

## How much can your vehicle tow safely?

Most vehicles have tow ratings given to them by the manufacturer specifying the gross trailer weight braked, unbraked, or both, that the vehicle can safely tow. Although the law does not require these tow ratings to be followed, the NZ Transport Agency (NZTA) recommends that they be taken into account.

In addition to the requirements above, the law requires that every light vehicle and trailer combination must be capable of stopping within a distance of seven metres from a speed of 30km/h. In effect, this means that the maximum allowable weight of an unbraked trailer is limited by the weight and braking ability of the vehicle being used to tow it.

The NZTA recommends, as a guide, that the laden weight of an unbraked trailer should not exceed three quarters of the unladen weight of the towing vehicle and then only if the towing vehicle's brakes and tyres are in excellent condition. A trailer heavier than this may prevent the vehicle combination from meeting the seven metre from 30km/h brake performance requirement. To illustrate the increase in stopping distance when towing an unbraked trailer, consider a trailer with a laden weight equal to the weight of the towing vehicle. This combination can be expected to have double the stopping distance of the towing vehicle alone, and even a towing vehicle with good brakes is likely to fail the legal brake performance requirement of seven metres from 30km/h. If the trailer is equipped with brakes, it may be possible to safely tow a trailer heavier than three quarters of the unladen weight of the towing vehicle, but the seven metres from 30km/h brake performance requirement still applies.

**NOTE:** Remember that a car, utility vehicle or light van is not permitted to tow more than one trailer or vehicle.

## Loading your trailer safely

If you tow a simple trailer, you need to be aware that the trailer can impose a large weight on the rear of your vehicle. This weight can, by lever action through the chassis of the vehicle, reduce the effective mass bearing on the front axle(s) of your vehicle. It is important, therefore, that you load your trailer carefully so the load is distributed centrally over the axle(s) of the trailer. This will allow your vehicle to maintain front-wheel grip on the road, so you can continue to steer it safely.

**Note:** There needs to be a small downward force on the tow coupling of a simple trailer, to ensure it remains stable while being towed.

## Tow Bars and Tow Couplings

Your tow coupling and tow bar must be strong enough to safely tow your fully laden trailer. The tow bar must also be correctly fitted so that it transfers the towing forces to the structure of the towing vehicle without any distortions of the tow bar or the towing vehicle's bodywork/structure. In addition, when you are loading the trailer, make sure that there will be a downwards force on the vehicle towbar at the point of attachment equal to about 10% of the weight of the trailer plus load. Do not put too much weight at the back of the trailer. Ensure there is a downwards force at the point of attachment, to improve the handling characteristics when you are towing.

The coupling on the trailer must have a manufacturer's rating appropriate for the gross laden weight of the trailer and be compatible with the tow ball size.

The tow ball and coupling must be in good condition and securely attached to the tow bar and trailer draw bar respectively. When connecting the trailer to the towing vehicle, you must make sure that the tow coupling, electrical connection and safety chain/s are all connected correctly so that they work properly. Remember that the gap between the vehicle and the trailer must be no more than four metres.

## Speed of Vehicles Towing Simple Trailers

Light vehicles towing a trailer are limited to a maximum open road speed of 90 km/h.

This sheet is a guide only. Further information can be accessed from

[www.nzta.govt.nz](http://www.nzta.govt.nz)

## **Projecting Loads**

Vehicles may carry loads that are higher, longer or wider than the vehicle itself, provided the load doesn't exceed the maximum permitted dimensions for that class and type of vehicle, and provided the vehicle can be moved safely when loaded. **It's the operator's responsibility to ensure the load is properly secured to the vehicle so the vehicle remains stable at all times.**

Loads that overhang the outside of the body or deck of the vehicle by more than one metre to the front or rear, or more than 200 millimetres to the left or right side, need to carry special warning devices attached to the overhanging end(s) of the load.

## **Maximum rear overhang**

**Rear overhang** means the distance from the rear axis to the rear of the vehicle or its load, whichever is greater. The maximum for all light trailers is 4.0 metres.

## **Maximum front overhang**

For simple trailers, **front overhang** means the distance from the centre of the tow coupling to the foremost point of the vehicle (including its load). The maximum for light simple trailers is 2.04 metres radius arc ahead of the tow coupling.