

Centre for Road Safety

It is important to know the various weight criteria of your towing vehicle and caravan. While your caravan will have its tare mass, maximum aggregate trailer mass (ATM) and maximum gross trailer mass (GTM) noted on the vehicle plate and in the manufacturer's handbook, it is important to weigh your caravan to ensure that you do not exceed these maximum capacities.

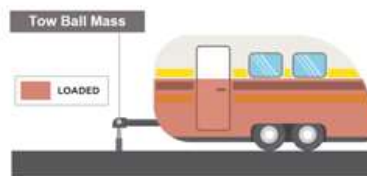
Use the examples below to assist you to weigh your vehicle(s) accurately and maximise your safety on the road. You can find the location of public weighbridges in NSW on the [Department of Industry website](#).

There are also a number of companies that offer mobile weighing services. When weighing your caravan and towing vehicle, it is important to know the level of accuracy of the weighbridge, or mobile scales, to make sure that your vehicles stay below the maximum carrying capacities.

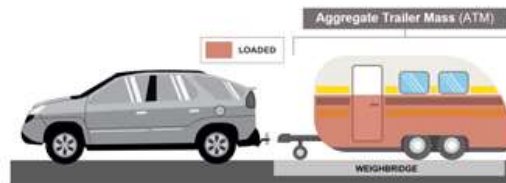
Tare Mass is the total mass of the caravan with no load, unoccupied, and with all standard equipment and any options fitted. Tare mass is measured with all fluid reservoirs, if fitted and required for transport, filled to nominal capacity for service, however, non-transport fluid reservoirs such as water tanks and wastewater tanks fitted to caravans are measured empty. After-market optional add-ons (TV, mattresses, extra gas bottles, awnings etc) are not included in the tare mass and are considered as a load, so must be included in your ATM measurement. The tare mass weight of your caravan can be found on the vehicle plate or in the manufacturer's handbook.



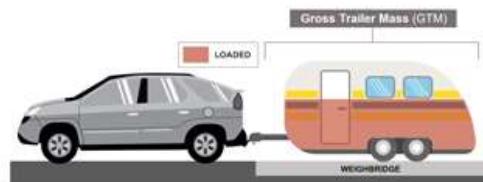
Tow ball mass (or tow ball load) is the maximum mass allowed to be put on the tow ball of the towing vehicle. You can find the tow ball mass capacity in your coupling manufacturer's handbook. To measure the tow ball mass you can use a ball weight scale. You must not exceed the tow ball mass capacity.



Aggregate Trailer Mass (ATM) is the total mass of the trailer when carrying the maximum load recommended by the manufacturer. The ATM is generally measured with the caravan unhitched from your towing vehicle and resting on its jockey wheel. The maximum ATM of your caravan can be found on the vehicle plate or in the manufacturer's handbook and must not be exceeded. To measure your ATM, weigh your loaded caravan resting on its jockey wheel, including full water tank, gas tanks and everything you would pack to go travelling. Ensure that your measured mass does not exceed your specified ATM capacity.



Gross Trailer Mass (GTM) is the maximum mass recommended by the manufacturer of your fully loaded caravan when it is hitched to your tow vehicle. The GTM of the caravan is transmitted to the ground by only the caravan tyres and excludes the mass distributed to the towing vehicle through the coupling. The GTM of your caravan can be found on the vehicle plate or in the manufacturer's handbook and must not be exceeded. To measure your GTM, weigh your loaded caravan when it is attached to your towing vehicle, and make sure your measured mass does not exceed your specified GTM capacity.



Gross Vehicle Mass (GVM) is the maximum total mass of a fully loaded motor vehicle as specified by the vehicle manufacturer. For some passenger vehicles, it might be known as the **Maximum Loaded Vehicle Mass (MLVM)**. To measure your loaded vehicle mass, weigh your fully packed towing vehicle, including passengers, with the caravan hitched and ensure it is less than your vehicle's maximum GVM or MLVM.



Gross Combination Mass (GCM) is the maximum mass set by your tow vehicle's manufacturer and refers to the maximum combined mass of your loaded tow vehicle and your loaded caravan hitched together. Not all vehicles are provided with a GCM, but if it is, your vehicle manufacturer's guide will provide you with the GCM of your tow vehicle.

To measure the GCM, weigh your fully loaded towing vehicle hitched to your fully loaded caravan. Legally, you must not exceed the specified GCM capacity of your vehicle (if a GCM is specified).

