

# Road Transport

Falls

Prevention

Manual



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## Disclaimer

Information provided in this publication is designed to address the most commonly raised issues relevant to South Australian OHS legislation. This manual is not intended as a replacement for the Occupational Health, Safety and Welfare Act, 1986.

In particular, WorkCover Corporation, its agents, officers and employees make no representations, express or implied, as to the accuracy of the information and data contained in the publication, accept no liability for any use of the said information or reliance placed on it, and make no representations, either expressed or implied, as to the suitability of the said information for any particular purpose.

# Introduction

## How would you or your company cope with this situation?

Robbie has been off work now for over eight weeks and it looks like he will be off for at least two more. He jumped off the tailgate of his vehicle so that he could operate the tailgate controls. As he jumped he caught his foot on a pallet, twisted his leg badly and then fell onto a concrete step, breaking his femur. The pain was extreme but luckily, emergency treatment arrived quickly.

He required a metal pin to properly align his limb and has since experienced minor infection. However, while he is improving, he is sick of being dependent on others and would like to get out of the house a bit more.

Being home and dependent on his family for many basic needs has caused considerable frustration and the increased tension in the family is starting to cause arguments and considerable ill feeling.

Robbie's employer, a relatively small company, has not been able to find alternative duties to date, is coming under increasing pressure from the Claims Agent to return him to some form of work and is worried that the WorkCover levy will go up through the roof.

Although Robbie suffered a serious injury it is by no means the most serious or the most expensive that can result from falling off vehicles. While this is a real example of the situation faced by far too many transport workers, their families and their employers, it does not provide the full picture of the pain and suffering of the individual worker or the financial and social impact on the worker, the worker's family and the employer's business.



What's hidden behind  
may cost 5-9 times  
the up front cost.

## The hidden costs

A recent report found that transport workers have a rate of injury caused by falling from vehicles and equipment that is four times the average for all workers and the severity of their injuries is nearly double that of all other injury claims.

South Australian workers compensation figures show that in the past three years transport workers involved in falls from vehicles, plant or equipment have resulted in compensation costs of over \$2.8 million. This results in an average claims cost of \$8,700.

If these figures are added to the list of transport workers injured as a result of slips, trips and falls on reasonably level surfaces, the total cost of fall related claims for the three years is over \$5 million.

While the major part of these direct costs appear to be met by WorkCover they are actually transferred back to the industry over the next couple of years, thereby having a dramatic impact on the WorkCover levy for the whole industry. This in turn impacts on the individual employer's business costs and may be compounded by further WorkCover penalties and possible prosecution by Workplace Services for an unsafe system of work.

However, these obvious costs are only part of the story. Most don't realise that the so called 'hidden cost' related to the rescheduling of loads, engagement and training of a replacement driver can amount to between five and nine times the direct costs of the incident.

# What needs to be done

## The solution

The Transport Industry needs to recognise that the risk of injury to workers caused by falls from vehicles, plant and equipment is a significant one for the employees concerned, the employer and the industry as a whole.

Like any other risk that threatens life, limb or company viability the risk of falls must be managed. This requires that all causes of the risk are identified, the level of risk assessed and appropriate methods to control the risk put into practice and reviewed regularly.

This approach will not only minimise the likely impact of the risk but it will enable the industry to demonstrate that it is meeting its responsibilities both legally and morally.

# Legal obligations

## *The Occupational Health, Safety and Welfare Act, 1986*

The Occupational Health, Safety and Welfare Act, 1986 (the Act), aims to secure the health, safety and welfare of persons at work. This applies to every workplace, which is defined in Section 4(1) of the Act to include any place where an employee works and any place where an employee goes while at work.

A vehicle, shop, aircraft and even a customer's location can all be included within the definition of a workplace.

The Act places numerous responsibilities on an **employer**, including those under Section 19 of the Act, that require the employer to provide a safe working environment, safe systems of work, safe plant, equipment and substances. A similar duty of care applies to **occupiers** of a workplace. An occupier is required by this duty of care to ensure adequate facilities for the loading and unloading of freight. The Act also requires that the employer provides appropriate training, information and supervision and consults with employees on matters affecting their health, safety and welfare.

Section 21 of the Act requires **employees** to protect their own health and safety, avoid placing other persons at risk, use equipment provided for safety purposes, obey appropriate instructions and ensure that the consumption of alcohol or drugs does not endanger health and safety.

