

Availability of truck suspension seats with integrated belts

October 2016

Priority: Urgent Necessary For Information

SA # 2016-1

Circulate: Driver Operator Workshop Parts Fleet Manager

The incident or issue:

It is widely accepted that the use of seat belts by commercial vehicle drivers, although growing, is lower than is acceptable. Anecdotal reports that cloths pegs are still being used to restrict a belt's travel have been received. Recent research has confirmed one third (33%) of heavy truck drivers killed in single vehicle heavy truck crashes were not wearing an available restraint.¹ Drivers have a range of excuses for not using a seat belt in a truck, but in a car, would automatically put on a seat belt. This issue is partly due to historical reasons where the seat belt was B pillar mounted on the cab's frame, often resulting in the driver being tightly locked down into the suspension seat. Another reason has been that not using a belt potentially allows the driver to jump from the truck in the event of a crash. However modern trucks have cab suspension, rear air bag suspension and long parabolic front springs providing a smooth ride for the driver and cargo. They simply do not buck and bounce as the trucks of old. The industry standard seat now has suspension. It is not working that hard while providing improved levels comfort and reduced fatigue.



Solution:

The following table lists the heavy truck brands (GVM greater than 16 tonne), that have available an integrated seat belt with the driver's suspension seat, which eliminates one of the excuses for not wearing a seat belt.

Brand / model	Integrated belt availability	Brand / model	Integrated belt availability
CAT [^]	Yes - Optional	Kenworth	Yes – Optional
DAF	Standard	Mack	Standard
Dennis Eagle	Standard	MAN	Standard
Freightliner [^]	Yes - Optional	Mercedes-Benz	Standard
Hino [^]	Standard	Scania	Standard
International [^]	Standard	Volvo	Standard
Isuzu [^]	Standard	UD [^]	No #
Iveco	Standard	Western Star [^]	Yes - optional

Notes

UD uses a 'Tension Reducing Seatbelt System' (TRSS) to reduce the possibility of a driver's B pillar mounted seat belt locking the driver down into the suspension seat, but it is still effective enough to save the driver in a crash.

[^] Japanese and US regulations for seat belt mounting strength are the same for all vehicle classes, whereas the UN ECE and Australian ADR standards have a significantly lower strength requirement for heavy vehicles. As a result, it has not been possible for seats with integrated belts to comply with either Japanese or US standards, but they can comply in European and Australian markets.

Follow-up actions:

- Ensure the vehicle is maintained and the seat with belt is in good working order.
- Purchase new trucks with seat belts integrated into the suspension seat.
- Retro fit an AVE certified seat with integrated belts as seats require replacement
- Selected seat belt's, either seat or B-pillar mounted, may be able to be retro fitted with a seat belt reminder system. However, seat belt warnings will be ineffective if the driver's use 'belt extensions' or are connecting the seat belt and sitting on them.



¹ Presentation, Heavy Truck Fatal Crash Trends – NSW Centre for Road Safety, January 2014