NISSAN

NISSAN TOWING GUIDE

Tow with confidence

Nissan has always offered our owners some of the most capable towing vehicles in Australia. To ensure the safety and reliability of these vehicles, we encourage all our owners to familiarise themselves with their individual vehicle's capacities and requirements when towing.

This guide has been developed to provide an overview of towing definitions and important considerations when towing.

Your first concern should always be safety. Always remember that towing a trailer places additional loads on your vehicle's engine, drivetrain, suspension, steering, braking, and other systems. Therefore, be certain that your vehicle can meet the demands of the towing application you have in mind.

Rent or purchase towing equipment that complies with established industry standards and government regulations. Towbars designed especially for certain Nissan vehicles are available from your Nissan Dealer. Towbars for other Nissan models - if Nissan recommends towing with that vehicle – should be bought from and installed by a Nissan Dealer or a professional supplier of towing equipment.

Carefully review all information and instructions provided with any towbar you purchase for details on safety and proper use.

Finally, it is important to follow the towing capacity limit set for your specific vehicle, and to ensure that your vehicle is in top mechanical condition, especially the tyres, brakes, suspension, and engine cooling system. See your vehicle owner's manual for details.

Definitions

Gross Vehicle Mass (GVM)

The maximum laden mass of a motor vehicle which includes passengers, luggage, cargo, any accessories fitted and towball download.

Kerb Mass

The unladen mass of vehicle with full fuel, excludes any accessories fitted and tray body for Cab Chassis vehicles.

Gross Combination Mass (GCM)

The rated maximum laden mass of the vehicle and towed object combined.

Gross Trailer Mass (GTM)

The mass transmitted to the ground by the 'Axle' or 'Axles' of the trailer when coupled to a drawing vehicle and carrying its maximum load approximately uniformly distributed over the load bearing area.

Aggregate Trailer Mass (ATM)

The total mass of the trailer when carrying the maximum load recommended by the trailer manufacturer. This includes the Towball Download imposed onto towbar tongue.

Payload

Payload (or Carry Capacity) is the GVM minus the Kerb Mass. The Kerb Mass does not include passengers, luggage, cargo, any accessories fitted or any Towball Download (as appropriate). Payload is distributed across both the front and rear axles.

Gross Axle Weight Rating (GAWR)

The Gross Axle Weight Rating or Axle Capacity is the maximum permitted axle weight that can be carried. The axle capacities (in particular the rear) must be considered when a trailer is attached.

Towing Capacity Unbraked

The Unbraked Towing Capacity is the maximum allowable ATM of a trailer which is not fitted with brakes.

Towing Capacity Braked

The Braked Towing Capacity is the maximum allowable ATM of a trailer which is fitted with brakes.

Towball Download

The Towball Download is the amount of mass that is applied downwards on the towball. Towball Download acts on the vehicle and must be considered when ensuring the GVM or axle capacities are not exceeded.

Trailer towing general

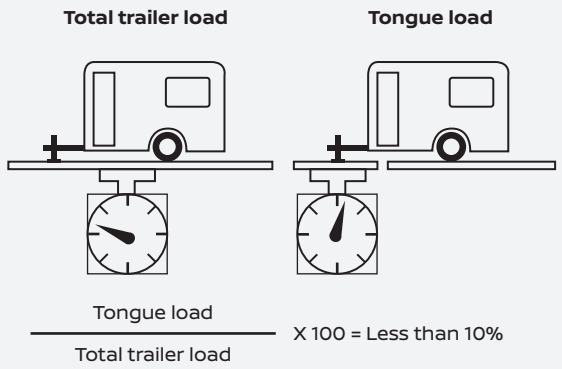
Towing a trailer will place additional loads on your vehicle's engine, drive train, steering, braking and other systems. The towing of a trailer will exaggerate other conditions such as sway caused by crosswinds, rough road surfaces or passing trucks.

Your driving style and speed must be adjusted according to the circumstances. Before towing a trailer, see your Nissan Dealer for an explanation about the proper use of towing equipment.

