



Caravan Tyres

Hi to every one, and welcome to my first, "Ask Andy". While ATTENDING the Country & Western weekend, I was asked several questions on tyres and tyre safety, so I thought this could be a good place to start. The subject of tyres is an interesting one, and far more complicated than you many may first envision.

In many ways the tyres on your caravan form the most important part of the unit, they are the only part which are in constant contact with the road, and without them your pride and joy will not be going far. They are subjected to all sorts of stresses, strains, and abuse; all carried out at very high speeds and temperatures indeed. Yet from my experience they can often be the most neglected part of the unit. I would advise that you get into a routine of checking your caravan tyres on a regular basis, at the very least, before every trip out. Please keep in mind that the penalties for having an illegal tyre are currently up to a £2500 fine and 3 penalty points per tyre, even this is a small price to pay compared to a blow out on the motorway.

Regular checks

1. Tyre pressure/inflation is the most obvious check to carry out, most modern caravans have there tyre sizes and pressures displayed on the information plate, along with things like the MPLM. (Maximum *permissible laden mass*) If not refer to the owners hand book or the manufacturer.
2. Tread and tread wear, check for stones or foreign bodies stuck in the tread pattern. Damage can occur if left unchecked. If a foreign body such as a nail has penetrated the tyre get it checked, repaired or replaced if required. On the subject of tread wear, the legal requirement, for your caravan, motorhome, and the tow vehicle is, 1.6mm across 75% of the tread. It would be very unusual for even the most hardened of camper to wear a caravan tyre to any where near its legal limit unless there were other problem's with the caravan. Motorhome's, however are another story. If you do experience excessive tread wear on your caravan tyre, I would advise you first check that you are correctly inflating the tyres and that you are correctly loading your caravan. Beyond that wheel alignment could be at fault.

3. Also check the tyre valves, pay particular attention to the valve stem for cracks and perishing. After inflation always check to see that the valve has resealed correctly. Always replace the valve cap after inflation to prevent any dust or foreign objects getting into the valve it's self.
4. Check the walls and in-between the tread for any signs of cracking, or perishing, do not neglect the inside of the tyre. Also check for bulges, blisters, cuts or damage to the tyre.
5. The age of your tyres is also a very important check to carry out. When it comes to caravan tyres, age is more often the limiting factors, rather than wear. From the moment the tyre rolls off of the production line, the tyre is aging, often the tyre is one year old before it reaches the end user. If you purchase a new caravan the tyres could easily be as much as two years old, so it is important to check the tyres date of manufacture rather than rely on the age of the caravan. The NCC recommends that any tyre over seven years old should be replaced and the BTMA (British Tyre Manufacturer's Association) recommend that any Tyre over 5 years old should be replaced. If you have a tyre which is inflated to over 50 PSI, this is good advice, and I would recommend extra vigilance from three years old.
6. Remember not to ignore the spare tyre, if it is fitted to the caravan, it must comply with all the above.
7. At the very least, have your caravan serviced annually by an NCC approved service agent, who will not only carry out all these checks for you, but also record the tread depth and age of your tyres for you.

Information to be found on your tyres

195/70 R14 96N

195	70	R	14	96	N
Section width mm	Aspect Ratio expressed as a %	Radial	Rim Width	Load index	Speed rating/symbol

The **section width** is the overall width of the tyre across the tread, measured in mm. The **Aspect ratio** is the ratio of the section width to section height, expressed as a percentage; this can be affected by the rim width. (The section height is the distance between the bead seat and the tyre tread) **Radial** is the tyre construction. The **Rim width** is the width of the rim in which the tyre sits, expressed in inches. The **Load index** is a code for the load a tyre can carry. An LI of 96 = 710 KG, this means a total maximum axle load of 1420 KG across the two tyre's on a single axle caravan. However it is recommended that the tyres should not be loaded beyond 90% of the maximum. Other markings you may find after the rim size is "C", this simply stands for, commercial grade. Other tyres may have two load index numbers, eg 94/92. Only the higher number is relevant for caravan tyres.

Common Load index & Speed symbols

LI	KG
90	600
91	615
92	630
93	650
94	670
95	690
96	710
97	730
98	750
99	775
100	800
101	825
102	850
103	875
104	900

Speed symbol	Speed MPH
J	62
K	68
L	75
M	81
N	87
P	95
Q	100
R	105
S	113
T	118
U	125
H	130

TWI

Tread wear indicators are not present on all makes of tyre, but when they are, you can normally find the "TWI" mark in four equally spaced positions around the tyre, very close to the tread, which indicate the location of risen points within the tread which will show when the tread reaches its legal limit of 1.6mm.

EEC Type Approval Number

This is normally located close to the wheel rim of the wheel; all radial tyres that are suitable for caravans will carry an "E" number. This mark means they have met current European standards.

Date stamp

This can be found on most modern tyres, normally very close to the wheel rim and most often very close to the DOT number, Department Of Transport Number. Some times only printed on one side of the tyre. The date is normally stamped within an oval as follows; 4409 this would translate to the 44th week of 2009. Before the year 2000 it may have been stamped; DEF 348, this would translate to the 34th week of 1998.

Nitrogen

While on the subject of tyres, another issue raised over the same weekend, was the subject of nitrogen to inflate tyres. Nitrogen, in my view, holds little or no advantage for your caravan, motorhome, or even car tyres for that matter. Nitrogen is mainly used in the aircraft industry, motor

sports and on underground mining vehicles. I feel the cost out ways the advantages for the average person.