



Seat and seatbelt mount certification

LVVTA often receive questions around which seat and seatbelt installations require LVV certification. The 'Tables and Images' tab of the Seats and Seat Anchorages section of the VIRM answers this, and LVVTA refer people to this page. However, LVVTA is aware of many vehicles that have passed through multiple warrant of fitness inspections with seats fitted that should have been referred for LVV certification. Of the greatest concern is that many of these seats are stressed seats, meaning they have the seatbelt anchorages (usually buckles) attached to them. When a vehicle is involved in an accident, a stressed seat may be required to withstand loads from a single buckle of up to 15kilo Newtons which is equivalent to a load of around 1,500kg on the mount. Most inexperienced vehicle modifiers who install aftermarket or custom seat and seatbelt mounts are likely unaware of these high loads and the fact they may be putting their lives, and the lives of their passengers in danger.

Under the wording of the VIRM replacement seats may be fitted without LVV certification provided:

- *the seat is either an unmodified OE seat from another vehicle or of a known and reputable aftermarket brand, and*
- *the seat is fitted to unmodified OE seat anchorages, and*
- *the seatbelt anchorage or operation is not affected, and*
- *the seat components (including brackets, runners and rails) are compatible with each other, ie they are either OE components from a production vehicle or of a known and reputable aftermarket brand, and are not fitted together by welding, and*
- *the relationship between seat, seat occupant, front airbag and location of the seatbelt anchorages is not affected.*

This last point means that if a seatbelt attachment is changed



Any vehicle where the seatbelt anchorage has been changed or moved from OE requires LVV Certification. The seatbelt buckle is attached to the frame of this aftermarket seat, so this seatbelt anchorage must be LVV Certified.

from OE, then LVV certification is always required. There are very few aftermarket seat frames that have undergone seatbelt anchorage testing and most incorporate welding of the anchorage tabs. In most instances to pass certification, the seatbelt anchorages need to be repositioned from the aftermarket seat frame to the floorpan using seatbelt anchorage doubler plates. While some vehicle owners may argue that their aftermarket frame is from a well-respected manufacturer, a known brand name does not make up for the lack of testing or documented engineering analysis. Correctly installed seatbelt anchorage doubler plates attached to the vehicle's floorpan are a tested and approved method of replacing seatbelt anchorages.

A vehicle fitted with seatbelts mounted to the floorpan will have these details recorded on its LVV certification plate as "NEW INNER SEATBELT ANCHORAGES ROW 1".

On the topic of aftermarket seat and seatbelt anchorages, LVVTA is hearing of an increasing number of campervans being presented for warrant of fitness inspections, that have additional, non-certified, seatbelts fitted. While the rules around campervan conversions can be complex, all LVV certified vehicles must match the modifications listed on the certification plate. LVVTA recommends that when AVIs are assessing a campervan, or van fitted with extra seating that they ensure the number of belts reflects the seating positions listed on the vehicle's certification plate. LVV certification is not required where the only modification is the removal of seats and/or seatbelts. However, a class change and a new load rating may be required in some cases. The VIRM does allow for temporary removal of seats to pass inspection, such as removable rows in People Movers. This also applies to LVV Certified vehicles, even if though the number of seats on the cert plate will be incorrect.