placed to minimise risk to the driver or any other person, should the load shift during braking or a collision.



The potentially dangerous projections is correctly positioned to minimise the risk of load shift.



The load is incorrectly positioned and projections are potentially dangerous in the event of load shift.

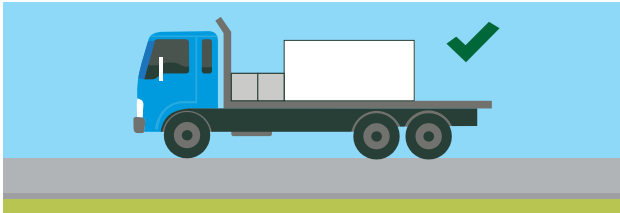
Security of the load on trucks must meet performance standards as set out in the load restraint guide.

## Load distribution and arrangement

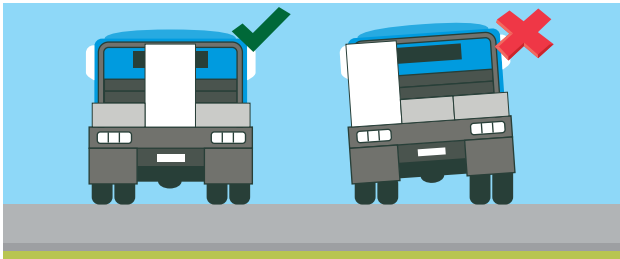
An overloaded vehicle is unsafe to drive, inefficient to operate and damages the road.

Poor load distribution can cause:

- loss of steering
- loss of traction under power
- wheel lock-up under braking resulting in a jack-knife or trailer swing
- vehicle rollover when cornering, on a roundabout or when changing lanes.



The weight of the load should be evenly distributed.



The weight of the load needs to be evenly distributed.

It is important to have even distribution of weight because:

- driving control is improved through the wheels.
- the chassis frame will not be damaged by twisting or bending.

## Positioning the load

For stability, the load should be spread close to the centre line of the vehicle. You should stack the heavier things at the bottom. Loading a heavy item on one side may result in twisting and stress on the chassis frame, or overloading of axle housings, wheel bearings and tyres. This could be bad enough to:

- allow the brakes to lock on the wheels on the lighter side
- cause flat spots on the tyres
- skid on a wet surface.

Problems may occur in a rigid vehicle, when a very heavy small load is placed against the headboard. This could cause:

- the chassis frame to bend, perhaps permanently
- overloading in the front tyres
- irregular tyre wear or even a blowout.

Avoid these problems by placing any small heavy load just ahead of the rear axle.

If you need to place a load back from the headboard to distribute weight, the load should be blocked so that it cannot move forward. Unless it is blocked, even the heaviest load will move forward if you stop suddenly.

## Securing the load

The following information is a guide only. For more information on load restraints and loading performance standards, please read the load restraint guide.

The way your vehicle is loaded is very important for your safety and for the safety of others. If you are involved in packing, loading, moving or unloading a vehicle you are responsible for complying with load restraint laws.

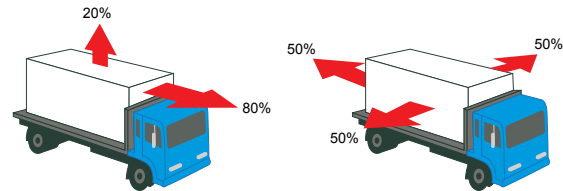
If your load is not properly secured and is unstable, elements such as strong winds, bumpy, uneven or windy roads, speed changes and braking can cause your load to move, you could even lose your load or control of your vehicle.

The weight of your load should also be evenly distributed so you can control your vehicle properly.

## Load restraints

A load restraint system on a vehicle should be capable of restraining the following percentages of the weight of the load from shifting:

- 20% upward
- 80% forward
- 50% rearward
- 50% sideways.



20% upwards and 80% forward. 50% rearward and sideways.

Loads must be secured to prevent:

- any part of the load hanging over or sticking out of the vehicle in a way which could hurt someone, damage property or cause a hazard to other road users
- any part of the load tipping, being dislodged or falling out of the vehicle.

