

# Caravan Towing

## Towing at a safe weight



When towing a caravan, it is important to know your vehicle's towing capacity so you can stay within your weight limits and get to your destination safely.

While your vehicle manufacturer or owner's manual can tell you your towing capacity – it is important to be aware of the effect the weight of your car and caravan's **accessories** and **packed items** can have on your towing capability.

**Towing capacity** is the maximum weight your tow vehicle (car) can tow legally and safely. Towing too much weight can cause your trailer to sway out of control, create difficulty stopping and wear out your brake pads.

**The key:** The **weight** of your packed car when towing a caravan must not exceed the maximum weight limit specified by your manufacturer known as the GVM.

## Before you buy

If you are looking to buy a car with the intention of towing a caravan, research the weight of the accessories you plan to fit to determine if the vehicle will suit your towing needs.

Similarly, if you are looking to purchase a caravan, research and understand the manufacturer's specifications of weight, and weight limits, to decide if it will be suitable to you.

### Common Terms

<b>GCM – Gross Combination Mass</b>	The maximum allowable weight for your towing vehicle and caravan combined, specified by the manufacturer or under an approved GCM re-rating modification.
<b>Car Kerb / Unladen Weight</b>	The total weight of your car with a full tank of fuel. It does not include passengers, accessories, or packing items.
<b>GVM – Gross Vehicle Mass</b>	The maximum allowable weight for your car, specified by your manufacturer. It is the sum of the kerb weight, tow ball mass and payload
<b>GTM – Gross Trailer Mass</b>	The maximum allowable weight on your caravan axles.
<b>ATM – Aggregate Trailer Mass</b>	The maximum allowable trailer weight specified by the manufacturer. It is the sum of the weight on the axles and the tow ball.
<b>Payloads</b>	The maximum allowable weight that your car and caravan can each individually carry. (See pg 2).
<b>Caravan Tare Mass</b>	The total weight of your caravan with no load, no accessories and while unoccupied.
<b>Tow ball mass</b>	The amount of load imposed by your caravan on your car's tow ball.

# How much weight can my car or caravan carry?



## GVM – KERB WEIGHT

### Car Payload Weight Capacity

To calculate the maximum available payload capacity (the weight you can carry) of your car. Subtract the kerb weight from the GVM. This will determine the maximum weight you can load into your car including:

- **Accessories**
- **Passengers**
- **Packing items**
- **Tow ball mass**

As you add more items or accessories to your car, subtract the weight of each item from the payload to determine how much is remaining.

Estimated weight of common accessories fitted to vehicles.

Accessories & Passengers	Weight
Steel bull bar	86kg
Steel side steps	21kg
Underbody protection	22kg
Tow bar	33kg
Platform roof rack	36kg
Rear cargo drawers	83kg
AGM dual battery	30kg
50 litre car fridge (empty)	15kg
Two adults and two children	260kg
<b>Total weight added to vehicle</b>	<b>586kg</b>



## ATM – TARE MASS

### Caravan Payload Weight Capacity

Calculating your caravan's payload is the same as calculating your car's payload capacity. Subtract the Caravan tare mass from the ATM to determine how much weight you can carry including your accessories and packing items.

Every item including water tanks, generators, gas bottles, bike racks, solar panels, even personal and kitchen items need to be weighed to form part of the payload calculations.

### Combined Weight (GCM)

The weight of your tow vehicle when combined with the weight of your caravan must not exceed the GCM. It is important to note that the GCM for some vehicles is less than the sum of the ATM and the GVM.

Estimated weight of common items carried in caravans.

Item	Weight
1000-watt generator	15kg
Bike rack and two bikes	35kg
Television	7kg
Spare tyre	25kg
Gas bottle	25kg
100L water	100kg
Washing machine	20kg
Solar panel	15kg
Air conditioner	35kg
Awning	30kg
LPG BBQ	13kg
<b>Total weight added to caravan</b>	<b>320kg</b>

# How to check your car and caravan weights

The easiest way to check your car and caravan weights is to use your nearest public weighbridge (fees apply) or find someone in your area who can weigh the combination. If you plan to use a weighbridge, you can complete the following steps to determine your combination weight.

**Step 1** - Drive the vehicle on the weighbridge and stop before the caravan wheels come onto it. This weight will be your **loaded mass for the tow vehicle**. The loaded mass of the vehicle must not exceed the specified **GVM**.

**Step 2** - Drive the car and caravan onto the weighbridge. This weight will be your fully loaded **combination mass**, which must not exceed the specified **GCM**.

**Step 3** - Drive forward so the rear tyres of your car are off the weighbridge and the caravan tyres are still on the weighbridge. This weight is the **trailer axle mass**, which must not exceed the specified **GTM**.

**Step 4** - While still parked on the weighbridge, put the jockey wheel down onto the weighbridge and disconnect the trailer from the vehicle. This will give you the **total trailer mass**, which must not exceed the manufacturer's **ATM**.

**Step 5** - You can also calculate the tow ball mass by using a stand on the weighbridge under the trailer coupling. The caravan axles must not be on the weighbridge for this measurement. Alternatively, you can use a tow ball weight scale independently of the weighbridge. A tow ball weight scale will give a more accurate measurement. The tow ball mass must not exceed the manufacturer's specifications.

## More information

For more information, visit [www.qld.gov.au/transport/vehicle-safety/towing](http://www.qld.gov.au/transport/vehicle-safety/towing) or head to the 'Holiday and Regional Driving' page on the StreetSmarts website for caravan and towing tips.

*This fact sheet includes information to help you to drive safely while towing a caravan. There are requirements under Queensland law that apply to any driver towing a caravan. Visit the Queensland Government website for more information or contact RACQ or Caravanning Queensland for advice on selecting a suitable caravan. The Motor Accident Insurance Commission can also provide advice about Compulsory Third Party (CTP) insurance for your caravan.*

***Note:** this information relates to safe towing in Queensland, and applicable Queensland regulations. If travelling outside Queensland, be sure to check the regulations of the relevant state or territory.*

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