## ***Occupational Health, Safety and Welfare Regulations, 1995***

Division 2.13 of the Occupational Health, Safety and Welfare Regulations (the Regulations), provides for the "Prevention of Falls". It requires that if there is a reasonable chance that a person could be injured by:

- a fall from an elevated workplace such as a vehicle tray, cab, trailer, tanker or top of load activity;
- a fall through an opening such as an unguarded loading dock or poor work platform; or
- a fall into a container such as a bin, tanker etc.

then reasonable protection against that fall should be provided.

The Regulations also require that persons should have safe means of accessing and leaving elevated workplaces, be provided with appropriately constructed and maintained ladders and a safe means of carrying out maintenance work on permanent structures above ground level.

If a person is required to work where there is a risk that they may be injured by a fall then secure fences, platforms, ladders, steps, other forms of safe guarding or appropriate safe systems of work must be provided, checked, maintained and used to control that risk.

## Risk control measures

The most appropriate and fail safe way of reducing the incidence of falls by transport workers is to reduce the need for those employees to work on top of loads or in similar situations that place them at risk.

However, there are numerous other measures that can be introduced to control the risk of an employee falling when engaged on top-of-load activities, or when climbing into, onto or out of prime-movers, trailers or plant and equipment. Some examples of these control measures have been provided in the following pages.





The Regulations require that fall control measures are applied in the following order of preference:

- elimination of the task that requires working where there is a risk of falling. This could include the use of mechanical tarp spreaders, sight glasses that remove the need to dip tankers to assess the product level etc.
- physical barriers that prevent a person being placed at risk. These include well-constructed work platforms, edge protection, guard railing and handrails of an appropriate height, and restricting entry to openings through use of protection covers.
- personal fall protection or "fall restraint" methods that prevent a person from reaching a situation from which they could fall. These include restraint belts and harnesses attached to handrails, monorail or static line.
- fall arrest systems that arrest or catch a falling person. These include appropriately constructed safety nets, or a fall arrest harness and lanyard attached to a rail, static line or anchorage point when there is risk of a free fall or a ladder belt, lanyard and anchor system that allows only a fall of 600 mm.

# Risk control – prevention of falls

**TASK:** Vehicle access and egress

**Purpose:** To minimise the risks associated with getting into and out of trucks and on and off vehicles.

**Regulation:** OHSW Regulations Division 2.1 Access and egress  
OHSW Regulations Division 2.13 Prevention of falls



**Hazards/Risks:**

1. Impact injuries to back, leg and arm joints when jumping from vehicle.
2. Falls when getting into or out of cabs.
3. Falls when climbing on or off vehicles, trays, gates etc.
4. Falls due to poorly designed or inappropriately placed steps.
5. Strain injuries from arresting falls.

**Solutions:**

- fit access steps to vehicles wherever possible
- modify equipment to suit the operator
- ensure familiarity by induction training for different types of vehicles
- maintain three points of contact when getting into and out of vehicles
- face the vehicle when getting on or off
- utilise access steps where provided
- wear appropriate footwear AS2210
- include steps and handrails in scheduled maintenance programs.

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**DO NOT:**

- jump down from the vehicle at any time
- swing into or out of the vehicle when hanging by one arm
- carry items while climbing into or out of the vehicle.

# Risk control – prevention of falls

## **TASK:** Working on top of loads

**Purpose:** To minimise the risks when working on top of loaded trailers, tray-tops, or tankers and when tarping loads.

**Regulation:** OHSW Regulations Division 2.13 Prevention of falls





#### Hazards/Risks:

1. Fall from top of load.
2. Slips and trips on same level.
3. Impact injuries jumping down from load or equipment.
4. Slips/falls due to adverse weather conditions.

#### Solutions:

- minimise or remove need to work on top of loads
- consult occupiers of workplaces where drivers load/unload
- ensure drivers are aware of the risks in workplaces they visit and are adequately trained in use of safety equipment
- provide safe systems of work including adequate fall protection equipment and safety devices
- include all safety equipment in scheduled maintenance programs
- ensure drivers utilise tarp spreader or mechanical tarping devices when available
- ensure drivers utilise safety cages and ladders where possible
- ensure drivers utilise fall protection and fall arrest equipment where supplied
- ensure drivers wear safety harnesses where possible
- ensure drivers wear appropriate footwear AS2210.