It is against the law to drive a vehicle where the load is not secured. You can stop your load from moving by:

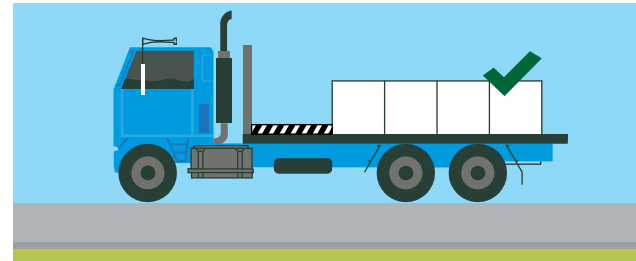
- Lashings secured to the vehicle chassis, including:
  - cross bearers
  - outriggers
  - tie rails and similar arrangements.
- Blocking arrangements such as:
  - load racks
  - headboards
  - bulkheads
  - stakes in pockets
  - transverse beams
  - shoring bars
  - chocks, dunnage, etc.
- Containing the load by using a truck with solid sides and tailgate, a tanker or a shipping container.
- Covering loose loads such as sand or gravel with sheets or tarpaulins.

## Blocking

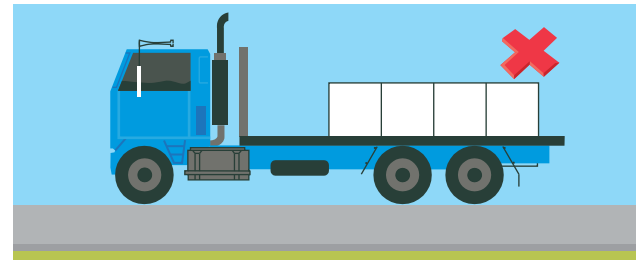
The most important part of the blocking is the headboard or bulkhead. It is best to put most loads right against the headboard to prevent the load acting like a battering ram if it moves forward. If other restraints fail in a sudden stop, the load might break the headboard. This could damage the cabin and leave you severely injured.

Many vehicles carry loads that could crush the driver's cab if the load shifted forward under sudden braking. If you carry loads such as coils, sheet steel, steel pipes, structural steel and timber, you should have a solidly constructed bulkhead instead of a normal headboard.

When carrying a load of metal bars, it is particularly important to ensure that all bars are secured and unable to move out of the stack. One bar that moves could go through the bulkhead.

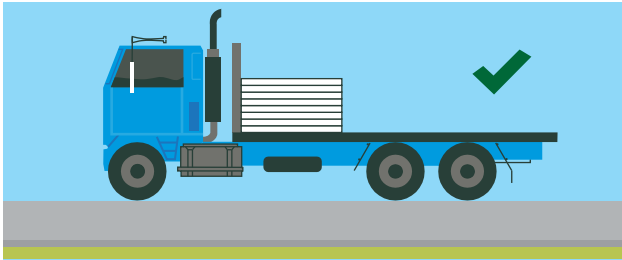


The headboard and extra blocking can be used to stop load shift.



The load is not secured and could shift.

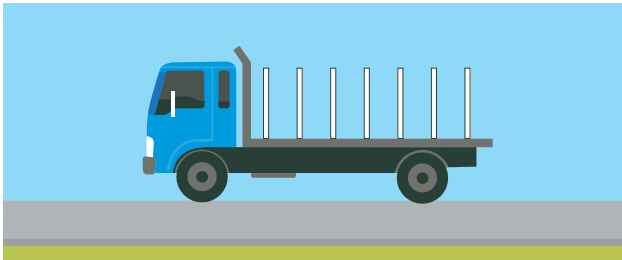




The load is correctly blocked against the headboard.

## Stakes in pockets

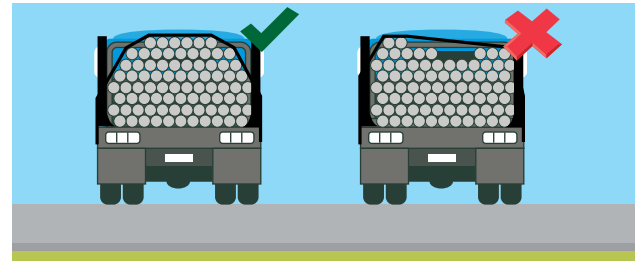
These or stanchions may be used in conjunction with lashings to prevent long rigid loads such as pipes, logs etc. from moving sideways.



