

MODIFICATION THRESHOLD UPDATE 2020

Tyre and wheel fitment including protrusion of tyres beyond mudguards

New changes to in-service (WoF & CoF) Modification Thresholds

NZTA is introducing a group of updates to the Warrant of Fitness and Certificate of Fitness (WoF & CoF) requirements contained in the Vehicle Inspection Requirements Manual (VIRM). Included in the updates are changes to the modification threshold tables. The updates take effect during 2020 and the full announcement is on NZTA's vehicle inspection portal: <https://vehicleinspection.nzta.govt.nz>

Tyre fitment change

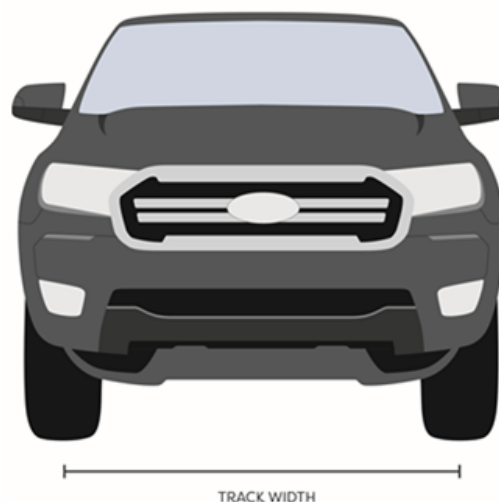
One update that will assist AVIs in carrying out their inspections is in relation to fitment of wider wheels and tyres. As well as clarifying the wording to make the requirements simpler to understand and apply, the change also recognises the growing trend in modifying 'utility vehicles', commonly known as utes.

The new threshold can be found under the *Tables and Images* tab of the *Tyres and Wheels page* (section 10-1) on the VIRM threshold page of NZTA's website, or on the *LVV Certification Threshold Guide* page of www.lvta.org.nz

The previous threshold allowed wheels with a wider track to be fitted provided that the tyre tread remained within the guards, or if the tyre tread was outside the guards, the track couldn't be more than 25mm greater than OE (12.5mm per side).

Track is measured between the centres of the tyre treads and may differ from front to rear on some vehicles.

The 25mm measurement relied on the inspector being able to determine the original vehicle's track width, so this has typically not been well enforced.



Under the new wording some vehicles will be able to have wheels with a wider track than the previous requirement allowed without the need to refer the vehicle for LVV Certification.

The new wording is on the next page, followed by an example of how the tread is measured and some visual examples of increased wheel track that falls under and over the threshold.

New Wording

The new wording states that for aftermarket wheel and tyre fitments, LVV Certification is not required provided that the tyre tread does not protrude beyond:

- *in the case of a vehicle that is not a class NA or class MC vehicle, the unmodified original body panels or factory-fitted mudguard extension/flare*
- or*
- *in the case of a class NA or class MC vehicle, 25mm outside of the unmodified original body panels, provided that a flare or wheel arch extension covers the full width of the tyre tread.*

The wording of the first part means that if the tyre tread is within the unmodified original body panels or factory-fitted (OE) mudguard extension/flare, then LVV certification is not required.

The term ‘unmodified original body panels’ means the original mudguard (steel on most vehicles) and doesn’t include any original (OE) or aftermarket plastic fender flares.

Flares fitted by a car dealer are aftermarket and not OE, even if the flares are fitted from new by an approved manufacturer’s main dealer. If an inspector is not sure about original model specifications, he or she should contact a franchise dealer for the specific brand of vehicle.

Some vehicles, such as many Mitsubishi Tritons, are factory-fitted with plastic fender flares which are covered on the underside, this can make it difficult to determine where the end of the OE steel guard is. If inspectors encounter this issue, they may contact the LVVTA Technical Team for advice.

NA and MC class vehicles

The second part of the new wording applies only to NA and MC class.

NA class is a light goods vehicle that has a gross vehicle mass not exceeding 3.5 tonnes – this includes popular single and double cab utes such as the Ford Ranger and Toyota Hilux. MC class is a four-wheel-drive passenger vehicle designed with special features for off-road operation and no more than nine seats – this includes vehicles such as Toyota Prado and Landrover Discovery.

These vehicles may have tyre tread that extends up to 25mm outside of the vehicle’s original body panels, provided that a flare or wheel arch extension covers the full width of the tyre tread.

As noted above, ‘original body panels’ doesn’t include any original or aftermarket plastic fender flares.

