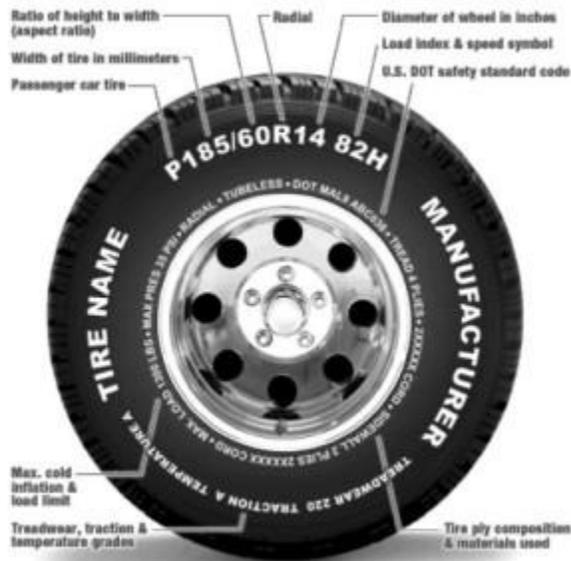


Tyre Clinic

TYRES-INTRODUCTION

For many motorists, tyres barely rate a second thought, until one goes flat or they need to be replaced.



However, given a little care and attention, tyre life can be maximized and overall vehicle performance, fuel consumption, occupant safety and comfort can all be improved. Here are a few tips to help you achieve this, as well as some background information that will help you select the right tyres for your car when it comes time to replace them.

How long should tyres last?

Tread wear rates are affected by many factors and there are too many variables involved to allow an accurate answer to this question. Some will be in the driver's control but many won't be. Factors beyond the driver's control including road surface, climatic conditions and tyre and vehicle design.

But there are things that the driver can do to influence tyre wear. "Enthusiastic" driving styles, including high speed operation and cornering, harsh braking and hard acceleration all dramatically reduce tyre life.

When is a tyre worn out?

The law requires a minimum 1.5 mm tread depth across the face of the tread normally in contact with the



road. To help gauge this, car tyres have tread wear indicator bars moulded across the tread at regular spacings around the tyre. When the tread wears to the legal limit, the wear bar will be level with the tread blocks. The letters TWI are often moulded into the edge of the tyre tread at the wear bar locations.

It's the tread that helps pump the water out from between the tyre and road. Tyre grip on a wet road diminishes considerably as the tread wears down so for continued safe operation they should be replaced before they reach their minimum legal tread depth.

Remember also that cuts or other damage may render a tyre unroadworthy too.

Can a tyre be too old?

Car tyres can deteriorate with age. A tyre that's been sitting in the spare wheel well for years, even though it's never been used and has plenty of tread could be ready for retirement.

Heat, sunlight, ozone and other environmental conditions can all cause deterioration of the rubber compounds. In service this can lead to tyre failures.

Some industry experts suggest that worn out or not, a tyre may have passed its useful life after about five years, however this is not recognized in law.

A production date code is usually moulded into the tyre sidewall. Consult a **Kenya Masters Auto Tyres Ltd** for further advice on interpreting this code.

What's the best brand of tyre?

This depends largely by what yard-stick you measure "best". For one person the cheapest, longest lasting tyre will be the best. To another, the tyre that offers the most grip is the best, even if it has a fairly short life.

Tyre engineering is about compromises and trade-offs. It simply isn't possible to design a tyre to do



everything well. High performance tyres that offer high levels of grip are often quite soft and can have a short life. Similarly, tyres that have chunky tread patterns to displace water can provide high levels of wet grip but are often noisy.

At Kenya Masters Auto Tyres Ltd We Ultimately consider what's important to you and discuss your needs to Make your motoring experience fun.

Increasingly, vehicle and tyre manufacturers work together to design a complete vehicle / tyre package. This often means that the tyre is designed specifically to provide the driving and handling characteristics the vehicle manufacturer is trying to achieve. With the tyre being such an integral part of the vehicle it would be sensible, where possible, to stick with the make and model of tyre the vehicle was fitted with when new.

