

YOUR ROOF RACK SYSTEM AND THE LOAD RATINGS

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The purpose of this guide is to help you determine how much gear you can safely carry on top of your vehicle.

When calculating how much weight you can carry on top of your vehicle there are few key factors to consider:

Load ratings for each component that makes up your carrying system

Static vs dynamic forces

On road vs offroad usage

For example, if your roof rack solution has a product load rating of 220kg, your roof box has a load rating of 140kg and your vehicle's roof has been rated by the manufacturer as being able to hold up to 120kg, then the maximum you can have up top is 120kg.

Each of the items listed above has its own maximum load rating which dictates the heaviest load which that can safely carry or hold.

Always consult the manufacturer's instructions/owner's manual for your vehicle's roof rating.

Another point to remember is that load ratings for a system assumes load is evenly spread across that system. Where possible, keep this in mind when loading your vehicle as excessive loading on a point can cause damage and vehicle instability.

In terms of dynamic load ratings (apply when you are driving your vehicle and there is motion) as a general rule in a static environment, the static load rating increases by a multiple of three (3x dynamic load rating), meaning that when your vehicle is stationary if the dynamic load rating is 80 kg then the static load rating is deemed to be 240 kg (80 kg x 3).

Roof top tents should NOT be placed on top of clamp mounted crossbar systems due to the nature of how these crossbars attach to the vehicle and the forces imposed on the system while driving.

Finally remember that if you have a clamp mounted roof rack system a 50% load rating reduction will apply off-road. All load ratings are applicable for driving on well-formed sealed roads with a smooth surface. Once you start travelling on forest service roads, access roads and other unpaved or poorly maintained environments, the maximum amount of gear you can carry reduces drastically (as the stress increase on the racking components).

