

# WEIGHT MANAGEMENT

Sunbuster lets you know all the gear you need to manage your caravan weights

WORDS BY STEVE COLLINS, PHOTOGRAPHY BY CARAVAN & MOTORHOME ON TOUR

**S**afety. Handling. Stability. Fuel economy. Acceleration. Braking. Longevity. Life. These are all directly affected by how much your vehicle and caravan weighs.

You've only got to watch the news to see the reports about caravan-related accidents. We say accidents, because they are. No one intends to get into strife on the road. But as technology progresses, cars get faster and more nimble; it's easy to forget the laws of physics.

Put yourself in the driver's seat of an overloaded tow vehicle and caravan combo. You're doing what you think is a safe speed. There's an incident up front and you have to react quickly to avoid it. You've unsettled your van and you begin to pendulum down the road. Your instincts tell you to jump on the brake, which accentuates the sway and causes the tyres to break traction. Your van (which likely weighs more than your tow vehicle) starts to push you down the road - or

worse still - overtakes you. You're in all sorts of trouble, and let's just say it doesn't end well.

Prevention is better than a cure, as they say. And when it comes to caravan weight management, it's no different.

The more you do to correctly manage your vehicle and caravan weights before you set off on your next trip, the less likely you are to get into trouble. And if something does go wrong, the higher your chances of being able to handle the situation safely.



Overloading your van could cost you a whole lot more than just higher fuel consumption



## WHY IT'S ESSENTIAL TO GET WEIGHT DISTRIBUTION RIGHT

"It's extremely important that not too much weight or not too little weight is placed on the draw bar," says Steve from Sunbuster. "Uneven weight distribution causes vehicle stress, leads to fish tailing and if a gust of wind were to hit the tow vehicle or caravan, there is a high chance you would lose control. Tow bars have a maximum tow ball weight. If this is exceeded, damage to the tow bar or chassis may result. Caravans should be the heaviest in the centre of the chassis,

down low. This will keep the car level. If the van's not heaviest in the centre, even small wind gusts may cause the vehicle and caravan to become unstable."

## WHEN SHOULD YOU CHECK YOUR VAN WEIGHTS?

"Tow vehicle and caravan weights should always be checked before you leave home, and after any modifications or repacking of your caravan," says Steve.

"Beginners should check weights every week until they have a better understanding of their van's weight. I met a couple who had been on the road for one month who were adding 100kg extra every week, and had left home 250kg already overweight. Keep a log each time you weigh your van and you'll be shocked to see the differences."

## THE BEST WAY TO WEIGH YOUR CARAVAN

"A lot of caravanners use weight sticks to measure front to tail weight on the tow bar," says Steve. "Weight

## GLOSSARY

### GROSS VEHICLE MASS (GVM)

The maximum allowable total mass once fully loaded.

### BRAKED TOW RATING

The total trailer mass the towing vehicle can tow.

### AGGREGATE TRAILER MASS (ATM)

The total mass of the trailer when carrying the maximum load recommended by the manufacturer. This includes mass imposed onto the towing vehicle's tow ball.

### TOW BALL MASS

The mass exerted downward on the tow ball by the fully loaded trailer.

### TRAILER TARE MASS

The total mass of an unladen trailer when ready for service. All fluid reservoirs (except water and waste water tanks) filled to nominal capacity. Fuel is 10L only. All standard equipment and any options fitted.

### GROSS COMBINED MASS (GCM)

The maximum gross combined mass of the tow vehicle and trailer together.

sticks are great for measuring ball weight, but they don't tell you the total weight of the van and can be ineffective if they're packed with grease. People often remove too much weight from the tow ball and the front end becomes too light.

A public weighbridge is good for measuring overall weights, however at \$30 a visit, this comes at significant cost and inconvenience.

Compact digital scales like the Reich Caravan Weight Control system allow you to measure your tow ball and axle weights using the one device. You can recoup the cost of the scales after just 10 trips or so, saving you \$100s over the cost of regular public weighbridge visits long-term."

