

# TOWING AND TYRES

## (TOWING HISTORIC CARAVANS)

As many of us are now thinking about setting sail to rallies I thought it might be a good time to pass on some of my findings with regard to towing, in particular with reference to tyres on Pre War caravans.

Our two vans run on 5.50 x 18 and 6.00 x 20 tyres on rolled edge rims. I usually tow at about 45 to 55mph with the "Winchester" and 40 to 45mph with the square type "Voyageur". Tyre pressure can make a real difference and for best stability I usually put in the highest pressure for which the tyre is designed i.e. 36 to 40psi with tyres currently fitted. The rear tyres of the tow vehicle also benefit from increased pressure. For instance when towing, the Land Rover rear tyres have 40psi as I find the rated 25-28psi is too soft and reduces maximum speed to 30-35mph before swaying, of course the caravan tyre load rating must also be adequate for the weight of van to be supported. All the usual guidelines about tow vehicle weights and caravan balance should also be considered as with towing any caravan, however, square type caravans do have a 'drag parachute effect' at higher speeds. This may be minimised by a higher nose weight or extended tow pole. During our "Voyageur" restoration the new pole was made 6' longer than the original with Lionel Hutchings approval.

After towing stability the problems people appear to get seem to be blow outs and punctures (Not due to external sharp objects). Blow-outs seem to be mainly due to old weak tyres and punctures are almost always due to cut not pinched, tubes.

**Old tyres** - With old caravan tyres or even second hand old car tyres you may not know how old they are and therefore how strong the carcass is. It could be a false economy and could be dangerous to use them at all. New tyres are expensive but compare that to how much time and money you may have spent on a restoration only to have damage

and inconvenience caused by a blow-out with a poor tyre. Weak tyres may not hold the high pressures needed for safe towing, and if run soft will overheat and blow anyway. We are also risking speedier testing legislation if we are caught with poor tyres.

Your tyres should have a manufacture date mark after the DOT prefix.

Tyres made after 2000 have 4 digits at the end such as DOT xxxxxx5107. This is week 51, year 2007.

If it was made from 1990 to 1999 it will have 3 digits and a triangle such as DOTxxxxxx408◁ . This is week 40, year 1998. If there is no triangle it is more likely to be 1988 or older.

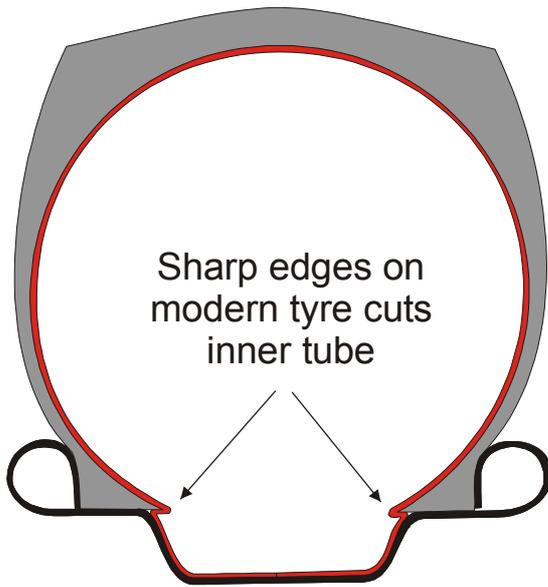
Many organisations recommend changing tyres after 6 years, the Continental Tyre website recommends 10 years. So any tyre with only 3 digits is much too old to be safe with or without the triangle..



**This tyre looked almost new but blew out on the M42 and was actually 22 years old.**

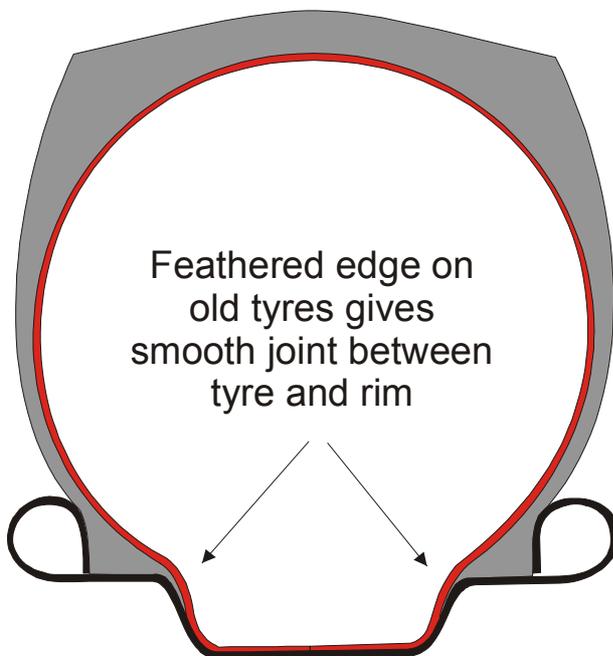
**Cut tubes** - This is a phenomenon which unfortunately is more likely with a modern reproduction tyre than a genuine old one. Even some professional tyre fitters have not realised the cause. New tyres whilst strong, are generally made with an interior finish similar to other modern tyres i.e. poor. Not only is the finish very rough but the inside

