

Removal of front seats fitted with side airbags

Introduction:

This LVV Information Sheet is intended to provide a quick source of information for LVV Certifiers when inspecting or answering enquiries on the removal and replacement of front seats in vehicles that were equipped with side impact airbags by the vehicle manufacturer.

The prevalence of OE seats equipped with side impact airbags in late model vehicles is ever-increasing these days (commonly built into the front seats in the side bolster cushion area), as is the popularity of fitting after-market sports seats as replacements to OE seats. With the replacement of OE airbag-equipped seats by after-market sports seats without airbags taking place, it is important that vehicle owners and LVV Certifiers understand the legal requirements relating to this practice.

The legal position:

It has been established that side airbags have little effect, if any, in protecting occupants in a direct frontal impact, and as such they are not covered under the provisions of the Land Transport Frontal Impact Rule.

Currently, there is no side impact rule in force in New Zealand, so there is no legal mechanism by which to prevent vehicle owners from removing the side airbags, or from replacing an OE airbag-equipped seat with an after-market non airbag-equipped seat – even in the case of modern frontal impact-compliant vehicles. A side impact rule is scheduled for development by NZTA during the 2009/2010 period, and we believe this issue will be resolved by the implementation of that rule. This rule should ensure that vehicles entering the fleet comply with an approved side impact standard, and it may also have the benefit of stopping importers from bringing in vehicles with deployed bags that the subsequent buyer doesn't know about. This rule should also prevent anyone from removing an OE airbag from a seat, or from replacing an OE airbag-equipped seat with an after-market seat, unless the new seat has a side airbag that is compatible with the car; - for example an OE sports seat from a 'sporty' version of the same car which is also fitted with an air bag.

LVVTA's position is that this modification should be discouraged, and we will be supportive of the implementation of a side impact rule that will prevent this modification. Presently however, because such modifications cannot be precluded, we need to make the best of a bad situation.

Is LVV Certification required for this modification?

The fitment of some 'bolt in' aftermarket seats can be done while remaining below the threshold of requiring LVV Certification; for example if they are a direct replacement seat bolted onto the vehicle's OE seat runners.

In the case of the removal of a side airbag, or the replacement of an OE airbag-equipped seat with an after-market non airbag-equipped seat, a modification has occurred to a part of the vehicle that is covered by a Land Transport safety-related requirement – namely seats – and LVV certification therefore is required. Logically, when a part of the vehicle's occupant protection (SRS airbag) system is modified or disabled, there is a need for the LVV certification system to ensure that the rest of the SRS system has been retained, and that it remains in correct operating condition.

Certifying side air bag removal:

The LVV Certifier's principle responsibility is to ascertain whether the remaining SRS airbags are installed, and remain in an operational condition. Obviously there is no easy way to do this without disassembly, which is strongly discouraged. The process, therefore, is very straight-forward. The LVV Certifier must:

- ensure that the SRS light is illuminated on the dashboard when the vehicle's ignition is switched to the 'on' position, and also that the light is extinguished after a period of around three seconds when the engine is started or the 'self test' procedure has completed; and
- carry out a thorough visual inspection to ensure there are no obvious signs that any other SRS-related components have been removed, altered, or tampered with. If these basic checks fail to identify any problems, then no further inspection is required, and an LVV certification plate can be produced and fitted.

If the self-check system indicates a fault, then remedial repairs will be required. The airbag activation system will need to be repaired or modified so that the dash warning light does not display a fault. The vehicle manufacturer's agent or a competent auto-electrician should be able to deal with this. In fact, it would be prudent for an LVV Certifier to involve an auto-electrician to assist in establishing the integrity of the remaining system even if no faults are obvious.

LVV Certifier category, & documentation:

Upon the LVV Certifier's satisfaction that all systems are present and operating normally (other than the removed side airbags), decals should be produced and placed in a prominent location to advise passengers that the side airbags have been removed.

As there is no LVV standard or form-set that directly relates to the removal of side airbags, the LVV Certifier should use the requirements above as a guideline, and write a series of relevant statements and comments onto a blank page, enclosing it with the base form-set. LVV Info-Sheet 07-2009 should be referred to in the standards column of the F001. The modification details should also be mirrored onto the plate data sheet (F002).

An LVV Certifier who holds category 1B can complete this inspection.

Finally:

If you have any queries or require any further clarification relating to this Information Sheet, please feel free to contact one of the technical team in the Wellington office on (04) 238 4343.