

Caravan Towing Theory Test

Legal & Technical Items - Terminology; Ratings & Masses

1: What do the following abbreviations mean:

ATM:

- (a) Average Travelling Mass
- (b) Australian Testing Method
- (c) Aggregate Trailer Mass

GTM:

- (a) General Technical Manufacture
- (b) Gross Trailer Mass
- (c) Guaranteed Trailer Mass

(Tow vehicle) **GVM:**

- (a) Gross Vehicle Mass
- (b) Generous Velocity Measurement
- (c) German Vehicle Method

(Tow vehicle) **GCM:**

- (a) Guaranteed Coupling Movement
- (b) Grand Co-operative Management
- (c) Gross Combination Mass

2: Are the above items “Actual Masses” or “Ratings”:

- (a) actual masses
- (b) both
- (c) Ratings

3: Are “Tare Mass” & “Ball-loading” “actual masses” or “Ratings”:

- (a) neither
- (b) Ratings
- (c) actual masses
- (d) both

- 4: The definition of "Tare Mass" for a Caravan & Camper/Tent-Trailer is:
- (a) The load (force) on the coupling when the caravan is fully loaded
 - (b) The *total permitted* mass of the laden caravan transmitted to the ground by the caravan tyres, when carrying the maximum load recommended by the manufacturer, when coupled to a tow-vehicle. This rating must *not* exceed the axle-group (wheels/tyres/suspension/axle) *rating* stated by the chassis manufacturer
 - (c) The actual mass of the caravan with all OEM equipment fitted - as specified on the sales contract - with empty water tanks and empty LPG cylinders, and without any luggage or personal effects. This is measured with the jockey-wheel and tyres on the weigh-bridge.
- 5: What do each of the elements of a tyre designation mean: **LT-P 225 / 85 R 16 90 Q**
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|------|----------------------------|--------------------------|------------------------|
| LT: | (a) Low Temperature | (b) Light Truck | (c) Large Texture |
| P: | (a) Positive | (b) Pressurized | (c) Passenger (car) |
| 225: | (a) Top Speed (225 mph) | (b) Tyre Diameter (") | (c) Section Width (mm) |
| 85: | (a) Minimum Speed (85 mph) | (b) Profile Ratio (%) | (c) Maximum Temp |
| R: | (a) Radial Construction | (b) Radical Construction | (c) Racing Tyre |
| 16: | (a) Tread Width (cm) | (b) Rim Diameter (") | (c) Inflation Pressure |
| 90: | (a) Year of Manufacture | (b) Load Rating | (c) Manufacturer ID |
| Q: | (a) Speed Rating | (b) Queen's Approval | (c) Quick Inflation |
- 6: What is the standard size for a ball-coupling: (a) 50 mm (b) 2" (c) 3 cm
- 7: What does *ADR* stand for:
- (a) Alternative Driving Requirements
 - (b) Advanced Development Regime
 - (c) Australian Design Rule
- 8: What does *AS* stand for:
- (a) Australian Standard
 - (b) Automotive Satisfaction
 - (c) African Substitution
- 9: Does the *Tyre & Rim Association* Manual give:
- (a) The names of all companies who make tyres and rims
 - (b) The starting odds of all past winners of the Melbourne Cup
 - (c) The correct tyre/rim combinations, and the recommended inflation pressures for all tyre sizes, to suit the load carried by the tyre

- 10: Are fixed (non-swivel) 50 mm *Ball-couplings* suitable for medium/severe off-road operation:
(a) Yes (b) No (c) Only in winter
- 11: *Brakes* are required on caravans:
(a) Only if the driver of the tow-vehicle is not very good
(b) Yes, on all caravans and camper/tent-trailers
(c) If the GTM Rating is above 750 kg
- 12: *Break-away* brakes are required:
(a) Only in winter
(b) If the GTM Rating is above 2,000 kg
(c) Only if driven faster than 120 km/h
- 13: *ABS* (on tow-vehicle) stands for:
(a) Automatic Braking System
(b) Australian Broadcasting Syndicate
(c) Anti-lock Braking System
- 14: If ABS is fitted to the tow-vehicle, will it also automatically work on the caravan:
(a) No (b) Hopefully, if you are in trouble (c) Yes
- 15: The *Ball-loading* at any time:
(a) Is not important
(b) Should either be around 1%, or 30%, of the Tare Mass
(c) Should be *around* 10% of the caravan/trailer mass (if not otherwise advised by the manufacturer, in writing)
- 16: If the Ball-loading is too *light*:
(a) You will go faster
(b) The caravan/trailer will most likely develop a *most dangerous* sway (snaking) situation
(c) The caravan/trailer will be harder to lift on and off the coupling

