

Is your Caravan or Camper-Trailer Compliant???

The *Caravan Council of Australia* - www.caravancouncil.com.au - is an *independent*, non-profit, non-commercial, non-political body that provides *free no-obligation* compliance and technical advice to all manufacturers, importers, dealers, owners and potential buyers of “recreational vehicles”.

While primarily assisting caravan and motorhome personnel, the same legal requirements also apply to boat-trailers and horse-floats, hence “caravan” takes in *all* recreational vehicles that are towed.

The CCA web-site has *free, no-obligation*, down-loadable Compliance, Quality and Assessment documents, available under COMPLIANCE, QUALITY and MANUFACTURERS.

A valuable “buyer-assist” 4-Part “*Evaluation - Comparison - Contract - Inspection*” document is available for *free no-obligation* down-load under RV BUYERS.

The CCA also provides *free, no-obligation*, consultations on compliance, technical and safety issues: caravancouncil@optusnet.com.au The CCA always endeavours to use *Mediation* to resolve these problems, thus trying to avoid massy and costly legal actions.

If professional assistance - vehicle inspections or technical reports - *are* required, CCA-accredited engineers *may* be engaged to assist... at fair commercial rates. However, there is absolutely *no* obligation to do so.

Manufacturers and importers can freely use the *Compliance Audit* and *Quality Assessment* check-lists for in-house evaluations, and likewise, may engage *any* professional person to assist them. CCA-accredited personnel will provide professional, confidential and independent assessments. There is *no* requirement for manufacturers or importers to buy and affix CCA-accreditation labels to their trailers.

Quotes: “declarations on many caravans and camper-trailers have been false”
 “**Load-carrying capacity = ATM Rating - Tare Mass**”
 “All information on the Plate, or otherwise supplied to the public, *must* be true and correct for that specific vehicle”

The word “compliant”, according to dictionaries, means acquiescent, biddable, submissive, yielding, amenable, or accommodating. When applied to road vehicles - including caravans and camper-trailers - it means “meeting all of the legal requirements to enable them to be (lawfully) registered for use on Australian roads”.

Is your caravan or camper-trailer fully “compliant”? The sad truth is that many are *not*, especially a lot of the early imports. This is especially so with used ex-North American 5th-wheelers and motorhomes.

When you buy a motor vehicle - or a trailer *over* 4.5 tonne ATM Rating - it will have a Compliance Plate, issued by the federal *Vehicle Safety Standards* (formerly referred to as DOTARS), fitted to it. This means that complete proof-of-compliance with all applicable ADR’s (Australian Design Rules) has been submitted to VSS for their engineering inspection and subsequent approval. VSS will then have probably conducted a SUTI (single uniform type inspection) on one of the subject vehicles, to confirm that the evidence does, in fact, accurately match the vehicle description and specifications.

For caravans and trailers *under* 4.5 tonne ATM Rating, this is *not* the case. “Self-certification” is permitted, whereby the manufacturer - or importer - provides a *declaration* on the VIN/Trailer/Compliance Plate, that the vehicle complies with the Motor Vehicle Standards Act 1989.

It has been proven many times that such declarations on many caravans and camper-trailers have been false. Severe penalties can apply in such cases. Many manufacturers and or importers have gotten away with such practices, but when legal actions are instigated against them - or one of their vehicles is involved in an accident (especially one leading to a coronial enquiry) - *serious* repercussions will

inevitably occur. In such cases, lawyers and their “nasty” (read, diligent) engineers will dig deep, to best ensure that the truth is exposed.

Since the MVSA 1989 became legislated, all caravans and camper-trailers have been required to have a valid Trailer Plate securely affixed to it. As is the case with motor vehicles, buyers and owners expect that all information on the Plate is true and correct. Sadly, in many instances, this has *not* been the case.

The Plate is legally required to show the following information:

- Manufacturer's or Importer's Name:
- Trailer Model:
- Vehicle Identification Number (17-digit):
- Date of Manufacture:
- Aggregate Trailer Mass Rating:
- The Certification Statement: “This trailer was manufactured to comply with the Motor Vehicle Standards Act 1989”

Often the legally-required Tyre Placard is also included, and possibly other information.

Three of the items required on the Tyre Placard are:

- the manufacturer's recommended tyre size: (Without mentioning brand names)
- tyre load rating:
- speed rating:

All information on the Plate, or otherwise supplied to the public, *must* be true and correct for that specific vehicle.