Operating precautions

- Avoid towing a trailer during the break-in period.
- Before driving, make sure that the lighting system of the trailer works properly.
- Observe the legal maximum speeds for trailer operation.
- Avoid abrupt starts, accelerations and stops.
- Avoid sharp turns and lane changes.
- Always drive your vehicle at no more than a moderate speed, in the context of the conditions.
- Follow the trailer manufacturer's instructions.
- Choose proper approved coupling devices (trailer hitch, safety chain, roof carrier, etc.) for your vehicle and trailer. These devices are available from your Nissan Dealer where you can also obtain more detailed information about trailer towing.
- Never allow the total trailer load (trailer weight plus its cargo weight) to exceed the maximum set for the trailer, vehicle and the coupling device. See your Nissan Dealer for more information.
- The trailer must be loaded so that heavy goods are placed over the axle. The maximum allowable towball download (vertical load on the trailer hitch) must not be exceeded.
- Towing with your vehicle puts extra load on the chassis, suspension and drivetrain components. Nissan recommends that you service your vehicle in line with the severe service schedule detailed in your service and warranty booklet. Please speak to your Nissan Dealer for further information.
- Trailer towing requires more fuel than under normal circumstances because of a considerable increase in traction power and resistance.

While towing a trailer, check the engine coolant temperature indicator and stop if the temperature exceeds the vehicle limit.



Maximum load limits (for Australia and New Zealand) D23 Navara example only

Maximum trailer loads (including tyres and other loaded equipment):

1. **Never allow the total trailer load to exceed:**

- The maximum 750 kg for a trailer without brakes.
- The maximum 3,500 kg for a trailer with brakes.

2. **The trailer load must not exceed the following three values even if it does not exceed the maximum permissible trailer loads:**

- Towing capacity displayed on a towbar.
- Trailer gross mass marked on a coupling body.
- Gross Combined Mass rating of the towing vehicle.

The maximum trailer load which can be towed by your vehicle depends on the towing equipment fitted to the vehicle. Therefore, it is important to not only have the correct equipment fitted but also to use it correctly. Towing loads greater than the value specified for your vehicle or using towing equipment which is not appropriate for your vehicle could seriously affect the handling and/or performance of your vehicle. Vehicle damage resulting from improper towing procedures is not covered by Nissan warranties. Information on trailer towing and the required equipment should be obtained from your Nissan Dealer.

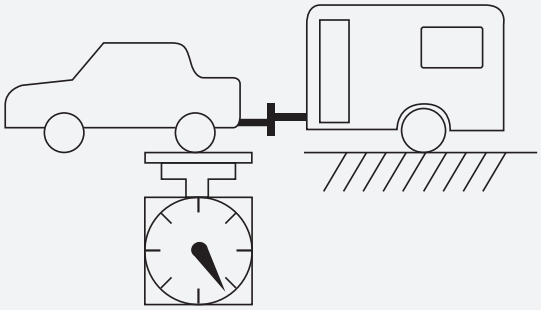
Maximum towball download

The tongue is the part of the trailer that extends forward to meet the tow vehicle, and it carries the coupler/hitch assembly. Knowledge of the trailer towball download is critical as it can have a significant effect on the handling and capacity of the tow vehicle. Refer to your vehicle owner's manual to view the maximum towball download listed for your vehicle.

Towball download is the amount of downward pressure exerted onto the towball. Keep the towball download around 10% of the total trailer weight. DO NOT exceed the maximum towball download specification. If the towball download is less or more than 10% of the Gross Trailer Mass, you should rearrange the cargo in the trailer to meet the requirements.

Maximum gross axle weight

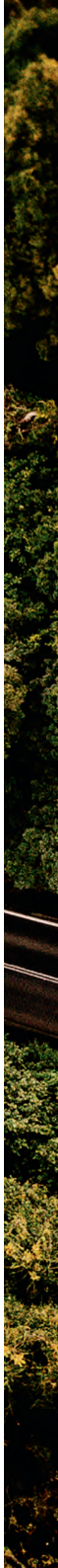
The gross axle weight must not exceed the Gross Axle Weight Rating (GAWR).