- 17: If the Ball-loading is too *heavy*:
- (a) You will be able to change the front tyres of the tow-vehicle without needing a jack
 - (b) Tyre wear will be reduced
 - (c) Handling, steering and safety will be dangerously impaired, and the tow-bar may fail
- 18: Heavy items should be stored in the caravan:
- (a) On the roof
 - (b) On the A-frame or rear bumper
 - (c) As close as possible to the axle(s)
- 19: If caravan/trailer tyre pressures are too *low*:
- (a) The vehicle will be much lighter because there is not much air in the tyres
 - (b) The vehicle will sway and wallow, and the outer edges of the tread will wear out
 - (c) The vehicle will be much closer to the road, greatly reducing the air drag
- 20: If caravan/trailer tyre pressures are too *high*:
- (a) The vehicle will skip and bounce, and the centre of the tread will wear out
 - (b) The vehicle will not vibrate as much
 - (c) It will wreck tyre-pressure gauges, although a smooth ride is achieved
- 21: The caravan/trailer allowable/legal Pay-load (Load-carrying capacity) is:
- (a) Whatever the driver thinks their tow-vehicle can handle OK
 - (b) ATM Rating – (minus) Tare Mass
 - (c) 50% of the GTM Rating + (plus) the Ball-loading
- 22: The left-side and right-side brakes should be:
- (a) Regularly checked for wear, and adjusted evenly
 - (b) Must be greased on a daily basis when travelling
 - (c) As big as those on the tow-vehicle
- 23: The caravan/trailer lamps:
- (a) Operate best on 230 volts
 - (b) Need to be tapped moderately hard if they do not operate reliably
 - (c) Should be checked for correct operation before setting off on a trip

- 24: When towing a caravan/trailer, added or extended mirrors:
- (a) Slow you down appreciably because of the very high air resistance
 - (b) Must be used so as to obtain a clear field-of-view along each side of the vehicle
 - (c) Should only be fitted when going “off-road” on dusty tracks
- 25: When towing a caravan/trailer, the time and distance needed to accelerate from 60 - 80 km/h (compared to just driving the tow-vehicle on its own) are:
- (a) Hardly worth worrying about
 - (b) *Appreciably* much longer
 - (c) Around 10 seconds and 50 metres longer
- 26: When towing a caravan/trailer, the time and distance needed to slow down from 80 - 60 km/h (compared to just driving the tow-vehicle on its own) are:
- (a) Around 5 seconds and 100 metres shorter, because of the additional brakes
 - (b) Again, hardly worth worrying about
 - (c) *Appreciably* much longer
- 27: When towing a caravan/trailer around a curve, you should:
- (a) Speed up, so that the caravan/trailer will “drift” around the curve better
 - (b) Slow down, because of the additional centrifugal force, and risk of swaying
 - (c) “Cut the corner” (especially on rough roads) to increase the radius of the curve
- 28: *Doubling* your speed - say from 40 - 80 km/h - will:
- (a) Improve the handling and braking performance of the caravan/trailer
 - (b) Increase the kinetic-energy - and braking distance - by a factor of 4 (four)
 - (c) Improve fuel economy (because the trip will take much less time)
- 29: If you see a B-Double approaching (from the front or rear), you should:
- (a) Immediately give a friendly call to the driver on Channel 79
 - (b) Speed up, so as to quickly get the meeting/over-taking over and done with
 - (c) Slow down a little, and firmly hold the steering wheel in case a “sway” starts

- 30: If the caravan/trailer starts to “sway” or “snake”, you should:
- (a) Hit the brakes as hard as possible
 - (b) Accelerate as hard as possible
 - (c) *Don't* panic and *don't* make any sudden/severe manoeuvres, but gently slow down, ensuring that you keep steering in the direction that you need to.