Stakes or stanchions should be used to prevent sideways movement.

## Crowned loads

It is important that long rigid loads such as pipes, logs etc. be crowned to ensure the load is lashed securely without 'gaps'. Gaps in the load may allow it to move and cause the lashings to become loose.

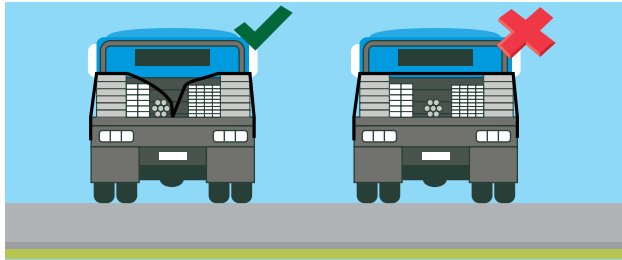


To restrain movement in loads such as pipes, they need to be crowned and have no gaps.

The gaps in this load can cause potentially dangerous load shift.

## Divided crowned loads

In some cases it may be necessary to divide the load into two or more stacks to crown it effectively. This can be achieved by attaching the lashings along the middle of the deck.



A load that is divided to minimise the chance of movement.

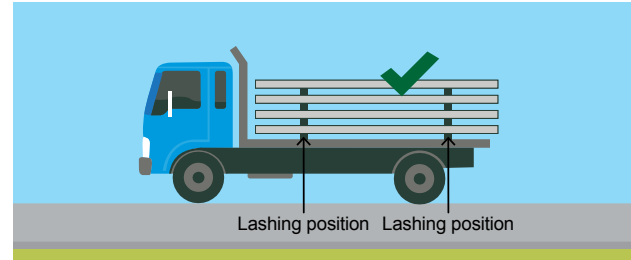
A load with substantial gaps that would allow potentially dangerous movement.

## Dunnage

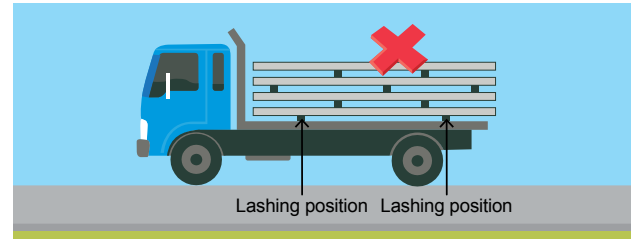
This is packing placed under or between parts of the load. It is used to allow loading and unloading with forklifts or lifting slings. It is usually made of rectangular or square hardwood or softwood and must be strong enough to support the weight of the load placed upon it.

A load with multiple layers or rows must have all dunnage placed directly above the bottom dunnage. Tie-down lashings must only be placed at these positions along the load to ensure that the lashings do not loosen or overtighten if the vehicle chassis flexes.

Long rigid loads such as large diameter steel pipes must be supported in two positions to allow the vehicle to flex. Additional dunnage (and lashings) will need to be used along the lengths of more flexible loads such as plastic pipes etc.



Dunnage needs to be vertically aligned to minimise movement when under lashings.

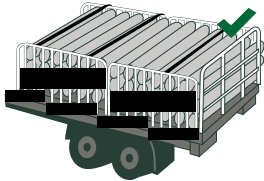


The dunnage is placed irregularly and could loosen or overtighten lashings when the vehicle is operating.

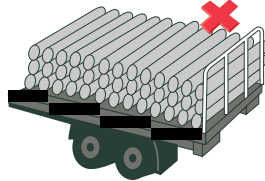
## Gates/fencing

A load can also be secured with sidegates, tailgates and other blocks. The sidegates have to be strong enough not to be forced out by the weight of the load. Other blocks should be secured and braced. You should close and lock the tailgate of your vehicle unless the load is too long. Never carry any separate part of the load on the tailgate.

