

# TAILGATES ON TIPPER TRUCKS

Safety Alert | 30/11/2018

**This safety alert reminds persons working with tipper trucks (tippers) of the hazards associated with being in proximity of the rear tailgate while tipping. The hazards include being struck by an unsupported tailgate or being engulfed by the sudden release of material.**

## BACKGROUND

In November 2018, a worker sustained serious injuries whilst operating the grain chute in the tailgate of an elevated tipper body (or bin). Initial investigations suggest at the time of the incident the tipper body was inclined and the tailgate was closed. The inclination of the tipper body caused the material within the tipper body to place excessive forces on the tailgate. As a result, the tailgate failed and the material within the tipper body suddenly released, engulfing the operator. Investigations into the incident are ongoing.



## KEY CONSIDERATIONS

Tailgates on tipper bodies may not be designed to withstand loads during tipping. Therefore, if the tipper body is raised while the tailgate is close, there is a risk of the tailgate suddenly and unexpectedly opening. Refer to the operation manual and consult with the manufacturer to determine the operating conditions of your tipper / tipper body.

The movement of materials within a tipper body, either under transportation or operation of the tipper, may place excessive forces on the tailgate. Refer to the operation manual and consult with the manufacturer to determine the operating conditions of your tipper / tipper body

Grain chutes should only be used for materials which are free-flowing when the tipper body is in the horizontal position, and for materials which do not expose the operator to hazards e.g. heat, dust.

The weight of tailgates may expose workers to possible crushing or shearing hazard. Never work under a suspended load, including raised tailgates.

## ACTIONS REQUIRED WHEN WORKING WITH TIPPERS

Persons working with tippers should not approach, or work in close proximity to, the rear tailgate while the tipper body is inclined. This includes when undertaking cleaning and maintenance activities.

The operation of grain chutes, if any, should only occur when the tipper body is in the horizontal position and the truck is parked on a firm, level surface.

## ACTIONS REQUIRED FOR DESIGNERS AND MANUFACTURERS OF TIPPERS

Designers and manufacturers of tipper and tipper bodies have specific duties under the Work Health and Safety legislation. You must, so far as is reasonably practicable:

- ensure the tipper and/or tipper body is designed and manufactured to be safe for any person who carries out a foreseeable activity with it (within the purpose for which it is designed), or any person who is near it while such activities are being carried out. Such activities include manufacture, assembly, operation, maintenance or cleaning;
- carry out the necessary calculations, analysis, testing or examination to ensure the tipper and/or tipper body is safe, or arrange for them to be carried out. This includes, for example, ensuring the tipper body complies with the loading performance standards set out within the [Heavy Vehicle \(Mass, Dimension and Loading\) National Regulation](#);
- provide information regarding the purpose of the design, the results of any calculations, testing etc., and any conditions necessary to ensure the tipper and/or tipper body is manufactured, assembled, operated, maintained, cleaned etc. safely. This may include, for example, an operation manual that identifies the hazards that have not been managed within design and which are unique to the design.

When ensuring the design is safe, designers must identify all foreseeable hazards and eliminate those hazards within the design. If it is not reasonably practicable to eliminate the hazards, the associated risks must be managed in accordance with the hierarchy of controls. Examples of control measures include:

- excluding grain chutes from the design when the tipper bin will be used exclusively for materials that do not flow easily
- ensuring grain chutes must be operated from the side of the tipper bin, eliminating the need for the operator to work behind the tailgate
- include in the design of the tailgate:
  - o integrated operating functions, preventing the tipper body to be raised unless the tailgate is unlocked
  - o over centre locking mechanisms, screw locks, additional brake boosters, grain locks etc.

- physical and/or electrical indicators, from which the operator can clearly identify whether the tailgate is in the locked or unlocked position without the need to be near the tailgate.

## **FURTHER INFORMATION**

[Work Health and Safety Act 2011 and Work Health and Safety Regulation 2011](#)

[SafeWork NSW Code of Practice: Managing the risk of plant in the workplace](#)

[National Transport Commission - Load Restraint Guide 2018](#)

[National Heavy Vehicle Regulator - Law and Regulations](#)

Australian Standard AS:4024.1 - 2014 Safety of Machinery

Further information is available at [www.safework.nsw.gov.au](http://www.safework.nsw.gov.au) or by calling SafeWork NSW on 13 10 50.