



# Taking it to the limit

The 3.5t towing capacity is rapidly becoming the industry standard for pickup trucks, with the current Ford Ranger, Isuzu D-Max, Nissan Navara, Toyota Hilux and VW Amarok all boasting about their 3.5t pulling capabilities.

However, having spoken to a number of you at the Confor Woodland Show in September, there seems to be a lot of confusion as to how that affects the payload, and what other legal duties foresters have when towing the full load. This article aims to shine some light on the subject.

How are towing capacities calculated?

Towing limits, like gross vehicle weights, have been devised to make sure each vehicle is safely operating within its capabilities. Various aspects of the vehicle are taken into consideration by the authorities when rating the maximum towing capacity like engine performance, braking force and suspension.

Vehicles that tow more than the legal limits will take longer to stop in the case of an accident, they can become unstable and therefore are more likely to lose control and it causes excessive wear and tear on components such as the suspension, brakes and tyres.

Gross combination mass (GCM)

One thing that the manufacturers rarely mention when they state their towing capacities is the gross



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combination mass (GCM), or gross train weight (GTW), which is the maximum amount that the vehicle and the trailer (and all of their contents) can weigh.

The reason why this is important is that the manufacturers will also state the payload in the brochure next to the towing capacity, but the gross combination mass will indicate that there is no pickup truck that can pull its full towing capacity and carry its maximum payload at the same time. In fact, they are usually nowhere near.

To give you an example, we'll take a pickup truck with a gross combination mass (GCM) of 5.7 tonnes (or 5700kg), which is the second figure shown on the vehicle's weight plate (usually located inside the driver's door or engine bay).

According to the technical specifications, this vehicle also has a payload of 1100kg, a towing capacity of three tonnes (3000kg) and a kerbweight (a vehicle without contents but driver, fuel and oil included) of 1900kg.

When towing a full load of three tonnes, this restricts the maximum weight of the vehicle and all of its contents to 2.7 tonnes. Given the 1900kg kerbweight, this leaves 800kg for payload, which is short of the 1100kg stated payload.

Golden rule

Towing a 3.5t load with a pickup breaks what many believe is one of the 'golden rules' of towing which is that the trailer should never weigh more than the towing vehicle. This is especially true with pickups, which have a much longer overhang (usually over one metre) than SUVs.

Although this is only a guideline, a fully laden 3.5t trailer can have a huge impact on handling, particularly during braking, even with modern technology like trailer sway control and weight distribution hitches.



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