Where small pipes or logs are carried, suitable sidegates or other containment methods should be used to prevent sideways movement.



A load secured from sideways movement by gates and fencing.



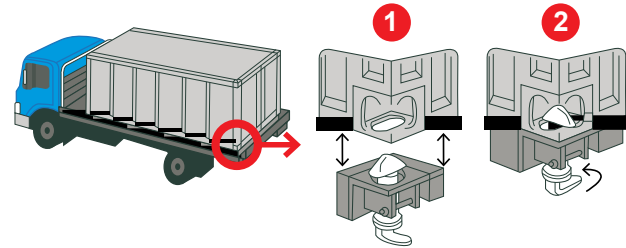
A load not secured from sideways movement.

## Containers

Vehicles used to carry containers should be equipped with special devices known as 'twist locks'. Containers have special corner-pieces which fit into the twist locks on the vehicle. They can then be locked into place. Sometimes frames with twist locks can be attached to the vehicle. These frames need to be securely bolted to the chassis.

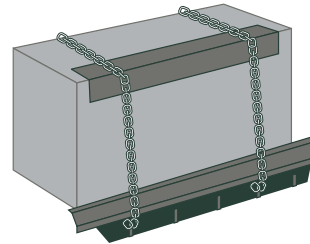
A container is not properly secured unless the twist locks are used. This applies whether the container is full or

empty. A vehicle without twistlocks should not be used to carry containers. Decommissioned containers (those not carrying a load) can be chained to a vehicle for transport.



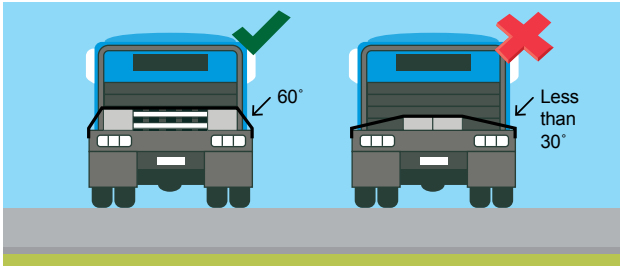
## Lashings

These and other fastening devices such as dogchains, cables, clamps, load binders must be in good working condition. A chain is not good enough if even one link is deeply gouged, pitted or worn. Make sure the lashings are tight enough to stop any movement. Make sure the type of lashing you use is strong enough to fasten in place.



A correctly lashed and fastened load.

The lashings should be protected from any sharp edges on the load or on the vehicle. When using more than one lashing, secure them separately so if one line fails the others will hold.

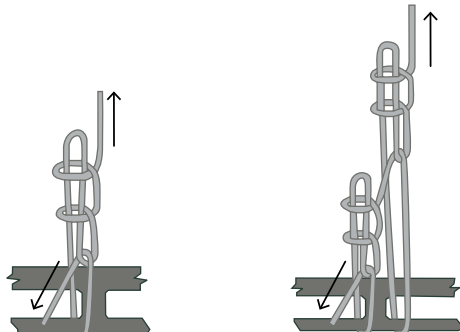


The greater the angle of the lashing to the load the greater the lashing tension will be. Angles less than 30 degrees are not recommended.

## Ropes

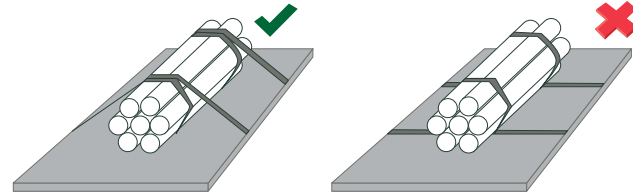
Ropes used for lashing loads should be tensioned by either a single or double 'truckies hitch'.

The greater the tie down angle of the lashing to the load, the greater the lashing tension will be on the load. Angles of less than 30 degrees are not recommended.



## Belly wrapping

Belly wrapping may be used to prevent large diameter pipes or bars from rolling. When belly wrapping, the lashings must be looped over the top of the load to provide tie-down. Lashings that are looped underneath a rounded load will not prevent the load from rolling.

