

Condemned Tyres



Many off-roaders have trouble determining whether a punctured tubeless tyre is safe to repair and to continue in use. There's no hard and fast rule, but we can offer some guidelines.

The most obvious sign that a tyre is 'dead' is when there's a large cut in the tread area. By 'large' we mean a cut or tear that's impossible to seal temporarily with two tyre plugs. When a tyre tread sustains this amount of damage it's probably fit only for recycling.

A sidewall cut is another death-knell. Tyre professionals state that no sidewall damage should be repaired, but we've temporarily plugged a tiny sidewall pinhole, caused by a thin, sharp tree root and used the tyre in low-speed bush work for days afterwards. However, the typical sidewall cut is more than two centimetres long, caused usually by the tyre tearing along a sharp tree root, or being slashed by a sharp-edged stone. A cut of this nature cannot be repaired safely, even temporarily.



Most bush-road flat tyres aren't detected immediately, because there's usually enough suspension action on rough roads to mask the 'feel' of a flat tyre.

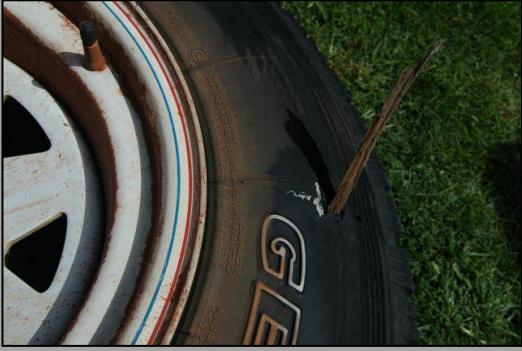


The normal process is that tyre receives a cut that starts a slow leak. When that leak isn't detected the tyre continues to lose air and the casing heats rapidly, through excessive flexing. In the worst-case scenario a blow-out is the first indication the driver has of the tyre situation. 'Blown' tyres obviously cannot be repaired and their remains are frequently seen on bush roadsides: rings of tyre tread, with tattered pieces of sidewall attached.

If a tyre has run deflated for even a few hundred metres it may have sustained irreparable damage, caused by initial heat buildup as the pressure slowly dropped and then mechanical damage to the casing as the flat tyre was sandwiched between the wheel and the road. Tell-tale signs are a flat tyre that is too hot to touch and possibly, a 'rippling' effect on the sidewalls.

Heat will most likely have caused the internal structure to delaminate and the crushing effect of the wheel rim on the flattened casing will have finished off the destruction. Sometimes, however, it's possible to plug such a tyre, when it's cooled off for an hour or so and find that it will hold air. But a tyre that has suffered such an experience should not be repaired and used.





That said, on some remote-area trips it's possible to run out of spare tyres and then it's necessary to roll on tyres that can't be used safely on-road. Provided speed is kept to walking pace a 'dead' tyre can have a limited after-life. We've heard of people stuffing tyre casings with ill-fitting inner tubes, spinifex or doonas and getting out of tight situations, but that's obviously a survival-only tactic.

Avoiding condemned tyres should be every bush-traveller's aim and the best way to do that is with daily tyre inspections at the very least. The best method for avoiding undetected slow leaks is with a reliable tyre pressure monitoring system. Ours has paid for itself time and time again.