Sadly, many owner/buyers have not been aware of the consumer-protection provided by the *Trade Practices Act* until January 2011, when the *Australian Consumer Law* became uniform legislation.

“Merchantable quality” then became up-graded to “Acceptable quality”. “Fit for purpose” is a main consideration when issues arise. Honesty and “duty of care” are also prime considerations.

VSB-1 (Vehicle Standards Bulletin No: 1) is the legal instrument that prescribes the legal requirements for caravans and trailers (under 4.5 tonne ATM Rating).

This can be down-loaded from the web-site:

http://www.infrastructure.gov.au/roads/vehicle_regulation/bulletin/index.aspx

The biggest issue that leads to complaints and litigation is “Ratings and Masses”. This especially relates to the “load-carrying capacity” (maximum legal pay-load) of the vehicle. While “Tare Mass” is *not* legally required to be stated on the Plate, one would certainly argue that providing this figure (in writing) is a *critical* duty-of-care responsibility of the “merchant”.

Load-carrying capacity = ATM Rating - Tare Mass

Many complaints relate to the *actual* Tare Mass being significantly more than the *stated* Tare Mass.

The Tare Mass is the measured (not estimated) mass of the vehicle as it leaves the factory, with empty water tanks and empty gas cylinders, but with all equipment and accessories that were stated on the Purchase Contract.

Problems have arisen because dealers or owners have added equipment and accessories later, without requiring the Plate to be up-dated with the true Tare Mass.

It is prudent for buyers to weigh a newly-purchased caravan or camper-trailer - both new and second-hand - to confirm the actual Tare Mass, at a certified weigh-bridge. The (empty) Ball-loading should also be accurately measured.

Also surprisingly, the GTM Rating is not legally required to be stated on the Plate, even though some ADR (and unique State) requirements depend on the GTM Rating... especially braking requirements above and below 2,000 kg GTM Rating.

The ratings of the wheels, tyres, axle(s) and suspension must all be equal to, or greater than, the GTM Rating.

It is important to note that the GTM Rating has *no* bearing whatsoever on the *ball-loading*.

Other important compliance items are the:

- Ratings and method of attachment of the coupling and the safety chains
- Braking system
- Lamps and reflectors
- Electrical wiring between the vehicle and the tow-vehicle
- Vehicle dimensions... length, width, height, rear-overhang

The most critical - and potentially *lethal*, if not correct - internal safety items are the electrical and gas *appliances* and *installations*. These *must* be in strict accordance with the appropriate AS's (*Australian Standards*).

Some States/Territories may have different interpretations and requirements, but the only way to best-ensure full compliance is to obtain certificates from licensed electricians and gas-fitters.

There have been a number of cases where *appliances* and *installations* - both electrical and gas - have *not* been approved to Australian requirements.

Lamps and reflectors have a number of legal requirements. They have to be designed for the particular *function*, for example a "generic" red lamp cannot be used for the rear position, end-outline, and stop lamps. Different lamps and reflectors have different fields-of-view (horizontally and vertically) and different maximum and minimum light intensities.

Again, there have been numerous cases of dirt-cheap non-compliant lamps being used on caravans and camper-trailers offered for sale in Australia. To demonstrate approval for specific functions, lamps and reflectors must have either an "E-mark" or a CRN.

"E-marks" (E for Europe) are used on many automotive components that are used internationally. The mark consists of a capital "E", with a small sub-script number, inside a circle, along with the approval number embossed in the plastic. Lamps and reflectors that are sold just in Australia, will probably not have an "E-mark", but are required to have a CRN (component registration number) that is issued by VSS, after proof-of-compliance is provided to them. Such lamps and reflectors must have unique identification markings, so that they can be cross-referenced to the specific CRN.

Lamps and reflectors must be *oriented* correctly, especially front and rear reflectors (in a side view). The prescribed *number* of lamps and reflectors must be fitted, and they must be in the specified positions. While lamps and reflectors may not be as critical as brakes, couplings and tyres, they are still an important road-safety item.