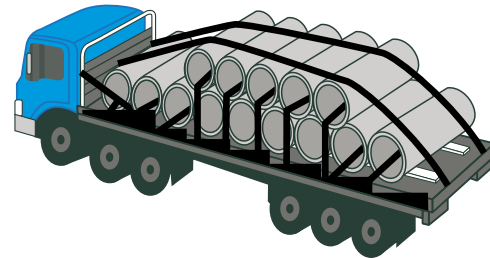


The lashings must be looped over the top to prevent rolling.

The load could roll dangerously.

## Large pipe loads

When placed across the vehicle, all upper layer pipes in the load should be individually tied down so that all pipes in the load are positively clamped to prevent sideways movement.

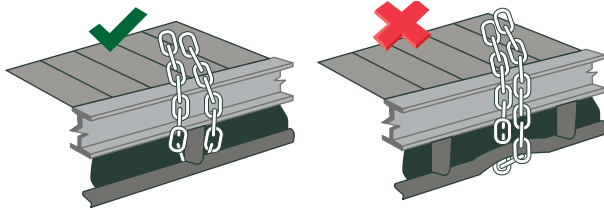


All pipes need to be clamped to prevent sideways movement.

## Load anchorage points

You cannot rely on traditional rope hooks or rings to hold anything other than light loads.

Vehicles should have load anchorage points fixed to the vehicle so that the main chassis frame takes the force of the load.



The chassis frame should be used as an anchorage point.

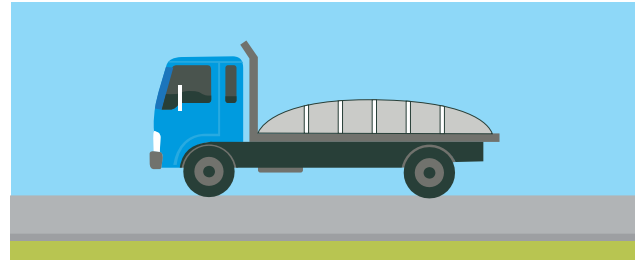
You should not rely on non anchorage points to take anything other than light loads.

## Friction

Friction cannot stop your load from moving but it can be a great help. To make the best use of friction, the base of the load and the platform should be kept clean, dry and free from grease. A slippery platform surface is always dangerous.

## Sheets and tarpaulins

Except in the case of very light bulk loads, sheets and tarpaulins are not strong enough to hold down loads, they only protect the load from the weather. Loose bulk loads such as sand, gravel, rocks etc. should always be covered if there is any possibility of the load becoming dislodged.



Secured sheets and tarpaulins can be used to protect loads from the weather

## Dangerous goods

Any driver of a vehicle which carries more than 500 kilograms or 500 litres of dangerous goods must be licensed for that purpose. The vehicle may also be required to be licensed.

Further details on dangerous goods driver and vehicle licences can be found at [worksafe.nt.gov.au](http://worksafe.nt.gov.au).

All dangerous goods must be carried in accordance with the Australian Code for the Transport of Dangerous Goods by Road and Rail (the ADG Code) available from the National Transport Commission website at [www.ntc.gov.au](http://www.ntc.gov.au).

Dangerous goods are substances and articles that pose a risk to people, property and the environment due to their chemical or physical properties. In the NT dangerous goods are listed in Section 3.2.3 of the ADG Code.

**In addition to the routine requirements when involved in a crash, as outlined in the Road Users' Handbook, in the event of a crash involving dangerous goods you must:**

1. Call the police or fire brigade on 000.
2. Not touch spilled chemicals and avoid breathing fumes and dust.
3. Wash off any chemicals with plenty of water if you are splashed. Keep people away from the crash site.
4. Show the shipping documents and emergency procedure guide to the police or fire brigade when they arrive.

## Risks

Many vehicles carry dangerous loads including substances which are flammable, explosive, toxic, infectious, radioactive or corrosive.

A crash, leakage or fire involving a vehicle carrying dangerous goods could cause extensive damage, death or serious injury to many people.

Vehicles carrying flammable or explosive loads must be fitted with a switch that isolates the battery and so reduces the risk of fire.