As a general rule though, if you stick to the well-known mainstream brands you shouldn't go too far wrong. Our professionals will advice on all your tyre needs. For safety's sake, remember you usually don't get anything more than what you pay for and skimping on tyre quality could prove false economy.

What size tyres are right for my car?

The tyre and wheel sizes fitted to your car as original equipment have been chosen by the manufacturer after careful consideration of the vehicle's design and likely use. The recommended sizes, speed and load ratings are all shown on the tyre placard and in the owner's handbook.

Replacement tyres must have a load rating at least equal to that specified by the car's maker. We recommend fitting tyres with a minimum speed rating at least equal to that shown on the vehicle's tyre placard. However, it is legal to fit tyres with a lower speed rating than shown on the placard provided they have a minimum speed rating of 180km/h.



You must never fit wheels and tyres of different size or profile to the same axle except when a 'space-saver' or 'emergency-use' spare tyre supplied by the vehicle manufacturer is in use. These tyres are for emergency use only and information regarding speed and any other restrictions that apply to their use is contained in the owner's handbook, on the spare wheel and on the tyre placard.

For information on fitting tyres to your car other than those recommended by its maker, see the section on "Alternative Wheels and Tyres" in this fact sheet.

Caring for your tyres

Inflation pressure

Correct inflation pressures are essential if your tyres are to deliver maximum life and performance.

Under-inflation causes excessive tyre flexing and heat build-up and is the number one reason behind catastrophic tyre failure or “blow-outs”. Under inflation also causes accelerated tyre wear rates, uneven wear patterns, heavy steering and increased fuel consumption. Over-inflation can result in a harsh ride, uneven wear patterns and increased risk of tyre impact damage.

Incorrect inflation pressures will also reduce the all-important tyre “footprint” on the road, resulting in impaired handling and braking.

Some tyre dealers promote nitrogen for tyre inflation as it is claimed to reduce the need for pressure checks.

So what’s the correct pressure?



All vehicles built since 1973 will be fitted with a tyre placard that lists the specifications of the original tyres fitted to the vehicle and the correct inflation pressures. It will be located in an easily accessible spot such as the glove box lid, fuel filler flap or the driver’s door or opening. The information will be contained in the owner’s handbook as well. Diagram 1 shows an example of a tyre placard.

The pressures shown for normal use are the minimum suitable for average suburban driving with minimum loads. For increased load carrying or sustained high speed driving (around 100km/h for more than 1 hour) tyre pressures should be increased as advised on the placard or, if not shown, as recommended by a reputable tyre dealer.

Remember, the pressures shown on the placard are the minimum allowable cold pressures and you should not allow your car's tyres to drop below them. In fact it's acceptable, if not wise, to keep them inflated to the high load / speed pressure listed on the tyre placard or suggested by a tyre dealer.

Tyre pressures should be checked cold as it is normal for pressures to increase as the tyre heats up from driving. Don't bleed air from hot tyres to obtain the recommended cold pressure. It's not a bad idea to have your own tyre gauge for doing your regular (at least once a fortnight) pressure checks – and don't forget the spare. If you notice any significant pressure drop, especially on just one tyre, have the cause checked out – you might have a leak – possibly from a puncture or defective valve.

Tyre size Designation	Rim Code	Normal Load		Max. Load	
		Front	Rear	Front	Rear
	S/JJ	200	200	210	250
P185/75SR14	6J	126	128	130	136
	S/JJ	180	180	200	220
P190/75SR14	6J	126	126	128	133
P215/65HR14					
P205/65HR15	7J				

The tyres fitted to this vehicle shall have a maximum load rating not less than 535kg, or a load index of 87 and a speed category not less than S.

FOR CONSISTENT HIGH SPEED OPERATION, COLD INFLATION PRESSURES MUST BE INCREASED BY 30kPa (4PSI).

Remember to replace the valve dust caps after checking tyre pressures. It's important they are fitted to all your tyre valves as they help seal air into the tyre and exclude dirt, which may cause the valve to stick or leak.