Caravan & Camper-Trailer Auditing

Compliance with ADR / VSB-1 Regulations

Type of RV: Brand:

Serial No: Audit Date:

Audit Address:

Name & Signature of Manufacturer:

Name & Signature of Auditor:

Does the Aggregate Trailer Mass Rating (ATM Rating) not exceed 4.5 tonnes (4,500 kg): YES / NO

Does the Aggregate Trailer Mass Rating (ATM Rating) not exceed 3.5 tonnes (3,500 kg): YES / NO

Are ADR/Compliance records retained for ten (10) years: YES / NO

Is the vehicle plate durable, non-corrosive metal, and positioned as prescribed: YES / NO

Is the vehicle plate permanently affixed as prescribed: YES / NO

Does the vehicle plate show at least the following information:

- Manufacturer's or Importer's Name: YES / NO
- Trailer Model: YES / NO
- Vehicle Identification Number: YES / NO
- Date of Manufacture: YES / NO
- Aggregate Trailer Mass Rating (kg): YES / NO
- The Certification Statement: YES / NO

“This trailer was manufactured to comply with the Motor Vehicle Standards Act 1989”

Is the information legible, not less than 2.5 mm high, and marked as prescribed: YES / NO

Is the vehicle identified by means of a 17 character Vehicle Identification Number (VIN): YES / NO

Is the VIN also stamped, in at least 7 mm-high digits, on the drawbar: YES / NO

Is the VIN provided in a secondary location: YES / NO Recommended

Is provision made for mounting a 372 mm x 136 mm registration plate on the rear: YES / NO

Is no part of the registration plate more than 1300 mm above the ground: YES / NO

Lighting:

Do all lamps and reflectors have an E-Mark or CRN: YES / NO (All CRNs to be listed)

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Are all lamps and reflectors orientated and located correctly: YES / NO

Are the prescribed number of lamps and reflectors fitted: YES / NO

Front Position (Side) Lamps: 2 must be fitted if trailer is more than 1600 mm wide and over 4 metres long, or over 1800 mm wide. For trailers 2100 mm wide or less, may be combined with 2 prescribed side-marker lamps YES / NO

Rear Position (Side) Lamps (Tail Lamps): 2 must be fitted YES / NO

Rear Stop Lamps (Brake Lamps): 2 must be fitted YES / NO

Direction Indicator Lamps (Turn Signals): 2 must be fitted YES / NO

Rear Registration Plate (Number Plate) Lamp: 1 or 2 must be fitted YES / NO

Hazard Warning Signal Lamps: Must operate simultaneously with tow-vehicle lamps YES / NO

End-Outline Marker Lamps: 2 must be fitted, front & rear, if more than 2100 mm wide YES / NO

Side-Marker Lamps: Option 1: YES / NO Option 2: YES / NO

Front Retro (Reflex) Reflectors: 2 must be fitted YES / NO

Rear Retro (Reflex) Reflectors: 2 must be fitted YES / NO

Side Retro (Reflex) Reflectors: Must be fitted as prescribed YES / NO

Trailer & Tow-vehicle Wiring: Correct: YES / NO

Connector	Pin No:	Circuit	Colour
7 Pin	1	Left turn-signal lamp	Yellow
	2	Reversing lamp	Black
	3	Earth return	White
	4	Right turn-signal lamp	Green
	5	Service brakes	Blue
	6	Stop lamp	Red
	7	Position, side-marker & E-O lamp	Brown
12 Pin	8	Batter charger - winch	Orange
	9	Auxiliaries / battery feed	Pink
	10	Earth return	White
	11	Fog lamp	Grey
	12	Spare	Violet

Is the trailer wiring:

- supported at intervals of not more than 600 millimetres along its length: YES / NO
- insulated at joints: YES / NO
- located so that it can neither become overheated nor contact moving parts: YES / NO
- protected from chafing: YES / NO
- fitted with an earth return wire between the trailer and its hauling vehicle: YES / NO

If there is a 230-volt AC electrical system, does it comply with AS 3000/3001: YES / NO

Electrical Certificate Details:

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Braking:

Is the GTM Rating marked on the vehicle: YES / NO

Is the GTM Rating over 2.0 tonne: YES / NO

Is the prescribed braking system fitted: YES / NO Number of Brakes:

Type of braking system: Drum/disc Size:

If required, is an approved break-away system fitted: YES / NO

If required, can the condition of the caravan battery reasonably be expected to be observable from the driving position of a tow-vehicle: YES / NO

Coupling & A-Frame:

Is there a compliance certificate for ADR 62 / VSB-1: YES / NO

Note: The assessment *must* include the strength of the welding, and state the grade of steel used, along with the sectional dimensions of the A-Frame members.

