

How it's all done

For one week every year, the MIRA proving ground becomes our base for Britain's biggest and best towcar test programme. Here's how the tests are done



Hill-start test

Stopping and starting again on the Hill-Start hill is a stern test of a car's handbrake, clutch and engine. Each car and caravan tackles part of the slope on the far side in reverse.

High-speed stability

Every car is driven up to 60mph on MIRA's mile-long parallel straights. If car and caravan are stable and safe at 60mph, the return leg is completed at up to 70mph.

Weighted and loaded

All caravans are weighted to 85% of the car's kerbweight (or the legal towing limit if this is lower) to create a level playing field. The car is balanced in the cabin and in the boot to simulate a typical load.

Practicality testing

The practicality testers check whether the boot can cope with a typical caravan's holiday luggage. They also decide whether the spare wheel provision is suitable for towing, assess the towing electrics and towbar height and clearance, check the handlebar and examine a host of details that make towing easier and safer.

Brake tests

Every car performs an emergency stop from 30mph. The stopping distance is measured to within 10cm using GPS tracking equipment.

What makes a good towcar?

Weight is usually the enemy in car design. All else being equal, a heavier car is slower, less nimble and less fuel-efficient than a lighter one.

When towing though, weight is your friend. The heavier the car is, the more stable it is likely to be when pulling a caravan or trailer.

You want the dog to wag its tail, never the other way around.

The Camping and Caravanning Club recommends towing a towcar weighing no more than 85% of the kerbweight of the towcar for novice caravanners, and never more than 100%, even for an experienced towcar driver.

So the heavier the car, the wider the choice of caravans that make sensible matches with it.

There's more to a good towcar than being heavy, though. Stable towcars tend to have well-judged suspension, especially at the rear — firm enough to prevent the car from sagging under a load, and

controlled enough to prevent any movement from getting out of hand. Some cars that seem too firm with just the driver on board come into their own with the weight of a caravan.

A good towcar needs a strong engine and a robust clutch and gearbox. Don't get hung up on



engine size or peak power – it's torque (twisting force) that really counts. Cars with plenty of torque don't need to be revved hard for strong performance, but are usually at their best in the middle of the rev range. Diesels are often best, offering plenty of torque with good fuel economy.

Strong brakes are a must, too. Although caravans have brakes of their own, a lot of extra weight is transferred to the back of the car when stopping in a hurry.

Hassle-free hill starts demand a parking brake with good bite, a hard-wearing clutch, plenty of torque and a well-chosen first

gear. Four-wheel drive helps, especially in slippery conditions, but there are plenty of great two-wheel-drive towcars.

Be sure to check the car's legal towing limit. This is often higher than 85% of the kerbweight of the car, but not always. If it's lower, stick to the legal limit.



The judges



Steve Cropley
Editor-in-chief of Autocar and European Car of the Year juror



Nigel Donnelly
The long-time editor of Practical Caravan is now editor-in-chief of its related websites



Iain Geddes
Our head practicality judge and senior technical advisor at the Camping and Caravanning Club



Ian Hewlett
The club's technical manager and the newest addition to our judging panel



Steve Huntingford
New cars editor of What Car?, he is responsible for our high-performance tests



Nigel Hutson
A lifelong caravanner and former police Class 1 driver, who has been a judge since 2007



David Motton
Former editor of What Car? and Practical Caravan. Tows with dozens of cars each year



Sue Taylor
Sue tows caravans and horseboxes and is features editor of Camping and Caravanning

Thanks to...

We'd like to thank Admiral Fire Extinguishers, AHKo for assistance in providing stability data, Milenco for the loan of towing mirrors and adaptors, and Witter for assistance in checking the towballs and electrics. In particular, we'd like to thank the volunteers from the Camping and Caravanning Club who make the tests possible.