## TALK TO THE EXPERTS

Steve Van Schagen,  
Sunbuster Solar Shades

Steve from Subuster has over 25 years' experience in the vanning industry. Three years ago he noticed there was a major van weight issue in Australia, to the degree that the majority of vans on the road were overweight. He got in contact with the largest weight scales manufacturer in Germany: Reich.

In 2014 Sunbuster was appointed the Australian distributor of Reich weight scales. Subuster have a 98% success rate with vanners who take their advice about weight management.

Steve has built his business on excellent customer service and he is always available to give vanners advice regarding weight management.

An infringement notice will be the least of your worries, if your van is dangerously over weight



## CWC 1500

The CWC 1500 has an RRP of \$375 plus postage. To get a CWC 1500 for yourself, or to see it in action, simply jump onto the website [www.sunbuster.net.au](http://www.sunbuster.net.au).

## SHOULD YOUR VAN BE WEIGHED HITCHED OR UNHITCHED?

“Both car and van should be weighed both unhitched then combined,” says Steve. “The authorities look at vehicle weight, van weight and gross combined weight.”

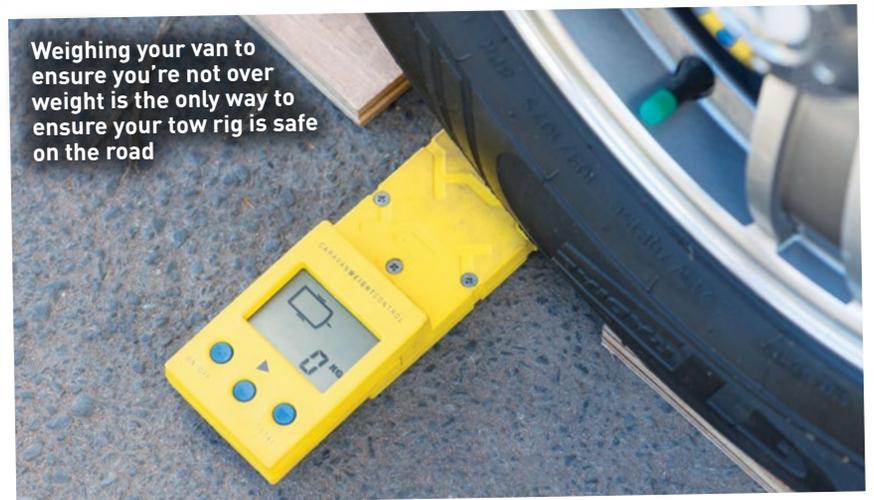
- First, weigh the caravan by itself, measuring tow ball and axle weights (ATM).
- Then check the vehicle by itself (GVM).
- Next, the caravan and vehicle together. Weigh and check the vehicle with caravan weight on the tow ball.
- Check that you don't exceed the vehicle's maximum allowable axle, tow ball and combined mass.
- Measure the caravan weight again and see how much weight you've transferred onto the car.

## GVM UPGRADES

Approved GVM upgrade kits are available for a range of makes and models” says Steve. “What's involved and what it costs varies for every make and model, and unfortunately, it's not available for all vehicles. GVM upgrade kits can only be fitted by an authorised facility, and the kit needs to

be approved for road use in your state.

A GVM upgrade does not automatically mean your GCM or tow capacity increases with it. Generally, upgrading your GVM by 280-300kg means you have to take that weight off the caravan somehow because this all combines for the gross combined mass.



Weighing your van to ensure you're not over weight is the only way to ensure your tow rig is safe on the road

### HOW TO WEIGH YOUR VAN IN 6 EASY STEPS

#### 1 - SELECT THE PROGRAMME

The CWC1500 offers 3 programme settings; caravan single axle, caravan twin axle or vehicle. Simply choose the mode most suited to your needs.