Note that there are other requirements that also need to be met to avoid need for LVV certification and these should not be overlooked. Common examples are:

- Tyre circumference must not increase by more than 5%
- Wheel spacers or adaptors must not be fitted
- Tyres that are an appropriate width for the wheel rim

How to measure mudguard to tyre tread

The new wording uses the OE body panel position as a datum point instead of the track so this can be more readily measured.

The photo to the right shows one method. A rule is placed on the tyre tread, vertically against the original body panel. The edge of the tread can be measured from the base of the rule.

On an NA and MC vehicle, tyre tread that protrudes from the OE unmodified original body panels by less than 25mm, can be accepted if covered with an aftermarket flare.

Tyre tread is defined in the NZTA Vehicle Equipment Rule as the portion of a tyre that contacts the road.

Visual examples of the requirements are given below.



Standard vehicle - Wheels and tyres under the unmodified original guards: LVV certification is not required.



Aftermarket wheels with aftermarket fender flares, however the tyre tread does not extend by more than 25mm outside of the unmodified original body panels: LVV certification is not required.



Aftermarket wheels, tyres, and mudguard extensions. Tyre tread extends further than 25mm outside of the unmodified original body panels, or factory-fitted mudguard extensions: LVV certification is required



The Ford Ranger Raptor is factory-fitted with wide steel guards and plastic fender flares. The tyre tread is already 25mm outside of the unmodified original [steel] body panels. Any increase in the outside tread position on this vehicle means that LVV certification is required

Photos above supplied by Kallum Harris Photography (www.facebook.com/kallumharrisphotography/)

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Vehicles with factory-optional guard flares

Some models of the Toyota Hilux Surf and Nissan Patrol/Safari were sold in two variants – standard body and wide body. The difference is solely due to addition of factory-fitted guard flares.



An example of the Surf standard body has a track 60 mm narrower than the wide body, along with skinnier tyres which places the guard edge 15 to 20 mm outside the tyre edge. The wide body flares add 110 mm to the vehicle width but as it has wider track and wider tyres the flare edge is still 15 to 20 mm outside the tyre edge.

This means that the standard body vehicle can have a wider track – the edge of the tyre tread can move out 40 to 45mm on each side, almost as far as the wide body, without need for LVV certification.

As the wide body already has greater track width over the standard body, the outer edge of the tyre tread is more than 25mm outside of the metal guard and it needs the OE flares to cover the tyres. Any increase of track width would trigger the need for LVV certification.

Some models of Nissan Safari/Patrol are in the same situation as the Toyota Surf – the model without factory-fitted guard flares can have wider track and stay within the threshold and not be subject to LVV certification. However, any increase of track on the wider version does need to be LVV certified. The Nissan Granroad version is an example of the wider vehicle with factory-fitted flares.



Note that some MC class models such as the Toyota Surf Sports Runner were available in two-wheel-drive form.

These vehicles are MA class, not MC or NA class, and so to be under threshold the tyre tread must not protrude beyond the unmodified original body panels or factory-fitted mudguard extension/flare – the 25mm beyond the factory-fitted guard does not apply.

Vehicles with factory-fitted plastic guards

Some Jeep Wranglers do not have metal front guards, they are one-piece plastic.

These are the original guard and are not considered a guard flare, so measurement is taken from the outer edge as would be done for a metal guard.



Some Jeeps have a two-piece guard made from metal and plastic, instead of the one-piece plastic design.

This guard is not a wider version so measurement can be taken from its edge.

This design could cause some confusion if the plastic part were substituted for a wider aftermarket version.

The Jeep pictured right has aftermarket guards that replace the originals. This makes it more difficult to assess the tread protrusion beyond the original panel, but in this case, and many other cases, it is easy to determine that the tyres exceed the 5% diameter threshold so this Jeep may be referred for LVV certification on that basis.



Vehicles with non-factory-fitted guard extensions

The Ford Ranger is commonly seen with guard flares, however the majority of these fitted to the 2009-2019 models are not factory-fitted, they are aftermarket parts.

The photo to the right shows a Ranger Wildtrak with no guard extensions – just the factory steel guard.

Flares fitted by a car dealership are not factory-fitted, even if fitted from new - they are a modification to the original vehicle.



Of the 2009-2019 Rangers, only the Raptor, pictured below left, has factory-fitted guard flares. Some of the pre-2009 Ranger model, pictured below right, also had guard flares.



**Ranger
Raptor**



**Pre-2009
Ranger**

Some aftermarket flares are painted body colour, making it more difficult to distinguish them, as in the photo right.

When the vehicle has aftermarket flares, measurement of tread protrusion is taken from the steel guard, not the aftermarket flares.



For any assistance with this information, contact the LVVTA technical team: tech@lvvta.org.nz