Engineering Certificate Details:
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Is the Drawbar securely attached to a substantial portion of the vehicle: YES / NO

Are Safety Chains correctly marked and Approved to the prescribed Standard: YES / NO

Are the correct number fitted: YES / NO Are they of the correct size: YES / NO mm

Are the Safety Chain attachment points of sufficient strength and fitted as prescribed: YES / NO

Is the Coupling of the correct rating and design, and Approved as prescribed: YES / NO

50 mm Ball Coupling:

Does the coupling comply with AS 4177: YES / NO

If not, does it comply with ECE R55: YES / NO

If the coupling is a 50 mm ball, is it designed to comply with the ADR 61/01 or ADR 62/02 height requirements of the ball height of the tow vehicle (350-420 mm or 350-460 mm): YES / NO

Load Rating on Coupling: kg

Ball Diameter on Coupling: mm Provide details if an *imperial* size: “

If another type of coupling is fitted, is it Approved: YES / NO

Do the wheel (mud) guards provide the prescribed protection: YES / NO

Are the wheels Approved and marked with all prescribed information: YES / NO

Do the wheels make a solid metal-to-metal contact with the hub flange: YES / NO

Are the tyres Approved and marked with the prescribed information: YES / NO

Tyre Placard:

If the GTM Rating does *not* exceed 3.5 tonnes, is there a prescribed tyre placard: YES / NO / NA

Is at least the following must be shown:

- the manufacturer's recommended tyre size:
- tyre load rating:
- speed rating:
- cold inflation pressures:
- either the statement: YES / NO

'The tyres fitted to this vehicle shall have a speed category not less than 'L' (120km/h)':

or... if the recommended maximum vehicle operating speed is less than 120km/h,

'The tyres fitted to this vehicle shall have a speed category at least equal to the recommended maximum vehicle operating speed,'...'km/h.', where '...' is the vehicle manufacturer's recommended maximum vehicle operating speed.

If the GTM Rating *does* exceed 3.5 tonnes, are the prescribed requirements met: YES / NO / NA

Rim Size: Diameter: ”; Width: mm; Profile: ; Off-set: + / -

Is the tyre/rim combination in accordance with the *Tyre & Rim Association* requirements: YES / NO

Dimensions:

Does the overall length not exceed 12.5 metres: YES / NO

Does the rear overhang not exceed the lesser of 3.7 m, or the front load space: YES / NO

Does the maximum width not exceed 2.5 metres: YES / NO

Does the height not exceed 4.3 metres: YES / NO

Does the ground clearance exceed the minimum permitted requirements: YES / NO

If required, is there an outward opening or sliding door: YES / NO

If so, is it located on the left-hand side or at the rear: YES / NO

If there is an LPG installation, is there a valid certificate of compliance with AS 5601: YES / NO

Gas Certificate Details:
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Is an approved fire-extinguisher fitted: YES / NO

Is an approved smoke-detector fitted: YES / NO Recommended

Is an approved CO-detector fitted: YES / NO Recommended

Is an approved fire-blanket fitted: YES / NO Recommended

Is the vehicle free of unduly sharp edges or projections: YES / NO

Is the structure capable of supporting the designed payload with a safety factor of at least 3 for highway use and a safety factor of 5 for off-road use: YES / NO