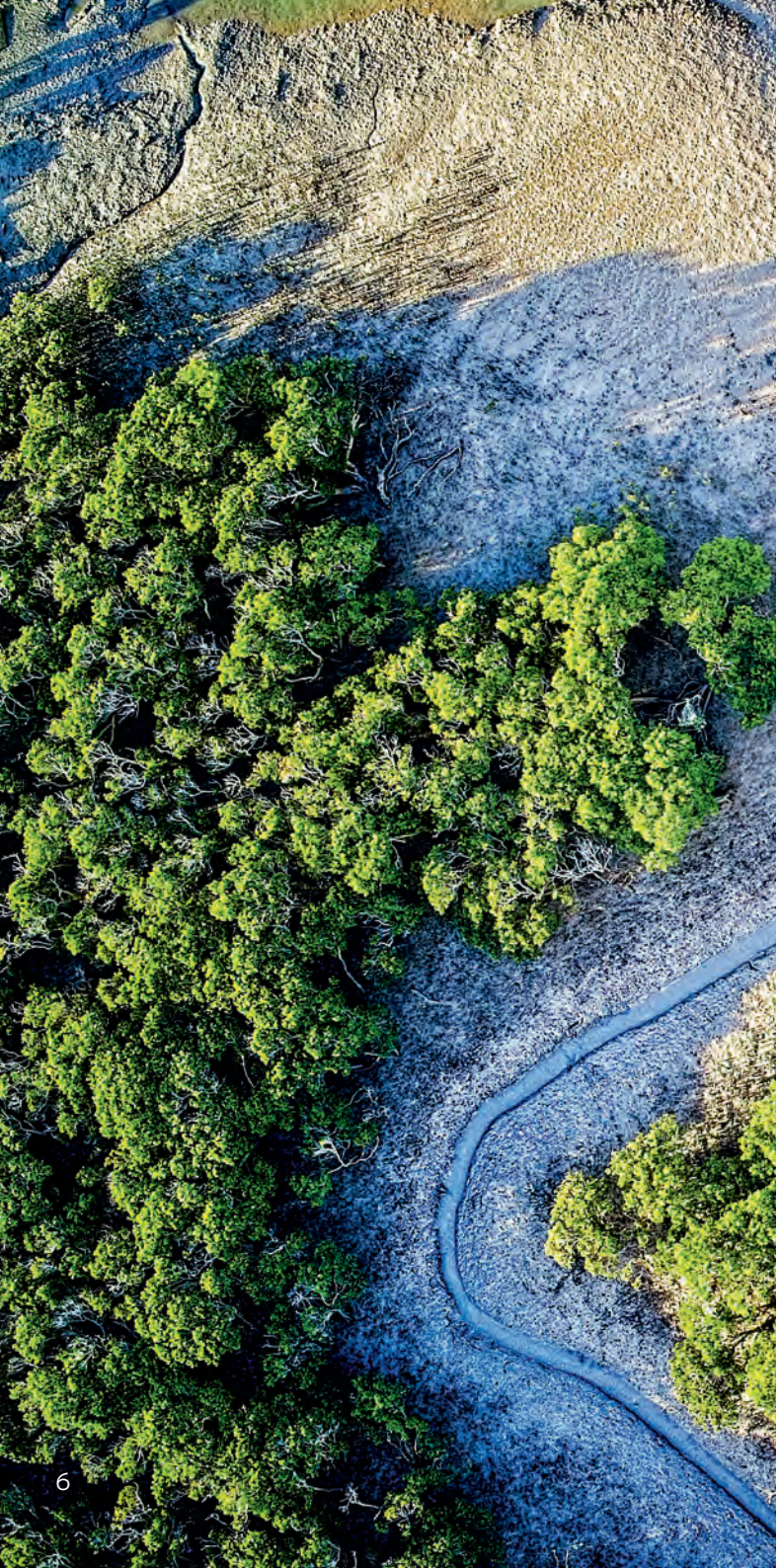


GAWR (D23 Navara example only):

Rear
1,850 kg

The trailer must be loaded so that heavy goods are placed over the axle.





Tyre pressure

When towing a trailer, ensure that the tow vehicle's tyre pressures are inflated to the recommended cold tyre specification. You will find these figures in the vehicle owner's manual and on the tyre placard located in the vehicle. Trailer tyre condition, size, load rating, and tyre pressure must be in accordance with the trailer and tyre manufacturer's specifications.

Do not tow a trailer when the vehicle is installed with a temporary spare tyre or a compact spare tyre.

Safety chains

Always use a suitable chain between the vehicle and trailer. The chain should be crossed and should be attached to the hitch, not to the vehicle bumper or axle. Be sure to leave enough slack in the chain to permit turning corners.

Trailer brakes

Ensure that trailer brakes are installed as required by local regulations.

Trailer parking

Always block the wheels on both the vehicle and trailer when parking. Apply the hand brake on the trailer if equipped. Parking on a steep slope is not recommended. If parking on a steep slope is unavoidable, place the shift lever in the "P" (Park) position (for automatic transmission model), or in an appropriate position (for manual transmission model), and turn the front wheels towards the kerb.

Vehicle modifications

Any accessories and modifications, genuine or aftermarket, fitted to the vehicle must always be considered when measuring vehicle loads. The extra weight added to the vehicle will consume an equivalent amount of the vehicle's payload, leaving less payload available for passengers or cargo.

