

Trailer safety chains – are they correctly attached and fitted?

December 2016

Priority: Urgent Necessary For Information

SA # 2016-3

Circulate: Driver Operator Workshop Parts Fleet Manager

The incident or issue:

Recent truck and trailer separation incidents caused by coupling failure have increased the retrofit of safety chains and some areas of the trucking industry now require the use of safety chains. ATA Industry Technical Council (ITC) members have expressed concerns about reports of poor retro fitment of these chains.

Safety chain attachment kits must be fitted by competent tradespeople along with technical oversight in order to ensure the chains are compliant and effective. Heavy vehicle safety chains are regulated by ADR62, the requirements of which are summarised in the checklist below.

Incident cause:

A tanker trailer collision on 7 August 2014, near Wodonga Victoria, resulted in three deaths when the trailer separated from the truck. The high profile fleet was typically well maintained. The coroner's report has not yet been published.

Solution:

YES / NO - Check list for retro fitted safety chains to trailer drawbars:-

- 1) Are the safety chains a Grade T high tensile short link chain that meet **AS 2321:2014 Short-link chain for lifting purposes?**
- 2) Are the safety chain attachments located as near as practicable to each coupling point, and are the chains of sufficient length to allow full articulation, but not drag?
- 3) Are the chains crossed? This reduces trailer swing and movement after the coupling fails, and 'catches' a decoupled drawbar preventing it contacting the ground.
- 4) Does the safety chain attachment rating and safety chain rating exceed the Aggregated Trailer Mass (ATM) rating of the trailer being towed?
- 5) Are the rubber airlines (**not plastic or suzi coil airlines**) and electrical service lines of an appropriate length so that they won't drag or come under tension when the trailer is attached using only the safety chains?
- 6) Have the safety chain attachments been fitted to a substantial element of the trailer drawbar by a qualified welder?
Strengthening the drawbar may be necessary if there is not a sufficiently strong nearby location. The ADR requires that all towbars are fitted with safety chain attachments irrespective of whether chains are being used. This should be rectified if towbar safety chain attachment points are not fitted.
- 7) Has the installation of retrofit safety chain attachments been approved and plated/signed off by an AVE (Authorised Vehicle Examiner)?



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Example of safety chains fitted between the trailer drawbar and truck towbar. Source: Bartlett Equipment

If the answer is **NO** to any of the above questions, the fitment should be rectified and advice sought from an appropriately qualified and experienced AVE.

Follow-up actions:

- Review installation against the above check list. If any issue is found, investigate and seek appropriate assistance.
- Ensure coupling procedures are appropriate and that drivers and other personnel are trained in how to couple / decouple, check, and maintain their heavy vehicle couplings.
- Coupling systems including airlines and electric lines must be inspected and maintained as per their manufacturers' guidelines.