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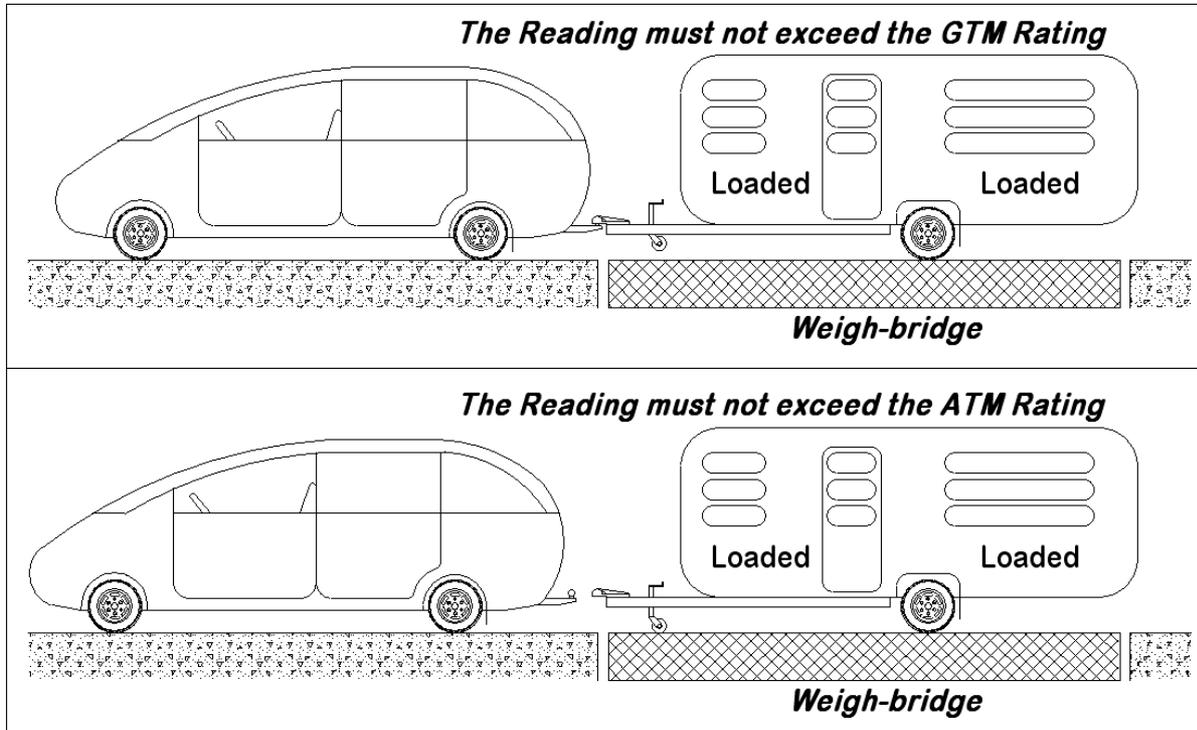
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Caravan Ratings & Masses

The GTM & ATM are Ratings... allocated by the Manufacturer

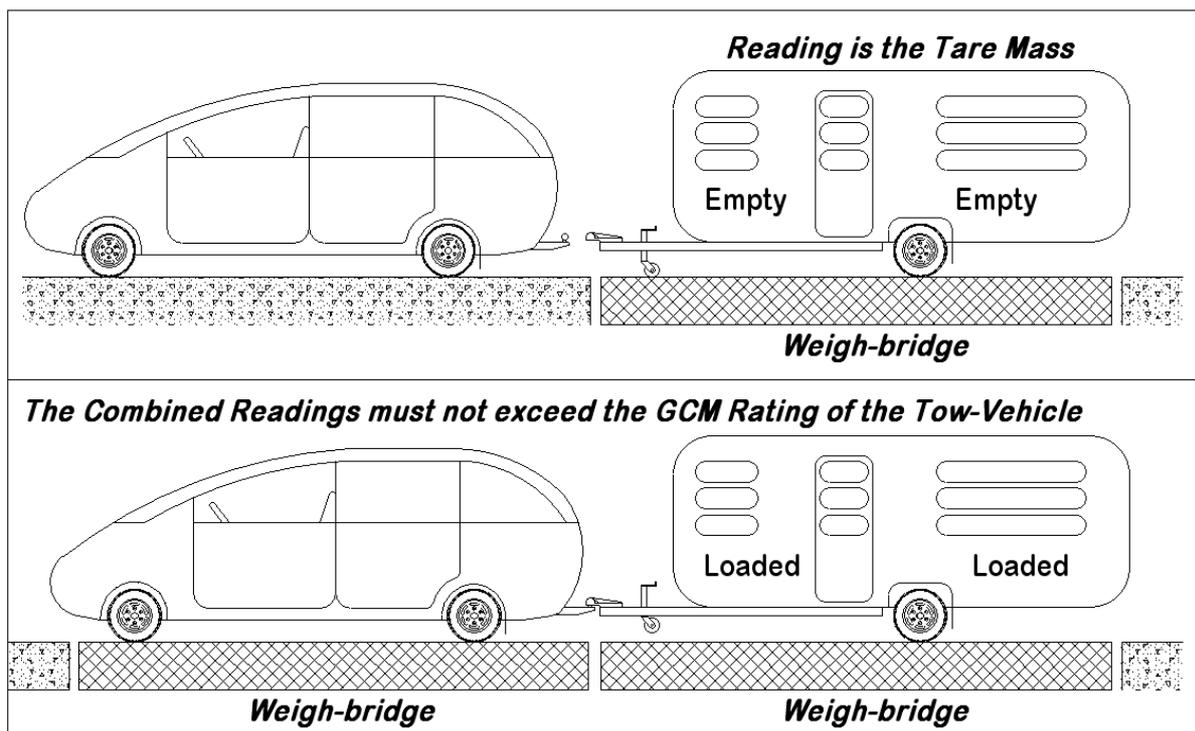
The Tare Mass and Ball-Loading are Actual Masses... that must be measured

The Tare Mass is the *actual measured mass* of the vehicle as it leaves the Supplier. The vehicle is fitted with everything that was stated on the *Purchase Contract*. The vehicle is empty. The gas cylinder(s) and the water tank(s) must be empty.

