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White Walls

Wide white walls used to be common on cars (particularly those of US origin) in the 1950s and then thin white (and red) walls or stripes were provided on tyres fitted to some

cars, usually sporty models such as Ford Falcon GTs and Holden GTS Monaros, in the late 1960s and early 1970s.

These were fine

when produced by the tyre manufacturers of the time but they are generally no longer readily available.

However, it seems that to reproduce this effect for restored cars (and for some other customised vehicles) a process of lathing or buffing a flat area or a groove on the side wall of the tyre and painting or fusing a coloured strip to this area is being used.

In many respects, the sidewall of a tyre and its structure are critical to a tyre's safety as it is much thinner and subject to much more flexing than the tread area.

Any alterations to a tyre sidewall are not acceptable for several reasons:

- in some cases the tyre size and other information is being removed
- the removal of sidewall material is likely to adversely affect the structure of the tyre
- the addition of sidewall material is likely to adversely affect the structure of the tyre
- the addition of sidewall material may also conceal sidewall damage. Repairs to tyre sidewall are prohibited (refer to VSI 16).

Any modification to the structure of a tyre (and this includes tread re-grooving on a tyre not marked as suitable for this process) requires the written approval of the tyre manufacturer confirming that the tyre still meets the standards before it can be accepted.

However, if the coloured sidewall stripe effect has been achieved by simply painting onto the sidewall and has not involved any removal of sidewall material or sidewall markings then this would be acceptable.

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Repairs to Alloy Wheels

Just a reminder that, as mentioned in several previous issues of Testing Times, the straightening, welding or re-rolling of alloy wheels is not approved by VicRoads despite rumours to the contrary.

Coil-over Shocks

More correctly called coil-over suspension units, they consist of a shock absorber with upper and lower spring seats surrounded by a coil spring. In most cases the lower spring seat is also height adjustable to change the pre load on the spring.

The unit is self contained and when you remove it from the vehicle, you have removed all of the spring and shocker (or more correctly – suspension damper) from the vehicle. They are not the same as the booster springs that are attached by clamps to a standard shocker.

They are very common on race cars but they are also seen as original equipment on road cars (Jaguar rear suspension) and the common McPherson strut used on the front of Holden Commodores and many other road vehicles is another variation.

Fitting a coil over suspension unit instead of a conventional shocker and separate spring is going to require a VASS approval certificate because the standard shock mounts were not intended to carry the loads imposed by the spring as well as the shock.

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Most McPherson strut systems are not adjustable so another common modification is the fitting of alternative McPherson strut systems that are adjustable for ride height as can be seen in the installation shown below on an early model Commodore. This does not require a VASS approval certificate as the structural design remains unaltered.

Fitting coil-overs and alternative struts presents some additional issues in making sure that the spring tension is set up correctly. Having unbalanced tensions can have unfortunate effects on the vehicle's stability. A road test checking for balanced handling over bumps and also while cornering and braking is mandatory.

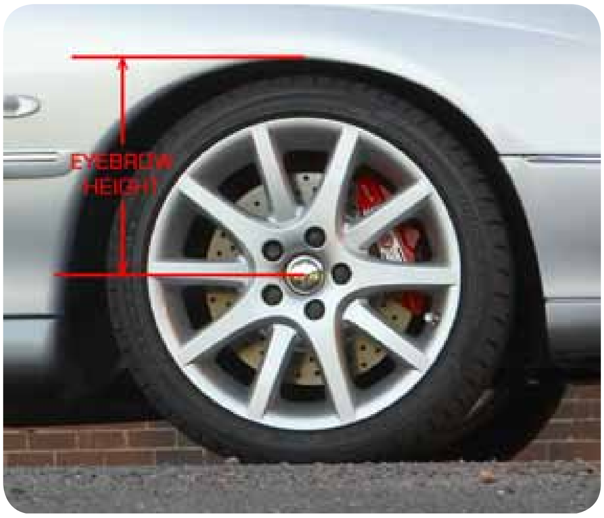
To ensure the vehicle doesn't suffer a sudden loss of ground clearance after it leaves your workshop, it is wise to record some height measurements, preferrably eyebrow heights (see below), so that if there are queries you know what you saw.

So what are eyebrow heights?

Eyebrow height is also known as trim height and ride height.

It is the vertical measurement from the wheel centre to the top of the wheel arch opening as shown in the illustration in the next column.

The Road Vehicle Descriptor (RVD) sheets available from the Road Vehicle Certification System (RVCS) website (see TT 21 supplement for instructions) provide measurements for unladen mass, full bump and minimum acceptable for each listed vehicle. If you are trying to work out how much a vehicle has been raised or lowered, this will give you some data to work with.



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