## **DO NOT:**

- **jump down from any height**
- **climb gates or freight to get on top of the load**
- **bypass or modify any safety equipment.**

# Risk control – prevention of falls

**TASK:** Use of work platforms

**Purpose:** To minimise the risks associated with the use of mobile work platforms attached to forklifts.

**Regulation:** OHSW Regulations Division 2.13 Prevention of falls



Hazards/Risks:

1. Fall from poorly designed platform.
2. Fall from poorly located, operated or positioned platform.
3. Platform dislodged from forklift.
4. Impact damage from overhead clearance.
5. Contact with other plant and equipment.
6. Collapse due to overloading platform.
7. Limbs trapped in fork mechanism.

Solutions:

- ensure that the work platform is properly constructed to AS 2359.1 or Workplace Services Safeguards GS9
- secure the platform correctly to a suitable forklift
- lift a maximum of two people with the platform
- ensure operator of forklift is suitably licensed and trained
- operate the forklift on a level surface
- place forklift in neutral with park brake engaged and remain seated
- maintain forklift mast in a vertical position
- provide regular maintenance to all equipment
- guard all moving/trapping parts.

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**DO NOT:**

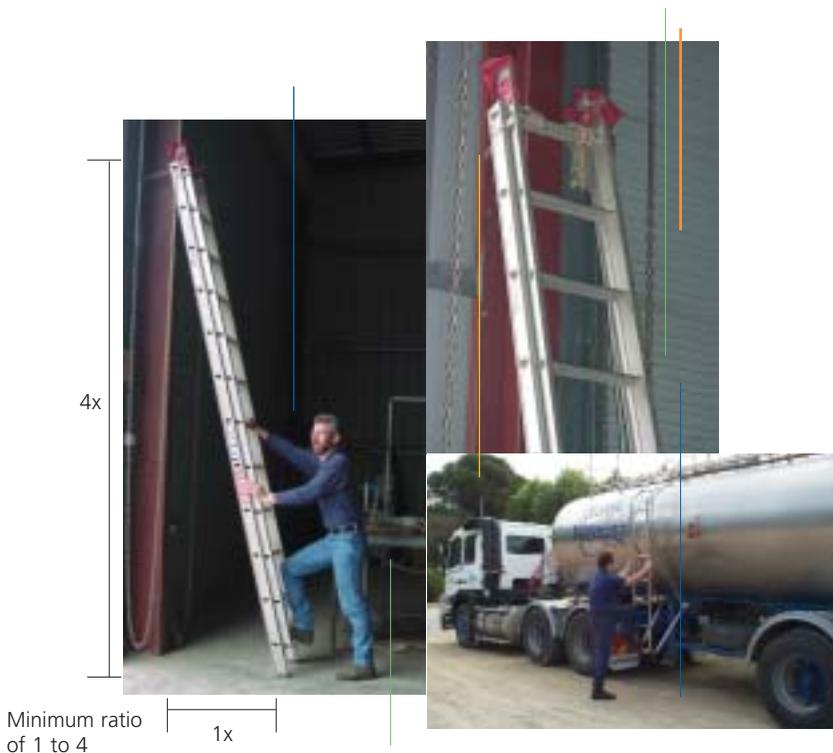
- lift personnel with forklift without a work platform
- overload the work platform - maximum capacity 250kg
- move the platform from place to place while elevated
- move the platform from place to place while occupied
- place a ladder on a work platform to increase height
- leave forklift unattended while platform is elevated.

# Risk control – prevention of falls

## **TASK:** Use of ladders

**Purpose:** To minimise the risks associated with the use of ladders.

**Regulation:** OHSW Regulations Division 2.13 Prevention of falls



Hazards/Risks:

1. Slip on rungs of ladder.
2. Fall from ladder.
3. Ladder slipping due to insecure positioning.
4. Collapse of inappropriate ladder.
5. Fall when climbing on or off top of ladder.
6. Electrocutation due to ladder touching live conductor.

Solutions:

- ensure ladders comply with Australian Standard AS 1892
- use an appropriate ladder for the task with a minimum load rating of 120kg
- place ladder on a level, secure footing with 4 (vertical) to 1 (horizontal) ratio
- extend top of ladder at least 900 mm above access to platform and secure the top where possible
- organise for another person to tend the foot of the ladder
- use three points of contact and face the ladder at all times
- wear appropriate footwear AS 2210
- include ladders in scheduled maintenance programs.