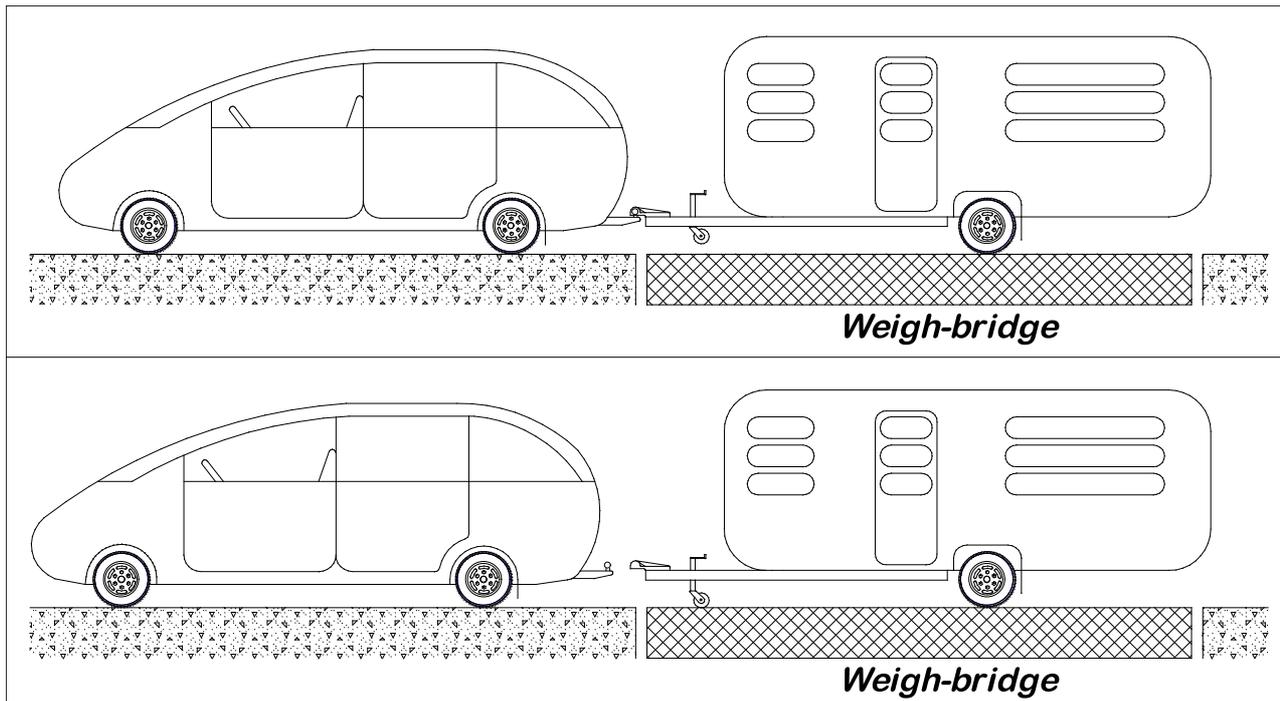


Drawing 1 shows measuring the “**Axle-Loading**” Must not exceed the **GTM** Rating

Drawing 2 shows measuring the “**All-Up Mass**” Must not exceed the **ATM** Rating



Legal Load-Carrying Capacity = ATM Rating – Tare Mass



The Ball-Loading is the *difference* between the two readings

ATM: Aggregate Trailer Mass (Rating)

GTM: Gross Trailer Mass (Rating)

The GTM Rating must *not* exceed the *lowest* of the “Axle-Group” Ratings.

The “Axle-Group” comprises the:

- **Wheels & Tyres**
- **Suspension Structure**
- **Springs**
- **Axles & Wheel-Bearings**

Tow-Vehicles:

- **GVM: Gross Vehicle Mass (Rating)**
- **GCM: Gross Combination Mass (Rating)**
- **RAC: Rear Axle Capacity (Rating)**
- **Maximum Permitted Towing Capacity: (Rating)**
- **Maximum Permitted Coupling Down-load Capacity: (Rating)**

Tow-Bar: Maximum Permitted Towing & Down-load Limits: (Ratings)