Tyre pressures are measured in Kilopascals (kPa) or in pounds per square Inch (PSI).

Conversion: 7kPa = 1 PSI

Wheel alignment, wheel balance and tyre rotation

Worn steering and suspension components and incorrect wheel Alignment and balance all influence how long a tyre lasts so it's a good idea to watch for the development of uneven tread wear patterns while



checking tyre pressures. If you notice any problems, have your mechanic check further.

For most cars, regular Tyre Rotation is also recommended to achieve best tyre life. Seek professional advice or consult your owner's handbook for rotation patterns and intervals.

Don't forget to have a wheel balance done too to prevent annoying steering vibrations and uneven tyre wear.

Alternative wheels and tyres



Fitting alternative wheels and tyres to passenger cars is one of the most common and popular of vehicle modifications. In fact many people fitting different wheels and tyres see them simply as a way of expressing their individuality rather than as a modification.

But transport authorities and insurance companies see it quite differently. There are definite rules you must follow when changing wheels and tyres.

As vehicle modifications, including fitment of non-standard wheels or tyres, may affect your motor vehicle's insurance you should also talk to your insurer BEFORE you spend your hard earned Money. At **Kenya Masters Auto Tyres** we advice on the best way you can modify your tyres.

Tyre repairs

Punctures in tubeless tyres must only be repaired by fitting a vulcanized plug or patch from the inside of



the tyre. In all cases the tyre must be removed from the rim to check for internal damage. Plugs that are fitted from the outside do not provide a permanent repair. Tyre repairs are only allowed in the tread area and are best performed by a reputable tyre dealer.

Tyre sealants

Tyre sealants definitely do not provide a permanent repair. Even those supplied with vehicles as original equipment are only intended to seal small punctures to allow it to be driven carefully to a repairer to have the tyre repaired or replaced. In some cases the use of tyre sealants will mean that the tyre will have to be discarded, even if ordinarily it would have been repairable.

Some sealant kits have a definite shelf life after which they need to be discarded and replaced.

Be cautious of sealant products that are put into tyres as a precaution on the basis that they will prevent flat tyres by sealing punctures as they occur. Even if they do work as claimed, there is a very real risk that they can mask a tyre that is potentially dangerous to keep using.

Retread tyres

Retread tyres were once a commonly available, low cost option to new tyres. However as the price of new passenger car tyres has gradually decreased, so has demand for retreads. However trucks and heavy vehicles are still major users of retread tyres because of the high cost of new tyres for these vehicles.

Retreaded passenger tyres must have a minimum speed rating of 140km/h however the casing used for the retread must have had a speed rating of at least 180km/h when first manufactured. They will be marked with the word 'retread' or 'remould'.

Run flat tyres



Run flat tyres, as the name suggests, are capable of limited operation when deflated. They are typically only fitted to certain models in certain manufacturer's ranges. Apart from the obvious advantage, their use can allow the vehicle manufacturer to dispense with the spare wheel. Disadvantages are that replacements may not be immediately available, they cost more, they require special tooling to remove and refit and because they have a much stiffer side wall, ride quality can be compromised.

Low rolling resistance tyres

An increasing number of vehicle manufacturers are fitting low rolling resistance (LRR) tyres to their 'green' models. These tyres claim to reduce fuel consumption by 2 to 3 percent. They are available from a number of tyre manufacturers as in-service replacements for original equipment LRR tyres, but increasingly, tyre manufacturers are expanding their ranges to service vehicles that were not originally fitted with them. If you have a vehicle that was originally fitted with LRR tyres it will be necessary to replace them with like tyres if you want to maintain the fuel saving benefits they provide.

Mismatched tyres

It's common to see vehicles fitted with a mixture of two or more brands of tyre. And while this is permitted under law, it is highly undesirable and should be actively discouraged. Mixing different brand tyres, even if they are of the same size and construction and fitted in pairs to the same axle, can dramatically alter the handling characteristics of a vehicle turning what would normally be a benign, predictable vehicle into an uncontrollable handful, particularly in wet conditions. For safety sake only fit matching tyres.