Towing safety

Towing can significantly alter the handling and performance characteristics of your vehicle. Moreover, it puts increased strain on the engine and drivetrain. Therefore, it is always a good idea to approach towing from the standpoint of safety — whether you are purchasing equipment or actually pulling the trailer. Buy or lease only quality equipment. You should follow a more frequent maintenance schedule and check fluid levels, proper tyre pressures, tyre condition, etc., more often when on the road to protect your vehicle.

Also check that all other trailer equipment conforms to local regulations.

Warning - Always make sure your vehicle's towing capacity is adequate for the trailer you intend to tow. Be certain that you have all of the proper equipment needed for safe towing, which, depending on your trailer, may include safety chains/cables, electric trailer brakes, electric trailer brake controller, breakaway switch, and extended rear view mirrors to help ensure against the possibility of a serious accident and personal injury or death.

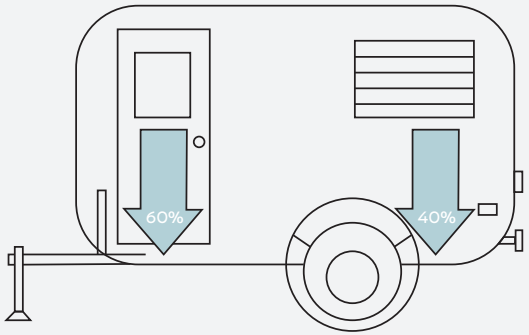
Loading your trailer

Warning - Taking the time to load and balance your trailer properly, will improve overall handling and minimise the strain on your tow vehicle. Incorrectly loaded trailers tend to sway or swing from side to side, upsetting vehicle handling which could result in a serious accident and personal injury or death. Careful loading and balancing can help eliminate these problems.

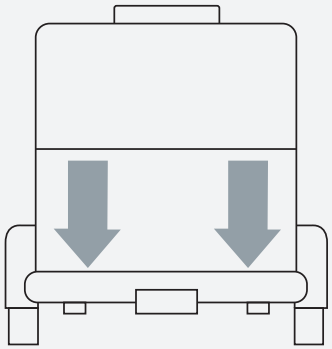
As mentioned previously, keep the towball download around 10% of the total trailer weight.

Warning - Excessive tongue load can push the rear of the tow vehicle down, lifting the front wheels to a point where traction, steering response and braking may be severely reduced. Too little tongue load can cause instability, which may lead to swaying, "tail wagging" or jackknifing which could result in a serious accident or personal injury or death.

With this in mind, proper loading is extremely important. When loading a trailer, 60% of the total cargo weight should be positioned in the front portion of the trailer and 40% in the back. Then, adjust the load until the proper tongue/king pin load ratio is achieved.



Warning - The trailer load should be balanced equally from side-to-side. Unequal side-to-side loading can negatively affect handling and braking. Once in place, all cargo should be firmly secured to prevent shifting. If the load should shift abruptly during braking or cornering, it could quickly affect the handling of your vehicle and cause a very unsafe situation, loss of control or serious accident or death.



Vehicle modifications

> **Warning** - Do not modify your vehicle beyond those required for proper hitch installation, wiring hook-up, or adding extended mirrors on any Nissan vehicle being used for towing purposes. Changes to the drivetrain, suspension, exhaust systems, frame structure/unibody, or other vehicle components are not necessary for towing within the limits described in this guide. The towing limits of your vehicle cannot be increased beyond the published limits described in this Guide or in your owner's manual. Any changes may diminish the reliability and longevity of your vehicle, void warranty coverage or possibly result in loss of vehicle control and cause an accident, personal injury or death.

Before starting out

Before starting out on a trip, make one last inspection of the tow vehicle and the trailer. Are the tyre pressures correct? Are the safety chains/cables securely in place? Has the cargo been tied down securely? Do all the lights work? Is the coupler properly attached over the hitch ball and secured using a locking pin? Is the breakaway switch hooked up and functioning properly? Are your vehicle's and electric trailer brakes working properly?

Make a checklist of key items to inspect. Before towing, always check the tow vehicle's engine oil, transmission oil, and coolant before starting out. Finding a potential problem while in your driveway is better than discovering it far from home.

Tow mode (if equipped)

Tow mode is recommended when towing a heavy trailer or hauling a heavy load, in stop-and-go traffic, rolling terrain, or a busy parking lot. Driving the vehicle in tow mode may affect fuel economy and transmission/engine driving characteristics. See your vehicle owner's manual for additional information about tow mode.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