## New Reproduction Tyre



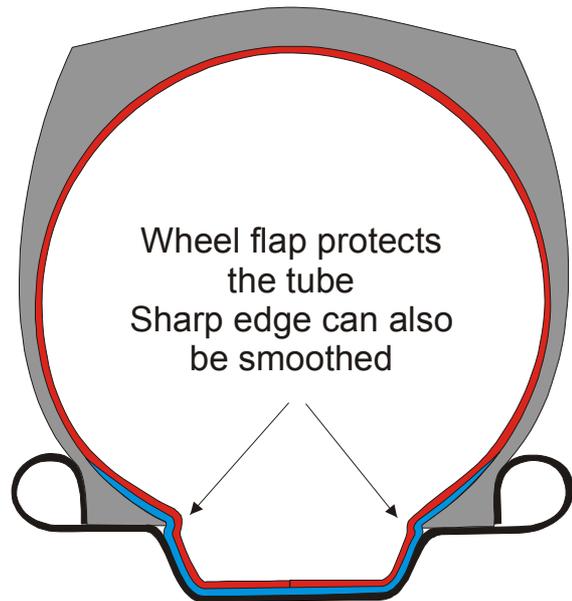
corner of the bead edge is sharp and rigid, and on a rolled edge rim wheel it sticks out into the tube. You may think you can't cut rubber with rubber, but you can, and it has happened to me in less than 35 miles with a new tyre and tube.

## Original old tyre Design



Old design tyres also had a flexible feathered edge which covered the join between tyre and wheel making a smooth transition.

## New Tyre with Wheel Flap and sharp edge removed



### My Solutions-

#### 1) Remove sharp edge

I File the sharp corner off with a rough but sharp file, however, I don't go as far as to damage the carcass, finish off with emery cloth. Once I have removed the sharp edge and added some Waxoyl for lubrication this has cured the problem for me.

#### 2) Fit Wheel flaps

These are feathered edge rubber rim liners which cover the join between the tyre and rim. These should be available from the usual vintage tyre suppliers but I have made them from the inner half of an old tube. I still remove the sharpness off the tyre as this option would not be as thick as the flaps. It can be easier to fit the half tubes as they are much more flexible than the flaps. This is the "belt and braces" solution.

**Spare Wheel.** I always carry a spare wheel with a good tyre. It can be very difficult to obtain a suitable wheel for early caravans but it can be possible to modify one that's close. We could not find one for our "Voyageur" which uses a 20" rolled rim with large centre and 6 studs. We eventually found a 19' rolled edge wheel with a small reversed centre, we think for a Singer car. The old centre was machined out and a 6 stud centre ring made

and welded in. The wheel works well as we found after the 35 mile cut tube incident. The van of course had a slight list but only by half an inch or so. This modified spare wheel carried us from the Severn Bridge to Enfield where the offending 20" tyre was filed and smoothed and fitted with the new tube which we always carry. This repaired wheel was refitted for the 180 mile trip home without giving any further problems.

**Wheel Changing** I always ensure I have a good jack and safe blocks to ensure I can make an easy and quick change at the roadside. Some older vans have to be lifted very high to get the wheel from under the wheelarch. I make sure the tow vehicle is well braked and the other van wheel is well chocked during this operation. It also adds to safety to carry a red warning triangle for

placing on the road and an amber flashing hazard beacon for wheel changing and for towing when your speed is reduced due to hills.

This little article is not intended to "teach ones grandmother etc etc" but to hopefully help prevent members getting into trouble by getting them to think about important aspects of towing and be prepared before they set out. These are my own views offered as help but members should ensure that they satisfy themselves that the condition and rating of their particular running gear and their outfit is safe.

"Carry on Towing"

*Paul Jenner*