In the event of a leakage or accident follow the procedure outlined on your emergency procedure guide. The procedure varies for different materials so make sure you carry the right card.

NT WorkSafe can provide you with professional, technical and scientific information and advice. Call 1800 019 115.

## Checklist for dangerous goods:

### Consignment papers

Transport (shipping) documents must be readily available and located in the cabin of the vehicle in an emergency information holder and include the following:

- the consigner's name and telephone number;
- the United Nations (UN) number of the dangerous goods;
- the proper shipping name of the goods, or name that appears on the packaging;
- the class or division of the dangerous goods;

- each subsidiary risk (if any) of the dangerous goods;
- each packaging group of the dangerous goods;
- a description of each type of packaging or receptacle (i.e. drum, IBC etc);
- the number of each type of packaging; and
- the aggregate quantity of the dangerous goods.

For further information on transport documents refer to chapter 11 of the ADG Code.

### Proper labelling

Make sure your vehicle is properly labelled/placarded. For bulk dangerous goods it should have:

- A hazard warning diamond (class/division diamond) at the front and rear.
- Information as required by the ADG Code which should be shown on three emergency information panels, one at the rear of the vehicle and one on each side, and should include:
  - the name of the substance
  - United Nations (UN) identification number
  - emergency action code
  - emergency telephone number
  - name and telephone number of the responsible company that can be contacted.

### Carry appropriate guides

You must keep the Emergency Procedures Guide (EPG), a 'product' card which gives a guide to the emergency procedures that apply to the particular hazardous substance which you are carrying, together with the Vehicle Fire Card, on or near the inside of either cabin door (see chapter 11 of the ADG Code).

You are permitted to carry the Initial Emergency Response Guide instead of carrying both the product card and vehicle fire card as the guide provides similar information to the cards. The guide book and cards are published by Standards Australia.

### Safety and emergency equipment

Safety and emergency equipment that must be carried on the vehicle includes:

- appropriate fire extinguishers for the vehicle and classes and/or divisions of dangerous goods being transported;
- three double-sided reflector signals, clean and in good condition, that comply with the requirements of Australian Standard AS 3790 Portable warning triangles for motor vehicles;
- items appropriate to the classes and/or divisions being transported as listed in Table 12.2 of the ADG Code; and
- Safety and emergency equipment must be carried in a readily accessible position in the vehicle, except for respiratory equipment required for escape purposes which must be kept in the cabin.

### Fire extinguishers

Appropriate fire extinguishers must be carried on the vehicle and must be located so as to be readily accessible for use. Vehicles must be fitted with:

- one 30B dry powder fire extinguisher located in the cabin of the vehicle, near the driver's door (unless otherwise prescribed in chapter 12 of the ADG Code);
- other fire extinguishers, as appropriate for the type of vehicle and dangerous goods classes/divisions (as prescribed in Table 12.1 of the ADG Code); and
- all fire extinguishers must be mounted in quick release brackets.

### Personal Protective Equipment and Safety Equipment

Carry sufficient protective clothing so that you will be able to attend to any small leaks or spillages. You may be able to stop them before they become serious problems. Chapter 12.1.3 of the ADG Code describes the minimum personal protective and safety equipment that must be carried (examples include appropriate gloves, face protection, respiratory protection equipment, eye wash kit, torch appropriate chemical resistant clothing).

### Tank or load inspections

Inspect the tank, containers or the load before and after loading and frequently throughout the journey.

### Hatch and valve inspections on tankers

Inspect the hatches of the tanker and make sure the seals are in good condition. Make sure that all filling or discharge points are closed. If they are not, the tank could leak significantly in a rollover. Also any vapour from an open filling point could impair your ability to drive safely. Visual inspections of any filling or discharge valve points will also alert you to any leakages. Any leakage will need immediate attention.

### Load segregation

Segregation rules help minimise the risk of incompatible substances reacting dangerously if they were to come into contact with each other. Such contact might be caused by a leak, spill or vehicle accident. Segregation is particularly important to prevent foodstuffs from being contaminated.

The ADG Code has information covering segregation rules, the types of - and design tests for - segregation devices, and how to use such devices.