#### 2 - WEIGHING THE JOCKEY WHEEL

Remove the coupling from the tug, and carefully place the Reich CWC directly under the caravan coupling. Place a timber board (3"x2" cut to appropriate length) between the Reich CWC and a secure position on the coupling. By unwinding the jockey wheel slowly the Reich CWC will record the towball weight, this figure is known when the screen begins to have blinking arrows. At this moment begin winding the jockey wheel upwards to take the weight off the Reich CWC.

#### 3 - LEFT TYRE

Press the scroll button to select the left wheel. Place the scale 90° to the left tyre. Drive the caravan slowly over the scale, the slower the better.

#### 4 - RIGHT TYRE

Press the scroll button to select the right wheel. Place the scale 90° to the right tyre. Drive the caravan slowly over the scale, the slower the better.

#### 5 - READING THE WEIGHT

Now, simply press the total button to read the total weight of the caravan. The CWC will combine the towball (coupling), left and right axle weights to give you the total weight of your van.

#### 6 - TWIN AXLES

Measuring the weight of a twin axle caravan follows much the same process, however it is recommended to utilise boards which are lower in height than the Reich CWC, generally about 19mm thick to ensure accurate readings. Simply place the boards either side of the CWC leaving a three fingered gap to ensure that the CWC will roll freely from side to side without interference, such as touching the boards. The aim here is to measure the left wheels together, and the right wheels together.



Using boards on each side ensures the van is level when weight readings are recorded

### REICH CARAVAN WEIGHT CONTROL 1000 & 1500

For even the seasoned traveller among us, it can be difficult to keep your caravan weights in check. By the time you fill up your gas, water tanks, clothing, food, drinks, luggage and camp chairs, pack a few spares and hitch up ready to go, there's a fair chance you're right up on, or have exceeded, your maximum allowable payload.

With Sunbuster's compact Caravan Weight Control digital scales, you can now measure exactly how much your caravan or motorhome weighs in seconds, ensuring you stay within legal limits before you set off on your next adventure.

Independently measure and display your tow ball weight; left side and right side, single or twin axles. Read individual weights or gross vehicle mass on the easy-to-read LCD display. All using the same device.

The CWC measures 360x70x45mm and weighs just 1kg, meaning it's not only easy to use, but compact and light-weight to store, too. The CWC comes in two models; the 1000kg/tyre and 1500kg/tyre. The yellow CWC1500 is suitable for smaller single axle and the larger tandem axle vans and vehicles with a maximum 1000kg of load per wheel. While the orange CWC1600 is suitable for a maximum load of 1500kg load per wheel suitable for the larger single axle and larger four tonne tandem axle vans. Both are rated to a maximum jockey wheel load of 450kg.

### WEIGHING A MOTORHOME OR VEHICLE

Weighing your vehicle or motorhome is just as important, and just as easy with the CWC1500. It's best to keep your axles level and the same height when weighing each tyre.

To begin, grab a plank of wood approximately 75mm x 30mm x 400mm. Select the blinking coupling setting on your CWC, then place the CWC directly under the coupling. Place the timber between the CWC and a solid spot on the coupling, and slowly lower the coupling by turning the jockey wheel appropriately. When the screen begins to blink you will know that a measurement has been recorded. At this point wind the jockey wheel upwards to take the weight off the CWC.

Now, move the plank of wood to the right rear. Select the LEFT REAR wheel setting on the CWC, and then place it under the left rear wheel. Drive slowly over the CWC to record the reading.

Repeat the process on the RIGHT FRONT and RIGHT REAR tyres, ensuring the plank of wood is used on the same axle as the scales to ensure the vehicle stays level. Then press the TOTAL button to read the total weight of the vehicle or motorhome. Simple! Steve's instructional video is available at [www.sunbuster.net.au/services/caravan-weight-control](http://www.sunbuster.net.au/services/caravan-weight-control) ■



Whether you want individual tow ball or axle readings, or a combined total vehicle weight... the CWC digital scales does it all

### CONTACT

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