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**DO NOT:**

- carry equipment while climbing or descending a ladder  
- use a drop line
- jump down from a ladder at any time
- use a ladder from a work platform to increase height
- use a metal ladder when working near electric conductors.

# Risk control – prevention of falls

**TASK:** Working on loading docks

**Purpose:** To minimise the risks when working on raised loading docks.

**Regulation:** OHSW Regulations Division 2.13 Prevention of falls



Hazards/Risks:

1. Fall of personnel from dock.
2. Forklift or plant driving over dock.
3. Slips and trips during dock access and egress.

Solutions:

- separate pedestrian traffic from vehicles
- ensure that all exposed edges of the loading dock comply with Australian Standard AS 1657
- enclose as much of the loading dock as possible
- provide removable barriers or drop down bollards to prevent falls over dock when not in use
- clearly mark areas of risk to Australian Standard AS 1318
- ensure all personnel are adequately trained for the task being undertaken
- ensure access steps comply with Australian Standard AS 1657
- ensure appropriate speed limits are observed
- ensure all equipment is correctly maintained
- ensure guard railing complies with Australian Standard AS 1657.

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**DO NOT:**

- jump down from any height
- remove safety barriers and equipment from dock
- forget to replace barriers when truck has moved.

# Risk control – prevention of falls

**TASK:** Working in or around vehicle maintenance pits

**Purpose:** To minimise the risk to persons moving around or working in, vehicle maintenance pits.

**Regulation:** OHSW Regulations Access and egress  
OHSW Regulations Division 2.13 Prevention of falls



**Hazards/Risks:**

1. Slips, trips and fall of personnel into maintenance pit.
2. Forklift or plant driving over edge of pit.
3. Equipment or materials being knocked over edge of pit onto maintenance workers.

**Solutions:**

- ensure collapsible, highly visible guard rails are placed around maintenance pits
  - ensure guard railing complies with Australian Standard AS 1657
  - enclose as much of the maintenance pit as possible
  - mark areas of risk, eg. edges
  - mark clear areas for pedestrian and plant traffic
  - ensure access steps comply with Australian Standard AS 1657
  - ensure all equipment is correctly maintained and meets requirements recommended by Workplace Services Safeguard 44/2.
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**DO NOT:**

- **jump down from workshop into pits**
- **remove safety barriers and equipment from pit area**
- **use pit for rubbish tip or storage**
- **block safe means of leaving the pit.**

# Risk control – prevention of falls

**TASK:** Loading and unloading car carriers

**Purpose:** To minimise the risk to persons loading or unloading car carriers.

**Regulation:** OHSW Regulations Division 2.13 Prevention of falls



- Hazards/Risks:
1. Slips, trips and fall of personnel from height when working on the carrier's upper decks.
  2. Falls due to unprotected openings in the decks.
  3. Falls due to poor lighting.

- Solutions:
- provide a safe system of work
  - assess the customer's location for safe access during loading/unloading process
  - provide effective edge protection
  - mark areas of risk (eg. edges), for high visibility
  - provide anti-slip surfaces on all walking/climbing areas
  - ensure there is adequate lighting for the task
  - enclose all exposed openings from which a person may fall.
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## **DO NOT:**

- **jump between trailers**
- **remove safety barriers and equipment**
- **climb between decks without using appropriate ladders.**

# Risk control – prevention of falls

## **TASK:** Working in or around livestock carriers

**Purpose:** To minimise the risk of persons falling when loading or unloading livestock.

**Regulation:** OHSW Regulations Division 2.1 Access and egress  
OHSW Regulations Division 2.13 Prevention of falls



Hazards/Risks:

1. Slips, trips and fall of personnel when moving up ramps or between decks of stock crates.
2. Falls when climbing up the outside or on top of the stock crates.
3. Slips or falls when moving from one B-double stock crate to another.
4. Slips or falls due to loading or unloading in poor lighting, adverse conditions and uneven ground.

Solutions:

- establish a safe system of work
- assess customer location for safe access during loading or unloading
- provide anti-slip surfaces on all walking or climbing areas
- maintain 3 points of contact when climbing
- ensure adequate lighting for the task
- ensure all equipment is correctly maintained.

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**DO NOT:**

- **climb the outside of the stock crate**
- **jump between stock crates or decks**
- **climb areas without using appropriate ladders or non-slip surfaces.**
- **load or unload on uneven ground**

# Contacts list

## Further information or assistance can be sought from:

### **WorkCover Corporation South Australia**

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